

# MEDICIANAL HERBS OF SANPETE COUNTY

*Volume 1*



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**“And again, verily I say unto you, all wholesome herbs God hath ordained for the constitution, nature, and use of man—”**  
*-Doctrine and Covenants 89:10*

**“There are no poisonous herbs. Only poisonous dosages.”**

DISCLAIMER: The information contained is not intended to treat, diagnose or prescribe for any illness.

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If you have health care concerns, please consult your health care practitioner before using any herbal formula.



# Introduction

Even poisonous herbs, in minute dosages, are used to heal. Homeopathic medicines are so minute you can't detect any of its chemical constituents in analysis and yet they are widely reported to be extremely beneficial (in double blind studies). This is not to say that you should go out and take tiny nibbles of known poisonous herbs because it is said to be beneficial: leave this up to a professional Healthcare Practitioner! The most widely known example is Digitalis: small doses are good for many heart conditions, while a larger dose will stop the heart. And so, the opposite is true that large doses of innocuous herbs can do a great deal of damage. Anything taken regularly over a long period of time is stored in the body and could create a condition of toxicity.

The best way for the user to protect themselves is to first educate themselves before they consume anything. This can be done by studying the many herbals available today, taking courses and classes by the many Herbalists, Natural Healthcare Practitioners and schools of natural healing. And second remember: All Things in Moderation. Even that cup of chamomile tea at bedtime can be causing you problems, especially if you find you can't get to sleep without it. Different Herbalists and Healthcare Practitioners have different "formulas" to avoid toxicity. Some say to leave one day a week where you don't take whatever herb you are using. Others say a week a month. Still others a month every six months. It depends on the Practitioner's opinion, the herb in question and the illness or condition being treated. However, this is often abandoned in the case of serious, long term illness. Again, ask your Practitioner their opinion.

One last bit of advice before you take an herb for the first time is to start very slowly. Always take smaller doses in the beginning just in case you have one of the rare allergies to whatever herb it is. For example, if you know you are allergic to one plant, check what family it is in and be cautious with other members in that family. You may or may not have a similar reaction, so if you need to take a similar herb, proceed with caution; start with small doses.

With education and common sense you should be able to use herbs for you and your family's health safely. Not only are herbs beautiful, abundant and mostly inexpensive they are also effective.

# Gathering Your Herbs For Preparations

Each herb and its wonderful properties must be brought out in different way. So, the first question I had was, does it really make a difference whether I prepare something when the moon is full, or not? Is it an old wives tale, or is there truth to it?

## Gathering

- New Moon to Full Moon (Waxing):

When you are gathering flowers and herbs that you will be using the portions *above the ground*, this is the best time for gathering them. Think of low tide as the moon is pulling it away from the earth, so in plants. The internal constituents and elements are being pulled away from the earth, making what is above ground the most potent at this time.

- Full Moon to New Moon (Waning):

During this time, gravity is pressing down towards the earth, and in plants, especially those with bulbs and rhizomes, all that energy is pressing *down to the root*. It's a perfect timing for digging and storing them.

*The waning moon is also the best time for storing herbs.*

## ***Tinctures/Extracts and The Word of Wisdom***

“And whosoever among you are sick, and have not faith to be healed, but believe, shall be nourished with all tenderness, with **herbs** and mild food...” - D&C 42:43

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“Yea, and the **herb**, and the good things which come of the earth, whether for food or for raiment, or for houses, or for barns, or for orchards, or for gardens, or for vineyards;

Yea, all things which come of the earth, in the season thereof, *are made for the benefit and the use of man*, both to please the eye and to gladden the heart;

Yea, for food and for raiment, for taste and for smell, *to strengthen the body* and to enliven the soul.

– D&C 59:17-18

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“And there were some who died with fevers, which at some seasons of the year were very frequent in the land—but not so much so with fevers, because of the \*excellent qualities of the many **plants and roots** which God had prepared to remove the cause of diseases, to which men were subject by the nature of the climate...” -Alma 46:40

### ***What is an Herbal Tea?***

An Herbal tea **is not** an infusion of the *tea plant* such as Gray, Green, Black, Ice Tea's etc. (*Camellia sinensis*), but infusions of *leaves, stems, roots and flowers*.

### ***Solvents to Access Medicinal Alkaloids***

*Water, Glycerin, Vinegar and Alcohol* are used as *solvents* for breaking down the cell walls of many plants. Without a solvent your body cannot utilize the medicinal alkaloids.

#### **There are four types of solvents:**

**Water** is a good solvent for leafy type herbs. If your herb includes stems and softer/smaller roots, a stronger solvent is needed. Must be used within 3 days and refrigerated.

**Glycerin** (Concentrate) will break down all but the hardest, woody, stems and roots. It sweetens the tincture, but depending on the way it's stored, glycerine Tinctures/Extracts are good for a maximum of 9 months. Generally 3-6 months is their shelf life.

**Vinegar** (Concentrate) also has the same shelf life as glycerin, but using vinegar can alter some synergistic properties (medicinal alkaloids that might otherwise work together). It would be my last choice to use.

**Alcohol** (Concentrate) is usable with most herbs, as long as it has equal parts water and alcohol (100 proof=50% Water and 50% alcohol), and will last indefinitely in a cool, dry place, with a tight lid.



## Sage

- **Alternate Names:**

Garden Sage, or Common Sage

- **Latin Name:**

Salvia Officinalis (derived from the Latin word, salvere, which means "to be saved." )

- **General Information:**

Salvia officinalis has shown **anti-fungal, anti-viral** and **anti-bacterial** properties that make it a useful weapon in combating many illnesses. Its **antiseptic** action is of value where there is **intestinal infection**. Decoction of Sage (Tea that is cooled) can be used to **stop bleeding**, cleans **ulcers** and **sores**; warm tea for **coughing** and hoarseness. Can be used for **rheumatism, excessive menstrual bleeding**, and to **dry up a mother's milk** when nursing was stopped. Noted for **strengthening the nervous system**, (A general relaxant ), and **excitability** and **dizziness, improves memory**, and **sharpening the senses**. Soothing for **anxiety**, helps with **delirium**, especially in cases with **brain diseases** and **high fevers**. Sage is an *emmenagogue* (*herbs which stimulate blood flow in the pelvic area and uterus; some stimulate menstruation, and can cause contractions during pregnancy*). A cup of the strong infusion will be found good to relieve **nervous headache**. **Anti-inflammatory**, is also applied topically as a rinse or gargled for inflammations, for mouth and throat and as **gastrointestinal issues, excessive sweating** as well as for external use in conditions of **inflamed mucous membranes** of the mouth and throat. Sage has been used effectively for **throat infections, dental abscesses, infected gums** and **mouth ulcers**. The phenolic acids in sage are particularly potent against Staph Infections, **Staphylococcus aureus**. In vitro, sage oil has been shown to be effective against both **E-Coli** (Escherichia coli) and **Salmonella** species, and against **filamentous fungi** and yeasts such as

**Candida albicans**, **Herpes simplex virus II**, and **influenza virus II**. Sage also has an **astringent** action due to its relatively high tannin content and can be used in the treatment of infantile diarrhea. Sage has an **anti-spasmodic** action which **reduces tension** in smooth muscle, and it can be used in a steam inhalation for **asthma** attacks. It is an excellent remedy for helping to remove **mucous congestion** in the airways and for checking or **preventing secondary infection**.

Use for **dysmenorrhoea** (Painful menstrual cramps), its bitter component stimulates **upper digestive** secretions, **intestinal mobility**, **bile flow**, and **pancreatic function**. **Antiseptic**. Traditionally, the leaves have been made into a poultice and used externally to treat **sprains**, **swelling**. Considered by many herbalists as a good medicinal herb for treating **eczema**. Treat the symptoms of **menopause**, including "**hot flashes**." Garden sage also has shown **anti-oxidant** properties equal to that of alpha-tocopherol. Sage helps reduce **excessive perspiration** and **salivation**. And may also support **liver and pancreatic function**. Helpful in **Type II diabetes** for *lowering blood sugar levels* through Insulin support (although only a mild effect.) Garden sage leaves may be applied to an **aching tooth** to relieve pain. It is an excellent natural **disinfectant** and **deodorizer**, **drying perspiration** and helping to **eliminate body odor**. Extracts of sage are used in personal **skin care** for its capacity to heal the skin as well. Using sage to **darken graying hair** comes down to us from the gypsies, just a gradual darkening that doesn't leave you with ugly gray roots. Sage also leaves the **hair feeling soft and shiny**, and the **scalp invigorated**. It has positive effects on **memory** and **concentration** in both older people with **cognitive problems** and younger people with **ADD**. The Greek Theophrastus classified sage as a (heart) "**coronary herbe**", because it *flushed disease from the body, easing any undue strain on the heart*.

## **Key Components**

- Volatile oils (including *thujone, cineole, borneol, linalool, camphor, pinene*), *oestrogenic substances, salvin and carnosic acid, flavonoids, phenolic acids, rosmarinic acid, tannin*, (Rosmarinic acid contributes to the herb's anti-inflammatory activity.)
- **Medicinal Parts**

The flowers and leaves can be dried for herbal uses, although the leaves are most commonly used.

- **Time to Harvest:**

All Summer

- **Side Effects:**



**Abortifacient.** *Causes Uterine contractions.* There are no major side effects documented with garden sage use in normal doses. It may be toxic in large dosages or when used for a prolonged period. It should not be used while pregnant or breast feeding. *Salvia officinalis should not be used by people with epilepsy or other seizure disorders.* No drug interactions have been noted with sage use.

- **Making Sage Tea**

Bring water to a boil. Remove from heat and put sage in the water. Let steep for about 3-5 minutes. Strain, pour in cup, add lemon and honey, if desired, and drink. You may drink this hot or cold.



## Yarrow

*"Blessed is he that knows how to use yarrow in the last days." -Brigham Young*

*"The home without yarrow will have death there-in when the plagues come."  
-Dr. John Christopher*

- Latin Name:

Achillea millefolium

- Alternate Names:

Noble Yarrow, Nosebleed, Old Man's Pepper, Rajmari, Roga Mari, Sanguinary, Soldier's Wound Wort, Sourcil de Vénus, Stauchweed, Tausendaugbram, Thousand-Leaf, Wound Wort, Bloodwort, Carpenter's Weed, Soldier's Herb, Merba Militaris, Knight's Milfoil, Carpenter's Grass

- General Information:

For treating **external wounds** on the skin. Yarrow has been called the soldier's Wound Wort because it takes care of all the needs a soldier might have. It is an **antiseptic** and it knits wounds closed. The flowers and leaves of yarrow were eaten and also made into a tea-like drink. The fresh leaves were used to **stop bleeding** wounds, treat **gastrointestinal problems, fight fevers, lessen menstrual bleeding** and **better circulation**. The fresh leaves were also chewed on to **relieve tooth aches**. Scientists have credited yarrow for its benefits relating to almost every organ in the body.

Native Americans used yarrow for **wounds, infections** and **bleeding**. Chinese medicine gives it praise for the ability to affect the **kidney, spleen, liver** and **electrical components** of the body. Many studies show that it **tones the uterus**, increasing **menstrual flow** and **reducing spasms**. Can cause early *Uterine contractions!* **Avoid if pregnant!**

Yarrow has an **antiseptic action**. The bitter parts and fatty acids **encourage bile** flow out of the gallbladder, known as the **cholagogue effect** (stimulating the flow of bile from the liver ). The free-flowing action improves digestion and prevents gallstones from forming.

**Decongestant:** Yarrow contains a drying effect and seems to **improve coughs** and **sinus infections** with sputum formation.

**Astringent.** Very helpful with **allergies** where nasal secretions and watery eyes are caused by molds, dust, pollen and dander. Yarrow is also known to **cause sweating in cases of flu, fevers and colds**, helping to cure **simple infections**.

**Infusion.** Yarrow is used to aid in **healing skin conditions**, such as **eczema**. The essential oils are used and rubbed onto the affected area. Good for **yeast infections, stop hemorrhaging**. It is often used with shepherds purse, another handy herb to help stop bleeding. Yarrow stops the bleeding instantly, with a large quickly formed clot, while Shepherds purse creates smaller clots that aren't at risk of breaking loose like a large clot is. If you are sick with any **infectious disease**, or have a **viral illness**, you should be doing something with yarrow. Yarrow is a powerful virus inhibitor.

**Anti-inflammatory:** The oil found in the yarrow has been used to treat arthritis.

**Expectorant.** Helps to cure colds. Promotes digestion. Helps in the secretion of enzymes and digestive juice and increases appetite, Yarrow relieves joint soreness and stiffness caused by **gout**.

- **Medicinal Parts**

The entire plant is used, both dried and fresh and is best when gathered while in flower. It is recommended to use caution when this herb if used in large or frequent doses taken for a long period of time. This can possibly be harmful and may cause rashes or make the skin sensitive to sun.

→ Chewing the leaves will numb the mouth, and rubbing the fresh juice on a wound will numb it as well.

- **Habitat and Growing Instructions:**

Located all over the World, here in Utah, grown in gardens and wild in the mountains. Gather and Dry, then tincture, or can be used fresh directly on wounds and skin.

**Avoid during pregnancy**

# Cayenne Pepper

- **Alternate Names:**

*Guinea spice, cow-horn pepper, red hot chili pepper, aleva, bird pepper,' or, especially in its powdered form, red pepper.*



- **Latin Name:**

Capsicum annuum

- **General Information:**

Cayenne has the ability to ease **reduce inflammation, upset stomach, ulcers, sore throats, spasmodic and irritating coughs,** and **diarrhea**, and aids in breaking up and moving congested **mucus**. Once mucus begins to leave the body, relief from **flu** symptoms generally follows. Prevents the formation of the fungal pathogens *phomopsis* and *collectotrichum* (Generally plant related, and useful for farming). Alleviates and prevents **migraines** with regular use. Recently, cayenne has been used successfully to treat patients with **cluster headaches**, a particularly painful type of headache. Helps relieve **allergies** with regular use. Aids the body's ability to metabolize food (and toxins). Cayenne pepper is also helpful for relieving intestinal **gas**. It stimulates intestinal motion. Cayenne pepper also helps reduce **atherosclerosis** (Clogging of the arteries in your heart and elsewhere), prevents the formation of **blood clots**. It is used as a tonic for the **heart, kidneys, lungs, pancreas, spleen** and **stomach**, and has been indicated for preventing **heart disease**. Stimulates the blood **circulatory system**. Extremely high in a substance called capsaicin, cayenne pepper acts to cause temporary pain on the skin, which sends chemical messengers from the skin into the joint, offering relief for **joint pain**. Thought to stop the formation of **tumors**, especially in the lungs and liver. As a poultice, cayenne has been used to treat **snake bites, rheumatism, sores, wounds** and **lumbago** (back pain), **arthritis, bunions, psoriasis, muscle** and **joint pain**. Cayenne is used to heal **ulcers**, improve circulation, boost the **immune system**, aid **digestion**,

**nausea, scrofula** (Gland Swellings, and **Tuberculosis**), **herpes, shingles, rheumatism, arthritis, pleurisy, Raynauds disease, bunions, psoriasis, pleuritis and pericarditis**. Cayenne can be used as a general stimulant to build up resistance at the beginning of a **cold, tonsillitis, laryngitis, hoarseness, shingles**, and for swollen **lymph glands**. It is known to combat **chills**. It is also said to increase **fertility** and delay **senility**. Cayenne Pepper can raise **metabolic** rates by as much as 25%. Used with Lobelia it can also help **soothe nerves**. Small quantities of the fresh fruit or the powder may **stimulate appetite** and **expel worms**.

Any **blood issue** should be treated with daily doses of cayenne. It acts as a **blood thinner, blood purifier**, and heart and **muscle strengthener**.

### **Key Components**

Alkaloids, capsaicin, capsacutin, capsaicin, capsanthine, capsico PABA, fatty acids, flavonoids, sugars, carotene, volatile oil, and vitamins A, B1, B2, B3, B5, B6, B9, and

### **Medicinal Parts**

Crushed fruit.

### **Time to Harvest:**

All Summer

### **How to Use**

***One pinch on tongue every 30 seconds until internal bleeding stops. Same dose for heart attacks and strokes.***

Use a pinch daily in your drinks or food (uncooked, otherwise it triggers the acid that damages stomach linings.) A sprinkle on food with each meal is a must for toning and proper use.

Cayenne can be made into plasters or liniment or the tincture may be applied directly, to increase blood flow to areas affected.



## Elderberry (Black)

- Alternate Names:

Arbre de Judas, Baccae, Baises de Sureau, Black-Berried Alder, Black Elder, Black Elderberry, Boor Tree, Bountry, Elder, Common Elder. Elder Berry, Elderberries, Elderberry Fruit, Ellanwood, Ellhorn, European Alder, European Black Elder, European Black Elderberry, European Elderberry, European Elder Fruit, European Elderberry, Fruit de Sureau, Grand Sureau, Hautbois, Holunderbeeren, Sabugeuero-negro, Sambequier, Sambu, Sambuc, Sambuci Sambucus, Sambucus nigra, Sambugo, Sauco, Saúco Europeo, Schwarzer Holunder, Seuillet, Seuillon, Sureau, Sureau Européen, Sureau Noir, Sus, Suseau, Sussier.

- Latin Name:

Sambucus Nigra

- General Information:

**Immune system boost, coughs, colds, flu, bacterial infections, viral infections, tonsillitis, lower cholesterol, improved vision and heart health. Cancer, HIV, asthma and bronchitis, reduce inflammation of the urinary tract and bladder.** Infusions of the fruit are said to be beneficial for **nerve disorders, back pain.** Used externally for **sprains, bruises, as an antiseptic wash** and for **open wounds** or their animals. They indicate it was also a successful remedy for **stomach issues** and **yeast infections, nasal and chest congestion, and hay fever.** This may be an indicator as to why the anise-flavored and elderflower infused Sambuca is such a popular digestive around Italy.

Studies have found that elderberry **eases flu symptoms** like **fever, headache, sore throat, fatigue, cough, and body ache**. *The benefits seem to be greatest when started within 24 to 48 hours after the symptoms begin. One study found that elderberry could cut the duration of flu symptoms by more than 50%.* Lab studies have found that elderberry might be effective against H1N1, or swine flu. A few studies have suggested that elderberry could help with bacterial sinus infections or bronchitis. More research needs to be done. People use elderberry for high cholesterol, HIV, and many other conditions. For now, we don't have good evidence to support these uses. They seem to help **reduce swelling, fight inflammation, and boost the immune system**. Elderberry, or elder, has been used for centuries to **treat wounds**, when applied to the skin. Elderberries also possess good amounts of **Vitamins E** and more **vitamin C** than oranges. in addition to many flavonoids, presumably making them good at sickness prevention as well. Elderberry has also been shown to have **anti-bacterial properties**, including against a couple of strains of **strep bacteria** (including *Streptococcus pyogenes*, which is responsible for many strep throat infections). That study also notes that elderberry may be useful in preventing complications of **viral illnesses**, like **bacterial pneumonia**, and because its protection is "non-specific," **infections would not become resistant** to it as they do to antibiotics.

## Reduce Phlegm

You can boil **black elderberry flowers with yarrow and peppermint** to make an effective **expectorant**, according to Dr. Bob DeMaria of Healing with Home Remedies. Black elderberry tea **reduces phlegm**, lowers **fever** and relieves **sore throat pain**. Some evidence suggests that chemicals in elder flower and berries may help reduce swelling in mucous membranes, such as the sinuses, and help relieve nasal congestion. Elder may have anti-inflammatory, antiviral, and anticancer properties.

Black elderberries should **never be ingested raw**, only boiled and strained, according to Gregory Tilford, author of "Edible and Medicinal Plants of the West," quoted in The Herbal Quarterly, Summer 2010. The **seeds can release hydrocyanic acid** when cracked, chewed or ground.

***Red elderberries are toxic. Do not use under any circumstances.***

- **Key Actions**

Antioxidant, diaphoretic, diuretic, laxative, immune-boosting, anti-inflammatory



- **Key Components**

Elderberries also possess good amounts of **Vitamins E and C** in addition to many flavonoids, presumably making them good at sickness prevention as well.

- **Medicinal Parts**

The berries and flowers are used as medicine. Berries must be cooked before they are taken. Raw berries contain a chemical similar to cyanide.

Elderberries contain organic **pigments, tannin, amino acids, carotenoids, flavonoids, sugar, rutin, viburnic acid, vitamin A and B** and a large amount of **vitamin C**. They are also mildly **laxative**, a **diuretic**, and **diaphoretic**. **Flavonoids**, including **quercetin**, are believed to account for the therapeutic actions of the elderberry flowers and berries. According to test tube studies<sup>2</sup> these flavonoids include **anthocyanins** that are powerful antioxidants and protect cells against damage.

- **Harvesting Instructions:**

An easy way to harvest elderberries involves a wide toothed comb. Cut the heads of ripe berries from the plant and find a comfortable place to sit. Over a large bowl, use the wide toothed comb to comb the berries off of the stems. It is important to get as much of the stem out of your berry bowl as possible, to eliminate as much of the toxins as possible. A little bit won't hurt, but why push it?

Once your elderberries are picked from the stems, rinse them and spread them on a towel to dry. Then, use in your recipes or freeze. I find it useful to freeze the berries on a jellyroll pan on wax paper or foil and after they are frozen, to bag them up in freezer bags. This allows me to measure out the amount I need at a later time, rather than having to thaw a whole container that is a solid frozen clump of berries.

Another option is to dry them in a food dehydrator or a warm oven with the door ajar. or 4-year-old) shrub, if grown properly. Uncooked berries produce a dark purple juice and are astringent and inedible, but when processed impart a sweet, earthy flavor.



- **Side Effects:**

Never eat or drink any product made from **raw elderberry fruit, flowers, or leaves**. They contain a chemical that produces **cyanide**. They can cause **nausea** and **vomiting** and, at high doses, more serious effects. People who have an **allergy to elder pollen** might react to elderberry supplements. If you have **diabetes, multiple sclerosis, lupus, or rheumatoid arthritis**, talk to your doctor before taking elderberry.

There seems to be some debate as to whether **pregnant women** should take elderberry syrup/tincture. So can you take elderberry tincture if pregnant? If you lean on the conservative side, it might be best to avoid this. The complication may arise in the strength of the dosage rather than the fruit itself... IF it is an issue. Choose wisely and for yourself.

- **Avoid during pregnancy.**

There are some internet debates as to issues of elderberry extract (or tincture) further replicating one strain of flu, possibly causing it to worsen. It seems perhaps if you have an auto-immune disorder the elderberry tincture may cause the immune system into overdrive and while this is good when you are ill, it may not be good if you have a disorder.

If you take any drugs or supplements regularly, talk to your doctor before you start using elderberry supplements. They could interact with **chemotherapy** for cancer, **immunosuppressant drugs, diuretics, and laxatives**.

Diuretics help the body get rid of excess fluid and increase the amount of urine your body makes. Elderberry may also act as a diuretic, so taking it along with a diuretic could make that drug stronger and raise your risk of dehydration.

**Diabetes medications** -- Elderberry may lower blood sugar levels. If you are also taking drugs for diabetes, taking elderberry may increase your risk of developing hypoglycemia, or low blood sugar.

**Chemotherapy** -- Elderberry may interact with some chemotherapy drugs. If you are undergoing chemotherapy, ask your oncologist before taking any herb or supplement.

**Laxatives** -- Elderberry may act like a laxative and should not be taken at the same time as other laxatives.

**Theophylline (TheoDur)** -- Elderberry may reduce levels of theophylline, a drug taken for asthma and other respiratory conditions. That could make the drug not work as well.

**Drugs that suppress the immune system** -- Because elderberry may stimulate the immune system, it could interfere with medications taken to suppress the immune system. These medications include corticosteroids (prednisone) and medications used to treat autoimmune diseases. People with organ transplants should also avoid elderberry.

- **Tincture:**

10-30 drops of elderberry tincture are to be administered up to three times a day for adults. Ten drops once a day are what I take for prevention and I take 30 drops three times a day of elderberry tincture when feeling something come on.

Caution is warranted in individuals with **autoimmune conditions**, who may be better off choosing a different remedy due to their disturbed cytokine production

- **Syrup and Recipe:**

Take elderberry in fairly large/frequent doses **only at the onset of illness or upon exposure**, but not all the time. Take up to **1 tsp. per hour for children under 6**, and up to **1 tbsp. per hour for older children/adults**.

Continuing use for **2 - 5 days** as needed, then discontinuing.

Ripe berries, when cooked, lose their toxicity and have been found to have health benefits. This is particularly true of black elderberry, also known as *Sambucus nigra* or European elder. It is important to note that red elderberries are far more toxic than the other varieties and are best left alone.

**Elderberry syrup (One Quart):**

- 1 cup fresh black elderberries (1/2 cup if you are using dried)
- 3 cups of water
- 1 cup honey (no additives or fillers, please)\*
- Cinnamon sticks or cloves, if desired
- Saucepan
- Metal spoon
- Strainer
- Cheesecloth
- Quart jar, preferably sterilized (If the syrup is intended for children under one year old, you may want to find an alternative sweetener source or another method of warding off illness, as honey can contain botulism spores, something that young digestive systems aren't equipped to

*handle.*

**Directions:** 1. Put your black elderberries and water in your pan and bring to a boil. (If you have chosen to add cinnamon or cloves, add them in now.)

2. Simmer gently, about forty-five minutes.

3. 3. Mash the berries well.

4. Strain the berries. This is where a cheesecloth comes in handy, as you can lay the cheesecloth in the strainer, pour the berry mixture in, and get most of the water out, then lift the cheesecloth, twist the ends together, and gently squeeze the remaining liquid through the strainer to get as much of the goodness out of the berries as possible.

5. Pour off ½ cup of the black elderberry juice into a small bowl with the honey and mix until dissolved.

6. Pour the honey mixture into the rest of the black elderberry juice and stir.

7. Pour into a jar and refrigerate. It should last at least one month in the fridge.

**Adult dosage is one tablespoon every three to four hours; child dosage is one-half to one teaspoon every three to four hours when you or your family member is fighting off illness. Elderberry syrup may also be taken daily as a preventative, with the above dosages given once a day.**

• **Decoctions:**

Used externally for sprains, bruises, as an antiseptic wash and for open wounds or their animals. They indicate it was also a successful remedy for stomach issues. This may be an indicator as to why the anise-flavored and elderflower infused Sambuca is such a popular digestivo around Italy.

**Strong Decoctions:** Steep 3 - 5 g dried elder flower in 1 cup boiling water for 10 - 15 minutes. Strain and drink three times per day.



# Alfalfa

- **Alternate Names:**  
Lucerne, Buffalo Herb,

- **Latin Name:**  
Medicago Sativa

- **General Information:**

Alfalfa can aid in flushing the **bowels** of

built up toxins, **diuretic**, helpful in flushing out the **bladder** during a **UTI**, and to prevent future infection. Can act as a **laxative** in higher doses. Great for lowering **cholesterol**, detoxifying and purifying the **blood**, **assist in clotting blood**. As a result, regular consumption of alfalfa can lower **blood pressure** and balance **hormones**. Regular use assists against **bad breath**, sore or **achy joints**, imbalanced **skin conditions**, and it even increases **immune system** functionality. When consumed regularly, it acts as an alternative to over the counter **pain medicines** for **headaches** or **migraines** because of its high calcium and magnesium levels. Helping alleviate **allergies**, , promotes healthy digestion, can ease **morning sickness**, is helpful in reversing **tooth decay** and **remineralizing teeth**. Great source of Vitamin K so it helps improve Baby's Vitamin K levels at birth if mom drinks during pregnancy, supports the **pituitary gland**, supportive during **nursing**, Helps ease **gout**, eases all forms of **arthritis**. Its high concentration of alkaloids make it useful in reducing **blood sugar** levels. **Kidney conditions**, **bladder** and **prostate** conditions, and to increase **urine flow**. It is also used for **high cholesterol**, **asthma**, **osteoarthritis**, **rheumatoid arthritis**, **diabetes**, **upset stomach**, and a bleeding disorder called **Idiopathic thrombocytopenic purpura (ITP)**.

- **Key Components**

Alfalfa is naturally high in vitamins and minerals, including A, D, E, K, and even the full family of B vitamins; biotin, calcium, folic acid, iron, magnesium, potassium, as well as being very high in protein, especially when dried. It is "*The king of all foods*"!

- **Medicinal Parts**

Entire plant

- 1) Can be used in powder, or capsule. Dried Alfalfa is as good, if not better, than fresh Alfalfa so capsules are a great way to take it. Alfalfa can also be mixed in with different foods. Salads, soups, casseroles, or whatever one's heart desires can be made astronomically more healthy without hardly any change in taste. The alfalfa herb is very mild in flavor

**Contraindications:**

The one caution about alfalfa is **not to use in combination with blood thinning agents or medications** as it is so effective it can interfere or amplify the effects of these.

Alfalfa seed products may cause reactions that are similar to the autoimmune disease called lupus erythematosus.

**Warfarin (Coumadin) interacts with ALFALFA:**

Alfalfa contains large amounts of vitamin K. Vitamin K is used by the body to help blood clot. Warfarin (Coumadin) is used to slow blood clotting. By helping the blood clot, alfalfa might decrease the effectiveness of warfarin (Coumadin). Be sure to have your blood checked regularly. The dose of your warfarin (Coumadin) might need to be changed.



## Mullein

### Alternate Names:

White Mullein. Torches. Mullein Dock. Our Lady's Flannel. Velvet Dock. Blanket Herb. Velvet Plant. Woollen. Rag Paper. Candlewick Plant. Wild Ice Leaf. Clown's Lungwort. Bullock's Lungwort. Aaron's Rod. Jupiter's Staff. Jacob's Staff. Peter's Staff. Shepherd's Staff. Shepherd's Clubs. Beggar's Stalk. Golden Rod. Adam's Flannel. Beggar's Blanket. Clot. Cuddy's Lungs. Duffle. Feltwort. Fluffweed. Hare's Beard. Old Man's Flannel. Hag's Taper.

### • Latin Name:

Verbascum thapsus

### • General Information:

**Back and Nerve Pain** for **herniated** and **ruptured discs**. Use leaves as **toilet paper**. **Demulcent, emollient** and **astrigent** properties, which render it useful in pectoral complaints and **bleeding of the lungs and bowels**. Good for lung complaints, the **cessation of smoking** to help heal lungs, and as an **expectorant** to

clear them. Beneficial with **colic**, and **consumptive** complaints (*Lung cancer*), Mullein is said to be of much value in **diarrhea**, from its combination of demulcent with astringent properties, by this combination strengthening the bowels at the same time. In diarrhea the ordinary infusion is generally given, but when any *bleeding of the bowels* is present, the decoction prepared with milk is recommended. The whole plant seems to possess slightly **sedative** and **narcotic** properties. (*Mullein has narcotic properties that do not induce euphoria.*) Fomentations (poultices of the leaves) have been found serviceable in **hemorrhoid** complaints.

An oil produced by macerating (soaking until soft in a liquid.) Mullein flowers in olive oil in a corked bottle, during prolonged exposure to the sun, or by keeping near the fire for several days, is used as an application hemorrhoids.

A decoction **of its roots was held to be an alleviation for toothache, and also good for cramps and** convulsions, and an early morning draught of the distilled water of the flowers to be good for **gout**.

A conserve (See instructions below) of the flowers has also been employed on the Continent against **ringworm**, and a distilled water of the flowers was long reputed a cure for **burns** and **erysipelas** (*an acute, sometimes recurrent disease caused by a bacterial infection. It is characterized by large, raised red patches on the skin, especially that of the face and legs, with fever and severe general illness.*)

Infused oil is also good for **frostbite** and **bruises**. Mullein oil is recommended for **earache** and **discharge** from the ear, and for any **eczema** of the external ear and its canal. Two or three drops of this oil should be made to fall in the ear twice or thrice in the day. It is a valuable destroyer of *disease germs*. The fresh flowers, steeped for 21 days in olive oil, are said to make an admirable **bactericide**.

Tincture is used for **migraine** headaches From 8 to 10 drops of the tincture are given as a dose, with cold water, repeated frequently.

- **Key Components**

*Rotenone* and *Coumarin*. The leaves are nearly odourless and of a

mucilaginous and bitterish taste. They contain gum as their principal constituent, together with 1 to 2 per cent of resin, divisible into two parts, one soluble in ether, the other not; a readily soluble amaroid; a little tannin and a trace of volatile oil.

The flowers contain gum, resin, a yellow colouring principle, a green fatty matter (a sort of chlorophyll), a glucoside, an acrid, fatty matter; free acid and phosphoric acid; uncrystallizable sugar; some mineral salts, the bases of which are potassia and lime, and a small amount of yellowish volatile oil. They should yield not more than 6 per cent of ash. Their odour is peculiar and agreeable: their taste mucilaginous.

- **Medicinal Parts**

The leaves and flowers are the parts used medicinally.

- **Harvesting Instructions:**

Harvest leaves for tinctures and oils, and flowers for syrups and oils.

- **Special Precautions & Warnings:**

The most important constituents are glucosides, and many of them are powerfully active. The Seeds are considered toxic, but have some use. The whole Mullein plant possesses slightly sedative and narcotic properties. Mullein seeds are considered toxic. They have been historically used as a narcotic and also contain saponins. Loaded with selective **COX-2 inhibitors** are a type of nonsteroidal anti-inflammatory drug (NSAID) that directly targets cyclooxygenase-2, **COX-2**, an enzyme responsible for inflammation and pain.

- **Tincture:**

See doses above, or between 10-50 drops.

- **Tea:**

The homely but valuable Mullein Tea, a remedy of the greatest antiquity for coughs and colds, must indeed always be strained through fine muslin to remove any hairs that may be floating in the



hot water that has been poured over the flowers, or leaves, for otherwise they cause intolerable itching in the mouth.

- **Syrup**

*Gather flowers (Do not wash, you don't want extra water in your syrup for safety reasons) and layer an inch of flowers in a clean, sterile jar, and then an equal layer of sugar until flowers are covered, and alternate the two until the jar is filled. Then place in a bright sunny spot that will gently warm the jar for 6-8 hours a day. After a week, you may need to add more flowers and sugar, but you will see the flowers and sugar breaking down, and a syrup for cough and expectorant forming. Let sit in the same place for another two weeks. Then strain well, and pour the syrup into a dark jar, or jar in a paper sack. Store in a cool, dry place. Use as cough expectorant by taking 1 T every few hours as needed.*

- **Externally:** Use teas as a wash.

# Horseradish



- Alternate Names:

Mare Radish, pepperrot , mountain radish , red cole , great raifort

- Latin Name:

*Armoracia rusticana* (Mustard Family)

- General Information:

Used mainly as a **diuretic** (*Diuretics*, sometimes called water pills, help rid your body of salt (sodium) and water. Most work by making your kidneys release more sodium into your urine.) and remains a popular condiment throughout many parts of the world. It is best known for its pungent taste and is one of the five bitter herbs consumed at Passover seder. The Cherokee used the plant to treat asthma, coughs, and bronchitis. Many tribes, including the Ontario, Delaware, and Mohegan, have applied poultices of the leaves to treat neuralgia and toothache.

**Antimicrobial , Antibiotic** (against both Gram+ and Gram-, Volatile oils and isothiocyanates in the root may have mild antibiotic properties.) **Anti-cancer, Anti-inflammatory, Expectorant,** promotes **perspiration,** strong **digestive** stimulant. It has the ability to stimulate **digestion,** promote **sweating** thereby lowering **fevers,** loosen **phlegm** and move it out of the system, and rid the body of many harmful organisms. It is especially effective for **colds** and **bronchitis,** and **UTI** (Urinary tract infection) or **gastrointestinal infections.** When horseradish is crushed, a component called sinigrin produces allyl isothiocyanate, an antibiotic substance, making it a good remedy for respiratory and urinary tract infections. **sinus** congestion, and **edema.** It is useful in the

treatment of **dropsy**. Recommended it to be given in **scurvy** when there was not much fever since Horseradish will heat up the body further. (*An infusion for dropsy is prepared by pouring 1 pint of boiling water on 1 OZ. of Horseradish and 1/2 oz. of Mustard seed, crushed. The dose is 2 to 3 tablespoonsful three times a day.*)

Ground fresh horseradish mixed with a little honey and added to a cup of hot water is a time-honoured **cough** remedy. It is also effective in strengthening the stomach, but it does contain certain oils that can **irritate stomach ulcers**. A sandwich with freshly grated root is a home remedy for **hay fever**. The large leaves are often used as an addition to salads. Externally, a poultice can be used to soothe **chilblains** (are the painful inflammation of small blood vessels in your skin that occur in response to repeated exposure to cold but not freezing air. Also known as *pernio*, *chilblains* can cause itching, red patches, swelling and blistering on your hands and feet.). Can be used as a vermifuge (an agent that destroys or expels parasitic worms : “anthelmintic”), and externally for **sciatica** and facial **neuralgia**.

The herb is a good **rubefacient**, (stimulating blood flow and bringing it to the surface of the skin and turning it red, necessary in healing. ) However, care must be taken not to do more damage to the flesh as it can cause blistering if not handled properly. This gentle action is beneficial for relieving **joint** and **muscle pain** by creating warmth and stimulating circulation in the area. It acts as a **counterirritant**, (which interferes with the transmission of pain messages from peripheral nerves to the brain.) A tea can be made from the solution remaining after grated horseradish has steeped in vinegar for a week. This can also be used as a condiment. Horseradish is also used as a water purifier.

The **growth of bacteria**, such as *Pseudomonas* spp, *Escherichia coli* , *Serratia grimesii* , *Staphylococcus aureus* , and *Enterobacteriaceae* , was *inhibited* on incubated slices of cooked roast beef that were exposed to horseradish essential oil and a distilled extract from fresh horseradish root. Normalizes bloodcell count.

The root is an expectorant, and prevents Scurvy, (A deadly disease

from lack of Vitamin C), It contains so much sulphur that it is serviceable used externally as a rubefacient in chronic rheumatism and in paralytic complaints. *Culpepper says.: 'If bruised and laid to a part grieved with the sciatica, gout, joint-ache or hard swellings of the spleen and liver, it doth wonderfully help them all.'* A poultice of the scraped root serves instead of a mustard plaister. Scraped horseradish if applied to chilblains, secured with a light bandage, will help to cure them. For facial neuralgia, some of the fresh scrapings, if held in the hand of the affected side, will give relief - the hand in some cases within a short time becoming bloodlessly white and benumbed.

When tinctured, Horseradish root will stimulate the whole nervous system and promote perspiration.

An infusion (A tea) of sliced Horseradish in milk, by its stimulating pungency and the sulphur it contains, makes an excellent cosmetic for the skin when lacking clearness and freshness of colour.

Horseradish juice mixed with white vinegar will also, applied externally, help to remove freckles. The same mixture, well diluted with water and sweetened with glycerine, gives marked relief to children in whooping-cough, 1 or 2 desertspoonsful being taken at a time. Horseradish syrup is very effectual in hoarseness: 1 drachm of the root, fresh scraped, with 4 oz. of water, is infused two hours in a close vessel and made into a syrup with double its weight in sugar. The dose is a teaspoonful or two, occasionally repeated.

If eaten at frequent intervals during the day and at meals, Horseradish is said to be most efficacious in getting rid of the **persistent cough** following influenza. Dr. Christopher recommended horseradish as a reliable remedy for **sinus infections**. Start with 1/4 teaspoon of the freshly grated root and hold it in your mouth until all the taste is gone. It will immediately start cutting the **mucus** loose from the sinuses to drain down the throat. This will relieve the pressure in your sinuses and help clear infection.

Additionally, horseradish is has been shown in laboratory tests to be **antibiotic**, active against a variety of bacteria, so this can benefit a sinus infection. It has a high sulphur content, which may contribute to its antibiotic properties. A pungent oil in the root contains these properties.

Horseradish was formerly much employed as a remedy for **worms** in children. Used to treat **kidney stones** and like conditions. For **bladder infections**, (*mix 3-4 tablespoons of the fresh grated root with apple cider vinegar and honey to taste. Take the whole amount throughout the day. Alternatively, eighteenth-century herbalist Dr. Coffin recommended the following as a diuretic: Put together 1 ounce freshly-grated horseradish root, and ½ ounce mustard seed, bruised; pour on 2 cups boiling water. Let stand, covered, for 4 hours and take in tablespoon doses to remove excess water from the system in cases of edema (dropsy), especially after fevers. You can also mix 4 ounces grated horseradish in a quart of apple cider vinegar, capping and letting stand in a warm place, such as near a radiator or in the sun, for 12 hours. Loosen cap to release any built-up gases, retighten and shake well. Let stand in a cool place for another 12 hours. Strain and add 4 ounces glycerine. Take a tablespoonful in a cup of water before meals and before bedtime. )*

- **Key Components**

Glucosilicates (mainly sinigrin) , asparagine, resin, vitamins and minerals (especially chromium, magnesium, phosphorus, potassium, riboflavin, vitamins A and C, calcium, manganese, niacin, and zinc) Volatile oils and isothiocyanates in the root may have mild *antibiotic* properties.

- **Medicinal Parts**

Use Roots, leaves. The glycosides are responsible for its reddening effect on the skin, an indication, along with a sensation of warmth, of increased circulation to the area.

### **Harvesting Instructions:**

Dig up root, and store in an airtight bag in a cool dry place, or to preserve the quality of horseradish, the root is commonly dehydrated, freeze-dried, and powdered.

### **Time to Harvest:**

Spring

### **Special Precautions & Warnings:**

Overconsumption can irritate the mucous membranes rather than heal them as happens when smaller amounts are taken. It should be *avoided* by those with *low thyroid* function.

Ingestion of large amounts can cause *bloody vomiting* and *diarrhea*.

A horseradish poultice can cause *blistering*. Therefore, great care should be taken before attempting this form. It should not be given to children under four years of age.

Contraindicated in patients with *GI ulcers* and in those with *kidney impairment*. Not recommended for children younger than 4 years of age.

Use should be *avoided during pregnancy* and lactation because the allyl isothiocyanates are toxic mucosal irritants. **Horseradish has abortifacient effects.**

**Interactions:** *Anticholinergic drugs, such as atropine, may antagonize the effects of horseradish. Horseradish may enhance the parasympathetic effects of cholinergic drugs, such as bethanecol or pyridostigmine, when given concomitantly.*

### **Tincture:**

$\frac{1}{2}$  Dropperful or 20-60 drops 1-4 times daily. Take lowest amount and work your way up.

For bedwetting in children over 5 years old, **use with horsetail**, 10 drops of each twice/day.

### **Tea:**

Use a *rounded teaspoon* of chopped plant as tea, drink 1-3 times daily

**Dosage**

Traditional use for colds and respiratory infections was 20 g/day of fresh root.

**Fresh root**

2 to 4 g before meals.

**Infusion**

In 150 mL of boiled water, steep horseradish 2 g for 5 minutes; administer several times per day.

**Syrup**

Prepare a concentrated product by steeping horseradish root 2 g in 150 mL of boiled water in a covered container for 2 hours. After straining, add 150 g of sugar to 150 mL of liquid to thicken the preparation.

**Externally:** preparations with 2% mustard oil may be used.



# Mugwort

## Alternate Names:

Altamisa, Armoise, Armoise Citronnelle, Armoise Commune, Armoise Vulgaire, Artémise, Artemisia, Artemisia Vulgaris, Artemisiae Vulgaris Herba, Artemisiae Vulgaris Radix, Carline Thistle, Felon Herb, Gemeiner Beifuss, Herbe aux Cent Goûts, Herbe de Feu, Herbe de la Saint-

Jean, Herbe Royale, Hierba de San Juan, Nagadamni, Remise, Sailor's Tobacco, St. John's Plant, Tabac de Saint-Pierre, Wild Wormwood.

## ***Latin Name:***

Artemisia vulgaris

## • **General Information:**

Mugwort has an affinity for the female **reproductive** system and is used as a **uterine stimulant** that can bring on delayed **menstruation** and help restore a woman's natural monthly cycle. Women take mugwort for irregular periods and other menstrual problems. **Low energy.**

As all the bitter herbs, mugwort is an excellent **digestive stimulant** and is quite effective taken before or after heavy meals to alleviate **gas** and **bloating**.

One of the more interesting traditional uses of mugwort is that of a **dream herb**. It is mildly **sedative** and useful in calming frayed **nerves** and easing **stress**. A combination of *agrimony, mugwort and vinegar* is an excellent treatment for *sciatica* or *muscular stiffness*. **Stomach** and **intestinal** conditions including **colic, diarrhea, constipation, cramps, weak digestion, worm infestations,** and persistent **vomiting**. Mugwort is also used to stimulate gastric juice and **bile secretion**. It is also used as a **liver** tonic; to promote **circulation**; and as a **sedative**. Other uses include treatment of



**hysteria, epilepsy, and convulsions** in children. **Exhaustion, gout, bruises, chilblains** (a foot condition).

In combination with other ingredients, mugwort root is used for **mental problems** (psychoneuroses), ongoing **fatigue** and **depression** (neurasthenia), depression, preoccupation with illness (**hypochondria**), general **irritability, restlessness**, trouble sleeping (**insomnia**), and **anxiety**. It has **blood-thinning, anti-fungicidal** and **anti-tumor** properties.

Some people apply mugwort lotion directly to the skin to **relieve itchiness** caused by burn scars. Effective in treating a wide range of **parasitic infections**, such as **tapeworm, roundworm** and **threadworm**. It is also considered effective against parasites like **ringworms** that infect the skin.

Additionally, mugwort is used as a folk and herbal remedy for various ailments including **colds, epilepsy, colic, fevers, asthma, bronchitis, sciatica** and **kidney** problems and there is some scientific indication it can lower **blood sugar** levels.

This herb is said to have mild **narcotic** and **sedative** properties, which explain its use to promote sleep in cases of insomnia. Because of its **diuretic** properties it is thought to have medicinal benefits for the liver, spleen and kidney. It's also considered an excellent **insect repellent**. This herb has mild purgative abilities and can be used as a remedy for constipation.

- **Key Components**

Mugwort contains *volatile oil, flavonoids, a sesquiterpene lactone*, (see image >) *coumarin* (a phytochemical with a vanilla like flavour. has blood-thinning, anti-fungicidal and anti-tumor activities. Coumarin increases the blood flow in the veins and decreases capillary permeability. derivatives and triterpenes.

- **Medicinal Parts**

Leaves, flower, and root.

- **Harvesting Instructions:**

Both the aerial parts (leaves) and root of mugwort has been used in medicine. The most common, both in Western and Chinese herbal medicine, is to use the leaves.

- The leaves and the flower tops are collected and dried just before the plant blooms, usually in August. Later in the autumn, the roots can be harvested and dried whole.

#### XVIII. CONCLUSIONS

On the basis of studies to date, it is apparent that many **sesquiterpene** lactones are highly biologically active compounds that may affect a wide variety of microbial, plant, and animal systems. It may be that additional research will lead to practical applications of **sesquiterpene** lactones or their analogs as antimicrobial, antiparasitic, plant or insect growth regulator, or insect or mammalian antifeedant agents. Certain pharmacological activities of these compounds, particularly their actions as anthelmintic, anti-inflammatory, and antihyperlipidemic drugs, merit more detailed study. The potential antitumor properties of some **sesquiterpene** lactones are encouraging, although it can be argued that their general cytotoxic effects rather than specific antitumor actions, which results in relatively poor "selectivity" and high mammalian toxicity, may well preclude the effective use of these lactones in cancer chemotherapy.

It is fortuitous that **sesquiterpene** lactones are intensely bitter compounds, because such a circumstance no doubt greatly minimizes the potential for human poisoning. Although **sesquiterpene** lactones are of considerable human health significance as contact allergens, human toxicity resulting from the consumption of these compounds is apparently exceedingly rare. We are aware of only a single such incident, possibly anecdotal, in which consumption of bread made with flour that contained large quantities of seeds of *Helianthus amarum* was said to have caused poisoning in humans (Kingsbury, 1964). The consumption of bitter milk (Ivie et al., 1975b; Towers et al., 1977) and possibly meat of livestock that have grazed on **sesquiterpene lactone**-containing plants has been of historical significance and no doubt continues to occur. However, it is not likely that sufficient amounts of these toxicants would be consumed under such circumstances to constitute a significant threat to human health, at least from an acute toxicity standpoint.

- **How to Use:**

Can be used in powder, or capsule. Mugwort can be taken in teas, or tinctures. Often mixed with lemon balm or other sweeter herbs.

Traditionally, it's mainly used as tea. Some herbalists recommend 2 cups of Mugwort tea using fresh leaves infused for 5 to 10 minutes in boiling water daily for six days.

As a commercial supplement one to two capsules two times daily with water is considered a standard dosage.

- **Contraindications:**

***Do Not Use if Pregnant or Nursing:*** Uterine Contractions.

***Allergies:*** Mugwort may cause an allergic reaction in individuals who are allergic to the *Asteraceae/Compositae plant family. Members of this family include ragweed, chrysanthemums, marigolds, daisies, and many other herbs.*

Mugwort might also cause an **allergic reaction** in people who are allergic to birch, celery, or wild carrot. This has been called the “celery-carrot-mugwort-spice syndrome.”

There is also some concern that mugwort might cause allergic reactions in people with allergies to white mustard, honey, royal jelly, hazelnut, olive, latex, peach, kiwi, the Micronesian nut called Nangai, and other plants from the genus *Artemisia*, including sage.

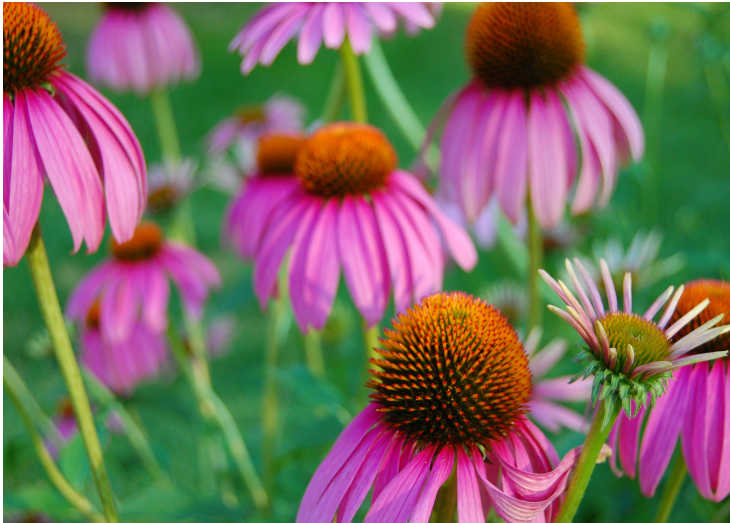
Mugwort pollen might cause reactions in people who are allergic to tobacco.

**Coumarin should not be taken while using anticoagulants.**

Coumarin increases the blood flow in the veins and decreases capillary permeability. Coumarin can be **toxic when used at high doses** for a long period.

Coumarin can be **toxic when used at high doses** for a long period.

Mugwort contains a chemical called **thujone**, which is responsible for the medicinal properties of the plant. In large dosage thujone is toxic so caution is advised.



# Echinacea

## • Alternate Names:

American Cone Flower, Black Sampson, Black Susans, Brauneria Angustifolia, Brauneria Pallida, Brauneria Purpurea, Comb Flower, Coneflower, Echinacea Angustifolia, Echinacea Pallida, Echinacea Purpurea, Echinacea Serotina, Echinacea Speciosa,

Echinaceawurzel, Échinacée, Échinacée Angustifolia, Échinacée Pallida, Échinacée Pourpre, Échinacée Purpurea, Equinácea, Fleur À Hérisson, Hedgehog, Helichroa Purpurea, Igelkopfwurzel, Indian Head, Kansas Snakeroot, Narrow-Leaved Purple Cone Flower, Pale Coneflower, Purple Cone Flower, Purpursonnenhutkraut, Purpursonnenhutwurzel, Racine D'echinacea, Red Sunflower, Rock-Up-Hat, Roter Sonnenhut, Rudbeckia Purpurea, Rudbeckie Pourpre, Schmallblaettrige Kegelblumenwurzel, Schmallblaettriger Sonnenhut, Scurvy Root, Snakeroot, Sonnenhutwurzel.



## • General Information:

Echinacea is all about building up the **immune system** very quickly. It is also used against infections including **urinary tract infections** (UTI), **vaginal yeast infections** (candida), **herpes**, **HIV/AIDS**, human papilloma virus (**HPV**), bloodstream infections (**septicemia**), **tonsillitis**, **streptococcus** infections, **syphilis**, **typhoid**, **malaria**, **ear infection**, **swine flu**, **warts**, and nose and throat infections called **diphtheria**. **Eye inflammation** (Uveitis). Relieve **pain**, reduce **inflammation**, and have **hormonal**, **antiviral**, and **antioxidant** effects. **Ear infections** (also known as otitis media), **athlete's foot**, **sinusitis**, **hay fever**, as well as slow-healing **wounds**. Preliminary studies in the lab suggest echinacea may help inhibit **colon tumors** when combined with cichoric acid (also found

in Echinacea).

***Do not overuse Echinacea!*** A maximum of two weeks use to **stimulate the immune system** is perfect, beyond that you run the risk of stimulating it too much, and you'll find that instead of preventing disease, it will wear out that immune response and invite illness instead.

Other uses include anxiety, low white blood cell count, chronic fatigue syndrome (CFS), rheumatoid arthritis, migraines, acid indigestion, pain, dizziness, rattlesnake bites, attention deficit-hyperactivity disorder (ADHD), and improving exercise performance.

Sometimes people apply echinacea to their skin to treat boils, gum disease, abscesses, skin wounds, ulcers, burns, eczema, psoriasis, sun-related skin damage, herpes simplex, yeast infections, bee stings, snake and mosquito bites, and hemorrhoids. Bloodstream infections, Strep infections, Malaria, Diphtheria, Migraine headaches, Swine flu, Rheumatoid arthritis (RA), Indigestion, Pain, and Dizziness.

- **Key Components**

Polysaccharides (*help store energy and structure cell walls.*), glycoproteins (*give structural support to cells, help to form connective tissues and facilitate digestion*), alkaloids (*Anti-inflammatory*), volatile oils (*Anti-bacterial*), and flavonoids. (*cell signalling pathways and antioxidant effects.*)

- **Medicinal Parts**

***Leaves, flower, and root.*** The chemicals contained in the root differ considerably from those in the upper part of the plant. For example, the roots have high concentrations of volatile oils (odorous compounds) while the above-ground parts of the plant tend to contain more polysaccharides (substances known to trigger the activity of the immune system)

## **2) Harvesting Instructions:**

Gather, Clean, and dry

### **3) Time to Harvest:**

Summer through fall

#### **Possible Interactions:**

If you are taking any prescription medications, including medications used during surgery, such as anesthesia medications, you should talk to your doctor before taking echinacea. Some of the well-known interactions include the following:

**Econazole.** Echinacea may be useful in combination with econazole, an antifungal agent used to treat yeast infections (such as athlete's foot). When echinacea is used together with econazole, recurrence rates of these infections may be reduced.

**Immunosuppressants.** Immunosuppressants refers to a group of medications that are used for two main purposes, treating cancer and suppressing the immune system following organ transplant so that the new organ is not rejected. Because echinacea can enhance immune function, people should not use the herb with immunosuppressive medications, especially when taken for organ transplant.

**Caffeine.** Echinacea may increase the amount of time it takes for the body to break down caffeine, and therefore, increases the amount of time caffeine stays in the body.



## Lemon Balm

- Alternate Names:

*Balm, common balm, or balm mint, Balm, Bálsamo de Limón, Cure-All, Dropsy Plant, Honey Plant, Melisa, Melissa, Melissa officinalis, Melissa Folium, Mélisse, Mélisse Citronnelle, Mélisse Officinale, Melissenblatt, Monarde, Sweet Balm, Sweet Mary, Toronjil*

- Latin Name:

*Melissa officinalis*

- General Information:

The herb is used for **nervous agitation, tenseness, restlessness, irritability, sleeping problems**, functional **gastrointestinal** problems, **menstrual cramps** and **urinary spasms**, and externally, for **herpes labialis**. It can help significantly in the treatment of cold sores and combat the **herpes simplex** virus, **shingles** as well as other **viral afflictions**. Studies have shown a significant reduction in the duration and severity of herpes. Researchers also noted a "tremendous reduction" in the frequency of recurrence. When applied to cold sores or genital sores caused by the herpes simplex virus, creams or ointments containing lemon balm have speeded healing. The infections did not spread as much and individuals using topical lemon balm also reported more relief from symptoms such as **itching** and **redness**. Also, **Insect Bites**. In the past, has been used

for **Tumors**.

**Muscle relaxant**, particularly in the bladder, stomach, and uterus, thereby relieving **cramps, gas, and nausea**. Lemon balm has a depressant or **sedative** action on the central nervous system. Lemon balm may block some of the activity of thyroid hormone in the body. Therefore, it has been used in the past to treat **Grave's disease**, an auto-immune condition in which the thyroid gland produces excess thyroid hormone. It greatly increases the ability to **concentrate** and perform word and picture tasks. **Irritable bowel syndrome (IBS)**. (Adding 30 drops of a tincture) containing lemon balm, spearmint and coriander three times daily after meals for 8 weeks to standard treatment reduces stomach pain and discomfort in people with IBS. **ADHD**.

Lemon balm is used in Europe for treating **thyroid** problems and has shown an ability to regulate thyroid hormone production. This ability, along with the herb's anti-viral characteristics have made the herb useful in the treatment of **Chronic Fatigue Syndrome**. In one study, researchers found that using lemon balm also improved memory and lengthened attention span in individuals suffering from **Alzheimer's** disease and **Dementia**.

### **Key Components**

- Volatile oils, polyphenols, antiviral properties of caffeic acid and rosmarinic acid, which are contained in lemon balm. Citronellal and citral A and B, which are known to have sedative properties.
- **Medicinal Parts**

The flowers and leaves can be dried for herbal uses. Leaves can be stripped from stems and dried in a warm shady place. Dried leaves can be stored in an airtight container.

- **Time to Harvest:**

All Summer, then cut back plant to 4 inches tall in fall.

- **Side Effects:**



Information suggests that lemon balm is safe when taken in appropriate amounts by infants for up to a week and by older children under age 12 for up to one month. **Surgery:** Lemon balm might cause too much drowsiness if combined with medications used during and after surgery. Stop using lemon balm at least 2 weeks before a scheduled surgery. CAUTION WITH ANY OTHER SEDATIVE-MAY CAUSE EXTREME SLEEPINESS.

- **Combinations:**

In one study a Lemon balm/Valerian combination was found to be as effective as the prescription drug Halcyon.



## Marshmallow

- **Alternate Names:**

*Buttonweed, Cheeseplant, Cheeseweed, Dwarf Mallow and Roundleaf Mallow*

- **Latin Name:**

Malva Neglecta

- **General Information:**



Anti-Tussive (Suppress coughing, possibly by reducing the activity of the cough center in the brain. Used to relieve dry cough.) **Antioxidant, Antibacterial, Antiinflammatory, Astringent, Diuretic (Reduces a body's water),, Laxative, Purgative, Emollient, Expectorant**

A **demulcent** (anti-mucus) and **emollient** properties of Marsh Mallow make it useful in **inflammation** and **irritation** of the Gastrointesnal Tract, and of the **urinary** and **respiratory** organs. Whooping Cough, Bronchitis, and cough. Good for painful complaints of the **urinary** organs, exerting a relaxing effect upon the **intestines**, as well as acting curatively. This decoction is also effective in curing **bruises, sprains** or any ache in the **muscles** or **sinews**. In **hemorrhaging** from the

urinary organs and in **dysentery**, it has been recommended to use the *powdered root boiled in milk*. The root is used as a **toothbrush**. Mallows are well regarded as soothing and **healing to the skin**.

Boiled in wine or milk, Marsh Mallow will relieve diseases of the **lungs**, constituting a popular remedy for **coughs, bronchitis, whooping-cough**, etc., generally in combination with other remedies, especially Vitamin C in large doses over a six week period to keep the Whooping Cough virus from growing.. It is frequently given in the form of a syrup, which is best adapted to infants and children.

## **Key Components**

Rhamnose, galactose, galacturonic acid, and glucuronic acid. Flavonoids, phenolic acids, tannins, and volatile oils have also been isolated. Malonated anthocyanins have been isolated from the flowers.

- **Medicinal Parts**

Leaves, Root, Flowers and Fruit

## **4) Time to Harvest:**

All Summer

## **5) Side Effects:**

Avoid use if allergic or hypersensitive to any components of the plant species. Animal studies document that the plant may lower blood sugar levels; thus, use with caution in patients with diabetes or in those sensitive to changes in blood glucose levels.

## **6) How to Use**

The dry roots boiled in water give out half their weight of a gummy matter like starch. Decoctions of the plant, especially of the root, are very useful where the natural mucus has been abraded from the coats of the intestines, The decoction can be made by adding 5 pints of water to 1/4 lb. of dried root, boiling down to 3 pints and straining: it should not be made too thick and viscid.

Mallow roots contain many oils and nutrients that are good for oral health. How to make it: 1) Cut straight sections of root into pieces five inches long. 2) Unravel the ends, like untwisting the end of a rope. Leave about two inches of solid root in the middle. 3) Set

out to dry 4) Tie the dried roots around a sturdy twig. Now your toothbrush is ready for use.

**COMMON CONDITIONS:** **Acid Stomach** - Leaf infusion • **Bites (Insect)** - Leaf poultice • **Bladder Infection** - Whole plant infusion or root decoction • **Boils** - Leaf poultice • **Bruises** - Leaf poultice • **Burns** - Leaf poultice and/or cool root decoction as a wash and/or apply cool root decoction compress and/or apply slimy leaf and root juices to sooth the skin • **Cold (Common)** - Leaf infusion or root decoction • **Cold (Head)** - Leaf infusion or root decoction • **Cough** - Leaf infusion • **Inflammation (External)** - Leaf poultice • **Inflammation (Internal)** - Whole plant infusion or root decoction • **Stings** - Leaf poultice • **Sunburn** - like the aloe vera or a cactus plant use the emollient gooey juice of mallow root or crushed leaves to sooth the burn • **Ulcers (Stomach)** - Leaf infusion or root decoction • **Wounds** - Leaf poultice and/or root decoction as a wash; or like the aloe vera or a cactus plant use the gooey juice of mallow root or crushed leaves to promote healing.



## Vinca Herb

- Alternate Names:

Periwinkle , lesser periwinkle, myrtle, Creeping Myrtle

- Latin Name:

Vinca Major

- General Information:

**Cerebral stimulant and Vasodilator, Diarrhea, Hypertension, Memory/Focus, Menorrhagia, (Heavy Menstrual Bleeding), Antibacterial, AntiCancer, Antispasmodic, (gut spasm), Carminative, (Relieves flatulence), Coagulant/Hemostatic (Clots blood), Depurative, (A purifying agent), Diuretic (promotes water loss and urine), Emetic (Will cause vomiting ), Sedative.** Used as an **astrigent (drying qualities)** and tonic, in **menorrhagia** and in **haemorrhages**, also as a **laxative**, and **gargle**. Made into an ointment, useful for **hemorrhoids** and **inflammatory** conditions of the skin, an ointment prepared from the bruised leaves with lard has been largely used in domestic medicine and is reputed to be both soothing and healing in all inflammatory ailments of the skin and an excellent remedy for **bleeding** hemorrhoids. **Tinnitus**, or ringing in the ears, plagues many people. Vinca major may improve this condition.

It's used to treat **urinary** problems, and **mouth sores** and **cankers**.

*'The Periwinkle is a great binder,' said an old herbalist, and both Dioscorides and Galen commended it against fluxes. Culpepper says that it:*

*'stays bleeding at the mouth and nose, if it be chewed . . . and may be used with advantage in hysteric and other fits.... It is good in nervous disorders, the young tops made into a conserve is good for the night-mare. The small periwinkle possesses all the virtues of the other kind and may very properly supply its place.'*

**Cancer**, is another controversial use of vinca major is to treat cancer. Vinca major contains two powerful chemicals, vincristine and vinblastine. These compounds are used in chemotherapy treatments. The University of Texas M.D. Anderson Cancer Center provides more information on why taking a vinca major supplement for cancer treatment may be harmful.

- **Key Components**

*Vincristine and vinblastine, Indole alkaloids, tannins.*

- **Medicinal Parts**

Leaves and seeds.

- **Harvesting Instructions:**

Dry and either use leaves as tea or to make a tincture.

- **Time to Harvest:**

Spring, Early Summer

- **Special Precautions & Warnings:**

Using periwinkle in the whole herb form *does not* pose a danger of interaction with *blood thinners*, however taking *isolated extracts of vincamine and the chemical drug vinpocetine* can pose risks and are

*not suited to unsupervised long term use.*

- **Tincture:**

*½ Dropperful or 20-60 drops 1-4 times daily. Take lowest amount and work your way up.*

Should be taken the form of a tincture or tea. If taking vinca major, *take it with meals or with food*. It is absorbed better this way and is easier on the stomach. Discontinue use if *stomach pains* or *gastrointestinal* problems develop. These are the most frequently reported side effects of vinca major remedies.

- **Tea:**

*Infusion: pour a cup of boiling water onto 1 teaspoonful of the dried herb and let infuse for 10-15 minutes.*



## **California Poppy**

- **Alternate Names:**

Amapola de California, Eschscholzia californica, Pavot d'Amérique, Pavot d'Or, Pavot de Californie, Poppy California, Yellow Poppy.

- **Latin Name:**

Eschscholzia

- **General Information:**

Unlike opioids or even the stronger acting Poppy species, it's been stated that the effect of California Poppy is towards "...*establishing equilibrium,*" and is not at all narcotic (1988, 289).



California poppy is used for **trouble sleeping** (insomnia), aches, **nervous agitation, bed-wetting** in children, and diseases of the **bladder and liver**. It is also used to promote **relaxation** and **Diuretic** (Rids body of water).

In combination with other herbs, California poppy is used for **depression, long-term mental and physical tiredness (neurasthenia), nerve pain, various psychiatric conditions, blood vessel problems, sensitivity to weather changes,** and **sedation**. An herb combination including California poppy is also used for **sleep** and **mood disturbance** associated with strong, warm wind in the Alps (foehn illness).

The Yuki tribe used it for **toothaches**, it was **food** for the Sierra Miwoks, the Ohlone used it for sleep, the Wintu used it to heal **newborn baby belly buttons. Anti Malarial, Anti Tumor, Anti Fungal, Retards Insect Growth, Anti Bacterial,** and for use with **Parkinsons Disease** for ease of symptoms.

### **Disinfectant, Antiseptic,**

The Nisenan ate the **leaves either boiled or roasted** with hot stones and then laid in water. The Pomo mashed the seedpod or a decoction of it on a nursing mother's breast to **dry up her milk**. And the plant was given to babies as a sedative and placed under the bed for better sleep. Other tribes rubbed a decoction of the flowers into the hair to kill lice. The root juice was taken to relieve stomachaches and tuberculosis, and as a wash for weeping sores.

**Anxiety.** Developing research suggests California poppy, in combination with magnesium and hawthorn, might be useful in treating mild-to-moderate anxiety disorders.

**Anxiety, nervousness, restless, agitation, insomnia, pain. sciatica, herpes, shingles, heart palpitations.**

<b>Note on Parkinsons Disease:</b>
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Parkinson's disease, a slowly progressing movement disorder, is thought to be caused by certain neurotoxins.

A neurotoxin called MPTP (1[N]-methyl-4-phenyl-1,2,3,6-tetrahydropyridine), the precursor to MPP+, was found and linked to Parkinson's disease in the 1980s.

The active neurotoxins destroy dopaminergic neurons, leading to parkinsonism and Parkinson's disease.

Several tetrahydroisoquinoline (Among which is California Poppy) derivatives have been found to have the same neurochemical properties as MPTP. These **derivatives may act as neurotoxin precursors** to active neurotoxins.

- **Key Actions**

California poppy contains chemicals that cause *relaxation* and **sleepiness. analgesic, anti-diarrheal, antitussove. diaphoretic, antispasmodic.** It also **repairs nerves** and alleviates **nerve pain.**

- **Key Components**

California Poppy contains a variety of **isoquinoline alkaloids** (Similar to Berberine) ( including very small amounts of morphine and codeine. While these famous alkaloids may contribute to the activity of Eschscholzia, the medicinal properties are likely due to the rather large variety of other isoquinolines, including californidine, californine, chelerythrine, chelilutine, chelirubine, coptisine, cryptocavine, cryptopine, escholidine, escholine, scholinine, eschscholtzidine, protopine and sanguinarine. California Poppy is also noted for its rutin content and as well as other flavone glycosides quercetin and isorhamnetin (Beck and Haberlein 1999; Moore 1993; Duke 1992).

- **Medicinal Parts**

Use all parts of the plant. The fresh plant extract of California Poppy is more active than the dried herb (1993, 112).

**Flowers** have four petals range from white to red, though most commonly orange and yellows, and grow at the end of the stem, either alone or in many-flowered cymes. The petals are wedge-shaped, forming a funnel. The two fused sepals fall off as the flower bud opens. There are 12 to numerous stamens. The flowers close in cloudy weather.

Seeds are tiny and black, held in long pointed pods that split open when ripe.

The taproot gives off a colorless or orange clear juice, which is **mildly toxic**.

It is used as a relaxing **nervine** in **anxiety** and **nervousness**; as a sedative in insomnia; and as an **anodyne** in pain. *Does Not contain Opiate.*

- **Harvesting Instructions:**

Gather the whole above ground plant and dry it. Or tincture the whole fresh plant. When I tinctured California Poppy in the past, I used the whole plant, *including the roots*. \*Use common sense, *trial!*

- **Side Effects:**

California poppy appears to be safe for most people.

- **Special Precautions & Warnings:**

*Surgery:* California poppy can slow down the central nervous system, causing sleepiness and other effects. There is some concern that California poppy might slow down the central nervous system too much when combined with anesthesia and other medications used during and after surgery. **Stop using California poppy at least 2 weeks before a scheduled surgery.**

Large amounts used sometimes cause **nausea**.

- **Caution :**

Fever, pregnancy; concurrently with prescription drugs and psychiatric medications.

(Benzodiazepines) interacts with CALIFORNIA POPPY

California poppy might cause **sleepiness** and **drowsiness**. Some of these sedative medications include *clonazepam (Klonopin)*, *diazepam (Valium)*, *lorazepam (Ativan)*, and others.

(CNS depressants) interacts with CALIFORNIA POPPY

California poppy might cause sleepiness and drowsiness. Some sedative medications include *clonazepam (Klonopin)*, *lorazepam (Ativan)*, *phenobarbital (Donnatal)*, *zolpidem (Ambien)*, and others.

- **Tincture:**

$\frac{1}{2}$  Dropperful or 20-60 drops 1-4 times daily. Take lowest amount and work your way up.

For bedwetting in children over 5 years old, **use with horsetail**, 10 drops of each twice/day.

- **Tea:**

Use a *rounded teaspoon* of chopped plant as tea, drink 1-3 times daily

- **Can be used in powder, capsule, or tablet form**

As exemplified by California Poppy, all poppies contain a variety of alkaloids that all likely have different activities, as well as other constituents that we know from experience can modulate the effects

of the 'active' constituents. Many herbalists have observed that *crude herb extracts* of the various poppy species are **less addictive** and **less potent** in their activities **than the purified alkaloids**, with *fewer side-effects*.

Unlike opioids or even the stronger acting Poppy species, Rudolf Weiss states that the effect of California Poppy is towards "... *establishing equilibrium,*" and is not at all narcotic (1988, 289).

In experimental studies, an aqueous extract of *Eschscholzia californica* was shown to demonstrate sedative and anxiolytic properties in mice challenged with a variety of behavioural tests.

Doses of more than 25 mg/kg demonstrated anxiolytic effects (To *reduce anxiety*), whereas higher dosages of up to 200 mg/kg *promoted sedation*.

- **Other Uses:**

Berberine has also been used historically as a dye, due to its yellow color.

- **Alternative Herbs:**

Developing research suggests **California poppy**, in combination with **magnesium** and **hawthorn**, might be useful in treating mild-to-moderate **anxiety disorders**.



# Juniper Berries

- **Alternate Names:**

Common Juniper, Common Juniper Berry, Enebro, Extract of Juniper, Extrait de Genévrier, Genévrier, Genévrier Commun, Genievre, Genièvre, Ginepro, Huile de Baies de Genévrier, Huile de Genévrier, Juniper Berry, Juniper Berry Oil, Juniper Extract, Juniper Oil, Juniperi Fructus, Juniperus communis, Oil of

Juniper, Wacholderbeeren, Zimbro

- **Latin Name:**

Baie de Genévrier, Juniperus Communis

- **General Information:**

Juniper is used for digestion problems including upset stomach, intestinal gas (flatulence), heartburn, bloating, and loss of appetite, as well as gastrointestinal (GI) infections and intestinal worms. It is also used for urinary tract infections (UTIs) and kidney and bladder stones. Other uses include treating snakebite, diabetes, and cancer.

Some people apply juniper directly to the skin for wounds and for pain in joints and muscles, Juniper berries contain chemicals that might decrease inflammation. The essential oil of juniper is inhaled to treat bronchitis and numb pain.

In foods, the juniper berry is often used as a condiment and a flavoring ingredient in gin and bitter preparations. The extract and essential oil are used as a flavoring ingredient in foods and beverages.

In manufacturing, the juniper oil is used as a fragrance in soaps and cosmetics.

Juniper extract and juniper oil are used in cosmetics including lipstick, foundation, hair conditioners, bath oils, bubble bath, eye shadow, and many other products.

- **Key Actions**

When inhaled through direct palm inhalation or diffused, richly balsamic and woody-sweet juniper berry essential oil supports the body's natural

function of decongesting, detoxifying and cleansing. Employed in these modalities, along with therapeutic massage, juniper oil supports the kidneys, lymphatic and respiratory systems, skin, and intestines.

- **Key Components**

Primarily sugars, but also pinene, limonene, tannins, and antioxidant flavonoids.

- **Medicinal Parts**

The berries, whole, ground, or rubbed through a sieve. To prevent loss of essential oil, juniper berries should not be ground, crushed, or rubbed until just before use. The herb is frequently combined with birch leaf, horsetail, parsley “seed,” or restharrow in herbal diuretic teas.

- **Caution :**

If you have been using juniper berry tea for several weeks and you urine smells like violets, you have been using the herb too long. Continued overdose can cause renal irritation and blood in the urine, so only use in moderation. Since juniper berries can stimulate uterine contractions, avoid use during pregnancy. They should not be used by anyone who has inflammation of the kidneys.

Juniper seems to be safe when applied to the skin in small areas. Using juniper on the skin can cause some side effects including irritation, burning, redness, and swelling. Avoid using it on large skin wound.

- **Tea:**

May be taken as a tea, extract or capsule, and may be liberally sprinkled on food or added to drinks and smoothies.



## Ox-Eye Daisy (Goldenseal)

- **Alternate Names:**

*Goldenseal, Goldenseal is also known as ox-eye daisy, golden daisy, White weed, Great ox-eye, Field daisy, Grande Marguerite. Margaret, maudlinwort, moon daisy, Maudlin daisy, eye balm, eye root, ground raspberry, Indian dye, jaundice root, orange root, tumeric root, yellow Indian paint, yellow puccoon, wild curcuma, warnera, Indian plant, yellow root, Horse gowan, and others.*

- **Latin Name:**

Leucanthemum vulgare

- **General Information:**

Tonic, diuretic, and antispasmodic. Large doses emetic.

Goldenseal has been used topically (on the skin) to treat minor skin wounds and cold sores. Goldenseal has been used orally (by mouth) to decrease diarrhea and to boost the immune system. Some forms of goldenseal have also been used in the eyes as an eye wash.

Used as a tonic instead of chamomile flowers, and has been found serviceable in *whooping-cough, asthma, and nervous excitability*. Very beneficial externally and



internally in *leucorrhoea*; and its internal use has been highly recommended in *colliquative perspiration*. When used locally for the latter purpose, as it sometimes is, it stains the skin. Externally, it has been used as a local application to *wounds, ulcers, scald-head*, and some other *cutaneous diseases*. Said to destroy or drive away fleas.

- **Medicinal Parts**

It is a perennial herb, with an erect, branching, furrowed stem, growing from 1 to 2 feet high. The leaves are comparatively few, small, alternate, amplexicaul, lanceolate, serrate, and cut-pinnatifid at the base; the lower ones petiolate, with deep, irregular teeth; the upper ones small, subulate, and those of the middle sessile, deeply cut at base, with remote teeth above. The heads are large, terminal, and solitary. Disk yellow. Rays numerous and white

- **Habitat and Growing Instructions:**

It is a rhizomatous, creeping, short-lived perennial that grows 10 inches to 2 feet tall. The basal and lower leaves are spoonshaped, toothed, and with long petioles (leaf stem). The upper leaves are narrow, toothed, and clasp the stem. The flowers are 1 to 3 inches in diameter, with 15 to 30 white ray flowers, and mostly solitary. The phyllaries beneath the flower head are green with a dark brown margin. One flower head can produce up to 200 seeds. Oxeye daisy spread vegetatively from roots, root fragments, or by seed. Seeds may be viable up to 38 years or more.

- **Harvesting Instructions:**

How to harvest

- **Time to Harvest:**

Flowers bloom between June and August..

- **Side Effects:**

Do not use different formulations (e.g., tablets, topical formulations, teas, tinctures, and others) of goldenseal at the same time, unless specifically directed to do so by a health care professional. Using different formulations together increases the **risk of an overdose** of goldenseal.

Although uncommon, **allergic reactions** to goldenseal have been reported. Stop

taking goldenseal and seek emergency medical attention if you experience symptoms of a serious allergic reaction including *difficulty breathing; closing of your throat; swelling of your lips, tongue, or face; or hives.*

- **Caution :**

Do not take goldenseal without first talking to your doctor if you

- have **high blood pressure** or take medicine to control your blood pressure, or
- have a **bleeding or blood clotting** disorder or if you take a medicine to control or prevent such a disorder {e.g., heparin, warfarin (Coumadin), others}.
- Do not take goldenseal if you are **pregnant or could become pregnant.** Goldenseal has been reported to cause uterine contractions. It is not known whether goldenseal will harm an unborn baby.
- Do not take goldenseal without first talking to your doctor if you are **breast-feeding** a baby. It is also not known whether goldenseal will harm a nursing infant.
- There is no information available regarding the use of goldenseal by children. Do not give any herbal/health supplement to a child without first talking to the child's doctor.
- *Do not* use any formulation of goldenseal as a **douche.**
- **Symptoms of a goldenseal overdose** may include *headache; or stomach upset, nausea, vomiting, diarrhea, high blood pressure, nervousness, depression, seizures or convulsions, decreased feeling or paralysis, decreased breathing, and death.*

- **Decoctions:**

From 2 to 4 ounces, 2 or 3 times a day.

The fresh or dried plant material is simply covered in cool water and soaked overnight. The herb is strained out and the liquid is taken.



## Sagebrush

### Alternate Names:

Big Sagebrush, Common Sagebrush, Blue Sagebrush, or Black Sagebrush

Latin Name: Artemisia Tridentata

### • General Information:

The plant is **antiseptic, digestive, disinfectant, febrifuge, ophthalmic, poultice** and **sedative**. This herb is reported to have a mild **sedative** effect and was often used for both internal and external purposes. **Respiratory** illnesses such as a **cold or pneumonia** were often treated with a tea made from this plant.

The sagebrush plant was often used to treat **digestive disorders** and was believed to help **expel worms** and other **parasites** from the digestive tract. This herb was also believed to **stop internal bleeding** and was frequently given to a person who had suffered **battle wounds** or to a woman who had recently **given birth**.

Artemisia tridentata was commonly used to make **skin ointments** or **antiseptic washes** in order to **prevent infection**. The disinfectant properties of this plant were thought to be so strong that it was also

used as a **floor wash** or burned as an incense to **kill germs** in the house after there had been an illness in order to prevent others from getting sick. An infusion of the plant **repels insects**, it is also a disinfectant and so is used for **washing walls, floors** etc. A yellow to gold **dye** is obtained from the leaves, buds and stems combined.

An infusion of the fresh or dried leaves is used to treat **pneumonia, bad colds** with **coughing** and **bronchitis** or for **malaria**. It is used both internally and externally in the treatment of **rheumatism**. The crushed plant is rubbed on cuts, sores etc. Steeped leaves are applied to sore eyes. It treats **dandruff** and **falling hair**.

One of the remedies for a **headache** was sage tea or a compress of sage leaves, the leaves being either crushed or boiled. There were almost as many dosages for influenza as there were herbal drugs. The favorites were hot juniper or sage tea and inhaling the fumes from a fire of sage. If one's **legs were ailing, weakening, or shaky** they were bathed in a hot sage tea, then poulticed with sage leaves. To steady and **strengthen mind** and **nerves**, the Indians, as they do today, drank sage tea.

Sage tea also was used for **paralysis**. Sage leaves, fresh or dried, were made into a tea for **diarrhea, menstrual disorders, and swellings**. It had a particularly favorable effect as a tonic after childbirth.

Fresh leaves were crushed, strained, and mixed with lukewarm water for **stomach distress** or were chewed for **flatulence** or as a tea for **indigestion**. The powdered herb destroyed worms in children. The juice of the herb or its powder was put on **moist sores** which, with this procedure, were said to dry and heal quickly, as were "green wounds."

For **numbness of the feet**, a wash of sage was recommended, followed by the application of wax and ground nettles. This same sage and wax remedy was used for all foot injuries by the Aztecs.

Sage is still used as a **shampoo** to promote the **growth of the hair** and also used by the women as a solution to **blacken their hair**, combing it into their tresses daily.

It was used as a green poultice or made into an ointment, and it was effective.

- **Key Components**

Bitter principles, Flavonoids, Tannins, Silica, Antibiotic polyacetylenes, Inulin, Hydroxycoumarins, camphor, terpenoids, Volatile oils

- **Medicinal Parts**

Leaves are very bitter and pungent. The leaves are used as a condiment and to make a tea. It can be roasted then ground into a powder and mixed with water or eaten raw.

- **Habitat and Growing Instructions:**

A shrub or small tree from the family Asteraceae. It is a hardy silvery-grey bush with yellow flowers and grows in arid sections of the western US. It is the primary vegetation across vast areas of the Great Basin desert, along rivers or in other related wet areas. Sagebrush can grow as tall as 3 m but is more typically 1-2 m tall. Sagebrush has a strong pungent fragrance, especially when wet, which is not unlike common sage. It also has a bitter taste. Sagebrush leaves are wedge-shaped 1-4 cm long and .3-1 cm broad. The outer and wider end is generally divided into three lobes. Leaves are covered with fine silvery hairs.

Sagebrush (sage) - shrubby *Artemisia* sp. is in the Sunflower family. They have woody stems and are bushes (shrubs) with often irregularly shaped leaves.

- **Harvesting Instructions:**

Leaves, Seeds, Sagebrush flowers in the late summer or early fall.

The flowers are yellow and are carried in long, slender clusters.

- **Time to Harvest:**

Sagebrush flowers in the late summer or early fall

- **Caution :**

Although no reports of toxicity have been seen for this species, skin contact with some members of this genus can cause dermatitis or other allergic reactions in some people.

While *Artemisia tridentata* has a long history of medicinal uses, this herb is not used very often as a modern treatment method, due in part to the severity of the side effects associated with its use. Mild to moderate skin irritation is the most commonly reported side effect of this herb, although more serious complications may occasionally arise. There have been reports of liver damage and blood-clotting deficiencies after using sagebrush for medical purposes. For this reason, many health care practitioners discourage the use of this plant. As is the case with any new medication or herbal supplement, a doctor should be consulted before beginning any new treatment program.

- **Decoctions:**

A decoction (boiling) of the leaves is used in the treatment of digestive disorders and sore throats.

- **Tea:**

Sage tea was used extensively as a cure for asthma, taken morning and evening for forty days and at night a sage poultice was applied to the chest and back.

Respiratory illnesses such as a cold or pneumonia were often treated with a tea made from this plant.

- **Macerations:**

The fresh or dried plant material is simply covered in cool water and soaked overnight. The herb is strained out and the liquid is taken.

- **Can be used in powder, capsule, or tablet form**
- **Special Information:**

**Paper preparation:** The stems are harvested in late summer, the leaves removed and the stems steamed until the fibre can be stripped off. The fibre is then cooked for two hours with lye before being ball milled for 4 hours. The resulting paper is a light tan/gold color.

- **Other Uses:**

Basketry, dyes, fiber, friction sticks, fuel, hair, paper, repellent, stuffing, and tinder. The fibrous bark is used for weaving mats, baskets, cloth etc., or as a stuffing material in pillows etc. and as an insulation in shoes to keep the feet warm. A fiber obtained from the inner bark is used for making paper. The fibers are about 1.3 mm long. A bunch of the leafy stems can be tied together and used as a broom. The shredded bark is a fine tinder for starting fires. The stems make good friction sticks for making fires. The seeds are used during celebrations because, when thrown into a fire, they explode like crackers.

### **Facts Associated With Active Ingredients:**

**Camphor** is readily absorbed through the skin and produces a feeling of cooling similar to that of menthol, and acts as slight local anesthetic and antimicrobial substance. There are anti-itch gels and cooling gels with camphor as the active ingredient. Camphor is an active ingredient (along with menthol) in vapor-steam products, such as Vicks VapoRub.

# Ginger



- **Latin Name:**

*Zingiber officinalis*

- **General Information:**

There are compounds in ginger that help the body absorb nutrients and stimulate the production of digestive juices. Also a carminative, ginger removes excess gas from the body to reduce bloating. Powdered ginger is great for curing diarrhea. If you

know you're going to have a large holiday meal, have a cup of ginger tea to help digest it and prevent the bloat. It is also a safe and natural way to help those who suffer from nausea due to pregnancy, motion sickness, or chemotherapy.

Ginger is known for making you sweat. The body removes excess toxins through the sweat glands. It is also a powerful anti-inflammatory which aids in pain relief with headaches, menstrual cramping and arthritis. The compounds that give ginger its anti-inflammatory properties, called gingerols, have been shown to help prevent carcinogenic growths in the colon.

In ayurvedic medicine, ginger is used as a powerful detox because of its ability to break down toxins in the body. This is particularly good for the lungs and sinuses. And because ginger makes you sweat, it is great for cleansing the lymphatic system and removing the toxins from the body. This combination not only makes for a great detox, but also a great way to fight off an illness.

Anxiety nausea is one of the most common symptoms of anxiety, which is the feeling of queasiness or the urge of vomit caused by nothing but fear itself. Anxiety nausea is caused by our system going into a fight or flight response once triggered by fear. Blood rushes away from the stomach and into our hands and legs, preparing us to fight or run in case of danger. Except, it has not realised that sometimes, we fear for no reason or that fear goes out of control. The reason why it causes nausea is because when the blood leaves the stomach, your stomach literally stops working. If you just ate a big meal, food will be left undigested and acid will increase, causing discomfort and nausea. (That's why sometimes anxiety nausea seems better when you haven't eaten)



In Chinese medicine, ginger is used to treat a number of conditions, from nausea and congestion to cancer treatment and prevention. Individuals suffering from thyroid problems may find that the compounds in ginger have a positive effect on thyroid function.

The thyroid produces two different hormones that travel through the blood to all parts of the body: tri-iodothyronine and thyroxine. These hormones regulate the body's metabolism and tell the organs how slowly or quickly they should function. The pituitary gland controls how the thyroid functions. When the thyroid is producing too high a hormone level, it's called hyperthyroidism, which causes a faster metabolism. When there is too low of a hormone level being produced, it's called hypothyroidism, where the body's metabolism is slowed. Chronic inflammation in the body can damage the thyroid, and inflammation is associated with thyroid diseases, such as thyroiditis.

Fresh ginger is used to relieve dryness and heat, while dried ginger is used to relieve dampness and chill.

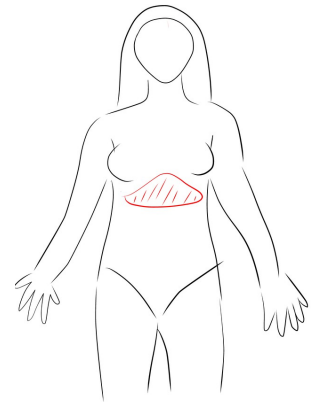
### **Massage Stomach Area**

By massaging, you are helping the stomach by strengthening its muscles, as well as increasing blood flow.



There's an accupoint called the Anti-vomiting point for people with nausea and motion sickness. It has worked with anxiety nausea

as well, but requires you to push down on it for a while before you can feel it working.



### **Key Actions**

Ginger has many key nutrients that help the body function. Ginger contains magnesium, which has been shown to be a critical to controlling thyroid disease. Magnesium helps with muscle relaxation and prevents the development of an irregular heartbeat. Ginger also contains potassium, a mineral essential to

regulating fluids in the body. Other nutrients include Vitamin B-6, copper and manganese as well as the antioxidant compound gingerol. Because it helps regulate inflammation, ginger might also protect against inflammation-related thyroid disorders.

- **Medicinal Constituents**

1,8-cineole, 6-gingerol, 6-shogaol, 8-shogaol, acetic acid, alpha-linolenic acid, alpha-phellandrene, alpha-pinene, alpha-terpinene, alpha-terpineol, arginine, ascorbic acid, beta-bisole, beta-carotene, beta-pinene, beta-sitosterol, boron, caffeic acid, camphor, capsaicin, chlorogenic acid, curcumene, gingerols, sesquiphellandrene, zingiberene, resins, starches, fats, proteins.

- **Side Effects:**

Individuals with bleeding disorders or those taking blood thinners should not add ginger to their diet.

- **Caution :**

Since ginger affects the levels of **blood sugar**, consult with you physician before taking if you have **diabetes**

And as always, if you are on any prescription medications, please consult with your health care provider before taking ginger as a supplement.

Although there are warnings in both Traditional Chinese Medicine and some medical texts about using ginger during pregnancy, ginger used in moderation, that is 3/4 teaspoon up to three times a day, poses no risk to mother's or baby's health.

Studies in the late 1990's found that eating as much as 2 to 3 tablespoons of raw ginger or 5 to 8 tablespoons of dried ginger daily will not stimulate uterine contraction. Excessive use may cause gastro-intestinal upset.

**No more than 4g of ginger should be taken per day**

### **How to Take Ginger**

- 7) To make ginger tea, simmer 3/4 teaspoon (0.5 to 1.0 grams) of chopped ginger in 1 cup of hot water for five minutes in a closed teapot. Do not add too much.
- 8) Fresh Ginger Root: can be added to food while cooking, which is common in oriental recipes
- 9) Candied Ginger: a sweet way to reap the benefits of ginger, but it can be a

little spicy, so be careful when giving it to the little ones

- 10) Powdered Ginger: can be mixed with water boiling water to make tea, or added to foods or honey
- 11) Supplement Form: ginger can be purchased in capsule form at any drugstore or health food store
- 12) The root can also be steeped in hot water or added to tea.
- 13) Teas, tinctures, encapsulations, in herbal formulas, and in cooking.

### **Ginger Honey Cough Syrup** *(For Phlegm Coughs)*

- A blender (a [magic bullet](#) works great for this)
- A head of garlic
- A cup of raw honey (regular honey will work in a pinch)

Preparation:

- 1) Pour the cup of raw honey into the magic bullet  
Seal the lid tightly and float the container in hot water (this will make the honey loose and easier to blend)
- 2) While the honey is warming, peel your garlic. At least a few good sized cloves
- 3) Once finished, add one clove of raw garlic to the honey and blend until smooth
- 4) If you can go stronger, add another clove of garlic and so on  
Once you reach a strength you can handle, pour the garlic honey into a clean jar and take by the spoonful as often as needed.

# Plague

The plague is a serious bacterial infection that can be deadly. Sometimes referred to as the “black plague,” the disease is caused by a bacterial strain called *Yersinia pestis*. This bacterium is found in animals throughout the world and is usually transmitted to humans through fleas. The risk of plague is highest in areas that have poor sanitation, overcrowding, and a large population of rodents.

## Bubonic plague

The most common form of plague is bubonic plague. It’s usually contracted when an infected rodent or flea bites you. In very rare cases, you can get the bacteria from material that has come into contact with an infected person.

Bubonic plague infects your lymphatic system (a part of the immune system), causing inflammation in your lymph nodes. Untreated, it can move into the blood (causing septicemic plague) or to the lungs (causing pneumonic plague).

Symptoms of bubonic plague generally appear within two to six days of infection. They include:

- *fever and chills*
- *headache*
- *muscle pain*
- *general weakness*
- *seizures*

You may also experience painful, swollen lymph glands, called buboes. These typically appear in the groin, armpits, neck, or site of the insect bite or scratch. The buboes are what give bubonic plague its name.

## Septicemic plague

When the bacteria enter the bloodstream directly and multiply there, it’s known as septicemic plague. When they’re left untreated, both bubonic and pneumonic plague can lead to septicemic plague.

Septicemic plague symptoms usually start within two to seven days after exposure, but septicemic plague can lead to death before symptoms even appear. Symptoms can include:

- *abdominal pain*
- *diarrhea*
- *nausea and vomiting*
- *fever and chills*
- *extreme weakness*
- *bleeding (blood may not be able to clot)*
- *shock*
- *skin turning black (gangrene)*

## Pneumonic plague

When the bacteria spread to or first infect the lungs, it’s known as pneumonic plague — the most lethal form of the disease. When someone with pneumonic plague coughs, the

bacteria from their lungs are expelled into the air. Other people who breathe that air can also develop this highly contagious form of plague, which can lead to an epidemic.

Pneumonic plague is the only form of the plague that can be transmitted from person to person.

Pneumonic plague symptoms may appear as quickly as one day after exposure to the bacteria. These symptoms include:

- *trouble breathing*
- *chest pain*
- *cough*
- *fever*
- *headache*
- *overall weakness*
- *bloody sputum (saliva and mucus or pus from the lungs)*

### **How plague spreads**

People usually get plague through the bite of fleas that have previously fed on infected animals like mice, rats, rabbits, squirrels, chipmunks, and prairie dogs. It can also be spread through direct contact with an infected person or animal or by eating an infected animal.

Plague can also spread through scratches or bites of infected domestic cats. It's rare for bubonic plague or septicemic plague to spread from one human to another.

### **Treatment for the plague**

The plague is a life-threatening condition that requires urgent care. If caught and treated early, it's a treatable disease using antibiotics that are commonly available. With *no treatment*, bubonic plague can multiply in the bloodstream (causing septicemic plague) or in the lungs (causing pneumonic plague). *Death can occur within 24 hours after the appearance of the first symptom.*

Treatment usually involves strong and effective antibiotics such as gentamicin or ciprofloxacin, intravenous fluids, oxygen, and, sometimes, breathing support. People with pneumonic plague ***must be isolated*** from other patients. Medical personnel and caregivers must take strict precautions to avoid getting or spreading plague. Treatment is continued for several weeks after fever resolves. Anyone who has come into contact with people with pneumonic plague should also be monitored, and they're usually given antibiotics as a preventive measure.

### **Outlook for plague patients**

Plague can lead to gangrene if blood vessels in your fingers and toes disrupt blood flow and cause death to tissue. In rare cases, plague can cause meningitis, an inflammation of membranes that surround your spinal cord and brain. Getting treatment as quickly as possible is crucial to stop the plague from becoming deadly.

### **How to prevent plague**

Keeping the rodent population under control in your home, workplace, and recreation areas can greatly reduce your risk of getting the bacteria that causes plague. Keep your home free from stacks of cluttered firewood or piles of rock, brush, or other debris that could attract rodents. Protect your pets from fleas using flea control products. Pets that

roam freely outdoors may be more likely to come into contact with plague-infected fleas or animals. If you live in an area where the plague is known to occur, the CDC recommends not allowing pets that roam freely outside to sleep in your bed. If your pet becomes sick, seek care from a veterinarian right away. Use insect repellent products or natural insect repellants (like oil of lemon eucalyptus) when spending time outdoors. If you have been exposed to fleas during a plague outbreak, visit your doctor immediately so your concerns can be addressed quickly.



## **Black Drawing Salve**

2.72 oz Beeswax

13.26 (Infused) Bloodroot, Comfrey, Plantain and Calendula Oil

13.27 3 teaspoon Bentonite Clay

3 teaspoons Activated Charcoal

2% Black Spruce Essential Oil

1% Scotch Pine Essential Oil

Pour into Containers and let cool.

## White Willow Bark Tea for Pain Relief

White willow bark contains salicylic acid that is also found in aspirin. It is recommended that one drink 3 to 4 cups of this tea to benefit from its use. Although the tea may be slower acting than aspirin, it has longer lasting effects.

- Start by adding 1 to 2 teaspoons of white willow bark to 8 ounces of water.
- Allow this to boil for about 5 to 10 minutes.
- Once it has boiled, turn off the heat and allow it to steep between 20 and 30 minutes with the lid on.

You will notice the herbs drop down to the bottom of the pan and the tea is taking on a beautiful red color.



Once the bark is done steeping, strain and compost it. A coffee filter or mesh strainer will do the trick.

Now, white willow bark does have a strong flavor and truly tastes like the bark of a tree so I added a few cinnamon sticks and honey to my cup for flavor. In the future, I may add the cinnamon at the boiling stage and allow them to steep along with the bark.

**\*\*If you have any medical conditions, please consult your doctor prior to trying white willow bark tea. It should be avoided by anyone under two, if you are pregnant, nursing, have flu or chickenpox, or on blood thinners. Always be sure to research the possible side effects of any herb before beginning its use.**





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## Yellowdock Herb

- **Alternate Names:**

Yellow Dock, Curled dock, Curly-leaf Dock, Rumex, Sad Dock; Spanish: Lengua de Vaca, Yerba Colorado, Raiz Colorado; Nahuatl: Arlinan, Axixpatlicóztic, Chin-ch'iao-mai, garden patience, narrow dock, parell, patience herb, sour dock

- **Latin Name:**

*Rumex crispus* (Yellow Dock, Curled dock, Curly-leaf Dock, Rumex, Sad Dock; Spanish: Lengua de Vaca, Yerba Colorado, Raiz Colorado; Nahuatl: Arlinan, Axixpatlicóztic

- **General Information:**

Not for use with kidney and Gall Stones.

Yellow dock root is used to help alleviate *stomach acid, heartburn* and *indigestion*. It is a bitter herb thought to *stimulate the digestive function*, helping to increase both digestive enzymes and stomach acid. It is the taproot of yellow dock that is most commonly used in herbal remedies as it is rich in many compounds known to have *cleansing* and *calming*

*qualities as well as minerals such as calcium, iron, magnesium and phosphorous.*

Yellow dock contains a number of *anthraquinones* (main active constituents in herbs often used to *relieve constipation*), including *emodins*, which are known for their laxative action. Though small doses of yellow dock can be used as an herbal remedy for **diarrhea, higher doses actually cause diarrhea.**

The herb acts to stimulate peristalsis (involuntary constriction and relaxation of the intestine) and increase mucous production and secretion of water in the colon, hence alleviating the discomforts associated with constipation.

This herb also has diuretic properties, which makes it a natural remedy for water retention, inflammation of the bladder and urinary stones.

Both its laxative and diuretic properties make this herb a natural cleanser. The toxins are flushed out of the system through the urine and stool. Yellow dock has been used to cleanse the circulatory system, liver, spleen, kidneys, and bladder.

It is often blended with other cleansing herbs, such as burdock, red clover, or dandelion, to flush the body of toxins and clear the path to healing the primary infliction such as acne, boils, eczema, psoriasis and fungal infections.

When prepared as a poultice, yellow dock has a calming effect and is used as a natural remedy for boils and burns as well as skin problems such as weeping eczema, psoriasis, nettle rash, boils, and abscesses.

It has even been used as an herbal remedy in the treatment of syphilis and other venereal diseases with skin outbreaks as it alleviates itching and inflammation.

Yellow dock has been used extensively to resolve issues associated with menstruation. It is a traditional remedy for menstrual pain and heavy bleeding and has also been known to be helpful for unbalanced menstrual cycles.

This herb has also been reported to increase fertility.

The root is rich in iron and often used as an herbal remedy for anemia. The laxative effect of this medicinal herb also reduces issues of constipation often associated with iron supplements.

Yellow dock, like many other *Rumex* species, contains the antibacterial compound, rumicin. This makes this herb a natural remedy for treating bacterial infections of *Escherichia*, *Salmonella*, *Staphylococcus*, and *Bacillus*.

Glycosides found in the herb can help stimulate the liver, which helps heal poor absorption of nutrients and increases bile production which has further detoxifying effects. This trait made yellow dock a common herbal remedy for jaundice sufferers during the 19th century.

Yellow dock is an herbal treatment for the relief of symptoms associated with upper respiratory disorders such as emphysema, asthma, and bronchitis.

The list of illnesses that yellow dock has been used to treat is extensive. Besides what has already been described, this medicinal herb has been used in the treatment of anthrax, anorexia, cancer, chronic fatigue syndrome, common cold, cramps, depression, fever, general weakness or loss of strength, headaches, hepatitis, high cholesterol, leprosy, malaria, menopause, mental stupor, mouth sores, oral hygiene, ring worm, and tuberculosis.

- **Key Components**

Derivatives of 9,10-anthraquinone include many important drugs (collectively called **anthracenediones**). They include

Laxatives such as dantron, emodin, and aloe emodin, and some of the senna glycosides

Antimalarials such as rufigallol

Antineoplastics used in the treatment of cancer, such as mitoxantrone, pixantrone, and the anthracyclines

DNA dyes / nuclear counterstains such as DRAQ5, DRAQ7 and CyTRAK Orange for flow cytometry and fluorescence microscopy.

Anthraquinone: Rhein, emodin, aloe emodin, Physcion, Chrysophanol extracted from *Cassia occidentalis* also toxic in nature and these known to cause hepatomyoencephalopathy in children's.<sup>[8]</sup>

- **Medicinal Parts**

Leaves and seeds.

- **Habitat and Growing Instructions:**

Local Weed

- **Harvesting Instructions:**

The leaves and root of the plant are used in tinctures and teas. Roots, leaves, and seeds. The root is dug up in autumn, chopped and then dehydrated for storage.

**Time to Harvest:**

Spring and Fall

- **Special Precautions & Warnings:**

Yellow dock contains **oxalic acid**, which can irritate the intestines of some people. Oxalic acid gives dock a tart, sour flavor, and it has a laxative and stimulating effect on the bowels.

Oxalic acid can inflame the kidneys and intestines and should be avoided entirely by those with severe irritable bowel or kidney disease. Those with irritable digestive systems **may react to even small amounts** of yellow dock.

Yellow dock also contains anthraquinone glycosides, strong laxative agents. *Do not use yellow dock regularly for constipation because it can cause laxative dependence.*

Do not use if you have diarrhea or a history of gallbladder attacks. **Do not use bitter herbs such as yellow dock or dandelion if you have pain, inflammation, or acidity in the digestive tract.**

- **Preparation and Dosing**

A tincture can be prepared from the fresh or dried root of yellow dock, or it can be used as a decoction.

Decoctions are necessary when using the harder, denser parts of herbs (i.e. roots, rhizomes and barks). To make a decoction, add 1-2 teaspoons of the chopped, dried root to 350 ml (1.5 cups) of room temperature water in a pot with the lid on and slowly bring it to a boil setting the element or gas burner at medium heat. As soon as it comes to a boil, turn the heat right down so that it is only slightly simmering. Simmer the root for 5 minutes, then turn off the heat and let it steep for another 15-20 minutes. Strain it and drink it. *This is one dose.*

Although the method for making a decoction that I have given above minimizes the use of heat, I prefer not to use decoctions because the continuous application of heat to herbs results in the break-down of some of their active constituents. Instead, I prefer to grind the herb to a coarse powder and prepare it as an infusion. Simply grind 1-2 teaspoons of chopped root and add it to a cup of freshly boiled water. Place some kind of cover on the cup and allow it to steep for 15-20 minutes, then strain and drink it.

It's important that we use herbs that are stored in the "cut and sifted" form (in small chunks) and grind the plant material in unit dose amounts each time we use it because storing the herb as a powder promotes greater oxidation of its active constituents, which also reduces the potency of the herb.

Since 1-2 teaspoons of root is too small an amount to easily grind with a small spice or coffee grinder, it is best to grind it with a mortar and pestle.

Although yellow dock root tea is quite effective, *the tincture is the most effective way to use it*, especially when prepared from the fresh root. The unit dosage depends on the strength of the tincture. I usually prepare 1:5 fresh root tinctures, which means that there is the equivalent of one gram of the fresh root in every 5 ml of tincture. At this strength the typical adult dose is 2.5-5 ml or 0.5-1 teaspoon.

**As with most herbs, the typical dose for yellow dock is 3-4 times per day taken on an empty stomach. The best times are 15-20 minutes before meals and 30-60 minutes before bed. When using the tincture, add it to 25-30 ml (one ounce) of water and hold it in your mouth for 20-30 seconds before swallowing.**



## Oat Straw

- Alternate Names:

Common oat, groats, herb oats, oatgrass, oats, wild oats.

- Latin Name:

Avena sativa

- General Information:

Oatstraw is the herb of longevity. It restores **nervous system integrity**, relieves **anxiety** (It is especially useful for those whose anxiety is combined with excessive nervous energy), restores **emotional flexibility**, and **libido**. As the tall oat plant which sways and dances gracefully with the changing winds yet remains firmly rooted and grounded in the Earth, so too will those who take oat's medicine.

Oats and oatstraw are exceptionally good at nourishing **heart health** and **moderating cholesterol**. The ideal way to consume oatstraw's nutritive and medicinal qualities is in an infusion made by steeping one ounce of dried oatstraw (and dried milky oat tops, if desired) in four cups of boiling water for 4-12 hours. The resulting drink is light, cooling, grassy, slightly sweet, and very nutritious.

**Increases vigor and stamina** (great for those recovering from long-term illnesses as an aid to help **rebuild their strength**).

The oat seeds carry **antispasmodic, cardiac, diuretic, emollient, nervine** and **stimulant** properties.

The straw (dried stems) and the grain have also been prescribed for the treatment of a wide range of **nervous conditions**. Nourishes the **endocrine system** and **regulates hormones**.

The plant has also been shown to help with the **exhaustion** related to **neurological**

**pains** or herbal treatment for **insomnia**, or **multiple sclerosis**. **headaches, migraines, shingles** and **fatigue**. Oats tincture and Oatstraw tea have been recommended for **degenerative wasting conditions** such as **multiple sclerosis** and there is a history of using Oats in **epilepsy** treatments.

A cup of oatstraw infusion contains more than 300 milligrams of calcium plus generous amounts of many other minerals. Its steroidal saponins nourish the **pancreas** and **liver**, **improving digestion** and **stabilizing** and **mellowing moods**.

Oats are considered one of the best remedies for “**feeding**” **the nervous system**, particularly in times of stress and in the case of nervous system weakness or exhaustion associated with depression (Hoffman, 2003), overwork, or emotional trauma. Symptoms may include irritability, chronic fatigue, inability to focus, loss of libido and **heart palpitations**.

Herbal **diuretics** such as oat straw work by **increasing urine flow**, they are used to treat **obesity, lymphatic swelling, retention, nerve inflammation, urinary tract infections, kidney stones** and **skin eruptions**. MayoClinic.Com says diuretics work by forcing your kidneys to put more sodium into your urine, which will take more water along with it. By having less fluid running through your veins, it puts less pressure on your artery walls as well as kidney of bladder problems.

It is also considered a stimulant that homeopaths will use to help treat **liver infections** and **arthritis**.

According to the University of Maryland Medical Center, taking oat straw can help prevent or treat osteoporosis by increasing hormone levels that stimulate cell growth.

Tincturing the milky oats while fresh preserves their bioactive potency. Alternatively, milky oats can be dried and used as a nutritive tonic, and are a beautiful addition to tea blends.

### ***External Benefits***

Cooled, prepared oat straw tea can be placed directly on your skin or added to a bath that

can help nourish **dry skin** as well as treat **mild eczema**. Oat straw is also used as a folk remedy to treat warts. Because oat straw contains high amounts of silica, which is the main ingredient in our nails, it can help keep your toenails and fingernails strong and free from splitting. Oat straw has **emollient** qualities that can benefit your hair. Use the tea as a hair rinse to add body and shine.

The rich and hydrating milky nature of oats is welcome relief for soothing itchy skin conditions such as poison ivy, chicken pox, or other stress-related skin conditions. Tie a muslin bag (or a clean sock) full of oats in the running stream of bathwater to add milky emollients to the water, and then squeeze the oat milk from the bag directly onto your skin, rubbing gently. And speaking of baths, adding ½ gallon of oatstraw infusion to bathwater is a lovely way to relax, rejuvenate, and refresh.

- **Key Actions or Components**

Oatstraw infusion (not tea, not tincture, not capsules) provides lots of protein, all macro- and trace-mineral in high amounts, calcium, and very high amounts of B vitamins - excepting vitamin B12. Oat straw contains protein (avenins), saponins, flavonoids, alkaloids, steroidal compounds, vitamins B1, B2, D, E, carotene, starch, and fat. It also contains minerals such as calcium, magnesium and iron and trace elements like silicon and potassium.

Research now shows that it contains the anti-tumor compound b-sitosterol and there are some suggestions that the chances of cancer in the bowel may be reduced by eating oats regularly, as well as cancers in general.

There is also some evidence to suggest that the consumption of the oats helps to naturally lower the blood sugar levels in the body and that it could be helpful as an herbal remedy for diabetics, and painful muscles as well as for kidney or bladder problems.

Oat straw does not contain gluten like other grains such as wheat, barley and rye. It does contain a protein known as *avenin* that is well tolerated by most people with Celiac disease and those with gluten intolerance or sensitivity.

- **Plant Description and Medicinal Parts**

Oatstraw is the name given to the stem of the oat plant harvested during the milky oat stage, when it is still green. The oat straw plant is an annual grass. It stands erect with a flat, rough, but elongated leaf. It has a golden seed shaped much like a spindle. All of the immature plant is used for medicinal purposes except for the roots. If the plant is allowed to mature, then it is dried and the seeds are removed and used as the popular grain known as oats. The entire plant is nutrient rich and is commonly taken as a tea. . The oat plant, including oat straw, is considered safe, but you should first speak to your physician before using oat straw as a diuretic to prevent any other medical complications,

It is in flower during June and July. The seeds ripen from August to October. The flowers have both male and female organs and are pollinated by the wind.

Plant Parts Used: Grain, straw, and seed.

**14) Side Effects, Interactions, or Cautions:**

There are no known drug or nutrient interaction associated with the use of oat straw but for those that are allergic to oat flour, it could be a good idea to stay clear of any products containing oat straw. ***Toxicity:** None Reported*

**15) Dosage and Instruction:**

Taken as an extract the typical dosage of oat straw is around 2-3 tsp to 1 cup of boiling water and then leave it for 10-15 minutes before drinking.

As an alcohol tincture the typical dosage is 3-5 ml 3 times each day.

For the use in the bathtub, make an infusion adding around 1lb oat straw to 2 quarts boiling water and leave it for 30 minutes. As a tincture, milky oats are indicated for the same nervous system conditions as oatstraw (exhaustion, depression, insomnia, anxiety, sexual debility), but in more acute cases when the symptoms are more severe, or in cases of drug and alcohol withdrawal (Bennett, 2014). In this case, milky oats tincture can be taken along with daily oatstraw infusions.





## Henbit

- **Alternate Names:** Dead Nettle
- **Latin Name:** Lamium amplexicaule
- **General Information:**

Henbit can be consumed fresh or cooked as an edible herb, and it can be used in teas. The stem, flowers, and leaves are edible, and although this is in the mint family, many people say it tastes slightly like raw kale, not like mint. Henbit is very nutritious, high in iron, vitamins and fibre. You can add raw henbit to salads, soups, wraps, or green smoothies. This plant is anti-rheumatic or anti-inflammatory for relieving chronic pain and discomfort in joints and connective tissue. It's a diaphoretic to induce sweating, an excitant which increases the functional activity of the spinal cord and the motor cortex/motor functions, febrifuge for reducing fever, a gentle laxative and a stimulant. It also acts as an astringent to close the skin's pores and contracting skin tissue. Excellent for assisting in the healing of wounds, and a tea can be used to treat diarrhea.

Henbit Dead-nettle is a small, slightly hairy annual plant which is found on dry, cultivated and waste ground. It grows to about 25 cm in height, flowering from March to November. It bears small, downy, pink-purple **flowers** (12–18 mm long) which have deep purple blotches on the 2-lobed lower lip of the corolla tube. These flowers are borne in whorls and not all of them open as it can be self-pollinating; however it can also bear seed and this can be dispersed by insects to other sites. The round, oppositely-paired **leaves** are lobed with deep, net-veins and the plant is somewhat similar to Red Dead-nettle but occurs far less commonly than that plant. It is a native plant and belongs to the family Lamiaceae.



## **Bitter Nightshade Herb**

- **Alternate Names:**

Woody nightshade, bittersweet, poisonberry, Amargamiel, Bitter Nightshade, Bittersweet, Blud Nightshade, Common Nightshade, Deadly Nightshade, Dulcamara, Fellen, Fellonwood, Felonwort, Fever Twig, Violet Bloom, Woody, Woody Nightshade.

- **Latin Name:**

Solanum dulcamara

- **General Information:**

Although bittersweet nightshade is a relatively weak poison, especially in youth it can be deadly. It is used almost exclusively for external problems. Use it as a poultice for **gout, herpes, furuncles, warts, ringworms, shingles, old ulcers, Skin cancer** type issues (use with Yellow dock or vinca) and **felons** (hemorrhoids).

Dulcamara is used as a starting material for steroids and is confirmed by scientists to be significant in **anti-cancer activity**. The flowers contain solasodine, which has been used in creams to treat **skin cancer** lesions. The root contains beta-solamarine, another anti-skin-cancer chemical.

The herb was used in treating all kinds of **sores and swellings** and used to lower the level of **inflammations** affecting the region around the fingernails and the toenails. The medical community stopped using this plant for any medicinal purpose long ago. However, recent clinical research suggests that the bittersweet herb contains a useful **tumor** inhibiting chemical component called beta-solamarine - this compounds may be useful in treating **cancer** and **carcinogenic tumors**. Traditionally, the herb had other uses as well, the extract of the stem was normally prescribed by herbalists, this extract was used as a **sedative**, as a **pain relieving agent**, and as a **diuretic**. This extract was also given to **asthma** patients.

Combined with chamomile it makes a good ointment for **swellings, bruises, sprains, and corns**. For **skin diseases** and **sores**, combine with yellow dock.

The Delaware, Iroquois, Micmac, and Nootka Indians used bittersweet as a poultice to treat **arthritis** (interesting considering that nightshades are often thought to aggravate this condition), **skin ailments, digestive complaints**. Juice from the crushed twigs was used externally to treat **bruises**. In Eclectic medicine, the root was made into a **poultice** for illness that manifested itself on the skin.

**Expectorant**, and also possesses detoxifying abilities. The bittersweet is very effective when consumed to treat different kinds of skin problems like long term **eczema, persistent itchiness** on the skin, disorders such as **psoriasis**, as well as warts. Bittersweet can also be used as a remedy to bring relief from asthma, and to treat related respiratory illnesses such as chronic bronchitis and rheumatic problems. The bittersweet is also effective in treating gout and related disorders.

- **Key Components or Medicinal Uses**

Anodyne (Pain Killer, may be narcotic), diuretic (Gets rid of water), emetic (Causes vomiting), herpatic (for use with Herpes type diseases), purgative (Laxative).

- **Medicinal Parts**

The dried young branches from indigenous plants, taken when they have shed their

leaves, were the parts directed for use up to 1907, by the British Pharmacopoeia, but it has been removed from the last two editions.

The shoots, preferably the extreme branches, are collected from two- to three year-old branches, after the leaves have fallen in the autumn, cut into pieces about 1/2 inch long, with a chaff cutter, and then carefully dried by artificial heat. They require no other preparation. The peculiar unpleasant odour of the shoots is lost on drying.

Solanine acts narcotically; in large doses it paralyses the central nervous system, without affecting the peripheral nerves or voluntary muscles. It slows the heart and respiration, lessens sensibility, lowers the temperature and causes vertigo and delirium, terminating in death with convulsions.

**---Medicinal Action and Uses---**The drug possesses feeble narcotic properties, with the power of increasing the secretions, particularly those of the skin and kidneys. It has no action on the pupil of the eye.

It is chiefly used as an alterative in skin diseases, being a popular remedy for obstinate skin eruptions, scrofula and ulcers.

It has also been recommended in chronic bronchial catarrh, asthma and whooping cough.

For chronic rheumatism and for jaundice it has been much employed in the past, an infusion of 1 OZ. of the dried herb to 1/2 pint water being taken in wineglassful doses, two or three times daily. From the fluid extract made from the twigs, a decoction is prepared of 10 drams in 2 pints of boiling water, boiled down to 1 pint, and taken in doses of 1/2 to 2 OZ. with an equal quantity of milk.

The berries have proved poisonous to a certain degree to children. (A Modern Herbal)

Fluid extract, 1/2 to 2 drams (1/8 fluid oz or 22.67 g).

An extract of the leaves or tops is frequently prepared also; 10 lb. of the dried shoots yield about 2 lb. of the extract. A decoction of the dried herb is likewise used.

The drug occurs in commerce in short, cylindrical pieces of a light greenish, or brownish-yellow colour, about 1/4 inch thick, bearing occasional alternate scars where the leaves have fallen off, and are quite free from hairs, and more or less longitudinally furrowed and wrinkled. A thin, shining bark surrounds the wood, which is lined internally by a whitish pith, which only partially fills it, leaving the centre hollow.

The active properties of Bittersweet are most developed when it grows in a dry and exposed situation. The bitterness is more pronounced in the spring than in the autumn, and in America the shoots are gathered while still pliant, when the plant is just budding, though the British Pharmacopoeia directs that they shall be collected in the autumn.

The STEM of bittersweet nightshade might be safe for most adults. But, the LEAVES or BERRIES are **UNSAFE**, and are very poisonous. Symptoms of poisoning include: *scratchy throat, headache, dizziness, enlarged eye pupils, trouble speaking, low body temperature, vomiting, diarrhea, bleeding in the stomach or intestines, convulsions, slowed blood circulation and breathing, and even death.*

*The bittersweet must be taken in small doses, as large doses can bring on side effects such as dryness, and heat with stinging pain in the face,*

An herbal bittersweet **decoction** made from the twigs can also be used as a topical remedy, when this decoction is applied as an herbal wash on the skin, it can help reduce the severity of these disorders and ease the symptoms.

Contains: **atropine, scopolamine, and solanine** (like the green poison of potatoes). These alkaloidtoxins affect the neurotransmitter acetylcholine. **Atropine's** most common use is probably as an emergency treatment for bradycardia. **Scopolamine** is usually used for

motion sickness and nausea, dilates pupils.

Its alkaloids are not psychoactive. This perennial climber likes watery places, such as riverbanks, and borders, like the edge of the woods or fences. It can get up to 12 feet long and flowers through summer. The berries are poisonous when unripe (green), but only mildly poisonous when ripe (red). That said, they smell funny and have a snotty texture, so I have never tried them myself. This herb is nowhere near as dangerous as deadly nightshade, but children should never eat these berries at any stage, because they are more sensitive to alkaloids. Birds find the berries tasty, though.

- **Special Precautions & Warnings:**

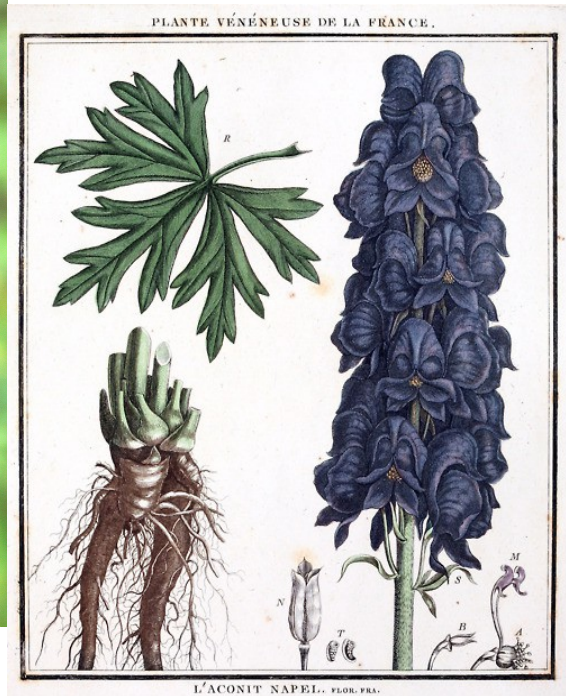
Symptoms of solanine poisoning include:

- Diarrhea
- Fever or lower than normal body temperature (hypothermia)
- Headache
- Slow pulse and/or breathing
- Stomach or abdominal pain
- Vomiting

Bittersweet nightshade (solanum dulcamara) should not be taken internally without medical supervision. Contains steroids, toxic alkaloids, and glucosides. Will cause vomiting, vertigo, convulsions, weakened heart, and paralysis.

- **Warnings:**

Bittersweet nightshade (solanum dulcamara) should not be taken internally without medical supervision. Contains steroids, toxic alkaloids, and glucosides. Will cause vomiting, vertigo, convulsions, weakened heart, and paralysis.



## Aconite

# POISON!!!

***Do Not Touch With Open Wound, but it will affect the whole system through the skin.***

**Alternate Names:** Monks-hood, Wolfsbane, *Aconitum napellus*, Blue Rocket, Friar's Cap, Auld Wife's Huid

### **General Information:**

DO NOT USE WITHOUT KNOWLEDGE. CAN BE FATAL!

Extracts of *Aconitum* species have been given orally in traditional medicine to **reduce fever** associated with **colds, pneumonia, laryngitis, croup,** and **asthma**; for **pain, inflammation,** and **high blood pressure**; as a **diuretic**; to **cause sweating**; to **slow heart rate**; and for **sedation**. In traditional Asian medicine, root extracts are typically mixed with licorice or ginger. Extracts also have been used as **arrow poisons**.

Historically, aconite was most commonly used in Western cultures as a tincture. It was **applied topically** as a **counter irritant liniment** for **neuralgia**,

**rheumatism**, and **sciatica**. In homeopathy, aconite is used to treat fear, anxiety, and restlessness; acute sudden fever; symptoms from exposure to dry, cold weather or very hot weather; tingling, coldness, and numbness; influenza or colds with congestion; and heavy, pulsating headaches.

- **Plant Parts Used and Dosages**

***What is the recommended dosage?***

Extreme caution is required. **Fresh aconite is extremely toxic**, and **safe dosage is dependent on processing**. Many species are used medicinally in China only after processing. Traditional Western texts recommended **60 mg** of the root per dose.

**Parts used:** The whole Plant. In the Anglo-Saxon vocabularies it is called *thung*, which seems to have been a general name for any very poisonous plant. It was then called Aconite (the English form of its Greek and Latin name), later Wolf's Bane, the direct translation of the Greek *lycotonum*, derived from the idea that arrows tipped with the juice, or baits anointed with it, would kill wolves.

**Collection and Drying.** The leaves, stem, flowering tops and root: the leaves and tops fresh, the root dried. The leaves and flowering tops are of less importance, they are employed for preparing Extract of Aconitum, and for this purpose are cut when the flowers are just breaking into blossom and the leaves are in their best condition, which is in June.

The roots should be collected in the autumn, after the stem dies down, but before the bud that is to produce the next year's stem has begun to develop. As this bud grows and forms a flowering stem, in the spring, some of the lateral buds develop into short shoots, each of which produces a long, slender, descending root, crowned with a bud. These roots rapidly thicken, filled with reserve material produced by the parent plant, the root of which dies as the 'daughter' roots increase in size. Towards the autumn, the parent plant dies down and the daughter roots which have then reached their maximum development are now full of starch. If allowed to remain in the soil, the buds that crown the daughter roots begin to grow, in the late winter, and this growth exhausts the strength of the root, and the proportion of both starch and alkaloid it contains is lessened.

On account of the extremely poisonous properties of the root, it is considered desirable that the root should be grown and collected under the same conditions, so that uniformity in the drug is maintained. The British Pharmacopoeia specifies, therefore, that the roots should be collected in the autumn from plants cultivated in Britain and should consist of the dried, full-grown 'daughter' roots: much of the Aconite root that used to come in large quantities from Germany was the exhausted parent root of the wild-flowering plants.

When the roots are dug up, they are sorted over, the smallest laid aside for replanting and the plumper ones reserved for drying. They are first well washed in cold water and trimmed of all rootlets, and then dried, either entire, or longitudinally sliced to hasten drying.

Drying may at first be done in the open air, spread thinly, the roots not touching. Or they may be spread on clean floors or on shelves in a warm place for about ten days, turning frequently. When somewhat shrunken, they must be finished more quickly by artificial heat in a drying room or shed near a stove or gas fire, care being taken that the heated air can escape at the



top of the room. Drying in an even temperature will probably take about a fortnight or more. It is not complete till the roots are dry to the core and brittle, snapping when bent.

Dried Aconite root at its upper extremity, when crowned with an undeveloped bud, enclosed by scaly leaves, is about 3/4 inch in diameter, tapering quickly downwards. It is dark brown in colour and marked with the scars of rootlets. The surface is usually longitudinally wrinkled, especially if it has been dried entire. The root breaks with a short fracture and should be whitish and starchy within. A transverse section shows a thick bark, separated from the inner portion by a well-marked darker line, which often assumes a stellate appearance. Aconite root as found in commerce is, however, often yellowish or brownish internally with the stellate markings not clearly shown, probably from having been collected too early. It should be lifted in the autumn of the second year.

Aconite root is liable to attack by insects, and after being well dried should be kept in securely closed vessels.

Tinctures vary enormously as to strength, some proving seven times as powerful as others. The Aconite which contains the best alkaloid, A. Napellus, is the old-fashioned, familiar garden variety, which may be easily recognized by its very much cut-up leaves, which are wide in the shoulder of the leaf - that part nearest the stem - and also by the purplish-blue flowers, which have the 'helmet' closely fitting over the rest of the flower, not standing up as a tall hood. All varieties of Aconite are useful, but this kind with the close set in helmet to the flower is the most valuable.

The Aconite derived from German root of A. Napellus appears to possess somewhat different properties to that prepared from English roots. The German roots may be recognized by the remains of the stem which crown the root. They are also generally less starchy, darker externally and more shrivelled than the English root and considered to externally and more shrivelled than the English root and considered to be less active, probably because they are generally the exhausted parent roots.

### **Medicinal Actions and Usage:**

Anodyne, diuretic and diaphoretic. The value of Aconite as a medicine has been more fully realized in modern times, and it now rank as one of our most useful drugs. It is much used in homoeopathy. On account of its very poisonous nature, all medicines obtained from it come, however, under Table 1 of the poison schedule: Aconite is a deadly poison.

Both tincture and liniment of Aconite are in general use, and Aconite is also used in ointment and sometimes given as hypodermic injection. Preparations of Aconite are employed for outward application locally to the skin to diminish the pain of neuralgia, lumbago and rheumatism.

The official tincture taken internally diminishes the rate and force of the pulse in the early stages of fevers and slight local inflammations, such as feverish cold, laryngitis, first stages of pneumonia and erysipelas; it relieves the pain of neuralgia, pleurisy and aneurysm. In cardiac failure or to prevent same it has been used with success, in acute tonsillitis children have been well treated by a dose of 1 to 2 minims for a child 5 to 10 years old; the dose for adults is 2 to 5 minims, three times a day.

---Note---The tincture of Aconite of the British Pharmacopoeia 1914 is nearly double the

strength of that in the old Pharmacopoeia of 1898.

Externally the liniment as such or mixed with chloroform or belladonna liniment is useful in neuralgia or rheumatism.

## **Warning**

### ***Toxicities***

*Aconitine is highly toxic.* As little as 2 mg of pure aconite or 1 g of plant may cause death from paralysis of the respiratory center or cardiac muscle. Clinically important toxicity may develop following percutaneous absorption; even slight contact with the flowers can cause fingers to become numb.

As these alkaloids can **enter the bloodstream from very small cuts**, it is always recommended that plants be handled with gloves and avoid any skin contact. The drug was used as a diuretic and a diaphoretic. In proper quantities, relief from pain was obtained. The root was sometimes mistaken for Horse-radish by some diggers with sad results. In modern times use of Monkshood is much reduced.

**---Poisoning from, and Antidotes---**The symptoms of poisoning are tingling and numbness of tongue and mouth and a sensation of ants crawling over the body, nausea and vomiting with epigastric pain, laboured breathing, pulse irregular and weak, skin cold and clammy, features bloodless, giddiness, staggering, mind remains clear. A stomach tube or emetic should be used at once, 20 minims of Tincture of Digitalis given if available, stimulants should be given and if not retained diluted brandy injected per rectum, artificial respiration and friction, patient to be kept lying down.

All the species contain an active poison Aconitine, one of the most formidable poisons which have yet been discovered: it exists in all parts of the plant, but especially in the root. The smallest portion of either root or leaves, when first put into the mouth, occasions burning and tingling, and a sense of numbness immediately follows its continuance. One-fiftieth grain of Aconitine will kill a sparrow in a few seconds; one-tenth grain a rabbit in five minutes. It is more powerful than prussic acid and acts with tremendous rapidity. One hundredth grain will act locally, so as to produce a well-marked sensation in any part of the body for a whole day. So acrid is the poison, that the juice applied to a wounded finger affects the whole system, not only causing pains in the limbs, but a sense of suffocation and syncope.

Some species of Aconite were well known to the ancients as deadly poisons. It was said to be the invention of Hecate from the foam of Cerberus, and it was a species of Aconite that entered into the poison which the old men of the island of Ceos were condemned to drink when they became infirm and no longer of use to the State. Aconite is also supposed to have been the poison that formed the cup which Medea prepared for Theseus. (Note---Aconite and Belladonna were said to be the ingredients in the witches' 'Flying ointments.' Aconite causes irregular action of the heart, and Belladonna produces delirium. These combined symptoms might give a sensation of 'flying.'---EDITOR)

Various species of Aconite possess the same narcotic properties as *A. Napellus*, but none of them equal in energy the *A. ferox* of the East Indies, the root of which is used there as an energetic poison under the name of Bikh or Nabee. Aconite poisoning of wells by *A. ferox* has been carried out by native Indians to stop the progress of an army. They also use it for

poisoning spears, darts and arrows, and for destroying tigers.

All children should be warned against Aconite in gardens. It is wiser not to grow Aconite among kitchen herbs of any sort. The root has occasionally been mistaken for horse-radish, with fatal results - it is, however, shorter, darker and more fibrous - and the leaves have produced similar fatal results. In Ireland a poor woman once sprinkled powdered Aconite root over a dish of greens, and one man was killed and another seriously affected by it.

Linnaeus reports Aconite to be fatal to cattle and goats when they eat it fresh, but when dried it does no harm to horses, a peculiarity in common with the buttercups, to which the Aconites are related. Field-mice are well aware of its evil nature, and in hard times, when they will attack almost any plant that offers them food, they leave this severely alone.

Parkinson, speaking of the Yellow Monkshood, calls it:

'The "counter-poison monkshood" - the roots of which are effectual, not only against the poison of the poisonous Helmet Flower and all others of that kind, but also against the poison of all venomous beasts, the plague or pestilence and other infectious diseases, which raise spots, pockes, or markes in the outward skin, by expelling the poison from within and defending the heart as a most sovereign cordial.'

The so-called Winter Aconite, *Aeranthus hyemalis*, is not a true Aconite, though closely allied, being also a member of the Buttercup family, whose blossoms it more nearly resembles.

<https://www.botanical.com/botanical/mgmh/a/aconi007.html>

Also see:

DELPHINIUM

FIELD LARKSPUR

STARVEACRE

## **Growing Instructions**

Aconite prefers a soil slightly retentive of moisture, such as a moist loam, and flourishes best in shade. It would probably grow luxuriantly in a moist, open wood, and would yield returns with little further trouble than weeding, digging up and drying.

In preparing beds for growing Aconite, the soil should be well dug and pulverized by early winter frosts - the digging in of rotten leaves or stable manure is advantageous.

It can be raised from seed, sown 1/2 inch deep in a cold frame in March, or in a warm position outside in April, but great care must be exercised that the right kind is obtained, as there are many varieties of Aconite- about twenty-four have been distinguished - and they have not all the same active medicinal properties. It takes two or three years to flower from seed.

Propagation is usually by division of roots in the autumn. The underground portion of the plants are dug up after the stem has died down, and the smaller of the 'daughter' roots that have developed at the side of the old roots are selected for replanting in December or January to form new stock, the young roots being planted about a foot apart each way. The young shoots appear above ground in February. Although the plants are perennial, each distinct root lasts only one year, the plant being continued by 'daughter' roots. All grow well in shade and under trees.



## Giant Larkspur

- Alternate Names:

Lark's Heel. Lark's Toe. Lark's Claw. Knight's Spur, The name *Consolida* refers to the plant's power of consolidating wounds. *Consolida ajacis*, *Delphinium ajacis*, *Delphinium ambiguum*. Family: Ranunculaceae (Buttercup Family)

- Latin Name:

*Consolida ambigua*

- General Information:

Used to destroy **lice** and **nits** in the hair Use a tincture to drop the medicine directly on the scalp. (During the Great War, when the men in the trenches took the trouble to use it, the results were said to be quite successful.) The tincture, given in 10-drop doses, gradually increased, is also employed in **spasmodic asthma** and **dropsy** (Edema or water retention). The expressed juice of the leaves is considered good as an application to **bleeding piles (hemmeroids)**, and a conserve made of the flowers was formerly held to be an excellent medicine for children when subject to violent purging. The juice of the flowers and an infusion of the whole plant was also prescribed against **colic**. The expressed juice of the petals with the addition of a little alum makes a good **blue ink**. However, higher doses can be very poisonous and it should not be used internally without the guidance of an expert. Externally, it can be used as a **parasiticide**. The seed is **insecticidal**.

- Key Components

*Aconitine* was previously used as an antipyretic and analgesic and still has some limited application in herbal medicine although the narrow therapeutic index makes calculating appropriate dosage difficult. The part used medicinally is the seed, a tincture of which in like manner acts as a parasiticide and insecticide

- **Medicinal Part**

Leaves and Seeds, The flowers are in short racemes, pink, purple or blue, followed by glabrous follicles containing black, flattened seeds with acute edges and pitted surfaces. The seeds are poisonous, have an acrid and bitter taste, but are inodorous.

- **Habitat and Growing Instructions:**

Grows wild, frequently in corn fields.

- **Time to Harvest:**

Summer Fall

- **Side Effects:**

The active principle of the plant- Delphinine - is the same as in Stavesacre and is an **irritant poison**. Children should be warned against putting any part of this plant, or of its garden representatives, into their mouths. The seeds are especially dangerous, and cause vomiting and purging if eaten. How Poisonous, How Harmful? Quite closely related to the Aconitum genus, its principle alkaloid, delphinine, is similar to aconitine. Ingestion leads to nausea, vomiting, abdominal pain, muscular spasms. If fatal, death is usually due to respiratory collapse or cardiac arrest.



## **Herb: Peach**

**Latin name:** *Prunus persica*

**Alternate Names:** *Amygdalis persicus*, *Persica vulgaris*

**Family:** Rosaceae (Rose Family)

### **Medicinal use of Peach:**

Antihalitosis. The leaves are astringent, demulcent, diuretic, expectorant, febrifuge, laxative, parasiticide and mildly sedative. They are used internally in the treatment of gastritis, whooping cough, coughs and bronchitis. They also help to relieve vomiting and morning sickness during pregnancy, though the dose must be carefully monitored because of their diuretic action. The dried and powdered leaves have sometimes been used to help heal sores and wounds. The leaves are harvested in June and July then dried for later use. The flowers are diuretic, sedative and vermifuge. They are used internally in the treatment of constipation and oedema. A gum from the stems is alterative, astringent, demulcent and sedative. The seed is antiasthmatic, antitussive, emollient, haemolytic, laxative and sedative. It is used internally in the treatment of constipation in the elderly, coughs, asthma and menstrual disorders. The bark is demulcent, diuretic, expectorant and sedative. It is used internally in the treatment of gastritis, whooping cough, coughs and bronchitis. The root bark is used in the treatment of dropsy and jaundice. The bark is harvested from young trees in the spring and is dried for later use. The seed contains "laetrile", a substance that has also been called vitamin B17. This has been claimed to have a positive effect in the treatment of cancer, but there does not at present seem to be much evidence to support this. The pure substance is almost harmless, but on hydrolysis it yields hydrocyanic acid, a very rapidly acting poison - it should thus be treated with caution. In small amounts this exceedingly poisonous compound stimulates respiration, improves digestion and gives a sense of well-being.

**Known hazards of *Prunus persica*:**

The seed can contain high levels of hydrogen cyanide, a poison that gives almonds their characteristic flavour. This toxin is readily detected by its bitter taste. Usually present in too small a quantity to do any harm, any very bitter seed or fruit should not be eaten. In small quantities, hydrogen cyanide has been shown to stimulate respiration and improve digestion, it is also claimed to be of benefit in the treatment of cancer. In excess, however, it can cause respiratory failure and even death.



## Plantain

- Alternate Names:

Great Plantain, Broadleaf Plantain

- Latin Name:

*Plantago subnuda*

- General Information:

For use in assisting with **Diabetes**. Exhibits **Anti-tumor** activity. **Anti-inflammatory**. The leaves, when young, are edible (they become too tough as they age) and are similar to spinach, but is slightly bitter. They can be used in salads, and are good for the liver. **Indigestion, heartburn, and ulcers** are treated with Plantain Tea. Used traditionally for **diarrhea, dysentery, and bloody urine**. Leaves in poultice used for **sores, blisters, swellings, and insect stings**.

The seeds of any plantain may **lower cholesterol** when ingested. Once used for **malaria** and **epilepsy**. Externally, it is great in a Salve for **Coldsores**. Approved for use in Europe due to **bronchialiation** (a substance that dilates the bronchi and bronchioles, decreasing resistance in the respiratory airway and increasing airflow to the lungs. ) effects, and proven as an **antimicrobial**. It is a good source of **nutrition**. Plantain is best recognized as the plant that you make a poultice using your teeth and apply it to a fresh cut to stop the **infection** and **stop bleeding**.

This plant is apparently the best in the field of **blood poisoning** treatment. Plantain is an Alterative meaning it **cleans and corrects impure conditions in the blood**. It is also a **diuretic** so it is useful for **bladder** and **kidney** problems and it helps reduce water retention. It stops **itching** from insects, stinging nettle, and it can help to draw out poisons from **snake bites**. (Although keep in mind it is imperative to seek medical help if you have been bitten by a poisonous snake.) Plantain has also been known to help alleviate the **pain of poison ivy and burns**. Plantain roots can be powdered and used on toothaches. Using a fresh root by chewing it can bring relief. Plantain and its cousin psyllium are both useful for **weight loss**. Plantain contains mucilage which acts as an **appetite suppressant** while reducing the intestinal absorption of fat and bile. It also **lowers LDL cholesterol** and the triglyceride



levels in the blood. Plantain usually **lowers blood sugar**.

Finally, the seeds can be used on a salad or stored as herbal medicine. The seeds are nature's "Metamucil".

- **Key Components**

It contains seven flavonoids, beta-carotene, crude fibre, dietary fibre, fat, protein, and carbohydrates. It also contains vitamins A, B1, B2, B3, C, and K. Plantain also contains calcium, chromium, iron, magnesium, manganese, phosphorus, potassium, selenium, and zinc.

Plantago constituents include acids (eg, benzoic (*prevents infection*), caffeic, (*antioxidant and anti-inflammatory effects. It might also affect the immune system in the body. Test tube studies show that it might decrease the growth of cancer cells and viruses.*) chlorogenic (*may improve glucose metabolism and reduce blood pressure. This may have benefits for people who are at high risk of diabetes and heart disease*), cinnamic (*used in the manufacture of flavors, substitute indigo dyes, and pharmaceuticals; but its major use is for the production of its methyl, ethyl, and benzyl esters. These esters are important components of perfumes. The acid is also a precursor to the sweetener aspartame*), p-coumaric (*mainly a plant metabolite which exhibits antioxidant and anti-inflammatory properties. It also shows bactericidal activity by damaging bacterial cell membrane and by interacting with bacterial DNA*), fumaric (*related to malic acid, and, like malic acid, it is involved in the production of energy (in the form of adenosine triphosphate [ATP]) from food.*), salicylic acid (Salicylic acid is a keratolytic (peeling agent). Salicylic acid causes shedding of the outer layer of skin.

Salicylic acid topical (for the skin) is used in the treatment of acne, dandruff, seborrhea, or psoriasis, and to remove corns, calluses, and warts.

- Contains Ursolic, (*blocks the formation of fat cells. It also improves energy use, free fatty acids*) vanillic (*a flavoring agent and effective anti periodontal disease*), ascorbic), alkaloids (ie, boschniakine (*pheromone*), and amino acids (eg, alanine (*It is involved in sugar and acid metabolism, increases IMMUNITY, and provides energy for muscle tissue, BRAIN, and the CENTRAL NERVOUS SYSTEM.*), asparagine, (*is known for its key role in the biosynthesis of glycoproteins. In addition, it is also essential for the synthesis of many other proteins. Human nervous system also needs this amino acid to be able to maintain an equilibrium.*) histidine, (*An essential amino acid that is required for the production of HISTAMINE*) lysine (*It is one of the building blocks of proteins and is necessary for human health. The body does not make lysine on its own, but most people take in enough through their diet to meet basic health needs.*)
- The seeds are coated with mucilage (cough) (20% to 30%; located only in the epidermis of the testa). An analysis of 8 of 21 Egyptian species of plantago, including P. major, identified a variety of sugar and polysaccharide components of the seed mucilage, including galactose, glucose, xylose, arabinose, and rhamnose. In addition, galacturonic acid, planteose, plantiobiose, sucrose, and fructose have been identified.
- Other plant carbohydrates such as saccharose, stachyose, sorbitol, and tyrosol have also been reported. The seed mucilage of P. ovata had better suspending and emulsifying power than tragacanth and methylcellulose. Leaf mucilage has also been reported and includes polysaccharides containing rhamnose, L-arabinose, mannose, galactose, and dextrose.

- Additionally, the seeds contain fixed oil, protein, iridoids, and tannins. The gel-forming fraction of the seed was effective in prolonging release rates of tetracycline invitro.

Flavonoids found in plantago include apigenin (*has anti-inflammatory, anti-carcinogenic, and antioxidant properties that help combat the development of cancer.* ), baicalein (*a type of flavonoid, originally isolated from the roots of Scutellaria baicalensis and Scutellaria lateriflora. ... Baicalein is one of the active ingredients of Sho-Saiko-To, a Chinese herbal supplement believed to enhance liver health. It has shown great potential in the treatment and prevention of cancer without causing severe side effects.* ), and scutellarein (*same as Skullcap Herb*). *Isolation and identification of flavonoids and saponins from the related species P. tomentosa have been reported.* )

Iridoids found in plantago are aucubin, (*found to protect against liver damage* ) plantarenalosite, and aucuboside. The main iridoids aucubin and catalpol have been isolated from P. lanceolata, P. major, and P. media leaves using high-pressure liquid chromatography analysis. Iridoid glycosides and phenolic acids have been found in leaf extracts of P. lanceolata and P. media.

Other components of the plant include choline, fat, resin, steroids, and vitamins. Specifically, P. major may be considered a good source of vitamin C and carotenoids.

Reports on the related species P. asiatica list such constituents as a new phenylethanoid glycoside, aucubin, plantagin, and plantamajosite.

- **Medicinal Parts**

Leaves and Seeds

- **Habitat and Growing Instructions:**

Found in disturbed areas and waste places ranging from mid-Canada to Florida, though it is an alien weed.

- **Time to Harvest:**

Summer

- **Side Effects:**

Rarely, contact with this plant can cause dermatitis.

Also stop using salicylic acid topical and call your doctor at once if you have:

- severe headache, ringing in your ears, problems with hearing, thinking problems;
- severe stomach pain, vomiting, or diarrhea;
- a light-headed feeling, like you might pass out;
- shortness of breath; or
- severe burning, dryness, or irritation of the skin.

Common side effects may include:

- minor skin irritation, rash, or peeling; or

changes in the color of treated skin (usually whitening).

- **Other Medical Information:**

“*Plantago major* (Plantaginaceae) is popularly used to treat tumors, infections and as a blood purifier. Aqueous, methanol, chloroform and hexane extracts of the aerial parts (leaves and seeds) were added to CD(1) mice bone marrow and spleen cultures incubated at 37 degrees C for 72h, and also added to *Escherichia coli*, *Bacillus subtilis* and *Candida albicans* cultures, while methanol extract dilutions were added to HTC-15, OVCAR, UISO and KB cell line cultures. Doses of 0.4 and 0.2 mg/mL of aqueous and methanol extracts increased the bone marrow cell concentration by 2.70- and 3.15-fold, respectively, and increased the spleen cell concentration by 3.38- and 6.39-fold, respectively ( $p < 0.001$ ). Aqueous extract inhibited *Bacillus subtilis* growth from 78 to 21%; hexane extract inhibited the growth of *Escherichia coli*, and methanol and chloroform extracts weakly inhibited the growth of *Bacillus subtilis* and *Escherichia coli*, respectively. Methanol extract (1 microg/mL) decreased the UISO and OVCAR cell concentrations to 59 and 82%, respectively. Data demonstrate for the first time that *Plantago major* has hematopoietic (Stem Cell) activity invitro.”





## Wormwood

- Alternate Names:

- Grand Wormwood, Absinthe, Absinthium, Absinthe Wormwood, Green Ginger, Madderwort,

- Latin Name:

*Artemisia absinthium*

- General Information:

As medicine, it is used for **dyspepsia** (indigestion), as a bitter to counteract **poor appetite**, for various **infectious diseases**, **Crohn's disease**, and **IgA nephropathy** (a kidney disease that occurs when an antibody called immunoglobulin A (IgA) builds up in your kidneys. This results in local inflammation that, over time, can hamper your kidneys' ability to filter waste from your blood.) In the Middle Ages, wormwood was used to spice mead, and in Morocco it is used with tea. In 18th century England, wormwood was sometimes used instead of hops in beer. Used **Biliary dyskinesia** (a disorder of the digestive system in which bile physically can not move normally in the proper direction through the tubular biliary tract.) **Malaria** (quickly reduces the number of parasites in the blood of patients with malaria. The World Health Organization recommends artemisinin-based combination therapies as first-line treatment for uncomplicated *P. falciparum* malaria.) **Cancer**, (Wormwood can battle iron-enriched breast cancer cells similar to the way it eliminates malaria-causing parasites, making it a potential natural cancer treatment option for women with breast cancer. When studied, it was found within 16 hours of dosing, almost all of the cancer cells were dead and only a few normal cells were killed. Breast cancer cell contains five to 15 more receptors than normal and so they absorb iron more

readily, and are more susceptible to artemisinin's attack.) **Parasites** (eliminate intestinal worms, especially pinworms and roundworms. Pinworms are the most common worm infection in the U.S. with pinworm eggs spread directly from person to person. Roundworms, or nematodes, are parasites that also infect human intestines. Pinworms can cause extreme itching in the anal region while roundworms can cause cough, shortness of breath, abdominal pain, nausea and diarrhea, blood in the stool, weight loss, and presence of the worm in vomit or stool. Wormwood (*Artemisia absinthium*), black walnut (*Juglans nigra*), and clove (*Syzygium aromaticum*) are commonly used together to kill off a parasitic infection. It's said that when these three are taken at the same time, together they're able to break the parasite's life cycle. ) **Crohn's Disease**: Can create steady improvement in symptoms. Wormwood has positive effects on mood and quality of life, which is not achieved by other standard Crohn's disease medications. Contains **Antimicrobial** and **Antifungal** (Properties show a broad spectrum of antimicrobial activity against several bacterial strains, including E. coli and salmonella. Kills **Fungi** (wide spectrum), **Yeast** and **Urinary Tract Infections** (*Candida albicans*) and **Thrush**. Fights **small intestinal bacterial overgrowth**, and Wormwood appears to be just as effective as **triple antibiotic therapy** for individuals who don't respond to rifaximin.

- **Key Components**

**Wormwood's biologically active compounds include:**

- acetylenes (trans-dehydromatricaria ester, C13 and C14 trans-spiroketalenol ethers, and others)
- ascorbic acid (vitamin C)
- azulenes (chamazulene, dihydrochamazulenes, bisabolene, camphene, cadinene, sabinene, trans-sabinylnacetate, phellandrene, pinene and others)
- Carotinoids
- Flavanoids (quercetin 3-glucoside, quercetin 3-rhamnoglucoside, spinacetin 3-glucoside, spinacetin 3-rhamnoglucoside, and others)
- lignins (diayangambin and epiyangambin)
- phenolic acids (p-hydroxyphenylacetic, p-coumaric, chlorogenic, protocatechuic, vanillic, syringic and others)
- tannins
- thujone and isothujone
- sesquiterpene lactones (absinthin, artabsin, anabsinthin, artemetin, artemisinin, arabsin, artabin, artabsinolides, artemolin, matricin, isoabsinthin and others)

- **Medicinal Parts**

Leaves and Aerial parts

- **Habitat and Growing Instructions:**

Grows wild and local all over the Intermountain West

- **Time to Harvest:**

Summer to Fall

- **Side Effects:**

Thujone by itself is a GABA<sub>A</sub> receptor antagonist that can cause convulsions and death when administered in large amounts to animals and humans. However, there is only one case of documented toxicity of wormwood involving a 31-year-old man who drank 10 mL of steam-distilled volatile oil of wormwood, wrongly believing it was absinthe liqueur. Medicinal extracts of wormwood have not been shown to cause seizure or other adverse effects at usual doses.

**ABORTIFACIENT:** Not to be used during pregnancy, lactation, or on a long-term basis (10 day stints, with minimum 10-20 day intermissions).

Thujone can be potentially poisonous in extremely large doses. Distilling wormwood in alcohol increases the thujone concentration. Thujone-free wormwood extract is currently used as a flavoring in alcoholic beverages like vermouth.

- **Other Medical Information:**

*Artemisia absinthium* is an odorous, perennial that belongs to the *Asteraceae* or *Compositae* family, more commonly known as the daisy family. This artemisia plant releases an aromatic odor and has a spicy, bitter taste. Many species of the artemisia family tend to have medicinal properties. It's related to *Artemisia vulgaris*, or *Mugwort* another medicinal herb.

Wormwood is best used in dried form, particularly in infusion or tea.

**TO MAKE WORMWOOD INFUSION OR TEA:**

- Steep a half tsp to 1 tsp of dried wormwood in 1 cup of boiling water for 5-15 minutes.
- Use no more than 1 tsp of the leaves — they're very strong & bitter
- Longer steep time means stronger and more bitter tea

Should be taken unsweetened to have the best effect

Can counter the bitterness by adding dried peppermint or anise if need be

Helps with digestion, specifically before heavy meals



## Lobelia

- Alternate Names:

Asthma Weed, Bladderpod, Emetic Herb, Gagroot, Herbe à Asthme, Indian Tobacco, Lobelia inflata, Lobélie, Lobélie Brûlante, Lobélie Enflée, Lobélie Gonflée, Pukeweed, Tabac Indien, Vomit Wort, Rapuntium inflatum, Gagroot, Eyebright.

- Latin Name:

Campanulaceae Lobelia inflata

- General Information:

Lobelia inflata is an herb that is used to treat **asthma, allergies, whooping cough, congestion,** and bronchitis. In the past, it was also useful for **tobacco withdrawal** as an herbal remedy to quit smoking. Lobelia is used for breathing problems including **bronchitis** as an expectorant, and **shortness of breath,** and **apnea** in newborn infants. One drop of oil triturated with one scruple of sugar, and divided into from 6 to 12 doses, is useful as an **expectorant, nauseant, sedative,** and **diaphoretic,** when given every one or two hours. Some people take lobelia as a **sedative** to help them relax. It is sometimes given in **convulsive** and **inflammatory disorders** such as **epilepsy, tetanus, diphtheria** and **tonsilitis.** There is also difference of opinion with regard to its narcotic properties. Where relaxation of the system is required, as, for instance, to subdue **spasm,** Lobelia is invaluable. Relaxation can be counteracted by the stimulating and tonic infusion of capsicum. It may be used as an **enema.** Other people use it to increase **sweating.** It is applied to the skin for **muscle pain, joint lumps** associated with **rheumatoid arthritis** (rheumatic nodules), **bruises, sprains, insect bites, poison ivy,** and **ringworm.** Used as a **diaphoretic,** an infusion has been found useful in **ophthalmia,** and the tincture can be used as a local application for **sprains, bruises, or skin diseases,** alone, or in powder combined with an equal part of slippery elm bark



and weak lye-water in a poultice. The oil of Lobelia is valuable in **tetanus**.

- **Medicinal Parts and Parts Used**

Above ground parts, the dried flowering herb, and seeds.

- **Dosage:**

**Preparations and Dosages**---Powdered bark, 5 to 60 grains. Fluid extract, 10 to 20 drops. Acid tincture, 1 to 4 drachms. Tincture, U.S.P., 1 to 4 drachms. Etherial tincture, B.P., 5 to 15 drops. Syrup, 1 to 4 drachms. Solid extract, 2 to 4 grains. Oil of seed, 1 drop rubbed up with 20 grains of ginger and divided into 6 to 12 doses. Lobelin, 1/4 to 3 grains.

*Acetum Lobellae* (Vinegar of Lobelia). Lobelia seed powder, 4 OZ. Diluted acetic acid, 2 pints. Macerate in a close glass vessel for seven days, then express the liquor, filter, and add to the filtered product alcohol, or concentrated acetic acid, 1 fluid ounce. The whole should measure 2 pints. This medicated vinegar may also be prepared by percolation. It is an emetic, nauseant, and expectorant, and a valuable relaxant in spasmodic affections. A good application in such skin diseases as salt-rheum, erysipelas, poisoning by rhus, etc. As an expectorant, 5 to 30 drops every half-hour in elm or flaxseed infusion. One part of Vinegar of Lobelia to 1 part of syrup forms a pleasant preparation for children.

- **Constituents**

The activity of Lobelia is dependent upon a liquid alkaloid first isolated by Proctor in 1838 and named Lobeline. Pereira found a peculiar acid which he named Lobelic acid. Also, gum, resin, chlorophyll, fixed oil, lignin, salts of lime and potassium, with ferric oxide. Lobelacrine, formerly considered to be the acrid principle, is probably lobelate of lobeline. The seeds contain a much higher percentage of lobeline than the rest of the plant.

- **Side Effects:**

Lobelia is considered **LIKELY UNSAFE** for most people when taken by mouth. Side effects include nausea, vomiting, diarrhea, cough, dizziness, tremors, and more serious effects.

In excessive doses the effects are those of powerful acro-narcotic poison, producing great depression, nausea, cold-sweats, and possibly death. (Herbalists also deny that it has poisonous properties and that it has ever caused death.) Poisonous symptoms may occur from absorption of it through the epidermis.

Overdose may cause many serious toxic effects including sweating, convulsions, fast heartbeat, very low blood pressure, collapse, coma, and possibly death. Taking *0.6-1 gram of the leaf is said to be toxic, and 4 grams may be fatal.*

***Pregnancy and breast-feeding:*** *It's **LIKELY UNSAFE** for anyone to take lobelia by mouth. The particular concern during pregnancy is that it can cause serious vomiting. Don't take lobelia if you are pregnant or breast-feeding.*

**Stomach or intestinal problems including ulcers, Crohn's disease, inflammatory bowel disease, infections, and others:** Lobelia can irritate the GI tract.

**Heart disease:** Lobelia seems to affect the heart. Larger doses cause more of an effect.

**Do not take with Lithium!**

***L. Erinus*. A tincture of the plant has been used in cancer and has produced absolute freedom from pain; is also used as a remedy in syphilis.**

LOBELIA, BLUE (*L. Syphilitica*) and LOBELIA RED (*L. Cardinalia*). Both used in homeopathy. The first is diaphoretic, emetic and cathartic and has been used in dropsy, diarrhoea, syphilis and dysentery, the root being the part used. The Red Lobelia is said to be anthelmintic, nervine and antispasmodic.

*L. Kalmit*. Said to be used by the Indians in the cure of syphilis.

*L. purpurascens*. A tincture of the whole plant is used in paralysis of the lungs and tongue.





## Scrub Oak

- Alternate Names:

Gambel oak, Oak Brush, Shin Oak, Rocky Mountain White Oak

- Latin Name:

*Quercus gambelii*

- General Information:

Any galls produced on the tree are strongly **astrigent** (works by shrinking or constricting the tissues of the body, both internally and externally. This is good for treating internal bleeding and diarrhea as well as external bleeding, hemorrhoids, varicose veins and other skin conditions such as burns, abrasions and eczema. Anti-inflammatory properties of this herbal supplement are related to its actions as an astringent and an antiseptic.) and can be used in the treatment of **haemorrhages, chronic diarrhoea, dysentery** etc. The root bark is **analgesic, anti-inflammatory, antiseptic** and **cathartic**. A decoction has been used to treat **postpartum pain** and **facilitate delivery of the placenta**. Most provide delicious and **nutritious fruit**, but many also have **edible leaves, seeds, flowers, stems** or **roots**, or they yield edible or **useful oil**.

White oak bark is used as a tea for **arthritis, colds, fever, cough, and bronchitis**.

Some people apply oak bark directly to the skin in a **compress** or add it to bath water for **pain and swelling** (inflammation) of the skin, mouth, throat, genitals, and anal region; and for red itchy skin due to cold exposure (chilblains).

White oak bark can be taken by mouth for 3-4 days at a time.

White oak bark is also safe for most people when applied directly to unbroken skin for up to 2-3 weeks.

In addition to the bark, the acorns of the tree have been used as food and also to make a tea or coffee substitute which had the added benefit of controlling bowel problems.

**Skin conditions including eczema or large areas of skin damage:** Don't take oak bark baths if you have one of these conditions.

**A nerve condition that leads to overly tight muscles (hypertonia):** Don't take oak bark baths if you have this condition.

**Fever or infection:** Don't take oak bark baths if you have one of these conditions.

**Kidney problems:** There is concern that using oak bark might make kidney problems worse. Avoid use.

**Liver problems:** There is concern that using oak bark might make liver problems worse. Avoid use.

- **Medicinal Parts**

Leaves and Seeds

**Daily Dosage**

When taken internally, the recommended daily dosage of the powdered bark in capsules is approximately one gram, and preferably it should be taken with food. In the form of extracts, the dosage varies with the strength of the product, but typically is in the range of 30-60 drops diluted in water and taken 2-3 times daily. Applied topically or externally, it may be used as needed.

White oak truly is a multi-purpose supplement with a long history of utilization by different people.

- **Time to Harvest: Spring**

Seed - raw or cooked. A sweet taste. It can be dried, ground into a powder and used as a thickening in stews etc or mixed with cereals for making bread. If the seed contains bitter tannins, these can be leached out by thoroughly washing the seed in running water though many minerals will also be lost[85]. Either the whole seed can be used or the seed can be dried and ground it into a powder. It can take several days or even weeks to properly leach whole seeds, one method was to wrap them in a cloth bag and place them in a stream. Leaching the powder is quicker. A simple taste test can tell when the tannin has been leached. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The roasted seed is a coffee substitute.

- **Side Effects:**

When applied to damaged skin or when taken for longer than 2-3 weeks, white oak bark is **LIKELY**

**UNSAFE.** If you have a heart problem don't use oak bark.

Some people might be allergic to the pollen of white oak.

- **Active Constituents:**

The bark of white oak contains tannins, which might help treat diarrhea and inflammation.



# Blue Flax

## Latin Name

*Linum lewisii*

## Alternate Name

*Prairie Flax, Lewis Flax, Meadow Flax*

## General Information:

Flaxseed oil is the highest single source for the valuable **omega-3 fatty acid** — 50 to 60 per cent. The oil spoils rapidly, particularly when exposed to heat, and should always be purchased in small quantities and with a label which indicates the product was cold-pressed, and gives the date

The medicinal uses of Flax have been known for centuries and lie primarily in the seeds. (Note that *immature seed pods are poisonous*.) The seeds are said to contain about **40% fixed oil, mucilage, wax, tannin, gum and protein**. The crushed seeds, known as linseed meal, are made into a useful *poultice*, especially if *combined with mustard*, for **abscesses, ulcers, and deep inflammations**.

Some herbalists *add lobelia seeds for treating boils*. Linseed oil is a frequent ingredient in **cough** medicines. Tea made of about an ounce of seed to a pint of boiling water and taken with lemon juice and a little honey is often recommended for **colds and coughs**.

Linseed is a well-known remedy for **constipation**. A teaspoon of seeds should always be followed by up to two glasses of water which will cause the seeds to swell and produce a gentle laxative. Many people routinely add the seeds to breakfast cereal daily — remembering the necessary high fluid intake.

## Preparing Flax for Linen

"The flax plants, which have been pulled and allowed to dry (with the seed heads cut or combed out), are soaked in water for several weeks to rot the woody stems around the fibers, a process called retting.

When the stems are sufficiently rotted, the plants are dried. Then a device called a flaxbrake is used to break the stems in several places. Next a wooden swinging knife is used to scrape or "scotch" the broken stems, removing the woody shards of stem from the fibers. These are passed through the teeth of a hetchel, straightening them and pulling out all the remaining stem pieces. The resulting material resembles a fine, fluffy horsetail. The fibers are then spun into yarn."





## Utah Milkweed

- **Alternate Names:**

Pleurisy Root, Showy Butterfly Milkweed,

- **Latin Name:**

Asclepias Plant (See below for specific plant)

- **General Information:**

The number of medicinal uses of Asclepias, including cures and treatments for almost *every system of the body*, is nothing short of phenomenal.

As is common with many medicinal plants, the active chemicals in milkweed are responsible for the *plant's toxic properties as well as its therapeutic benefits*.

Within the milkweed latex are steroids called *cardenolides*, which exhibit **cardiotonic** — and sometimes **cardiotoxic** properties. Some milkweed species, such as immortal (*A. asperula*), have high levels of cardenolides, while others, such as showy milkweed (*A. speciosa*) and swamp milkweed (*A. incarnata*), have lower levels.

Different populations within the same species can produce varying levels of cardenolides due to ecological factors. Additionally, the plant part containing the strongest cardenolide concentration often

varies from species to species.

In addition to the variation in cardenolides between species, there can be great variation within a species as well; whether plants are water-stressed, grown in sun or shade, fertilized, or have recently been grazed by herbivores all affect the concentration and localization of the cardenolides. Depending on these local factors, the toxicity of a single milkweed plant may fluctuate greatly on time scales ranging from minutes to months. *Always start with a lowest dose and increase slowly.*

Cardenolides, a type of cardiac glycosides, are found in many plants in addition to milkweeds, such as the highly toxic common oleander (*Nerium oleander*, Apocynaceae) and foxglove (*Digitalis* spp., Scrophulariaceae), which contains the important *cardenolides digoxin, digitoxin, and lanoxin.*

Cardiac glycosides inhibit the sodium-potassium pump in the cell membranes, resulting in increased concentrations of intracellular sodium — which in turn causes increased calcium levels — and decreased potassium in the cells of the heart.

Combined with indirect **vagal stimulation**, this slows the heart and produces a more forceful beat. These plant chemicals, which reportedly have been used in traditional medicine for about 1,500 years, are employed as pharmaceutical drugs to treat congestive heart failure and present potential as novel cancer therapeutic agents.

The shoots contain a volatile oil that is rich in *terpenes* (aromatic oils with distinctive flavors ) which have **antiseptic**, mucolytic and antibacterial properties. The mucolytic properties are particularly beneficial because they help thin the **mucous** making it easier to cough up.

Used to treat **wounds** and **skin infections**. Crushed milkweed leaves were used externally to treat skin ulcers, skin cancers, wounds, ringworm, and headaches, while the root was made into a powder or juice and applied topically to cure tumors and to treat wounds, boils, and rashes. The sap was used externally for leprosy, to make warts and freckles disappear (due to its caustic properties), to lighten skin, and to treat ear infections (by the Maya). The seeds were sometimes used on sores.

A number of Native tribes have used the *latex juice from the roots, plant tops, and stem* for medicinal purposes. The Miwok people used the latex to remove **warts**. The Cheyenne made a decoction of the dried plant tops and used it as an **eyewash** to heal **snow blindness**. Cherokee, Delaware, and Mohegan peoples used pleurisy root, also called butterfly milkweed (*Asclepias tuberosa*), made into a **cough** remedy.

Today herbalists still use it for **lung issues** and **pleurisy** (inflammation in the lining around the lungs), used to treat typhus fever and asthma. The southwestern milkweed named immortal (*Asclepias asperula*), also called antelope horns because of the unique shape of the flowers, has traditionally been used for **heart conditions**. American herbalists' usage of pleurisy root as a tea or tincture and explained that it is often used according to the Eclectic indication "*that it hurts to breathe,*" as well as for **lung conditions accompanied by fever, congestion, or sharp pain when coughing** (*it is actually quite effective for that*); as a **diaphoretic** especially for fevers with bronchial involvement; and to help reduce **emotional agitation** or **irritability in people with high fevers**.

Additional internal traditional uses included **toothache; fever; headache; digestive conditions**

including gas, indigestion, and diarrhea. Milkweeds have been prepared as tinctures and used as emetics (induce vomiting in the case of poisoning.)

Good for loosening congestion, reducing lymph swelling, treating diarrhea, promoting sweating and reducing menstrual cramps.

From 1820 to 1905 *Asclepias tuberosa* was listed in the United States Pharmacopeia, and from 1906 to 1936 it was included in the National Formulary as an official botanical drug to treat the condition of pleurisy.

- **Bonus!**

Inside milkweed's rough seed pods is another wonderful surprise: The fluffy white floss, attached to milkweed's flat brown seeds, could be used to stuff pillows, mattresses, and quilts, and was carried as tinder to start fires.



- **Warnings:**

SHOULD NOT BE USED with conventional cardiac medications or by people with overt heart disease.

Small amounts of pleurisy root are relatively safe, especially when used in a larger formula. None of these should be used internally during pregnancy. Inside the plant is a sticky white sap (*cardiac glycoside compound*) that contains a mild poison; its bitter taste warns away many of the animals and insects that try to eat its tender leaves—including humans. **It's all about dosage.**

### Other Local Milkweed:



*A. speciosa* (showy milkweed) - Flowers May to July - VERY common



*A. incarnata* (swamp milkweed) - Flowers July to September - Common



*A. tuberosa* (butterfly weed) - Flowers May to August - Uncommon



*A. asperula* (antelope horns or spider milkweed) - Flowers May to July - Common



*A. subverticillata* (horsetail milkweed) - southern Utah in disturbed sites - Flowers July to October - Common



*A. labriformis* (Utah milkweed) - Flowers May to July - Uncommon



*A. cryptoceras* (pallid or jewel milkweed) - Flowers April to June - Uncommon



*A. erosa* (desert milkweed) - Washington County only - Flowers May to September - RARE



***A. involucrata*** (dwarf milkweed)/ closely related to *Asclepias macosperma*- Flowers April to July - Uncommon



***A. latifolia*** (broadleaf milkweed) - southern Utah - Flowers June to July- Uncommon



***A. ruthiae*** (Ruth's milkweed)



***A. welshii*** (Welch's milkweed) - Kane County in sand dunes - Flowers June to August - RARE



***A. hallii*** (Hall's milkweed) - Flowers May to September - RARE



***A. engelmanniana*** (Engleman's milkweed) - closely related to *A. rusbyi*



***A. cutleri*** (Cutler's milkweed) - southeast Utah only - Flowers May to June - RARE



## Horehound

### ***Latin Name***

Marrubium vulgare

### ***Alternate Names***

White horehound, Common horehound

### ***General Information***

Horehound is a perennial plant in the mint family, *Lamiaceae*. There are at least three different forms of horehound- **white horehound** (*Marrubium vulgare*), black horehound (*Ballota nigra*), and water horehound (*Lycopus americanus*, also known as bugleweed).

This paper focuses on White Horehound, a perennial plant, it grows in abundance and looks a lot like its sister, mint. Covered in tiny hairs, the leaves of this plant have a cloudy or hoary appearance, giving the plant its name. The health benefits of horehound include aiding **digestion** and lowering **cholesterol**.

For centuries, horehound has been valued for its ability to treat **cough** and remove excess **phlegm**. Listed here are other benefits associated with horehound. It's an anti-inflammatory, effects even extends itself to improving **circulation** by reducing inflammation of the **blood vessels**.

This greatly benefits the whole body, its a **vasodilator**, making it easier for blood and oxygen to get to all organs and greatly reducing the *pressure placed on the heart*. When pressure is taken off the heart, instances of *strokes, heart attacks, and heart disease are greatly reduced*.

Useful for **Bronchitis**, and will also reduce **inflammation in the respiratory system** and therefore help soothe sore throats and irritation. For children's coughs and croup, it is given to advantage in the form of syrup, and is a most useful medicine for children, not only for the complaints mentioned, but as a tonic and a corrective of the stomach. It has quite a pleasant taste.

Horehound's ability to *facilitate sweating* is also an effective way to help break a **fever** and cool the body down. When combined with other herbs such as *ginger root, marshmallow root, and licorice root, horehound can make a natural, effective cough syrup*.

Soothes and lessens **Menstrual Cramps**, it also may help to get **hormones** under control and improve mood. may help reduce blood sugar levels. Horehound helps the *body regulate and process sugar* by improving the body's response to it.

Horehound is considered a medicinal plant due largely in part to its many healing compounds, such as its **antimicrobial** and **antibiotic** properties. These properties help protect the body and help your **immune system** fend off illness and disease.

The **antiseptic** properties contained in horehound are why it's commonly used in toothpastes and mouthwashes currently on the market. It has the ability to **induce sweating**, helping the body to eliminate **toxins**, as well as excess sweat, fat, and water.

Helps **reduce blood pressure**, but should not be used for those taking hypertension medication. Horehound contains estrogen-like compounds and glycosides and may assist with **hot-flashes** and other **menopausal** symptoms.

Gerard recommends it, in addition to its uses in coughs and colds, to *'those that have drunk poyson or have been bitten of serpents,' and it was also administered for 'mad dogge's biting.'*

Horehound contains a constituent that may increase the flow of saliva and gastric juice, to **stimulate the appetite**.

Taken in large doses, it acts as a gentle **purgative**.

The powdered leaves have also been employed as a **vermifuge** and the green leaves, bruised and boiled in lard, are made into an ointment which is good for **wounds**.

### **Preparations and Dosages:**

Fluid extract, 1/2 to 1 drachm. Syrup, 2 to 4 drachms. Solid extract, 5 to 15 grains.

For ordinary cold, a simple infusion of Horehound (Horehound Tea) is generally sufficient in itself. The tea may be made by pouring boiling water on the fresh or dried leaves, 1 OZ. of the herb to the pint. A wine-glassful may be taken three or four times a day. Two or three teaspoonsful of the expressed juice of the herb may also be given as a dose in severe colds.

Horehound is sometimes combined with Hyssop, Rue, Liquorice root and Marshmallow root, 1/2 oz. of each boiled in 2 pints of water, to 1 1/2 pint, strained and given in 1/2 teacupful doses, every two to three hours.

Candied Horehound is best made from the fresh plant by boiling it down until the juice is extracted, then adding sugar before boiling this again, until it has become thick enough in consistence to pour into a paper case and be cut into squares when cool.

### **Cautions**

It is not recommended for the use of pregnant women, women who are breastfeeding, or children.

Horehound may cause stomach upset in some people may exacerbate the symptoms of ulcers and other serious stomach issues. Using horehound in large amounts may cause an abnormal heartbeat. Because horehound has been found to reduce blood pressure, take caution or speak to a physician if you plan on taking horehound while on blood pressure medication.

Because horehound affects blood sugar, consult a physician and take caution when taking horehound while on water pills and diuretics.

If you are currently on hormone therapy, consult your physician before taking horehound.

Horehound contains estrogen-like compounds and glycosides and may cause interference.

Taking horehound may increase the effects of the following drugs and medications: laxatives, cold medicines, cholesterol-lowering drugs.

White Horehound contains 0.3-1% of the bitter compound marrubiin, diterpene alcohols, alkaloids, bitter lactone, flavonoids, saponin, sterols, tannins, and vitamin C, and 0.06% of a volatile oil.

# Feverfew

## Latin Name

Tanacetum parthenium

## Alternate Names

Featherfew, altamisa, bachelor's button, featherfoil, febrifuge plant, midsummer daisy, nosebleed, Santa Maria, wild chamomile, wild quinine, chamomile grande, chrysanthemum atricaire, federfoy, flirtwort



## General Information

The flowers have a characteristic dimple-like depression in the center. This aromatic plant gives off a strong and bitter odor.

Feverfew also was known as “medieval aspirin” or the “aspirin” of the 18th century. This plant was used widely as a medicinal herb for any number of ailments, including **fevers** and **headaches**.

It has since been recognized by mainstream medical services as a very effective treatment of persistent **migraine** headaches.

Used for the treatment of **rheumatoid arthritis, stomach aches, toothaches, insect bites, infertility,** and problems with **menstruation** and **labor during childbirth**.

Feverfew has also been used for **psoriasis, allergies, asthma, tinnitus, dizziness, nausea, and vomiting. asthma, constipation, dermatitis, earache, inflammatory conditions, insect bites, labor, potential miscarriage, psoriasis, spasms, stomach ache, swelling, tinnitus, toothache, vertigo. abortifacient,** or as an **insecticide**.

It has multiple pharmacologic properties, such as **anticancer, anti-inflammatory, cardiogenic, antispasmodic,** an **emmenagogue,** and as an **enema for worms**.

The first-century Greek physician Dioscorides prescribed feverfew for “*all hot inflammations*.”

The Kallaway Indians of the Andes mountains value its use for treating **colic, kidney pain, morning sickness,** and **stomach ache**.

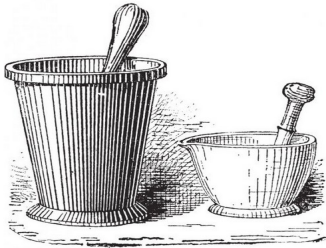
Costa Ricans use a decoction of the herb to aid **digestion** and **earaches**.

## Constituents

The plant contains one or more of the sesquiterpene lactones known to be present, including parthenolide. Other potentially active constituents include flavonoid glycosides and pinenes.



## Apothacary Measurements



60 minims	=		=	1 fluid drachm
480 minims	=	8 fluid drachms	=	1 fluid ounce.
7680 minims	=	16 fluid ounces	=	1 pint.
61,440 minims	=	8 pints	=	1 gallon.

			<i>French gramme.</i>
		1 drachm	= 1.77
16 drachms	=	1 ounce	= 28.328
16 ounces	=	1 pound	= 453.25
112 pounds	=	1 hundred weight	
20 hundred weight	=	1 ton	

		<i>Cubic inches..</i>		<i>Grains</i>
1 gallon (Imperial)	=	277.274	=	70000.
1 gallon (U. S.)	=	231.000	=	56000.
1 quart (Imperial)	=	69.318	=	17500.
1 quart (U. S.)	=	57.750	=	14000
1 pint (Imperial)	=	34.659	=	8750
1 pint (U. S.)	=	28.875	=	7000.
16 fluid ounces	=	28.875	=	7000.
1 fluid ounce	=	1.732	=	437.5
1 fluid drachm	=	0.216	=	54.7
1 minim	=	0.0336	=	0.91

1 drachm	=	27.34375
1 ounce	=	437.5
1 pound	=	7000
1 hundred weight	=	784000
1 ton.	=	15680000

Apothecaries' ounce	=	480 grains	
Avoirdupois ounce	=	437.5 grains	
United States pint	=	16 fluid ounces	
Imperial or British pint		20 fluid ounces	
United States gallon	=	128 fluid ounces	= 8 pounds avoirdupois.
Imperial or British gallon	=	160 fluid ounces	= 10 pounds avoirdupois

	<i>French Liquid Measures. Cubic inches.</i>	<i>United States Liquid Measures.</i>
Millilitre,	.0610	16.2318 minims.
Centilitre,	.6103	2.7052 fl. drachms.
Decilitre,	6.1028	3.3816 fl. ounces.
Litre,	61.028	2.1135 pints.
Decalitre,	610.280	2.6419 gallons.
Hectolitre,	6102.80	26.4190 gallons
Kilolitre,	61028.0	264.1900 gallons
Myrialitre,	610280	2641.9000 gallons



## **Alfalfa**

### **Alternate Names**

Lucerne, Buffalo Herb

### **Latin Name**

Medicago Sativa

### **General Information**

Alfalfa can aid in flushing the bowels of built up toxins, diuretic, helpful in flushing out the bladder during a UTI, and to prevent future infection. Can act as a laxative in higher doses. Great for lowering cholesterol, detoxifying and purifying the blood, assist in clotting blood. As a result, regular consumption of alfalfa can lower blood pressure and balance hormones.

Regular use assists against bad breath, sore or achy joints, imbalanced skin conditions, and it even increases immune system functionality. When consumed regularly, it acts as an alternative to over the counter pain medicines for headaches or migraines because of its high calcium and magnesium levels. Helping alleviate allergies, promotes healthy digestion, can ease morning sickness, is helpful in reversing tooth decay and remineralizing teeth.

Great source of Vitamin K so it helps improve Baby's Vitamin K levels at birth if mom drinks during pregnancy, supports the pituitary gland, supportive during nursing, Helps ease gout, eases all forms of arthritis. Its high concentration of alkaloids make it useful in reducing blood sugar levels.

Kidney conditions, bladder and prostate conditions, and to increase urine flow. It is also used for high cholesterol, asthma, osteoarthritis, rheumatoid arthritis, diabetes, upset stomach, and a bleeding disorder called thrombocytopenic purpura.

### **Key Components**

Alfalfa is naturally high in vitamins and minerals, including A, D, E, K, and even the full family of B vitamins; biotin, calcium, folic acid, iron, magnesium, potassium, as well as being very high in protein, especially when dried. It is "The king of all foods"! • Medicinal Parts Entire

plant

**Harvesting Instructions:** Gather and dry

Time to Harvest: Spring, through fall Can be used in powder, or capsule. Dried Alfalfa is as good, if not better, than fresh Alfalfa so capsules are a great way to take it.

Alfalfa can also be mixed in with different foods. Salads, soups, casseroles, or whatever one's heart desires can be made astronomically more healthy without hardly any change in taste. The alfalfa herb is very mild in flavor

### **Contraindications**

The one caution about alfalfa is not to use in combination with blood thinning agents or medications as it is so effective it can interfere or amplify the effects of these. Alfalfa seed products may cause reactions that are similar to the autoimmune disease called lupus erythematosus.

Warfarin (Coumadin) interacts with ALFALFA

Alfalfa contains large amounts of vitamin K. Vitamin K is used by the body to help blood clot. Warfarin (Coumadin) is used to slow blood clotting. By helping the blood clot, alfalfa might decrease the effectiveness of warfarin (Coumadin). Be sure to have your blood checked regularly. The dose of your warfarin (Coumadin) might need to be changed.



## Common Fleabane

**Latin:** *Inula dysenterica*

**Alternate Names:** Elcampane, *Pulicaria dysenterica*, Middle Fleabane, Ploughman's Spikenard, Great Fleabane, Job's Tears, Horsetweed, Eastern Daisy Fleabane, Canadian fleabane, Fleabane daisy, colt's tail, butter weed, fireweed, blood-stanch, cow's tail, bitter weed

**Parts Used:** root

### **General Information:**

Traditionally used for **dysentery**, our old authors call it 'Middle Fleabane'; if burnt, the smoke drives away fleas and other insects. Called also, Job's Tears, from a tradition that Job used a decoction of this herb to cure his **ulcers**. It was formerly recommended for **itching** and other **skin disorders**.

Energetically, it's a **stimulant**. **Antimicrobial** and **diuretic**.

The leaves when bruised have a somewhat soap-like smell (saponin). The sap that lies in the tissues is **bitter**, **astringent** and **saltish**, so that animals will not eat the plant.

Constituents: Flavonoids (a group of plant metabolites thought to provide health benefits through cell signaling pathways and antioxidant effects. ), bitters, tannins and gallic acids, and volatile oils (including limonene, terpineol, and linalool)

# Wound Treatments

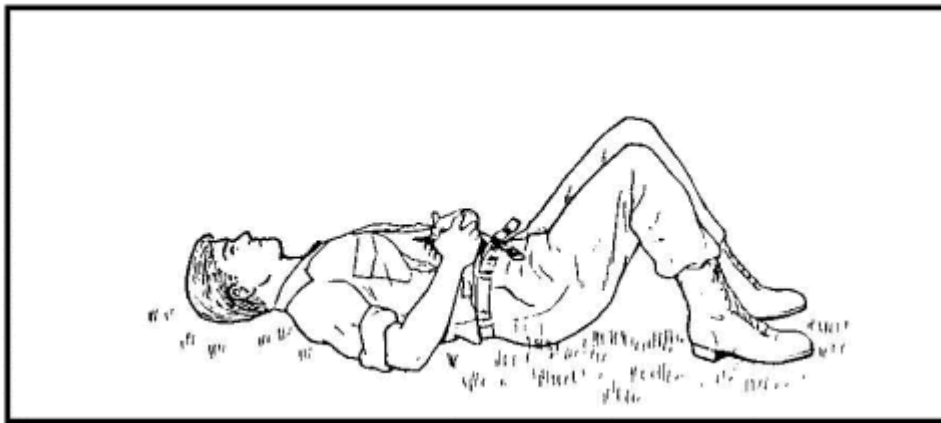
## PERFORM FIRST AID FOR AN OPEN ABDOMINAL WOUND

The body's abdominal cavity contains organs such as the stomach, small intestine, large intestine, liver, kidneys, and spleen. Several large arteries and veins are also located in the abdominal cavity. An object that punctures the muscular abdominal wall can injure one or more organs, cause severe bleeding, and cause infection which could spread to the organs within the cavity.

An open abdominal wound can be caused by the muscular abdominal wall being penetrated by a bullet, by a stab from a knife, by an object blown from an explosion, or by falling on a sharp object.

### POSITION A CASUALTY WITH AN OPEN ABDOMINAL WOUND

Position the casualty on his back with his knees up (flexed). This position helps to prevent further exposure of the abdominal organs, lessen pain, and control shock.



**FIGURE 9-1. CASUALTY IN KNEES-UP POSITION**

## DRESS AN OPEN ABDOMINAL WOUND

### Locate Abdominal Wound(s)

Check the casualty's abdominal region for wounds. If more than one open abdominal wound is found, treat the more serious wound (largest, most blood loss, etc.) first.

### Expose the Wound

#### WARNING

**If you are in a chemical environment, dress the wound without exposing the wound.**

Expose the area around the open abdominal wound by removing, cutting, or tearing the clothing covering the wound. If clothing is stuck to the wound, do not try to remove the stuck clothing as this may cause additional pain and injury. Cut or tear around the stuck clothing. Do not try to probe, clean, or remove foreign objects from the wound.

### Position Dislodged Organs, If Applicable

Sometimes, part of an intestine or other organ is forced out through the wound. If an organ is outside the body, do not try to push the organ back into the body. Do not touch the exposed organ with your hands. If the organ is lying on the ground, use a field dressing or other clean, dry material to gently pick up the organ and place the organ on top of the casualty's abdomen.

### **Place Dressing Over Wound**

#### **WARNING**

**If a foreign object is protruding from the wound, do not attempt to remove the object. Improvise bulky dressings from the cleanest material available and build up the area around the object in order to stabilize the object. Secure the dressing with improvised bandages.**

Open the casualty's field dressing and place the white side of the dressing over the wound and any protruding organs. If the field dressing is too small to cover the wound and any protruding organs or if the dressing is not available, use the cleanest materials available as a dressing. Clothing, part of a blanket, or similar materials may be used.

### **Secure the Dressing**

Hold the dressing with one hand to keep it from slipping.

Grasp one tail and slide it under the casualty.

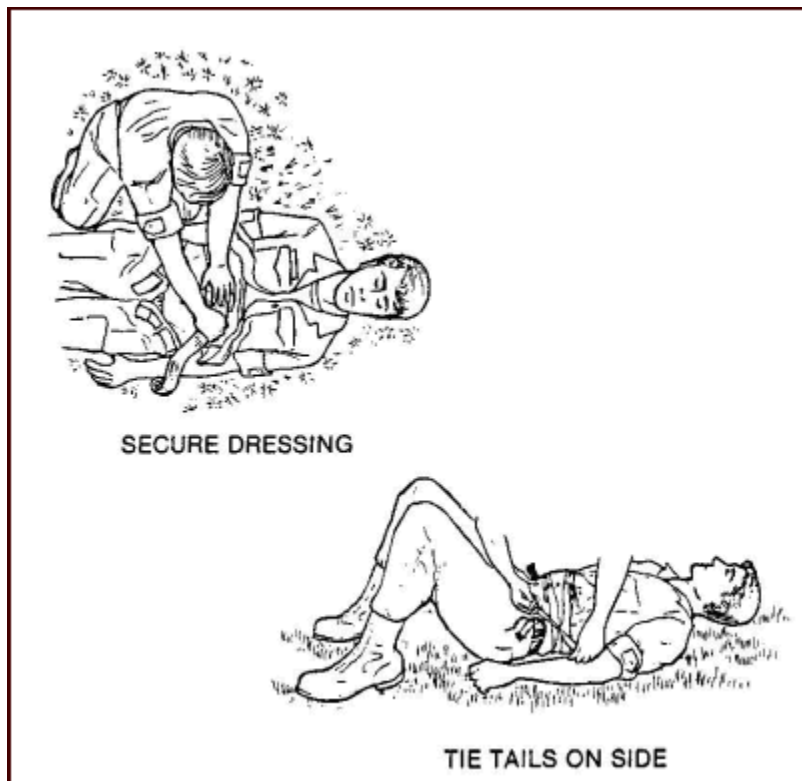
Reach down on the other side of the casualty, grasp the tail under the casualty, and pull.

Bring the tail up the casualty's side, over the dressing, and to the other side.

Wrap the other tail in the opposite direction (down the side, under the back, and up the side).

Tie the tails in a nonslip knot on the casualty's side away from the wound. Do not tie the knots over the wound site.

**CAUTION:** The bandages should be tight enough to keep the dressing from slipping, but should not be tight enough to place pressure on the wound. The primary purpose of the dressing is to protect the wound from further contamination, not to control the bleeding through pressure. Pressure could cause additional damage to the organs of the abdominal cavity.



## **DRESSING AN OPEN ABDOMINAL WOUND**

### **Dress Other Abdominal Wound(s)**

If other abdominal wounds are present (both entry and exit wounds are present, for example), dress and bandage the wounds.

### **Reinforce Dressings**

If the situation allows and materials are available, reinforce the dressings by covering them with cravats, strips torn from a T-shirt, or other strips of cloth. The improvised bandages will provide additional support and protection. Tie the tails of the reinforcement bandages on the opposite side of the field dressing knot. The reinforcing material should be tight enough to help keep the dressing from slipping, but loose enough to prevent additional pressure to the wound.

**CAUTION:** Do not tie any knots over the wound site.

### **MONITOR A CASUALTY WITH AN OPEN ABDOMINAL WOUND**

Keep the casualty in the knees-up position.

Get medical help for the casualty as soon as possible. Buddy-aid methods cannot control internal bleeding (blood flowing into the abdominal cavity instead of flowing out of the wound). The risks of serious infection and damage to internal organs are also present. If possible, send someone else to get medical help while you treat the wound.

**CAUTION:** Do not give the casualty anything to eat or drink. If the casualty complains of thirst, moisten his lips with a damp cloth.

Be ready to administer rescue breathing should it become necessary.

If you must leave the casualty, tell him to stay on his back and keep his knees up.



## Head Wound

Conditions: You see a casualty who has an open head wound.

The casualty is breathing.

Necessary equipment and materials:

casualty's first aid packet and a canteen of water.

Standards:

Applied a dressing to the wound following the correct sequence without causing further injury to the casualty.

The casualty was properly positioned and the dressing was secured without applying unnecessary pressure.

**Check the casualty's level of consciousness.**

**Question the casualty.**

**"What is your name?"**

**"Where are you?"**

**"What is today's date (day, month, year)?"**

**Position the casualty.**

**The casualty is conscious or has a minor scalp wound.**

**Have the casualty sit up unless other injuries prohibit sitting up.**

**Raise the head slightly if the casualty is lying down and is not accumulating fluids in his throat.**

### **WARNING**

**Do not move the casualty if he exhibits signs and/or symptoms, other than minor bleeding, of a neck, spine, or severe head injury**

**Turn his head to the side or position the casualty on his side (opposite the wound) if the wound is bleeding into the mouth or throat.**

**The casualty is unconscious or has a severe head injury.**

**Treat the casualty as having a potential neck or spinal injury.**

**Immobilize and do not move the casualty unless absolutely necessary.**

**WARNING**

**If**

**it is necessary to turn a casualty with a suspected neck or spinal injury, assistance will be required. Roll the casualty gently onto his side keeping the head, neck, and body aligned while providing support for the head and neck**

**Turn the casualty, if he is choking and/or vomiting or bleeding into the mouth. Position the casualty on his side opposite the wound.**

**Expose the wound**

**Apply field dressing to the wound.**

**Forehead or back of the head.**

**Apply the dressing,**

**WARNING**

**To prevent further injury to the casualty-**

**Do not try to clean the wound.**

**Do not put unnecessary pressure on the wound.**

**Do not try to push brain matter back into the head.**

**Do not give the casualty any food or drink.**

**Do not move the casualty if a broken neck or broken back is suspected**

**white side down, directly over the wound with the tails extending toward the sides of the head.**

**Wrap the tails, one at a time, around the head in opposite directions making sure the tails cover the dressing but not the eyes and ears.**

**Tie the tails at the side of the head using a nonslip knot.**

**Top of the head.**

**Apply the dressing with one tail down under the chin and bring it up in front of the ear over the dressing to a point just above, and in front of, the opposite ear.**

**Wrap the other tail down under the chin in the opposite direction and up the side of the head to meet the first tail.**

**Cross the tails.**

**Wrap one tail across the forehead above the eyebrows to a point just above and in front of the opposite ear.**

**Wrap the other tail above the ear, low over the back of the head, and above the opposite ear to meet the other tail.**

**Tie the tails using a nonslip knot.**

**Side of the head or cheek.**

**Apply the dressing, white side down, directly over the wound with the tails extending up and down.**

**Wrap the top tail over the top of the head, down in front of the ear, under the chin, and up over the dressing to a point just above the ear.**

**Wrap the other tail in the opposite direction to meet the first tail.**

**Cross the tails and complete the procedure as follows:**

**Wrap one tail across the forehead above the eyebrows to a point just above, and in front of, the opposite ear.**

**Wrap the other tail above the ear, low over the back of the head, and above the opposite ear to meet the other tail.**

**Tie the tails using a nonslip knot.**

**Monitor the casualty.**

**Check the casualty's level of consciousness every 15 minutes.**

**Awaken the casualty every 15 minutes if he falls asleep.**

**Note any changes from earlier checks.**

**Watch the casualty for life-threatening conditions and check for other injuries, if necessary.**



## Anise

- **Alternate Names:**

Sweet Cumin, Anise Seed , Aniseed

- **Latin Name:**

*Pimpinella anisum*

- **General Information:**

Anise has been a popular remedy here in North America for hundreds of years as **carminative**, a herb that relieves gas pains and bloating. Other traditional uses include **colic**, **rheumatism**, and the familiar licorice-flavor in cough drops. 3

The therapeutic powers of anise's phytochemicals, including creosol and alpapinene, are commonly used in herbal remedies to break up **congestion**, and **ease coughing**. Anise is an **expectorant** that is also **antiseptic to the mucous membranes**. This means that anise does double duty: it kill **germs** while clearing the lungs of congestion.1

Anise and the closely related fennel both contain *anethol* which has **estrogenic properties**. Both of these herbs have a folklore reputation as tonics for women who are **nursing** and want to **increase milk production** , or have **menstrual problems** like delayed or skimpy periods.

- **Preparation Methods & Dosage**

:Sweet and very aromatic, anise can be used in tea, or in baking and cooking, the taste compliments cookies, cakes, and pasta dishes. Aniseed gives the Greek liqueur ouzo it's distinctive licorice taste.

- **Side Effects:**

Narcotic in large doses. Anise seeds contain anethole, a plant hormone similar to human estrogen, that promotes menstruation, and lactation in nursing mothers. Anise should not be used while pregnant and in young babies. The essential oil is for topical use only.

## **Antiseptic Liniment**

**1/2 oz. lavender flowers**

**1/2 oz. rosemary leaf**

**1/2 oz. chamomile flowers**

**1/4 oz. calendula flowers**

**16 oz menstruum**

**Start by weighing out the powders and putting them in a pint jar.**

**Pour Rubbing alcohol over the herbs**

**Stir and put a lid on the jar. Place the mixture in a warm location and let it sit for 4 weeks.**

**Strain and rebottle. Label the bottle clearly**

**FOR EXTERNAL USE ONLY**

**(rubbing alcohol should not be taken internally).**



# Cold Season Vapor Rub

1/2 Extra Virgin Olive Oil

2 Level T Beeswax

20 Drops Eucalyptus Oil

20 Drops Peppermint Oil

20 Drops Rosemary Oil

20 Drops Cinnamon or Clove Oil

1. Melt Beeswax with Olive Oil in double boiler until just melted. Take off heat.
2. Add essential oils (if this is for children cut the oil amounts in half),
3. Stir until well mixed and pour into tins or lip balm tubes.

To make with fresh herbs, infuse olive oil with 1 T of each , fresh herb over a double boiler, on low heat for 2 hours.

# DID YOU KNOW?



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WRAPPED GINGER CAN  
REMOVE MUCUS FROM  
YOUR LUNGS IN JUST ONE  
NIGHT, AND CAN  
COMPLETELY STOP A BAD  
COUGH.



Rosemary Gladstar's  
**The Science &  
Art of Herbalism**



An Outstanding Herbal Home Study Course

# **Tea Formula for Headaches**

## **by Rosemary Gladstar**

3 parts Chamomile

3 parts Lemon Balm

1 part Passionflower

1 part Skullcap

Combine the herbs preparing as an infusion,  
drink 1/2 cup every hour until symptoms subside.

[www.scienceandartofherbalism.com](http://www.scienceandartofherbalism.com)

# Measles Treatment

**Measles** is one of the most contagious of all infectious diseases; up to 9 out of 10 susceptible persons with close contact to a **measles** patient will develop **measles**. The virus is **transmitted** by direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes.

Measles depletes vitamin A in the body. Low vitamin A levels increase the risk of complications. Vitamin A supplements are needed for anyone with measles.

*Earthley*  
-wellness-

Paprika 2463mcg (82%RDA)

Cayenne Pepper 2081mcg (69%RDA)

Dill weed, fresh 386mcg (13%RDA)

Bay leaf 309mcg (10%RDA)

Sage, ground 295mcg (10%RDA)

Basil, fresh 264mcg (9%RDA)

Savory, ground 257mcg (9%RDA)

Thyme, fresh 238mcg (8%RDA)

Peppermint, fresh 212mcg (7%RDA)

Spearmint, fresh 203mcg (7%RDA)

Rosemary, fresh 146mcg (5%RDA)

# MEASLES symptoms



Poultry seasoning 132mcg (4%RDA)

Cumin seed 64mcg (2%RDA)

Mace, ground 40mcg (1%RDA)

Allspice, ground 27mcg (1%RDA)

Pepper, black 27mcg (1%RDA)

Saffron 27mcg (1%RDA)

Caraway seed 18mcg (1%RDA)

Anise seed 16mcg (1%RDA)

Cinnamon, ground 15mcg (1%RDA)



## Astragalus

### Latin Name:

Astragalus membranaceus

### Alternate Names:

Mongolian milkvetch

### General Information:

Astragalus has been used as a dietary supplement for many conditions, including for **diarrhea, fatigue, anorexia, upper respiratory infections, heart disease, hepatitis, fibromyalgia**, and as an adjunctive therapy for **cancer**. Astragalus is an adaptogen, (helps protect the body against various stresses, including physical, mental, or emotional stress.)

Astragalus is used to **support the immune system**, preventing **colds** and upper respiratory **infections**, **lowering blood pressure**, treating **diabetes**, and **protecting the liver**.

Astragalus has **antibacterial** and **anti-inflammatory** properties. From **arthritis** to **heart disease**, inflammation is often the culprit of the damage. Many studies show that thanks to its saponins and polysaccharides, astragalus can reduce inflammatory response in connection to a number of illnesses and conditions, from helping to **heal wounds** and **lesions** to reducing inflammation in **diabetic kidney disease**.

It may be helpful for people with *severe forms of heart disease*, relieving symptoms, lowering cholesterol levels, and improving heart function. At low-to-moderate doses, *astragalus has few side effects*. The flavonoids present in astragalus are **antioxidants** that help prevent **plaque buildup in arteries** and narrowing of vessel walls by protecting the inner wall of the vessel.

In addition, a 2014 study published in the Chinese Journal of Integrative Medicine suggests injection of astragalus, combined with conventional treatment for viral myocarditis (inflammation of the middle layer of the heart wall), makes treatment more successful in heart conditions. During a heart attack, heart muscle damage occurs when there is a lack of blood supply and oxygen. At that time, calcium

overload creates secondary damage. Astragalus may prevent additional heart muscle damage by regulating calcium homeostasis in the heart.

One early study suggested astragalus may **improve blood counts** in people with aplastic **anemia**, and assists in **lowering blood sugar**. Astragalus has been studied progressively as an **antidiabetic**. Studies show its ability to **relieve insulin resistance** and treat diabetes naturally.

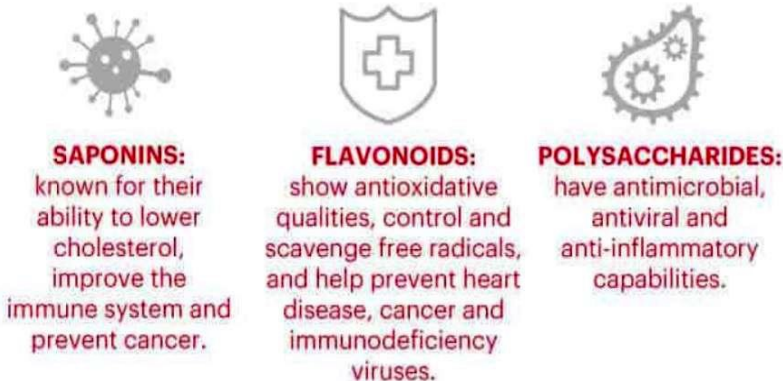
The herb's collection of saponins, flavonoids and polysaccharides all are effective in treating and **regulating type 1 and 2 diabetes**. They're able to increase insulin sensitivity, **protect pancreatic beta cells** (the cells in the pancreas that produce and release insulin) and also act as anti-inflammatories in areas related to diabetes symptoms.

**Kidney disease** in diabetics is also a common problem, and astragalus has been used to treat kidney illness for many years. More recent studies in humans and animals have shown astragalus can slow the progress of kidney problems in diabetics and **protect the renal system**.

Some studies suggest astragalus may help **reduce side effects from chemotherapy**. Used widely for **Chronic Hepatitis**.

Preliminary studies suggest astragalus may have anti-tumor effects, specifically against **melanoma** and **leukemia**. Many recent screenings have shown the success of astragalus saponins, flavonoids and polysaccharides in decreasing or **eliminating tumors**. In instances of chemo-resistance treating liver cancer, astragalus has shown potential in *reversing multidrug resistance* and as an addition to conventional chemotherapy, according to a study published in the *Journal of Pharmacy and Pharmacology*.

Astragalus contains three components that allow the plant to have such a positive impact on human health:



#### Parts Used:

Root

#### Cautions

Astragalus may reduce the effectiveness of immunosuppressive drugs including cyclophosphamide (Cytoxan, Neosar) taken by cancer patients and similar drugs used by organ transplant recipients. Other drugs that

suppress the immune system include azathioprine (Imuran), basiliximab (Simulect), cyclosporine (Neoral, Sandimmune), daclizumab (Zenapax), muromonab-CD3 (OKT3, Orthoclone OKT3), mycophenolate (CellCept), tacrolimus (FK506, Prograf), sirolimus (Rapamune), prednisone (Deltasone, Orasone), corticosteroids (glucocorticoids), and others.

Astragalus can increase urination and, as a result, might affect the elimination of the drug lithium allowing it to build up in the body leading to serious side effects. *Astragalus may also affect blood*

*sugar levels and blood pressure, and studied with some success against Gastrointestinal Cancers.*

Astragalus is considered safe for most adults although its side effects are not known. However, the NMCD review concluded that doses greater than 28 grams might limit the activity of the immune system and advised **pregnant women and nursing mothers to avoid it** since not much is known about the effects of astragalus during pregnancy and breast-feeding.

Also, since taking astragalus might make the *immune system more active* in individuals with auto-immune diseases such as **multiple sclerosis, lupus and rheumatoid arthritis, the review suggested that individuals with these conditions avoid it.**

There are no known interactions between astragalus and other herbs or supplements.



## **Blanket Flower**

**Latin Name:**

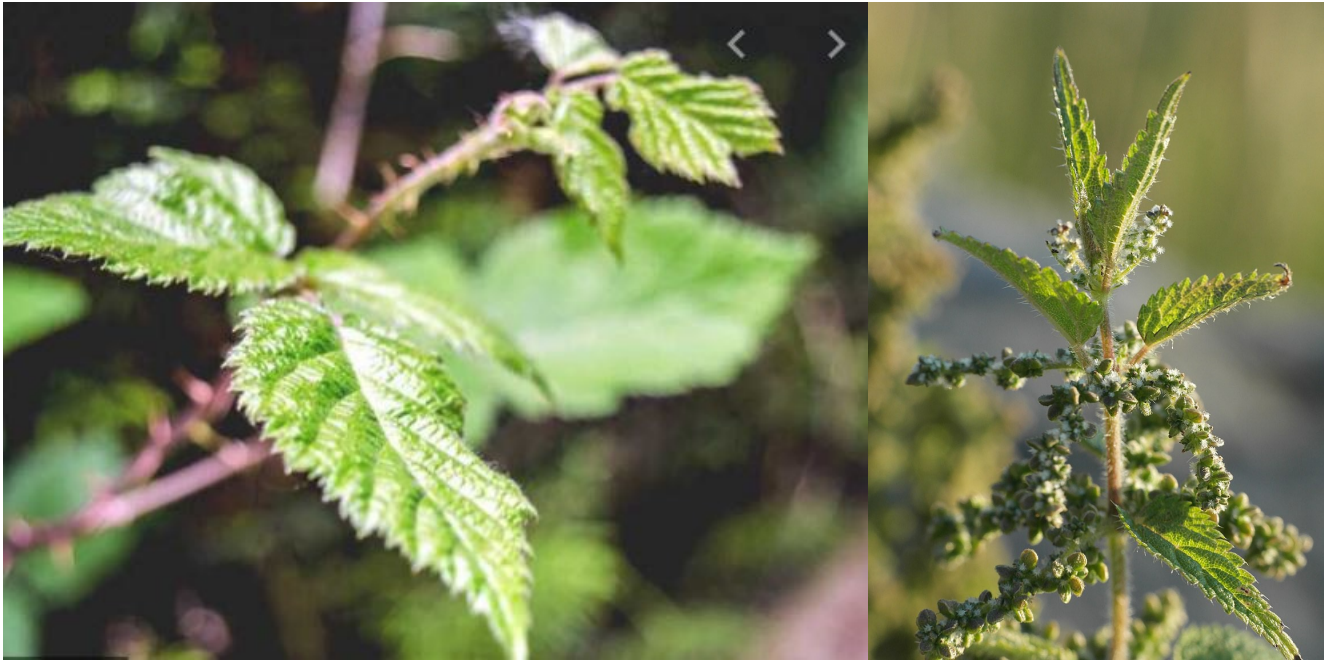
Gaillardia pulchella

**Alternate Name:**

Indian Blanket, Firewheel, Girasol Rojo

**General Information:**

The plant is used as a diuretic, taken to give relief from painful urination. An infusion of the leaves is taken internally, and a poultice applied externally, in the treatment of gout. Anti rheumatic



## Stinging Nettle

### Latin Name

Urtica Dioica

### Alternate Names

Bichu, Common Nettle, Feuille d'Ortie, Graine d'Ortie, Grande Ortie, Great Stinging Nettle, Nettle, Nettle Leaf, Nettle Seed, Nettle Worth, Nettles, Ortie, Ortie Brûlante, Ortie des Jardins, Ortie Dioïque, Ortie Méchante, Ortiga, Small Nettle, Stinging Nettles, Urtica, Urtica dioica, Urtica urens, Urticae Herba et Folium, Urticae Radix

### General Information

Anti-inflammatory, especially for Arthritis, and arthritis pain. Helpful for Enlarged Prostate, studies show it may prevent the conversion of testosterone into dihydrotestosterone — a more powerful form of testosterone, reducing the size of the prostate. Helpful for urination problems, long and short term.

Use as a tonic for the urinary tract and adrenals, nettle helps to soothe all sorts of woes such as chronic urinary tract infections and stress. Regular use of nettle assists in nourishing the mucus membranes of the digestive tract and eases constipation and diarrhea

Stinging nettle extracts can inhibit inflammation that can trigger seasonal allergies, stops histamine receptors and immune cells from releasing chemicals that trigger allergy symptoms. Useful for fever.

It is a vasodilator, by stimulating Nitric Oxide, that widens and relaxes blood vessels, so it's good for lowering blood-pressure. Similar chemicals relax your heart and reduce the force of contractions, acting as a calcium channel blocker.

Both human and animal studies link stinging nettle to lower blood sugar levels, and have shown that

taking 500 mg (1.25 teaspoons) of stinging nettle extract three times daily significantly lowered blood sugar levels.

Reduces bleeding, supports and strengthens the liver, and is a diuretic. Used in oils and creams is excellent for burns and wound healing.

Infused in oil, it's excellent for hair and skin.

Nettle is also “one of the highest sources of digestible iron in plant form” (Gladstar, 1993, p. 29).

Nettle is a deeply nourishing herb, helping to revitalize the entire body and increase overall health. This rich wealth of nutrients is helpful where there is muscle cramping from low vitamin and mineral intake, as well as assisting in nourishing the body after illness or prolonged stress (Tilgner, 1999; Weed, 1989).

### **Parts Used**

Root and top

### **As Food**

Stinging nettle's leaves and root provide a wide variety of nutrients, including:

- **Vitamins:** Vitamins A, C and K, as well as several B vitamins
- **Minerals:** Calcium, iron, magnesium, phosphorus, potassium and sodium
- **Fats:** Linoleic acid, linolenic acid, palmitic acid, stearic acid and oleic acid
- **Amino acids:** All of the essential amino acids
- **Polyphenols:** Kaempferol, quercetin, caffeic acid, coumarins and other flavonoids
- **Pigments:** Beta-carotene, lutein, luteoxanthin and other carotenoids
- **Antioxidants**

Flowers are edible, have a mild flavor and are used as a garnish for vegetable and fruit salads, cakes, desserts, cold drinks, tea and sorbet.

Petals of Sweet William will add zest to ice cream, sorbets, salads, fruit salad, dessert sauces, seafood and stir-frys.

### **Cautions:**

Handle with gloves and avoid touching raw plant with bare hands. The barbs in stinging nettle can inject:

- Acetylcholine (Neurotransmitter)
- Histamine (nitrogenous compound involved in local immune responses, as well as regulating physiological function in the gut and acting as a neurotransmitter for the brain, spinal cord, and uterus; involved in the inflammatory response and has a central role as a mediator of itching.
- Serotonin (Neurotransmitter. A hormone that stabilizes mood, feelings of well-being, and happiness.)
- Leukotrienes (inflammatory chemical that triggers allergies, and can cause tightening of airway muscles and the production of excess mucus and fluid. )
- Formic acid (anti-bacterial)

These compounds can cause rashes, bumps, hives and itchiness.

In rare cases, people may have a severe allergic reaction, which can be life-threatening.





## Flixweed

- Alternate Names:

Mustard Family (Brassicaceae), Fluxweed, Scurvy-grass,

- Latin Name:

Sisymbrium sophia

- General Information:

The ancient herbalists called this plant “Sophia chirurgum” the ‘*wisdom of surgeons*’. The plant’s seeds were used to treat **dysentery** (hence the fractured name of Fluxweed) and **parasites** from the gut, and it was also used externally to treat **wounds** and other injuries with its high **emollient** content. High in **Vitamin C**, this relative of broccoli, cabbage and kale is an excellent source for nutrition.

Used as an **anti-inflammatory**, **analgesic**, and **antipyretic effects** (fever), as well as **antioxidant** and **anthelmintic** activities were assessed and confirmed in several experimental studies with excellent results. In clinical trials it has been found to have **analgesic** (mild pain-killing) properties. Two studies claim that it has some **anticancer properties** too and inhibits the growth of **cancerous cells**. It also has **insect repellent** properties and repels in particular, mosquitoes and sand flies.

A poultice of the plant has been used to ease the pain of **toothache**. The juice of the plant has been used in the treatment of **chronic coughs**, **hoarseness** and **ulcerated sore throats**. (equal parts of the juice of fluxweed and honey and vinegar were mixed and taken as a gargle.)

A strong decoction of the plant has proved excellent in the treatment of **asthma**. The flowers and the leaves are **antiscorbutic** (anti-scurvy) and **astringent**. The seed is considered to be **cardiotonic**, **demulcent**, **diuretic**, **expectorant**, **febrifuge**, **laxative**, **restorative** and **tonic**. It is used in the treatment of **asthma**, **fevers**, **bronchitis**, **edema** and **dysentery**. It is decocted with other herbs for

treating various ailments. The *seeds* have formed a special remedy for **sciatica**. A poultice of the ground up seeds has been used on **burns** and **sores**.

### **Old World Instructions:**

*“Both the herb and seed of Flux-weed is of excellent use to **stay the flux** or lask of the belly, being drank in water wherein gads of steel heated have been often quenched; and is no less effectual for the same purpose than Plantain or Comfrey, and to restrain any other flux of blood in man or woman, as also to consoladate **bones broken** or **out of joint**. The juice thereof drank in wine, or the decoction of the herb drank, doth **kill the worms** in the stomach or belly, or the worms that grow in putrid and filthy ulcers, and made into a salve doth quickly heal all **old sores**, how foul or malignant soever they be. The distilled water of the herb works the same effect, although somewhat weaker, yet it is a fair medicine, and more acceptable to be taken. It is called Flux-weed because it cures the flux, and for its uniting broken bones, &c.. It is uniting broken bones, &c. Paracelsus &c extol it to the skies. It is fitting that syrup, ointment, and plaisters of it were kept in your house.”*

- **Edible parts of Flixweed:**

Young leaves and shoots - cooked. A bitter flavour. Used as a potherb. Seed - raw or cooked. A pungent taste, it is used as a mustard substitute. The seed can be ground into a powder, mixed with cornmeal and used to make bread, or as a thickening for soups etc. It can also be sprouted and added to salads etc. A nourishing and cooling beverage can be made by mixing the ground up seeds with water to make a thin batter. The seed contains 25.5 - 29.9% protein, 26.9 - 39.7% fat and 3.6 - 3.9% ash on a zero moisture basis.

- **Other uses of the herb:**

A semi-drying oil is obtained from the seed. Yields are not given. The leaves have been stored with corn to prevent it from going bad.



## Virginia Creeper

### Alternate Names:

Woodbind, false grapes, American Ivy, five-leaf ivy, and thicket creeper

### Latin Names:

Parthenocissus quinquefolia

### General Information:

The bark, leaves and roots are used medicinally. Used as an Aperiant (**Constipation**), **alterative**, **emetic**, **expectorant** and **tonic**. A poultice to help **reduce swellings**. A tea made from the leaves is an **astringent** and **diuretic**. Use only the very young leafing shoots.

It is used as a wash on **swellings** and **poison ivy** rash. A tea made from the plant is used in the treatment of **jaundice**. A tea made from the roots is used in the treatment of **gonorrhoea** and **diarrhea**, **Cholera**, and **Pneumonia**. The fruit can be useful in treating **fevers** and **Spleen** troubles.

**Stimulating, diaphoretic and cathartic.**

**Bark and twigs.** A tincture is made of the fresh young shoots and bark, which are chopped and pounded to a pulp, mixed with 2 parts by weight of alcohol, and left for 8 days in the dark before being strained and filtered off.

The properties depend on the special balsamic resin contained in its leaves and stems, as well as in its particular aromatic gum. The berries contain a very bitter principle somewhat like *quinine*. The alkaloid contained in it is termed Hederin with **anticancer** activities (especially Breast Cancer).

In **Tuberculosis & Lymph nodes** the drug is principally employed in the form of a syrup.

The juice is said to cure **headache**, when applied to the nostrils.

A decoction of the leaves applied externally will destroy **head lice** in children, and fresh Ivy leaves

bruised and applied will afford great relief to **bunions** and shooting **corns**.

The leaves have also been employed as *poultices and fomentations* in **glandular enlargements**, recurring **ulcers**, a specific type **corneal ulcer** in which the outer layer of the cornea (the epithelium) will not adhere to the underlying layer (the stroma).

A decoction of the leaves has been used as a **black dye**.

The berries possess much the same properties as the leaves, being strongly **purgative** and **emetic**.

An infusion of the berries has been frequently found serviceable in rheumatic (**Arthritic**) complaints and is reported to have cured **edema**.

The dried bark is also used in a decoction. When stripped from the branches (after the berries have ripened) and dried in the sun, it occurs in quilled pieces 2 to 3 inches long and from 1/4 to 1/2 inch in diameter, externally brown with enlarged transverse scars, the fracture showing a white bark with coarse flattened fibres in the inner portion. One ounce of the bark to a pint of boiling water is taken in wine glassful doses.

A fluid extract is also prepared from the bark and twigs, of which the dose is 1/2 to 1 drachm.

## **Cautions:**

Berries can be for many people poisonous and cause nausea, abdominal pain, bloody vomiting and diarrhea, dilated pupils, headache, sweating, weak pulse, drowsiness, twitching of face. Skin contact with the leaves in autumn can cause dermatitis in some people. The tissues of the plant contain microscopic, irritating needle-like crystals called raphides.



## Urva Ursi

- Alternate Names:

Mazanita, Bear Berry, Urva Ursi, Bear's Grape, Bear's Bilberry, Bear's Whortleberry, Foxberry, Burren Myrtle, Creashack,

- Latin Name:

*Arctostaphylos x coloradoensis*

- General Information:

Used traditionally as a **diuretic** for kidney diseases and **urinary tract infections**. It can be used for relief of symptoms of mild, recurrent infections in the lower urinary tract. It has been widely used as a **diuretic, astringent** and **antiseptic**. Native Americans used it as a **headache** cure, to treat **cystitis** (inflammation of the bladder ) and as a general tonic for **strengthening the kidneys**.

Bearberry leaves contain a high concentration of the phytochemical “arbutin” which is converted by bacteria in the urine into hydroquinone, a molecule which is anti-microbial and a highly potent bacterial killer.

As bearberry passes out of the body through the urinary tract it soothes irritation and reduces inflammation whilst fighting the bacteria that is the cause of this debilitating condition. However, bearberry works most effectively against UTIs when urine is kept alkaline by eating a generous plant-based diet and taking sodium bicarbonate. Arbutin also helps to reduce the accumulation of uric acid and can be beneficial in the treatment of kidney stones.

**Gastro-Intestinal Health:** The antibacterial properties of bearberry have been found to inhibit the activities of bacteria such as *E-coli* and *proteus-vulgaris* as well as some strains of *staphylococcus* bacteria, thus protecting against and helping, prevent intestinal infections. Its high tannin content can be effective in the treatment of **diarrhea** and **dysentery**.

**Wound Healing:** Bearberry also contains diuretic phytochemicals, including ursolic acid, which are powerful **astringents**, and *allantoin* which helps to *promote the growth of healthy new cells and the healing of wounds*. It also contains tannic acid, a phenolic acid, which studies have shown has a number of health benefits including **anti-viral, anti-fungal, anti-inflammatory** and **anti-tumor** activity.

- Dosage (LIMITED USE):

Tincture - 1 to 4 ml (30-120 drops) 2 x per day for **no more than 5 days**

Powder - 1 to 3g (1/4-3/4 teaspoon) 2 x per day for **no more than 5 days**

- **Precautions:**

While bearberry is highly beneficial, specifically for the urinary system, it **should not be used for more than five days** at a time.

Hydroquinone is a powerful compound that will kill bacteria, however, **overuse can cause damage to the liver.**

- **Pregnant or Breastfeeding:**

**Not recommended** for *children, or women who are pregnant or breastfeeding*. People with *high blood pressure* or people who suffer from *Crohns disease, digestive problems, ulcers, kidney or liver disease* should avoid Bearberry products.

Arctostaphylos uva-ursi (bearberry) contains a steroid, sitosterol, and riterpenoids, such as amyirin, betulinic acid, lupeol, oleanolic acid, taraxenol, ursolic acid, and uvaol. The main constituent is a glucoside called arbutin. Other constituents are methylarbutin, ericolin, ursone, gallic acid, and ellagic acid.



## Bladderwrack

*Not a Sanpete County Herb*

- **Alternate Names:**

Alga Noruega o Nudosa, Algue Laminaire, Fucus. Sea-Wrack. Kelp-Ware. Black-Tang. Quercus marina. Cutweed. Bladder Fucus. Fucus (Varech) vesiculeux. Blasentang. Seetang. Meeriche

- **Latin Name:**

Fucus vesiculosus

- **General Information:**

Bladderwrack is used for **thyroid** disorders including **underactive thyroid** (myxedema), **over-sized thyroid gland** (goiter), and **iodine deficiency**. It is also used for **obesity, arthritis, joint pain, “hardening of the arteries”** (arteriosclerosis), **digestive disorders, heartburn, “blood cleansing,”** and an **Anti-coagulant**, (blood thinner) **constipation, bronchitis, emphysema, urinary tract disorders, and anxiety**. Other uses include boosting the **immune system** and **increasing energy**.

Helpful for **hair loss, ulcers, constipation, poor mineral status**, and some **hormone imbalances**. Bladderwrack also contains **mucilage** and it's mineral content **supports the brain, nerves, blood vessels, hair, skin and nails**. It also contains **zeaxanthin** (an eye vitamin that, once inside the body, is drawn to the eyes. It makes its way into the lens, macula, and fovea (the center spot of the retina). Zeaxanthin helps build a yellow-colored pigment shield to **protect the eye cells** from the harmful effects of certain light sources, such as the sun), which can help to **protect the eye from oxidative and light-induced damage**.

In the case of iodized salt the *inorganic* form of iodine is added. Natural, organic sources, such as those derived from bladderwrack are much more *absorbable and easier for the thyroid gland to use* than the inorganic (mined) sources found in enriched foods.

Bladderwrack, which is rich in iodine, has the potential to **protect the thyroid from taking up radioactive iodine** in the case of *nuclear disaster*. (Radioactive iodine is strongly associated with the development of thyroid cancer, especially in infant and children populations.)

The iodine found in bladderwrack *binds with receptors on the thyroid gland*, essentially *filling the receptors*, making it impossible for radioactive iodine to bind and be utilized by the gland in the making of thyroid hormone. This can provide a short-term protection against a sudden threat. **Excess iodine can cause thyroid dysfunction**, so it is not advised long-term, especially in children. Individuals with a *hyperthyroid condition are not advised to take bladderwrack or iodine for long term*. **Short term use is best** and in times of stress on the Thyroid gland.

Some cases of hypothyroidism can be attributed to lack of iodine, and this causes a *swollen thyroid (goiter)*. When there is insufficient iodine available to the thyroid gland, it is not able to produce sufficient thyroid hormone. Thus, it cannot properly regulate the body's metabolism, a condition known as **hypothyroidism**. Hypothyroid individuals experience many symptoms due to a *lack of thyroid hormone including: fatigue, weight gain, hair loss, constipation, and frequent colds and flus*.

Many women have difficulty with irregular cycles and menstrual-associated diseases. One 2004 study found that taking 700-1400mg/day of bladderwrack helped to increase the menstrual cycle length and decrease the days of menstruation per cycle. Thus bladderwrack can help to regulate the female menstrual cycle.

Studies show that Bladderwrack assists in regulating blood sugar and is a good choice for those with Pre-diabetes,

You can apply bladderwrack to the skin for **skin diseases, burns, aging skin, and insect bites**.

- **Dosage:**

Dosage---Of charcoal, 10 grains to 2 drachms.

Of extract, 3 to 10 grains, in pills, massed with powdered Liquorice or Marshmallow roots, to reduce swelling and obesity.

Of liquid extract, 1 to 2 fluid drachms. It is the basis of many advertised nostrums. Sodium and potassium iodides are often added to supplement the small proportion of iodine. It is used in mixture form, generally with alkali iodides and sometimes in combination with Liquor Thyroidei.

Of decoction, 2 fluid ounces, three times daily.

Of infusion, 1 wineglassful.

Solid extract may be dissolved in diluted alcohol and mixed with syrup.

(All doses for combating obesity are gradually increased.)

Of fluid extract, 10 minims.

The Alginic acid obtained from seaweed is used to form an organic compound with iron, which is sold under the trade name of Algiron or Alginoid Iron. It contains about 11 per cent. of **iron** and is given in



doses of 2 to 10 decigrams (3 to 15 grains).

Bladderwrack can be eaten raw but it is usually found dried, or powdered for use as a **salt substitute**.

Supplemental bladderwrack can be found in tablet form, and also as a **tea**.

Women seeking to balance their menstrual cycle can supplement bladderwrack at between *700 and 1400mg daily*.

No Established Dose, Although 2 - 5 Gram Doses With Meals Is Often Used For Weight Loss.

*Works well with Other Forms Of Soluble Fiber & Bentonite Clay*

Do not take fiber supplements with a medication without consulting your Doctor first. It Can Bind And Prevent Proper Absorption.

Be Sure To *Drink Sufficient Water* (At Least 1 – 2 Cups) When You Are Taking Any Fibre Supplement, In Order To Prevent Constipation.



## Blue Spruce

- **Alternate Names:**  
Pinaceae (Pine Family)

- **Latin Name:**

*Picea pungens*

- **General Information:**

A **poultice**, Great for **coughs** (*see Pine Tip Syrup recipe below*) in syrups, as a steam (to be inhaled), or applied, hot (not too hot though!), to the chest. Resin: excellent for various **skin problems**, in salves. Nice in foot baths; there, I'd strain out the spruce but leave the fir in. (Fir has much softer needles; spruce is spiky). A bath or liniment is nice for **rheumatism** and similar aches and pains. It gets the **blood circulation** going. Use any edible conifer the same way: pine works, too. A hot tea works as well as a **liniment**, for rubbing onto painful joints. Fir for **respiratory complaints** especially if they have thick sticky **mucus** with a **dry hacking cough**. Spruce needles are effective in unplugging **congested sinal** and **nasal cavities**.

You can also use the sap to cover wounds in a pinch (works great by the way) better then band-aids and neosporin combined.

Make a strong pine/fir needle decoction and add it to the bath - wonderfully relaxing and **soothing to the muscles**. But it leaves a resin goo rim that is a little difficult to get rid of

Coconut Oil will dissolve pine tar resin.

- **Edible parts of Blue Spruce:**

Young male catkins - raw or cooked. Used as a flavouring. Immature female cones - cooked. The central portion, when roasted, is sweet and syrupy. The cones are about 7cm long. Inner bark - dried, ground into a powder and then used as a thickener in soups etc or added to cereals when making bread. An emergency food, it is only used when all else fails. Seed - raw. The seed is about 2 - 4mm long. It is rich in fats and has a pleasant slightly resinous flavour but is too small and fiddly to be worthwhile unless you are desperate. A refreshing tea, rich in vitamin C, can be made from the young shoot tips.

- **Spruce Tip Syrup:**

Spruce syrup is no secret though, bartenders make drinks from it and people are using it for all sorts of things. Basic spruce simple syrup is, ok, but there's a way to transform it into something very special, a concentrate with a deeper flavor than the original.

For the traditional syrup, you take some spruce tips and toss them with equal parts sugar, then pack them in a jar and put them in a sunny place for a couple months. The sugar gradually extracts water from the spruce and creates a syrup, which can be strained and used to flavor drinks, desserts and teas.

The easiest way is to just drain off the natural syrup and use as is.

After you extract the syrup, you cook it down slowly until the color changes to amber, which deepens the flavor. It's really fool-proof too, since if you cook the syrup down too far and it crystalizes or gets too thick, you can just loosen it with a little cool water to return it to the consistency you want, as long as it hasn't scorched.

You can use the spruce syrup like honey or maple.

You can make a decent version of this using mature spruce needles. Puree some spruce needles and water in a high-speed blender, than cook with sugar to make syrup, strain out the solids, then continue cooking the syrup down per the below recipe.

## **Caramelized Spruce Tip Syrup**

*Use it to flavor ice cream, panna cotta, cheesecake, a mousse, Italian meringue, there's plenty of possibilities. One of my favorites is the way the French serve their fresh cheese-with a little drizzle on top.*

**Yield:** 2 cups of caramelized syrup

### **Ingredients**



- 4 packed cups spruce tips
- 2 cups sugar
- 2 cups water

### **Method**

Combine all ingredients and bring to a simmer, then cool and allow to infuse overnight. The next day, strain the syrup, then return it to the pan, cooking until it takes on a light amber color and the consistency resembles warm honey. Transfer the syrup to labeled, dated container and refrigerate until needed. If the syrup becomes very thick when it's cold, thin it with a bit of cold water until it reaches your desired consistency.

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**Infused Honey:** Fresh young tender tips of handsome Douglas Fir or other evergreen, fill a jar with them, but not crammed in. Then fill with honey, flip the jar when I walk by it, allow it to infuse even forever.

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- **Side Effects:**

Oils and resins of various conifers can be **irritating to sensitive kidneys**. If you get a lower back pain from eating too much fir (or spruce) shoot syrup, slow down on the conifers.



## Aster

- Alternate Names:

Elcampane, Hairy Michaelmas-daisy or Michaelmas daisy, Starwort, blue chamomile, blue daisy, New England aster, fall-rose and frostweed

- Latin Name:

*Symphyotrichum novae-angliae*

- General Information:

A poultice of the root has been used in the treatment of **pain, fevers and diarrhea, and possibly for Micobaterium (Black Plague)**. The ooze of the roots has been sniffed in the treatment of **catarrh** (*excessive discharge or buildup of mucus in the nose or throat, associated with inflammation of the mucous membrane.*) A decoction of the whole plant has been used in the treatment of all kinds of fevers and in the treatment of **weak skin**. *Aster novae-angliae* is deployed in decoction internally, with a strong decoction externally, in many **eruptive diseases of the skin**; it removes also the poisonous state of the skin caused by some plants. Aster is uniquely **antispasmodic** for the lung tissue; it **relaxes and dilates the respiratory passages**. Use Steam Inhalation for **congestion**. Aster tea was used to treat earache, relieve gas pains, stomach aches, & fevers. The flowers and roots were both commonly used. Excellent aromatic nervine in many cases preferable to Valerian in epilepsy, spasms, hysterics. Stimulant and diaphoretic. Warming expectorant, relieves cough, expels phlegm. Primarily used for chronic cough, especially cold induced cough with copious sputum that is difficult to expectorate, or coughing of blood streaked sputum. A tincture made from the flowering tops can immediately relieve muscle constriction around the airways.

- Medicinal & Edible Parts

*Aster novae-angliae* is deployed in decoction internally, with a strong decoction externally.

The root has been used for centuries in Chinese medicines. The flower and leaves are also reported to provide health benefits. Flowers can be eaten fresh and added to a salad as can the leaves. When harvesting in September or early October be sure the plant is dry (dew is gone) and cut stem about 10 cm above the ground. Hang upside down in a cool, dark location until totally dried (crumbles easily). Most of the flowers will become white and fluffy but they can still be used. Add dried plant to salads, main dishes or make a cup of tea.

- **Habitat and Growing Instructions:**

When harvesting in September or early October be sure the plant is dry (dew is gone) and cut stem about 10 cm above the ground. Hang upside down in a cool, dark location until totally dried (crumbles easily). Most of the flowers will become white and fluffy but they can still be used. Add dried plant to salads, main dishes or make a cup of tea.

- **Side Effects:**

Rare, none documented.



## Black Nightshade

- **Alternate Names:**

Garden Nightshade, Herbe à Gale, Herbe aux Magiciens, Herbe Maure, Houndsberry, Kakamachi, Kakmachi, Long Kui, Makoi, Morelle Noire, Myrtille de Jardin, (Petit) Petty Morel, Poisonberry, Raisin de Loup, Solanum niTomate du Diable, Tue-Chien, Yerba Mora, American black nightshade, Glossy nightshade, American black nightshade, Black nightshade, Large-fruited black nightshade, American nightshade, small-flowered nightshade, Common purple nightshade, Glossy nightshade, Smallflower nightshade, White nightshade, Apple of Sodom, Cr&egrave;ve-Chien, Makoi

- **Latin Name:**

*Solanum nigrum*

- **General Information:**

Black Nightshade contains cytoprotective agents that stimulate mucus production and enhance blood flow throughout the lining of the gastrointestinal tract and acts as a purgative (laxative). These agents also work by forming a coating that protects ulcerated tissue. Good for lung health as well. It is a cardioprotective, immuno-modulatory, anti-angiogenesis, anti-metastasis and anti-carcinogenic properties. Breast Cancer cells are extremely sensitive to this herb.

Used in the treatment of epilepsy in Nigeria.

Antinociception properties (blocks painful stimulus), Compared with regular narcotics, Black Nightshade (intraspinal narcotic antinociception) has a longer duration. Recorded as a famine food in 15th Century China. Research has confirmed that black nightshade has anti-herpes properties. It is used to induce sweating, is a painkiller and a sedative. Used for stomach irritation, cramps, spasms, and anxiety. Apply directly to the skin for psoriasis, hemorrhoids, and abscesses. The bruised, fresh leaves are put on the skin to treat swelling, inflammation, burns and ulcers. Possibly used for Edema. A leaf when chewed will bring healing canker sores.

1 or 2 grains of the dried leaves, infused in boiling water (above 243 degrees) It's leaves are recommended to be boiled as a vegetable with the cooking water being discarded and replaced several times to remove toxins , act as a strong sudorific (sweating). The bruised fresh leaves, used externally, are said to ease pain and abate inflammation, and the Arabs apply them to burns. Their juice has been used for ringworm, gout and earache, and mixed with vinegar, is said to be good as a gargle and mouthwash.

It is medicinally used in the management of pneumonia and aching teeth, fever, tumor, as hepaproductive (protects the liver) and diuretic, as well. The plant is frequently used as an elemental ingredient for clinical traditional Chinese medicine cancer therapy. It inhibits growth of cervical carcinoma, since it inhibits the multiplying of cells and shuts down the

The leaves are can be used as a poultice to treat cancerous sores, wounds and leucoderma (a condition where the pigment is lost from areas of the skin, causing white patches).

*Solanum nigrum* is eaten and used as animal fodder all over the world, though many sources continue to describe it as toxic. As with all members of the *Solanum* family there's still a great deal of superstition when it comes to toxicity. Remember that many Europeans considered tomatoes to be poisonous well into the 18th century. Even today tomato leaves, used by the Filipinos as a seasoning will still be labeled by many as poisonous.

- **Harvesting and Identification**

**Berries** – If the berries are ripe, they are safe to eat. The berries will be a dark purple/black color. As with most nightshades, when the fruit is *not* ripe (in this case, green colour), *it can be poisonous*.

**Leaves** - According to Ayurveda, the leaves of Kakamachi is one of the best leafy green vegetables one can eat for health. Fry in ghee (or butter) to purify at temperatures above 243 degrees..

It rarely grows more than a foot or so in height and is much branched, generally making a bushy-looking mass. It varies much according to the conditions of its growth, both as to the amount of its dull green foliage and the size of its individual leaves, which are egg-shaped and stalked, the outlines bluntly notched or waved. The stem is green and hollow.

The flowers are arranged in clusters at the end of stalks springing from the main stems at the intervals between the leaves, not, as in the Bittersweet, opposite the leaves. They are small and white,



resembling those of Bittersweet in form, and are succeeded by small round berries, green at first, but black when ripe. The plant flowers and fruits freely, and in the autumn the masses of black berries are very noticeable; they have, when mature, a very polished surface.

On account of its berries, the Black Nightshade was called by older herbalists 'Petty Morel,' to distinguish it from the Deadly Nightshade, often known as Great Morel. Culpepper says: '*Do not mistake the deadly nightshade for this,*' *cautiously adding, 'if you know it not, you may then let them both alone.'*

When the plant grows at all in a bunchy mass, strip off the stems singly and dry them under the same conditions as given above for Belladonna leaves, tying several stems together in a bunch,



however, spread out fanwise for the air to penetrate to all parts, and hang the bunches over strings, rather than in trays. The bunches should be of uniform size. Use the whole black nightshade plant including leaves, fruit, and root. Planting Black Nightshade assist in reclaiming degraded land as well.

- **Constituents**

**Steroidal glycosides** (*cardiac healing*), **steroid alkaloid** (makes pain relief last longer), **steroidal saponins** (a kind of natural detergent), **glycoprotein** (*function as enzymes, transport proteins, receptors, hormones and structural proteins.*)

**Solanum** is found in Black Nightshade, the same compound found in a potato (*Solanum tuberosum*) and a-tomatine from tomato (*Solanum lycopersicum*) are both steroidal saponin. They contribute to the protection of the plants against attack by phytopathogenic fungi. Solanine is toxic and has fungicidal and pesticidal properties, and it is one of the plant's natural defenses. It can occur naturally in any part of the plant, including the leaves, fruits, and tubers. **Tomatine**, which has fungicidal properties, is toxic and found in the stems and leaves of tomato plants. Some microbes produce an enzyme called tomatinase, which can degrade tomatine, rendering it ineffective as an antimicrobial.

- **Side Effect:**

Possible Abortifacient, not recommended when pregnant. Originally used by Maori women as a Contraceptive. The berries unripe are high in Solanine, as the poisonous principle is chiefly associated with all green parts (the alkaloid is the same as the green on a potatoe). Cattle will not eat the plant and sheep rarely touch it.

It is applied in medicine similarly to Bittersweet, but is more powerful and possesses greater narcotic properties.

The fruit that's unripe can cause nausea, vomiting, headache, and other side effects.

At very high doses, signs of poisoning include irregular heartbeat, trouble breathing, dizziness, drowsiness, twitching of the arms and legs, cramps, diarrhea, paralysis, coma, and death, and yet a chemical survey of various members of the section Solanum reported the presence of potentially toxic alkaloids **only in unripe fruits**. It concluded that the plants are probably *only poisonous to indiscriminate feeders* such as livestock who might consume the whole plant and unripe berries.

However, the plant is noted as rarely fatal, when eating the ripe berries, although for some it may cause mild abdominal pain. All parts of the plant except the ripe fruit contain the toxic glycoalkaloid solanine, but the highest *concentration of Solanine* is in the Unripe Fruit.

It is highly probable that *boiling destroys any toxicity* inherent in these species; most ethonobotanical reports of their use as vegetables refer to cooking, boiling and even repeated boiling with the liquid being discarded; similar reports of the use of berries also refer to their being poisonous when uncooked or unripe.

Drying, however, *does not destroy* the toxicity of the solamine-type alkaloids. It is these glycosidal alkaloids which are responsible for the bitter taste often associated with the Solanums.

Solanine is a glycoalkaloid poison found in species of the nightshade family within the genus Solanum, such as the potato (*Solanum tuberosum*), the tomato (*Solanum lycopersicum*), and the eggplant (*Solanum melongena*). It can occur naturally in any part of the plant, including the leaves, fruit, and

tubers. Solanine has pesticidal properties, and it is one of the plant's natural defenses. Solanine was first isolated in 1820 from the berries of the European black nightshade (*Solanum nigrum*), after which it was named.

Studies:

traditionally used herbal plant is also subjected to anticancer evaluation. Nine bioactive withanoloids were isolated from the fruit of *W. coagulans* via bioactive-guided fractionation for cancer chemoprevention (Haq et al., 2013). All the isolated withanoloids show varying degree of cancer chemopreventive potential, and among isolated compounds the 1-withacoagulin-H (steroidal lactone) was found to be most active in inhibiting tumor necrosis factor- $\alpha$  (TNF- $\alpha$ )-mediated nuclear factor-kappa B (NF- $\kappa$ B) activation. Recently, *W. coagulans* fruit extract was evaluated against human breast cancer (MDA-MB-231) and Vero cell lines by Ahmad et al. (2017). It was observed that the extract was active against human breast cancer while noncancerous Vero cell lines remain unaffected. Further, the DNA fragmentation pattern of the treated cells reveal clear sign of apoptotic-mediated cell toxicity of the berry extract against the human breast carcinoma. Withaferin A, a major constituent of *W. coagulans*, was detected in the bioactive extracts.

- **Some Doses and Use**

Take 50 gram dried Black Nightshade berries. Soak in a jug of water. Swish with lukewarm twice a day.

Take 10 gram Black Nightshade ( Makoya ) Leaves. Boil in one glass of water. Swish with lukewarm twice a day.

Take Black Nightshade ( Makoya ) stem and leaves in equal quantity. Prepare a decoction. Have 2 teaspoons twice a day.

Grind Black Nightshade ( Makoya ) with little water to make a paste. Apply it on affected parts twice a day.

Grind Black Nightshade ( Makoya ) Berries to make a paste. Apply it on the affected part for 20 minutes.

Take flowers and berries of Black Nightshade ( Makoya ) in equal quantity. Prepare a decoction. Have 2 tablespoons twice a day.

Drink the unrefined leaf juice of Black Nightshade once daily. You can also mix with any other juice.

Take out the juice from the leaves of Black Nightshade. Use this juice as ear drops to get relief from pain in ears.

Boil Black Nightshade berries in water in one glass of water. Let it cool. Strain it and extract the juice of berries by grinding it. Gargle and rub the juice on the affected area, two times a day.



# Lemon Verbena

- **Alternate Names:**

Lemon Beebrush

- **Latin Name:**

Aloysia citrodora

- **General Information:**

The **metabolic effects** of lemon verbena tea may help *increase the rate of fat burning* by optimizing various bodily processes. There are only two calories per serving, and it can help in preventing you from snacking and compromising your diet.

Some studies show that lemon verbena may help with obesity. The researchers found out that lemon verbena extract **reduced**

**triglyceride accumulation, oxidative stress, and inflammation.** Lemon verbena tea has **anti-spasmodic** qualities, which means it can help eliminate **cramping and bloating.** **Boosts physical performance.** Research has shown that its high *O* reduces damage to muscles during workouts, without inhibiting muscle mass and stamina. This makes lemon verbena tea a good pre-workout companion.

Studies have connected lemon verbena with **lower oxidative stress levels** and improved health, as evidenced by an **increase in white blood cells**, the immune system's first line of defense. **Reduces joint pain** at the same time allows for faster recovery for joint-related injuries. Affects the **hormonal balance** in the body. Lemon verbena tea has been known to be a **calming** beverage for people with **nervous afflictions** or **chronic stress.** It can help calm your mind and body. Often used as a **fever reducer** and **sedative,**

- **As Food:**

Use lemon verbena leaves fresh or dried to flavor, fish, poultry, vegetable dishes and salad dressings. Sweet but complex lemon fragrance.

# Common Lilac

- Alternate Names:

Lilac

- Latin Name:

*Syringa vulgaris*

- General Information:



Lilac has been using medicinally for centuries. It may be used as a **substitute for aloes**, for **malaria** and **fever**. It was first introduced in colonial America as a **vermifuge** which is the threat for intestinal worms. The leaves and the fruit are **antiperiodic** (preventing the periodic return of attacks of disease, as of certain fevers, esp. malaria. an antiperiodic substance or drug.), **febrifuge**, **tonic** and **vermifuge**. The bark or leaves have been chewed by children as a treatment for **sore mouth**.

Can treat **rashes** and **sunburn**, **skin treatment**, **scrapes**, **minor injury**, and **scrapes**. Benefits of lilac oil. Oil is used for **stomach** related issues and **intestinal worms**. It fights against **bacterial** and **fungal infections**. It helps reduce **fine wrinkles**.

Decoction of leaves is used as astringent and anti-pyretic, and macerated flower in oil is used to soothe the skin in Italy.

Bark, fruits and leaves are crushed and boiled in water and used as **appetizer** and **antipyretic** in Bulgaria.

Leaves and the fruit are **antiperiodic** (preventing reoccurring illness), **febrifuge**, **tonic** and **vermifuge**. Bark or leaves have been chewed by children as a treatment for **sore mouth**. In the past, lilac was ingested to rid the intestines of **parasitic worms**, and was also used in the treatment of **malaria**.

*Lutein* in lilac petals may help to reduce the likelihood of developing **cataracts**, It may also be useful for preventing macular degeneration.

Lilacs soaked in warm spring water for 30 minutes, strained, bottled and refrigerated can be used on the face as a tonic and as a healing spritz for some facial afflictions like acne.

Lilacs have been used to treat **diphtheria** (both internally and as a gargle). Lilac tea can be used as a **hair tonic**.

Michael Moore indicates that the California lilac is, “An excellent home remedy for **menstrual cramps**, **nosebleeds**, **bleeding hemorrhoids**, and **old ulcers** as well as capillary ruptures from **coughing** or **vomiting**.”

The Chinese apply it externally to treat **frostbite**. Root is considered an **abortifacient**, **anticoagulant**, **purgative** and **visicant** (a gentle and localized increase in surface blood flow or **vasodilator**).

- **Medicinal Parts**

Flowers, leaves and fruit, and root.

- **Recipes**

Lilac Syrup

**Ingredients**

- 1 cup of water
- 1 cup of sugar
- 1 cup of lilac flower buds

**Preparation**

Heat sugar and water on the stove until it dissolved, Add flowers, Simmer for 10 minutes, add blueberries for color  
Filter the syrup, let cool, refrigerate.

**Flowers - raw or folded into batter and fried to make fritters.**



## Matrimony Vine

- **Alternate Names:**

Chinese wolfberry, Goji Berry

- **Latin Name:**

Lycium halimifolium

- **Family:**

Solanaceae, Nightshade

- **General Information:**

### **Edible Uses**

The *fruit of matrimony vine is edible* raw or cooked. It is a berry about 2 cm in diameter, and has a mild sweet *licorice flavor*. Like all nightshades, only the fully ripe fruits should be eaten, unripe berries could be poisonous if too many are ingested. Young shoots are edible cooked. Used mainly as a *flavoring*, they can also be lightly cooked for 3 - 4 minutes and used as a vegetable, the flavor is somewhat cress-like but has also been described as peppermint-like. The leaves wilt rapidly once they have been harvested. Some caution is advised, since the plant belongs to a family that often contains toxins. The leaves are a *tea substitute*.

### **Medicinal Uses**

A sweet tonic decoction made from the fruits is used to **lower blood pressure** and **blood cholesterol levels**. It *acts mainly on the liver and kidneys*. *Root infusions and extracts* are used in treatment of high blood pressure.

The fruit is taken internally in the treatment of high blood pressure, **diabetes**, **poor eyesight**,

**vertigo, lumbago, impotence and menopausal** complaints.

The fruit is harvested when fully ripe and is dried for later use.

The root bark is a *bitter, cooling, antibacterial* herb that controls **coughs** and **lowers fevers**.

It is taken internally in the treatment of **chronic fevers, internal hemorrhages, nosebleeds, tuberculosis, asthma** etc. It is applied externally to treat **genital itching**.

The plant has a long history of medicinal use, both as a general, **energy restoring tonic** and also to cure a wide range of ailments from **skin rashes** and **eyesight** problems to **diabetes**.

Also used as **antipyretic** (fever), **anti-inflammatory** and **anti-senility** agents.

The fruit of many members of this genus is a very **rich source of vitamins and minerals**, especially in *vitamins A, C and E, flavanoids and other bio-active compounds*.

It is also a fairly good source of **essential fatty acids**, which is fairly unusual for a fruit. It is being investigated as a food that is capable of reducing the incidence of **cancer** and also as a means of *halting or reversing the growth of cancers*.

*L. barbarum* contains *large quantities* of **amino acids** and **carotenoids** aiding in nutritional balance and eyesight.

The berries also contain many *essential oils* and *sesquiterpenoids lactones* (can disrupt a microbe's cell structure to destroy it), which have been thought to have **anti-cancer activities**. The bark is rich in *polyamine kukoamine A* which aids in reducing blood pressure, as well as *peptides Lyciumine A and B* that produce **antioxidant** and immune enhancing effects.

Help moisten and relieve **mucous** and dry **coughs**. It is applied in the treatment of such conditions as consumptive diseases, **Tuberculosis**, accompanied by thirst (includes **early-onset diabetes and tuberculosis**), dizziness, diminished visual acuity, and chronic cough. Great for **Liver, Kidney and lungs**.

Will and **brighten the eyes**. The root bark is used for similar purposes, but considered energetically cold and is used to clear heat. *The root is used to support the liver*.

Goji berry juice was found to increase overall feelings of **wellbeing** and to support **immunological markers lymphocytes and interleukins**. Goji berries was shown to *increase plasma levels of zeaxanthin*, a **macular** supporting antioxidant. When ingested, *zeaxanthin accumulates in fatty tissues, but especially in the macula, a region of the retina*. It is believed that by having a good supply of this compound, the macula is *protected from degeneration*, which can be induced by excessive sun exposure (UV light) and by other "oxidative" processes.

*Lutein*, another yellow carotenoid that accumulates in the macula and provides similar protection, is an ingredient of yellow chrysanthemum flowers (*juhua*) that are often combined

with lycium fruits in traditional Chinese herb formulas to benefit the eyes, including deteriorating vision that occurs with aging and may, in some cases, correspond to macular degeneration. The effective daily dose of these two carotenoids, from food and supplements, has been estimated to be about 10 mg.

In a recent comparison, the *antioxidant activity of dried goji berries was at least 4-fold higher than that exhibited by dried cranberries and raisins*. Goji berries are essentially a multivitamin capsule in berry form; they contain so many vitamins, minerals, and elements that it's nearly impractical to list them, all of which have been beautifully packaged in a form readily absorbed by the human body. Benefits from goji berry consumption include (to name a few) **diabetes regulation**.

- **How to Use:**

A tonic tea is made from the leaves.

Lycium fruit is most often incorporated into *complex herb formulas*, in which its dose is in the range of *6–18 grams*. Since other herbs in the formula could contribute significant amounts of compounds such as carotenoids and polysaccharides, this dose may be insufficient if lycium is used as a single herb remedy instead. There have been a few reports of using lycium fruit as a single herb or as a major component in a small recipe.

For example, in the treatment of atrophic gastritis, one of the recommended therapies is to consume lycium fruits, 10 grams each time, twice daily. In folk medicine, for diabetes it is recommended to consume 10 grams each time, two or three times daily.

As a food therapy **for strengthening the elderly or debilitated**, it is cooked with lean pork, bamboo shoots, and typical Chinese flavorings, and the daily dose would be 15–30 grams.

As a dietary supplement for eye health, a dose of 15 grams per day was deemed beneficial in supplying adequate zeaxanthin (estimated at 3 mg/day).

A simple tea for decreased visual perception is made from 20 grams lycium fruit as a daily dose. Thus, the dose in complex formulas of 6–18 grams shifts to a dose of 15–30 grams when it is the main herb, or about a 2.5-fold increase in the dose.

Like other commonly eaten fruits, lycium is non-toxic if ripe. Toxicity studies showed that *injection* of 2.4 grams/kg of lycium fruit extract did not cause adverse reactions; the LD50 by injection was determined to be about 8.3 grams/kg, a large amount.

A possible case of interaction *of lycium fruit with Warfarin* (coumadin) was reported; however, given the high frequency of use of lycium fruit and of Warfarin, the lack of more reports of interaction suggests that the incidence may be very low.

- **Harvesting and Identification:**

The bark is harvested in the winter and dried for later use.

The fruit is harvested when fully ripe and is dried for later use.



Fresh or dried berries as well as the dried roots of L. Barbarum are used.

**A plant for better or for worse. So named because “once you have it growing,  
“..you're married to it.”**



## Meadowsweet

- **Alternate Names:**

Queen of the Meadow, Pride of the meadow, Meadow-Wort, Meadow Queen, Lady of the Meadow, Meadsweet and Bridewort, Medwort, or Meadwort, Queen of the Me, Queen of the Ditch

- **Latin Name:**

Filipendula ulmaria

- **General Information:**

Salicylate-rich plants have been used traditionally and with good results for **pain** and **inflammation**, however their analgesic actions are typically *slow-acting but longer lasting* (won't work fast like aspirin can for a headache). Used in **Smallpox**. The flowers can also be added to stewed fruit and jams, to take advantage of the subtle almond flavor. The whole plant is a traditional remedy for an **acidic stomach**, and the fresh root is often used in infinitesimal quantities in homeopathic preparations. Dried, the flowers are used in potpourri. **Anti-inflammatory, anti-rheumatic, antacid, stomachic, astringent, diuretic, diaphoretic, anti-emetic.** Used in homes to reduce fleas and lice and help counter infections. Considered a specific for the digestive system but it had many other uses in traditional medicine that have now mostly fallen by the wayside. A treatment for **fevers** where it works through a gentle diaphoresis as well through the effects of salicylic acid in reducing inflammation and heat. It was used to treat hot conditions in other ways too; **cooling sunburn**, as a wash for **inflamed eyes**, as a compress for swollen, **arthritic joints**, to give relief from **headaches** and for calming an **irritated cough**. Due to its volatile oil content it has a **carminative** (Flatulence or Gas) action and it also has some bitterness which can help stimulate digestion, increase bile flow and therefore relieve **congestion in the liver**. The

astringency is balanced somewhat by this ability to stimulate and move so that it can still be effective for those with under active digestions. It has been employed to treat **cystitis** through it's healing **anti-bacterial properties**. It is also considered mildly immunomodulating and a useful diuretic. It is gentle enough for use with *children* in whom it has been found effective in treating **diarrhea**.

- **Key Components**

- Methylsalicylate, tannins, Volatile oils, mucilage, flavonoids, phenolic glycosides.

- **How to Use**

You can use it as a **tea**, preferably taken hot for fevers to help stimulate the diaphoretic action and slightly cooler for digestive discomforts. Tincture is the way I most commonly use it and it is particularly nice made from fresh flowers in 25% alcohol.

A compress made from a flannel soaked in hot meadowsweet tea is an old fashioned remedy for arthritis and gout.

The general wisdom is to avoid this herb with people who are sensitive to salicylates or if they are taking warfarin as there is the potential of an additive effect.



## Oregon Grape

- **Alternate Names:**

Holly-leaf barberry, mountain grape, Oregon grape holly, Oregon barberry, blue barberry, creeping barberry, holly barberry, holly-leaved Berberis, holly Mahonia, Mahonia,, Mahonie, scrapperoot, trailing Mahonia, Uva de Oregon, Vigne de l'Oregon and water-holly.

- **Latin Name:**

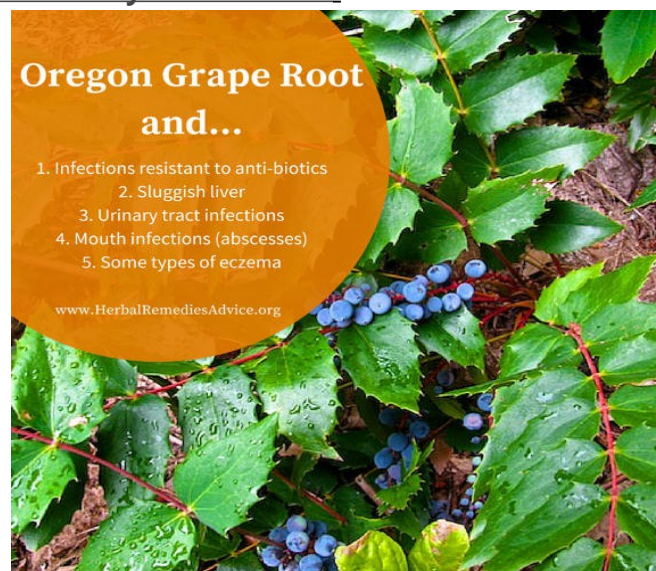
Mahonia aquifolium

- **General Information:**

**Antibiotic, Antiseptic, Antiamoebocidic, Anti-inflammatory, Astringent, antibiotic, amoebocide, anti-inflammatory, alterative, vulnerary and a bitter.**

The root of Oregon grape has been used to treat many maladies including **colds, flu, herpes, hepatitis, syphilis, stomach upset, cancer, skin disorders, yeast infections, stimulating liver function, treating infections,** and supporting **digestive health.** Oregon grape has been demonstrated to help **lower blood sugar** in patients with **insulin resistance.** Used for **eye infections, acne, athlete's foot, gastrointestinal issues,** and **skin conditions like Psoriasis.**

Used for **Dysentery, Fever,** and **Jaundice.** Found to be effective for the treatment of **giardia** (a type



### Oregon Grape Root and...

1. Infections resistant to anti-biotics
2. Sluggish liver
3. Urinary tract infections
4. Mouth infections (abscesses)
5. Some types of eczema

[www.HerbalRemediesAdvice.org](http://www.HerbalRemediesAdvice.org)

of **infectious diarrhea**), **eczema**, **Yeast** and **Urinary Tract Infections (UTI)**. Conversely, it also **cleanses the bowels**. Diarrhea can be treated with Oregon grape. Many times this is a *symptom of a bacterial infection* which is this herb's specialty. Even **E. coli infections** are no match for several doses of Oregon grape. Add a dropper or two of the tincture to a glass of water for quick results.

Laboratory tests have shown that Oregon grape can **kill or suppress** the growth of *candida and other fungal infections, staphylococcus, streptococcus, E. coli, Entamoeba histolytica, Trichomonas vaginalis, Giardia lamblia, Vibrio cholerae, and other harmful microbes*.

One of the primary actions of this herb is an **improvement of blood flow to the liver**.

It is sometimes used in the treatment of **Jaundice, hepatitis, cirrhosis** and **general digestive problems**.

It also **stimulates intestinal secretions** and **bile flow**.

**Toothaches** are not to be trifled with. An infected tooth or gum line can turn toxic in a shockingly short amount of time. Herbal medicine is not a substitution for proper dental care, but when a toothache shows up and you don't have access to a Dentist, you can rub Oregon grape powder directly on the gum to reduce **painful swelling** and *stave off a more serious bacterial infection*.

Externally it is a **disinfectant**.

Oregon Grape is perfect for **treating wounds** by *keeping the area free from infection and swelling*.

Diluted tincture can be dabbed on a **wound** after it's been cleaned. **Infected eye conditions** such as **conjunctivitis** or sties can be treated by topically applying a diluted and thoroughly strained tea to the area. Salve made with Oregon grape oil is a great addition to every family's first aid kit.

Some parents prefer to add Oregon grape tincture and calendula tincture diluted with water in a small bottle with a mister top to spray on **scraped knees and elbows**.

Serious **infections of the lungs** and the **sinuses** are no match for consistent care with Oregon Grape. This herb is used to deal with viral infections so they don't develop into more deadly bacterial infections. The other properties that ease inflammation and pain make Oregon Grape the first line of defense against respiratory infections as serious as **mononucleosis**.

The primary medicinal component of Oregon grape, *berberine*, has been shown to have **Anti-bacterial and Anti-fungal properties** that are helpful in the treatment of several infections including, *throat, intestinal, and urinary tract infections*. Berberine generally slows down the mobility of the intestinal tract in those with diarrhea; it also inhibits the growth of bacteria and **enhances immune cell properties**, helping to **prevent infections**. Used in place of Golden Seal offering similar **antimicrobial** properties. The berberine alkaloids *act on our cell's DNA* to prevent gastrointestinal amoebas from taking hold in the body. This herb may be taken effectively in a variety of forms: tinctures, glycerites, capsules, powder, oil, and in salves. Skin conditions such as acne, eczema, psoriasis and allergic rashes are soothed by Oregon grape's attention.

The tender young leaves of Oregon grape are **edible** - and have a lemony taste similar to sorrel. The

berries are typically not eaten in large quantities due to their tart and bitter flavors, but traditionally were mixed with the berries of Salal, an abundant understory shrub in the PNW, and huckleberries to be dried into **fruit leather**. A **yellow dye** extracted from the stems and roots of Oregon Grape was used to dye baskets, fabric, and cordage.

The bitter compounds in Oregon Grape **stimulate bile release** from the liver and gallbladder, which in turn is supportive to the skin, gastrointestinal tract, and immune system. Oregon Grape root is considered specific for conditions of heat paired with dryness, as its bitter properties promote the release of fluids in the body (saliva, bile, enzymes), and by supporting the functions of the liver, Oregon Grape root can assist the body's **detoxification** processes which help to clear heat from the body.

Oregon grape used in an *ointment form* was effective in **reducing itching, irritation, and inflammation** in those with mild to moderate cases of **psoriasis**. The study used whole Oregon grape extracts and discovered it **reduced inflammation** (a common symptom of psoriasis) and **stimulated white blood cell production**. The berberine **slows abnormal cell growth** in the skin and **reduces inflammation**, which, in turn, relieves itching. Oregon grape also helps **maintain healthy liver function**. The skin often shows signs of a stressed liver by exhibiting yellowing or unhealthy growth. Both topical or internal treatment with this herb is appropriate.

Methicillin-resistant Staphylococcus aureus or **MRSA**, is a serious staph infection that is *resistant to pharmaceutical antibiotics*. A constituent of Oregon Grape Root, berberine, has shown it contains a specific multidrug resistance pump inhibitor (MDR Inhibitor) named 5'-methoxyhydrnocarpin (5'-MHC), to fight MRSA and works to decrease *bacterial resistance to antibiotics*. Berberine penetrates the entire plant from its *flowers to its roots*.

- **Harvesting and Identification**

Late Spring-Late Summer, Oregon Grape is simple to harvest all year. The flowers can be picked in the spring, the berries can be gathered in the summer and the roots and stems can be harvested in the fall and winter.

The berries may be frozen or dried for later use. The berries can have as many as 9 seeds per berry which is why Oregon grape makes a better jelly than a jam. When fermented with honey into a melomel or mead, they make a tasty wine with gentle medicinal qualities.

Do not bother harvesting Oregon Grape leaves. These have little to no medicinal value.

If using the stems of Oregon grape, be sure your plant shows the orange/yellow berberine content by scratching the outer bark away. Some stems are low in medicinal value. This is why herbalists rely on the roots instead.

Roots may be the trickiest of the medicine to harvest, but they contain the most berberine of the plant. Dig up the plant in the fall or winter. This means killing the plant, so don't collect the roots unless other options aren't available.

Clean the roots thoroughly. While they are still fresh, use a metal scouring sponge and a paring knife to

remove the outer bark. The bright orange inner bark is our goal. Use the paring knife to shave off the inner bark for processing. If your Oregon Grape hasn't been watered much, it will have berberine in the inner root as well. This alkaloid is easy to see so cut the root into serviceable chips for later use as well.

- **Side Effects:**

Do not use when chronic gastrointestinal irritation or inflammation is present, such as irritable bowel.

Limit use to no more than 7 consecutive days for adults, 3 for children, exercise caution when using in children. Taking vitamin B6 supplements can give infectious bacteria resistance to the antibacterial toxins in the herb.

Oregon grape is counter indicated for people with Raynaud's disease as it may produce numbness or tingling sensations with high doses.

Some people report a slightly sedative effect of Oregon grape. For those already using anti-anxiety drugs, Oregon grape is not recommended.

Large amounts of this herb is not recommended (or required) as the tannins can cause stomach upset. Pregnant or nursing women should only use Oregon grape under the advise of a qualified health specialist.

Discontinue use of Oregon Grape if allergic reactions occur.

**Topically:** Itching, burning, and irritation, Rash

**Internal in High Doses:**

Diarrhea

Nausea and vomiting

Jaundice (yellowing of skin and eyes)

Kidney inflammation and irritation

Allergic reactions

Liver toxicity

**Do Not Use if taking any medication that is broken down by the Liver**, including *Cyclosporine* (*Neoral*, *Sandimmune*), *Tetracycline*, *Doxycycline*, Any medications that are changed by the liver

**Active Constituents of Oregon Grape:**

Alkaloids including *berberine*, *berbamine*, *columbamine*, *jatrorrhizine*, *palmatine*, *magnoflorine* and others.

**Parts Used:**

Root

**Important Precaution:**

*Not for use during pregnancy or lactation.* If



you have a medical condition or take pharmaceutical drugs please consult your doctor prior to use. The active constituents in Oregon grape root have shown substantial antimicrobial and antifungal activity in vitro, though these activities are unproven in human trials.

## **Medicinal Processing for Oregon Grape:**

The tincture does best with a lower alcohol content than other herbs require.

The berberine extracts easily with both alcohol and water.

Herbalists who prefer to use wine instead of heavier alcohols like vodka or whiskey can rely on Oregon grape to produce a potent product after a few months of soaking the root. Typically though, a solution of whiskey, brandy or vodka with a little water and spoonful of sugar or glycerine is all that is required to maximize the value of an effective Oregon grape tincture.

Herbalists working with everclear should cover their herb with a solution that has 50-60 percent water in it.

Drying Oregon grape root takes no more that 24 hours. Be sure to chip the root before drying or it will be very hard to cut once the moisture is gone.

Keep your final product away from sunlight so the berberine doesn't degrade. Powdering this herb requires herb grinders specifically designed for roots. These may be found on web sites dedicated to Asian medicine.

Tea made from this plant is very bitter and not for delicate palates. A tea works great for soaking infected wounds however bitter the taste.

Oregon grape glycerite or syrup may be brewed on the stove or in the slow cooker. Dried plant is usually used in this process.

Heat releases the medicinal values.

## **Using Oregon Grape to Care for Animals:**

Oregon grape oil is wonderful to rub on skin that is dry and scaly. We have a cat with a sever flea allergy who responds quickly to Oregon grape oil. If he licks off the oil, it introduces the antibiotic and anti-inflammatory actions to his system internally.

The berries of Oregon grape can be given either fresh or dried to birds or mammals with vegetarian diets. The bitterness of the berry varies depending on how much water the plant has absorbed, so don't be surprised if your rabbit or hamster picks around the fruit you are offering. Larger grazers like goats or sheep will not be as picky when the berries are mixed with their grains.

Oregon grape is the first choice for fortifying an animal's resistance to bacterial infections. Topical treatment for wounds of Oregon grape salve mixed with yarrow, comfrey and calendula has saved



many wounds from turning septic. Adding a few droppers of Oregon Grape tincture to a larger animal's water also stimulates digestion. This helps the animal get the most nutrition from his or her food. Remember that a little goes a long way.

## **Household Formulas and Non-Medicinal Uses of Oregon Grape:**

Oregon grape makes a wonderful jelly. The fruit is very tart so do not skimp on the sugar. If you are short on Oregon grape berries, other fruit may be added.

Try brewing Oregon grape berry wine or throw some berries into a pie or cobbler. They make a tasty substitute for blackberries in most recipes. Remember to taste test your berries first to get an idea of how tart the batch you have is. This fruit varies in flavor from harvest to harvest.



## New Mexico Thistle

- **Alternate Names:**

Desert Thistle, Foss Thistle, Lavender Thistle, Powderpuff Thistle, Utah Thistle, Cardo Santo,  
Synonyms: Carduus inamoenus, Cirsium arcuum, Cirsium neomexicanum var. neomexicanum,  
 Cirsium neomexicanum var. utahense, Carduus nevadensis, Cirsium humboldtense, Cirsium  
 utahense, Cirsium wallowense

- **Latin Name:**

Cirsium neomexicanum

- **General Information:**

Febrifuge (Plant used for chills and fevers), a cold infusion of root used as a wash for eye diseases,  
 the Navajo's called it a Ramah drug or cold infusion of plant taken when one '*feels bad all over.*' Used  
 for Neuralgia, an intense, typically intermittent pain along the course of a nerve, especially in the head  
 or face. Use an herbal steam for rheumatism and to shrink hemorrhoids.

- **Side Effect:**

Thistle Root can cause gas.

- **Method of Preparation**

Raw, boil or steamed hollow inner stalks peeled of green outer fiber; core of unopened flower buds,  
 when cooked squeezed out like artichoke leaves; stripped midribs raw or cooked. First year roots once  
 large enough to harvest, The seeds are edible, 12 pounds will produce 3 pounds of edible oil. Suitable  
 for cooking or lamp

Use the raw, peeled stems for food (edible stalks, edible leaves trimmed of spines roots and unopened  
 flower bud bottoms.) Rub the "wool" off and enjoy. All thistles in the genus *Cirsium*, and the genus

*Carduus*, are edible.

There is no poisonous true thistle, but not all of them are palatable. All can be eaten raw, steamed or boiled, or roasted whole by a fire and squeeze the cooked core out.



## Mountain Love or Myrtle

- **Alternate Names:**

Oregon Boxwood, Bladder Sage, mountain hedge, Myrtle Boxleaf, Stafftree or Burning-Bush, False Box, Myrtle Box Leaf, Myrtle pachystima

- **Latin Name:**

*Paxistima myrsinites*

- **General Information:**

For treating **lung infections** including **bronchitis, whooping cough, and tuberculosis**. They also take it for **bladder** conditions, **diarrhea, persistent heartburn, heavy periods, yeast infections, and worms**.

Myrtle is used on the skin for **warts** and in the mouth for **canker sores and thrush**. Myrtle is used in the vagina for the sexually transmitted infection, **human papillomavirus (HPV)**. Protective against **intestinal conditions, regulating the endocrine system**, reduce the risk of certain **cancers**, treat **skin diseases, lower blood sugar levels**, improve the **functioning of the kidneys**, boost **cognitive strength**, and improve **heart health**.

Substitute for Bay Leaf in Cooking.

The leaves are **aromatic, balsamic, haemostatic** (stops bleeding) and **tonic**. Recent research has revealed a substance in the plant that has an *antibiotic action*.

The active ingredients in myrtle are rapidly absorbed and give a violet-like scent to the urine within 15 minutes. The plant is taken internally in the treatment of **urinary infections, digestive problems, vaginal discharge, bronchial congestion, sinusitis and dry coughs**.

In India it is considered to be useful in the treatment of *cerebral affections*, especially **epilepsy**. *Externally*, it is used in the treatment of **acne** (the essential oil is normally used here), **wounds, gum**

**infections**- this is used as a remedy for **gingivitis**. and hemorrhoids.

The leaves are picked as required and *used fresh or dried*. An essential oil obtained from the plant is **antiseptic**. (Made as a tea and used to clean countertops and other surfaces will disinfect the surface.)

It contains the substance myrtol , and is used as a local application in the treatment of **rheumatism**. The fruit is **carminative** (Anti-gas). It is used in the treatment of **dysentery, diarrhoea, haemorrhoids**, internal **ulceration** and **rheumatism**.

- **Side Effect:**

Caution should be used if pregnant or breastfeeding.

- **Edible parts of Myrtle:**

Fruit - raw or cooked. The fruit has an aromatic flavour, it can be eaten fresh when ripe or can be dried and is then used as an aromatic food flavouring, especially in the Middle East. It can also be made into an acid drink. The fruit is about 8mm in diameter. The leaves are used as a flavouring in cooked savoury dishes. The dried fruits and flower buds are used to flavour sauces, syrups etc. An essential oil from the leaves and twigs is used as a condiment, especially when mixed with other spices. In Italy the flower buds are eaten. The flowers have a sweet flavour and are used in salads.

- **Other uses of the herb:**

The plant is very tolerant of regular clipping and can be grown as a hedge in the milder parts of Britain. An essential oil from the bark, leaves and flowers is used in perfumery, soaps and skin-care products. An average yield of 10g of oil is obtained from 100 kilos of leaves. A perfumed water, known as "eau d'ange", is obtained from the flowers. A high quality charcoal is made from the wood. Wood - hard, elastic, very fine grained. Used for walking sticks, tool handles, furniture etc.



## Peony

- **Alternate Names:**

Red or White Peony (Based on the color of the roots)

- **Latin Name:**

*Paeonia lactiflora*

- **General Information:**

Using the *peeled root* of the Peony Plant is also used for **viral hepatitis, liver cirrhosis, upset stomach, muscle cramps, “hardening of the arteries” (atherosclerosis), and to cause vomiting.** Peony is also used for **spasms** (add licorice root for best results), **whooping cough (pertussis), epilepsy, nerve pain (neuralgia), migraine headache, and chronic fatigue syndrome (CFS).** Peony is an **Anti-Inflammatory** and **Immunomodulatory** herb (stimulates or suppresses the immune system and may help the body fight cancer, infection, and other diseases.) Contains alkaloids for fighting ***Staphylococcus Aureus* (Gram positive).**

**Anti-hypoxia** (lack of oxygen), Strengthening **Vascular** circulatory system (Heart), **expanding blood vessels, inhibiting blood platelet clotting, anti-tumor, regulating blood sugar, anti-septic and anti-aging.**

Protective to the **liver**, and work well in combination with *immune suppressive drugs*. Studied for it's use in **Rheumatoid Arthritis**, the Root of herbaceous peony glucoside can be used to treat the RA, and also can *decrease the blood fat level* of the RA patients that *causes damage to the joints and heart long term.* **Prevents blood-clotting, working as an antioxidant.**

People apply peony to the skin for healing **cracked skin**, especially cracks around the anus (anal

fissures) that sometimes occur with **hemorrhoids**.

Peony has an affinity for the **musculoskeletal system**, as well as being one of the primary **liver blood builders** in Chinese medicine, making it perfect for a musculoskeletal problem with liver blood deficiency as its primary cause.

It is a specific for **muscle spasms** (combine with licorice root) and **pain in the abdomen**, which especially includes *spasms in the stomach and intestines*, but also works well for the *lower legs, face* and *diaphragm*.

**Increases blood flow** after *traumatic injury*.

**Gout, Osteoarthritis, Breathing problems, Cough, Skin diseases, Hemorrhoids, Heart trouble, Stomach upset, Spasms, Nerve problems, Migraine headache, and Chronic fatigue syndrome (CFS).**

- **Dosage:**

Peony root can be taken as a tea, extract or in capsules. Even when consumed for a long period, individuals are unlikely to have adverse reactions. But be cautious and test slowly.

- **Side Effect:**

Do Not Take if **Pregnant! Abortifacient!**

**Avoid use** if taking *blood-thinning* medications! (IE: aspirin, clopidogrel (Plavix), diclofenac (Voltaren, Cataflam, others), ibuprofen (Advil, Motrin, others), naproxen (Anaprox, Naprosyn, others), dalteparin (Fragmin), enoxaparin (Lovenox), heparin, warfarin (Coumadin), etc.

**Bleeding disorders:** Because peony might slow blood clotting, there is a concern that it might increase the risk of bleeding in people with this disorder.

**Surgery:** Peony might slow blood clotting, so there is a concern that it could increase the chance of bleeding during and after surgery. Stop using peony at least 2 weeks before a scheduled surgery.

Peony root might decrease the amount of *phenytoin* (**anti-seizure** constituent) in the body.

- **Active/Passive Ingredients:**

Peony root is rich in astragalin, benzoic-acid, calcium, copper, gallic-acid, glucose, linoleic-acid, magnesium, paeoniflorin, paeonol, potassium, tannin, zinc, (monoterpene glycosides, such as paeoniflorin, oxy-paeoniflorin, benzoylpaeoniflorin, albiflorin R1, paeoniflorigenone, galloylpaeoniflorin, (Z)-(1S,5R)- $\beta$ -pinen-10-yl- $\beta$ -vicianoside, lacioflorin, paeonilactones (A-C), & daucos-terol. The root also has hydrolyzed *tannic acid* like 1,2,3,6-tetra-O-galloyl- $\beta$ -D-glucose, (+)-catechin and 1,2,3,4,6-penta-O-galloyl- $\beta$ -D-glucose. It also contains  $\beta$ -siosierol, terpenoids and 33 types of volatile oil like benzoic acid and paeonol.)

The root can inhibit **staphylococcus aureus**.



## Rosemary

- **Alternate Names:**

Wild Spinich,

- **Latin Name:**

Salvia

- **General Information:**

Rosemary is used for **improving memory, indigestion, arthritis, joint pain, and hair loss**. What it found was that culinary doses of rosemary significantly helped **reduce cognitive decline**. Interestingly, a high dose of rosemary had the opposite effect, showing that more is not always better.

The powdered leaves are used as an effective natural **flea and tick repellent**. Rosemary oil possesses marked **antibacterial, antifungal, and antiviral** properties. Rosemary oil was found to be most active against ecoli bacteria,

In a study published in the journal Hytomedicine, a rosemary extract *inhibited* the proliferation of **ovarian cancer cells**.

In another study published in “Cancer Letters” researchers found that rosemary had promise as a treatment for many cancers including **prostate, breast, skin, leukemia, and colon**. They also found that the rosemary treatment seems to *only affect cancerous cells*, not healthy cells.

The extract induces an **anticarcinogenic** enzyme. Other anticancer mechanisms include *polyphenol constituents that inhibit metabolic activation of procarcinogens*.

Rosemary has been reported to **decrease capillary permeability and fragility**. The plant may have



**spasmolytic actions, liver, and immune effects.** Rosemary also may **reverse headaches, reduce stress, and aid in asthma and bronchitis** treatment. Rosemary also is used in aromatherapy for chronic pain treatment. Several reports exist concerning rosemary's antioxidative actions. Rosemary antioxidants have less scavenging potential than green tea polyphenols, but have more potential than vitamin E.

Rosemary is helpful in reducing the pain of **dysmenorrhea** (painful menstruation). Research shows it's also likely safe to use *alongside pharmaceutical pain medications*.

Rosemary supports liver health by increasing bile production and **protecting the liver** from damage. When the liver is functioning well, digestion works much more smoothly.

- **What is the recommended dosage?**

Rosemary leaf was approved for dyspepsia, high blood pressure, and rheumatism by the German Commission E at doses of *4 to 6 g/day*. The essential oil has been used at doses of *0.1 to 1 mL*.

- **Side Effect:**

Rosemary is considered safe for most people in culinary amounts and has few side effects. But there are some people who should avoid it in medicinal amounts.

- **Pregnant women should not use** rosemary in large amounts (cooking is fine) and should avoid the essential oils.
- **Breastfeeding women** should also **avoid large amounts of rosemary** as there's not enough known about how it affects this population.
- Those with an **aspirin allergy** should not take *medicinal amounts of rosemary*.
- Those with **seizure or bleeding disorders** should also *avoid large amounts* of rosemary.
- Rosemary can **raise blood pressure**, so it may not be safe for those with elevated blood pressure.

**If you're unsure, check with your doctor if rosemary is safe for you.**



## Water Lily

- Alternate Names:

American White Water-lily, Fragrant White Water-lily, Fragrant Water-lily, White Water-lily, Sweet-scented White Water-lily, Sweet-scented Water-lily, Beaver Root, Cow Cabbage, Cow Lily, Toad Lily

- Latin Name:

*Nymphaea odorata*

- General Information:

The roots, if moistened with milk, are said by Linnaeus to destroy crickets and cockroaches. Culpeper says of water lilies; "Of water-lilies. They are cold and dry, and stop lust: I never dived so deep to find what virtue the roots have."

Used as a douche for **leukorrhea**, treats **diarrhea**, **bowel complaints**, **scrofula**, **inflamed tissues** in various parts of the body, and for **bronchial troubles**. Used for **dropsy**, **kidney troubles**, **catarrh of the bladder**, or **irritations of the prostate**. Heals **inflamed gums**.

Externally, a poultice made for **painful swellings**, **boils**, **ulcers**, **wounds**, and **cuts**. Apply the *powdered root*, combined with flaxseed, as a poultice.

*A tea made from the root* makes a good *gargle* for irritation and/or **inflammation in the mouth and throat**, used as an **eyewash**.

As a *lotion*, it helps heal sores, makes skin soft and smooth. Both root and leaves are sometimes made into poultices for wounds, cuts, and bruises.

Native Americans used root tea for **coughs, tuberculosis (TB), inflamed glands, mouth sores,** and to **stop bleeding**. A folk tradition, a mixture of root and lemon juice was used to remove freckles and pimples.

**Nuphar polysepalum** is also called pond lily. On Klamath Marsh are about 10,000 acres of this great golden water lily.

**The Water Lily of China is Euryal ferox, called Ch'ien-shih.** Used medicinally for **gonorrhoea, spermatorrhea, polyuria,** etc.

- Side Effect:

**Nymphaea tuberosa: CAUTION: Do not mistake the white pond lily (N. odorata) for the tuberous water lily (N. tuberosa), which can cause poisoning. The poisonous plant can be distinguished by its tuberous rootstock and ODORLESS (or nearly so) flowers.**

**Large Doses can be toxic**

# Typhus

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- **Endemic typhus** is uncommon in the United States. It is usually seen in areas where hygiene is poor, and the temperature is cold. Endemic typhus is sometimes called "jail fever." The bacteria that cause this type of typhus is usually spread from rats to fleas to humans.

## Symptoms:

Symptoms of epidemic typhus begin within 2 weeks after contact with infected body lice. Signs and symptoms may include:

- Fever and chills
- Headache
- Rapid breathing
- Body and muscle aches
- Rash
- Cough
- Nausea
- Vomiting
- Confusion

- 
- **Murine typhus** occurs in the southern United States, particularly California and Texas. It is often seen during the summer and fall. It is rarely deadly. You are more likely to get this type of typhus if you are around rat feces or fleas, and other animals such as cats, possums, raccoons, and skunks.

## Symptoms:

Symptoms of flea-borne typhus begin within 2 weeks after contact with infected fleas or flea dirt. However, people may not know they have been bitten by a flea or exposed to flea dirt so tell your healthcare provider about time spent outdoors or contact with animals. Signs and symptoms may include:

- Fever and chills
- Body aches and muscle pain
- Loss of appetite
- Nausea
- Vomiting
- Stomach pain
- Cough
- Rash (typically occurs around day 5 of illness)

Severe illness is rare and most people recover completely, sometimes without treatment. Untreated disease can cause severe illness and damage to one or more organs, including the liver, kidneys, heart, lungs, and brain.

## Treating Typhus With Herbs

**Yarrow**

**Sage**

**Japanese Honeysuckle**

**White Sage**

**Big Sagebrush** (Used traditionally for Rocky Mountain Spotted Fever (contains Camphor and Quinine) or a *Typhus*.)

*(This Typhus does not impart immunity to any of the other two strains of Typhus)*

**Wormwood**

**Mugwort**

**Olive Tree (Quinine)**

# The Difference between herb Medicinal and Pharmaceutical

Pharmaceutical drugs typically have what is called a very narrow therapeutic window, meaning that the target dose is pretty close to both a toxic dose and an ineffectual dose. In this way, every time a pharmaceutical drug is prescribed, it's like trying to shoot an arrow through a narrow slit in the wall. In contrast, herbal medicines typically have a very large therapeutic window. This means that both low and high doses can be effective, but usually for different purposes. Of course, there are many herbs that have a small therapeutic window, such as a relative of Withania in the Nightshade family (Solanaceae) called Dhatura (*Datura stramonium*).

But generally speaking, most herbs and especially nourishing herbs such as Ashwagandha (in Utah a substitute would be Bindweed ***Convolvulus arvensis***), are very safe, and have a large therapeutic window.

In herbal medicine we can say there are three basic dosage levels: high, medium, and low. A high dose is used for acute conditions, whereas a medium dose for chronic conditions, and a low dose for some kind of subtle, energetic effect, sometimes that opposes the original action of the herb. For example, the herb Lobelia (*Lobelia inflata*) will make you nauseated at a medium dose, vomit in large doses, but in very low doses, it can be very effective for nausea. The same is true for the Indian herb called Madanaphala (*Randia dumetorum*). Not all herbs are effective in very low doses, and this is often the case for nourishing, building herbs such as Ashwagandha.





# Tarragon

- Alternate Names:

Dragon's wort, estragon, French tarragon, Russian tarragon silky wormwood, wild tarragon

- Latin Name:

Artemisia dracunculus

- General Information:

Research shows that this herb has pharmacological activity including **carminative** (gas), **digestive**, **anti-inflammatory**, **antipyretic** (fever), **antiseptic**, **antispasmodic**, **antiparasitic** or **anthelmintic** (Parasites), **antimicrobial**, and **fungicidal** effects.

It is a warming aromatic herb that **stimulates the digestive system** and **uterus**. The leaves are **antiscorbutic** (prevents scurvy),

**diuretic, emmenagogue, hypnotic** (insomnia) and **stomachic**.

An infusion is used in the treatment of **indigestion, nausea, hiccups**. The plant is **mildly sedative**, it also has mild **emmenagogue** properties and can be used to induce a **delayed period**. Sometimes used in Chinese medicine as an **antiepileptic**.

A poultice can be used to relieve **rheumatism, gout, arthritis** and **toothache**. The plant is harvested in the summer and can be dried for later use.

Tarragon has Coumarin, Venugopala et al. (2013) presented several coumarins displaying activities such as **anti-inflammatory, anticoagulant, antibacterial, antifungal, antiviral, anticancer, anti-hypertensive, antitubercular, anticonvulsant, anti-adipogenic, Cytochrome P450 inhibiting, anti-hyperglycemic, antioxidant, and neuroprotective**.

- Side Effect:



**Uterine Stimulant.** Do not use during the first 8 months of pregnancy. Can act as an **abortifacient.**

## Symptoms Heart Attack

Typical signs of a heart attack are often described as a squeezing pressure, tightness or discomfort in the chest.

A smaller percentage of patients experience other signs such as a radiating pain in the arm, neck, shoulder or jaw.

Other less frequent symptoms are sweating, light-headedness, or shortness of breath.

Dr. Schnellbaecher offered an important distinction.

He says that most people expect a heart attack to be “painful,” but this is not an accurate description.

It doesn't hurt as much as it is a discomforting or squeezing sensation. Men rarely acknowledge that they are in pain, but may identify with the other sensations such as discomfort, pressure, etc.

People with a history of heart disease are more likely to be at risk of reoccurrence.

Symptoms for women less typical: indigestion, weakness, fatigue, sweating, light-headedness, and shortness of breath are common symptoms for women experiencing cardiac emergencies.

- Give one adult aspirin or four baby aspirin if you suspect a heart attack. That said, while aspirin is a relatively "safe" drug there are a few instances when you absolutely don't want to use it.

*(When active bleeding is suspected. Epigastric pain due to a stomach ulcer can be difficult to differentiate from the substernal pain of a heart attack.*

*When the patient is allergic to aspirin.*

*When a stroke is suspected (it will increase bleeding).*

- Rest! Do not exert. Do not try to self-evacuate.
- Call for help immediately. Keep your patient warm.

**What are some common precipitating factors that increase the risk of cardiac emergencies for outdoors activities in the winter?**

Extreme physical exertion by hunters that have not exercised regularly. This is especially true in cold weather situations when blood vessels are more constricted.



# Herbal Uses by System

## **Immune stimulator** (*Stimulate the Immune System*)

**Echinacea:** Echinacea angustifolia

**Alpine Lovage:** Ligusticum spp.,

**Fernleaf biscuitroot :**Lomatium dissectum

**Boneset:** Eupatorium perfoliatum

**White Cedar:** Thuja spp

**Astragalus:** Astragalus Utahhensis

**Garlic** (Allium sativum)

## **Analgesic** (*Pain Relief*)

**Echinacea:** Echinacea angustifolia

**Slippery Elm or Chinese Elm:** Ulmus fulva

**Marshmallow:** Malva Neglecta

**Hollyhock:** Alcea rosea

**Calendula:** Calendula officinalis,

**Willow:** Salix spp.

**Aspen:** Populus spp.,

**Aconite:** Aconitum spp.

## **Diaphoretic** (*Induces Perspiration*)

**Boneset:** Eupatorium perfoliatum

**Yarrow:** Achillea millefolium,

**Brittlebrush:** Encelia farinosa

**White Sage:** Salvia apiana

**Wild Ginger:** Asarum canadense

**Ginger:** Zingiber officinales

**Bee Balm or Wild Bergamot:** Monarda fistulosa

**Linden:** Tilia spp

**Milkweed:** Asclepias tuberosa

**Inflammation modulator** (*stimulates or suppresses the immune system*)

**Licorice:** Glycyrrhiza spp

**Goldenrod:** Solidago canadensis

**Eyebright:** Euphrasia spp

**Yarrow:** Achillea millefolium

**Gumweed:** Grindelia spp

**Yerba Santa:** Eriodictyon spp

**Pine Tree:** Pinus spp

**Norway Spruce:** Abies spp

**Silver Spruce:** Picea spp

**Poplar:** Populus spp

**Linden:** Tilia spp

**Ivy:** Hedera helix

**Lymphagogue** (*an agent that promotes lymph production or lymph flow.* )

Phytolacca americana

Galium aparine

Calendula officinalis

Asclepias tuberosa

Asclepias asperula

# Heart Medications

## Hawthorne

Angina, chest discomfort or pain that results when the heart doesn't get enough oxygen

- Atherosclerosis, a chronic, progressive disease caused the build-up of plaque in the arteries
- Congestive heart failure, a progressive condition that affects the pumping power of the heart muscle
- High blood pressure, when the force of your blood pushing against the walls of your blood vessels is consistently too high

Benefits the heart by causing a dilation of the smooth muscle that lines the coronary arteries, thereby increasing blood flow to the heart. Hawthorn is also thought to increase heart muscle contraction, heart rate, nerve transmission, and heart muscle irritability

## Chronic Heart Failure

Helps manage symptoms and improve physiologic outcomes when used as a supporting treatment for chronic heart failure. The review's findings indicate that treatment with hawthorn may lead to improvement in exercise tolerance and in symptoms, such as fatigue and shortness of breath. Research concluded that "there is a significant benefit in symptom control and physiologic outcomes from hawthorn extract as an adjunctive treatment for chronic heart failure."

## High Blood Pressure

Studies with hawthorn are conflicting for its effectiveness in reducing high blood pressure. In a pilot study published in 2002, 38 mildly hypertensive volunteers were assigned to a daily supplement of 600 milligrams of magnesium, 500 milligrams of hawthorn extract, a combination of magnesium and hawthorn, or a placebo. After 10 weeks, the 19 subjects who took hawthorn extract showed a greater reduction in resting diastolic blood pressure than other study members. What's more, hawthorn-taking participants were found to have lower levels of anxiety.

Hawthorn did show benefit for chest pain (angina) in patients with congestive heart failure. The evidence for atherosclerosis, the buildup of fatty deposits in your arteries, is very preliminary: A number of animal studies, including one published in 2018, suggests that hawthorn may help reduce levels of blood fats (including cholesterol) and aid in the prevention of atherosclerosis.





# Sowthistle

- Alternate Names:

Matchweed, Matchbrush, Snakebite Weed

- Latin Name:

Sonchus oleraceus

- General Information:

Stems are used as **sedative** and **tonic**. Juice of the plant used for cleaning and healing **ulcers**.

Sowthistle has several medicinal properties and has been used as an Antidepressant, Antinociceptive, Anxiolytic, Antioxidant, Antimicrobial, Antitumor, Antimalarial, blood purifier, hepatic, sedative, febrifuge, tonic, Anti-inflammatory, Anticancer etc.

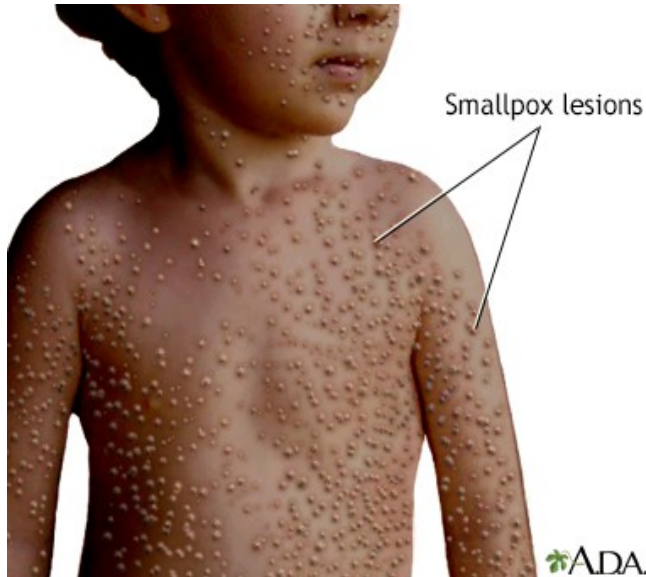
Stems and leaves are also used in cooking by local peoples. The latex in the sap is used in the treatment of warts. The leaves are applied as a poultice to inflammatory swellings.

Sonchus oleraceus used in the treatment of headaches, general pain, diarrhea, menstrual problems, fever, hepatitis, salmonella infection, warts, eye problems, liver infections, infections, inflammation and rheumatism.

It is also used to treat a wide variety of infections.



# Smallpox



Smallpox, also known as variola, is a viral disease attributable to poxvirus, which is passed on from one individual to other causing distinctive rashes, and high fever. Roughly one-third of the people infected by poxvirus succumb to the disease.

Variola is the name of the virus responsible for smallpox and belongs to the orthopoxvirus genus. Different viruses that cause orf, cowpox, molluscum contagiosum and monkeypox also belong to this genus. It may be noted here that

poxviruses are known to be the largest among all animal viruses and can be seen even under a simple microscope. In fact, the size of poxviruses is greater compared to a number of bacteria and they enclose a double-stranded DNA.

Poxviruses are unique among all types of viruses as they do not require the nucleus of a cell to reproduce within the cell. So far scientists have only been able to identify the variola virus for causing smallpox, which afflicts humans only. In effect, there are no known insect vectors (insects that carry the virus) or any animal reservoirs (animals carrying the variola virus).

Prior to the elimination of the disease from the earth, smallpox continued to exist by means of transmitting the variola virus from one individual to another. As a result of this, the variola virus was always passed on from one individual to another and, as far as available documents are concerned, it never infected animals. Children as well as pregnant women faced the maximum risks of catching smallpox and compared to normal people, they were more severely affected by the disease. Generally, humans acquired the variola virus due to inhalation or breathing it into their lungs. Particles of this virus could stay behind on a number of items, including clothes, bedding and surfaces for a maximum duration of one week.

Beginning from the lungs, this virus assaults the bloodstream and subsequently spreads to different parts of the body, including the skin, lungs, brain, intestines and the kidneys. The action of the virus present in the skin is responsible for eruption of rash that initially appears as macules (reddish, even lesions). Henceforth, they form of vesicles (elevated blisters). Subsequently, about 12 to 17 days after a person is infected by the variola virus, pus-filled pimples or pustules start appearing all over the skin. Once a person has been infected by the virus, it may take anything between seven and 17 days for the symptoms to come in view - this is common in all major smallpox types. Roughly 72 hours to 96 hours following the infection, the variola virus starts developing in the bloodstream, but no noticeable symptoms appear instantly.

Individuals who have come in contact with the variola virus or developed smallpox, experience

symptoms like headaches, body aches, fever and especially backache during the initial stages of the disease. In fact, nearly 50 per cent of people suffering from smallpox endure vomiting and chills, while approximately 15 per cent of the patients become confused.

It is only after about 48 hours to 72 hours of the initial symptoms a rash appears and it gradually changes into sores filled with the virus covering the surface of the skin. It may take about two weeks for the rashes to develop all over the body and turn into pustules.

Soon after the emergence of the rash, the virus becomes highly infectious since it shifts inside the mucous membranes. At this stage, the body discards the cells releasing the virus particles through cough or sneeze into the surroundings. In fact, any person suffering from smallpox can continue to be contagious for a period of about three weeks after the appearance of the rash and till the dried outer layer or scabs drops from the rash.

The scabs may contain live viruses. When the crusts or scabs drop or fall off, which usually takes anything between two weeks and four weeks, the skin surface remains somewhat indented. In other words, the rash leaves a pale colored scar, which can be removed through treatment.

During the initial stages of their appearance, it is possible for one to easily mistake the rash as well as the pustules (pus-filled sores) to be those of chickenpox. In the case of smallpox, initially the lesions appear in the mouth and from there they spread all over the face. Subsequently, the lesions spread to the hands and forearms and at last to the trunk and the lower limbs.

Contrary to this, rash due to chickenpox first appear in the arms and legs and spread to the trunk. In fact, chickenpox rash is seldom found in the palms, soles, armpits and the area around the elbow.

### Supplements and herbs

Several herbs and supplements are effective in treating smallpox. For instance, giving the patients herbs possessing diaphoretic (ability to induce sweating) properties and hot baths will help the blister-like rashes to rupture more quickly and promote rapid healing.

You may give the patient an herbal tea prepared from diaphoretic herbs, which are available at stores selling herbal products. Prepare several cups of the tea and store it in a thermos and give the patient one cup every time he/ she requires it. It is advisable that you keep of providing the patients with a cup of the herbal tea continuously and urge them to sip it often. In between administering the tea prepared from diaphoretic herbs, you should give the patients fluids that will help to hydrate them again. Ensure that the patient does not become dehydrated.

Yarrow is one herb that is particularly beneficial for people suffering from smallpox. For optimal results, it is advisable that you combine yarrow with lady's slipper (botanical name *Cypripedium acaule*) and pleurisy root (botanical name *Asclepias tuberosa*) in equal proportions. If you do not get lady's slipper, you may use valerian root (botanical name *Valeriana officinalis*) or catnip (*Nepeta cataria*) as a substitute.

Washing the pustules using unadulterated and potent lemon juice or a 50:50 blend of water and apple cider vinegar will help to alleviate the itching caused by the eruptions.

You may also prepare a bath tea using yellow dock root (botanical name *Rumex crispus*), burdock root (botanical name *Arctium* spp.) or goldenseal root (botanical name *Hydrastis Canadensis*). Bathing with any of these herbal teas will also help to alleviate itching.

Besides alleviating itching, goldenseal is particularly effective in lessening pitting. An infusion prepared with goldenseal root may be employed to rinse and clean the pustules when they begin to rupture. You may also prepare an ointment using goldenseal roots, beeswax and fat or alternately use the oil extracted from the goldenseal root and fat and apply it to the pustules many times daily to evade much of the pitting.

Apart from the herbal remedies discussed above, there are several other herbal treatments, which have been found to be beneficial for people with smallpox. Some such herbal remedies are mentioned below briefly.

While a decoction prepared from bistort root is effective for cleansing the pustules and possesses toning and astringent properties, the leaves of red raspberry can be blended with bistort to prepare an astringent and toning tea.

In addition, the herb European pennyroyal has a balmy effect on the stomach. It also possesses diaphoretic as well as tonic properties that are effective for treating fevers, eruptive diseases and congestion of the bronchial tract. The standard dose of this herbal tea is anything between 6 oz to 8 oz taken at intervals of one to two hours.

The herb chamomile as well as pineapple weed (also called wild chamomile - botanical name, *M. discoidea*) have a calming effect on the eyes and are helpful in alleviating inflammation and pain of the eyes. Prepare a potent tea using either of these herbs, immerse a little flannel cloth in this herbal tea and use it to cover the inflamed and sore eyes.

The tea may be applied warm or cold, depending on what is comfortable to the patient. In addition, you may directly apply this herbal tea over the eyes. However, when you are using the tea directly, you should always ensure that the tea does not contain any material from the chamomile plant.

A tincture or tea prepared from catnip may have a calming effect on the nerves and be beneficial for a patient who is always anxious. This herb is also effective for treating feverish conditions and may be employed in the form of an enema to induce sweating. In addition, catnip also assists in alleviating the uneasiness caused by smallpox. The patient may drink one cup of the tea prepared from catnip many times daily or just one dropper of its tincture, depending on the requirement.

# Pest Control

## **Plants:**

Cayenne and garlic spray: this is made using dried or fresh cayenne and garlic. Boil 12 ounces of water and pour it over 1 tsp dried or 1 Tbsp fresh cayenne and 1 tsp dried or 1 Tbsp fresh chopped garlic. Cover and steep until cool. Strain the tea through a coffee filter or a muslin cloth saving the liquid. Add the tea to a spray bottle and add a Tablespoon of apple cider vinegar and a drop or 2 of liquid castile soap. Spray this mixture on plants to get rid of insects or as a preventative.

## **Apple trees:**

A mixture of 10% black strap molasses in 90% water is used to keep insects out of apples. The mixture is poured in plastic jugs and hung in the apple trees. Cut some holes in the jugs to allow the insects to enter. Hang 2 or 3 jugs in each tree.

## **Spiders:**

Place 10 drops of peppermint essential oil and a teaspoon of apple cider vinegar in a cup of water in a spray bottle. Spray around window wells and door frames to keep spiders away.

## **Wormwood:**

If you have access to fresh wormwood, you can pick some and tie it into a bundle. This can be hung in your pantry or kitchen to keep moths and other pests away. It will dry and be effective for many weeks. Dried wormwood can be placed in a cloth bag and hung the same way.

These are some easy methods to help keep pests under control in your home and garden without using harsh chemicals.

## **MERS (Middle East respiratory syndrome)**

Middle East respiratory syndrome, also known as Camel Flu, is a viral respiratory infection caused by Middle East respiratory syndrome–related coronavirus. Symptoms may range from none, to mild, to severe.

### Symptoms & Complications

Most people confirmed to have MERS-CoV infection have had severe respiratory illness with symptoms of:

- fever
- cough
- shortness of breath

Diarrhea

- Nausea
- Vomiting

For many people with MERS, more severe complications followed:

- pneumonia
- kidney failure. (About 3 or 4 out of every 10 people reported with MERS have died.)
- Most of the people who died had a pre-existing medical condition that weakened their immune system, or an underlying medical condition that hadn't yet been discovered.
- Pre-existing conditions among people who got MERS have included
  - diabetes
  - cancer
  - chronic lung disease
  - chronic heart disease
  - chronic kidney disease

Some infected people had mild symptoms (such as cold-like symptoms) or no symptoms at all. The symptoms of MERS start to appear about 5 or 6 days after a person is exposed, but can range from 2 to 14 days.

# Jerusalem Artichoke

## General Information:

Jerusalem artichokes mostly known as food also have multiple medicinal applications thanks to its rich chemical composition.

Its chemical constituents have been studied extensively for **lowering high cholesterol, triglycerides, and high glucose levels; facilitating weight loss; detoxification** (e.g., alcohol, heavy metals); **lowering uric acid levels; immunostimulating** properties; protecting the **gastric mucosa, preventing constipation, acne; improving lipid disorders, and cytotoxic properties in breast cancer.**

It also helps in **cardiovascular diseases, chronic infectious diseases; chronic fatigue syndrome; gut flora disorders; immune system disorders.**





# Herbs to Block Spike Protein from attaching to the ACE Inhibitor

**Dandelion**

**Horsetail**

**Grape Leaf**

**Yarrow**

**Elderberry**

**Peppermint**

**Ginseng**

**Oregano**

**Rosemary**

**Lemonbalm**

**Sage**

**Echinacea**

**Green Tea**

**Basil**

**Licorice**

**Fennel**

**Astragalus**

**Garlic**

**Ginger**





# Peptic Ulcer Herbs

## Symptoms

*Abdominal pain with a burning or gnawing sensation*

*Pain 2 to 3 hours after eating*

*Pain is often aggravated by an empty stomach; for example, nighttime pain is common*

*Pain may be relieved by antacids or milk*  
*Heartburn*

*Indigestion (dyspepsia)*

*Belching*

*Nausea*

*Vomiting*

*Poor appetite*

*Weight loss*

## Turmeric:

Contains curcumin, a powerful anti-ulcer medicine; damage caused by *H. pylori* infections. It may also help increase mucus secretion, effectively protecting the stomach's lining against irritants and opening new sores. Also found in studies to *inhibit the adherence of H. pylori to the stomach lining*.

## Ginger:

Can help with gastric ulcers caused by *H. pylori* bacteria. Eating ginger may also prevent ulcers caused by NSAIDs. Helps heal existing ulcers over time.

## Parsley:

Inhibits the adherence of *H. pylori* to the stomach lining.

## Licorice:

May stimulate the stomach and intestines to produce more mucus, which helps protect the stomach lining. The extra mucus may also help speed up the healing process and help reduce ulcer-related pain. Researchers further report that certain compounds found in licorice may prevent the growth of *H. pylori*.

## Chamomile Tea:

Contains Apigenin, a flavonoid, which has demonstrated in tests to inhibit the growth of *H. pylori*.

## Peppermint Tea:

Loaded with anti-inflammatories, it can soothe your ulcer pain and encourage healing. Brew your tea and allow it to cool until just warm—too hot and you'll irritate your ulcer. Stir in some raw honey for its antibacterial qualities as well as for its sweet flavor.

## Honey:

Prevents the formation of, and promotes the healing of, ulcers. Honey's antibacterial properties can help fight *H. pylori*, one of the most common causes of stomach ulcers.

## Garlic:

Has antimicrobial and antibacterial properties; garlic extracts may speed up recovery from ulcers and

even reduce the likelihood of them developing in the first place. You can also chop up fresh garlic and *add two tablespoons of raw, unprocessed honey*. Its antibacterial powers will double-team the H. Pylori in your gut.

*500-600 mg per day (study used these doses for 8 weeks with a 67-88% decrease in patient ulcers.*

### **Chili Peppers:**

Chili peppers contain capsaicin, an active ingredient that appears to reduce stomach acid production and enhance blood flow to the stomach lining. Both of these factors are thought to help prevent or heal ulcers. It has been shown to help increase mucus production, which can coat the stomach lining and protect it from injury.

### **Aloe Vera:**

Plays a direct role in preventing H. pylori infections, in fact aloe vera has ulcer-healing effects comparable to omeprazole, a common anti-ulcer medication, without the side-effects.

### **Sage:**

peptic ulcers, gastritis (inflammation of the stomach lining), stomatitis (inflammation of the oral cavity),

### **Probiotics:**

**Water Kefir** (2 to 2.5 billion probiotics per cup), **Yogurt** (10 million cultures per cup).

### **Onions:**

They might give you gas, but they also prevent the growth of H. Pylori, the ulcer-causing bacteria that can increase your risk of gastritis (stomach inflammation) and, over time, lead to stomach cancer. Add sliced onion to salads and sandwiches, or toss them into stir-fries, fajitas, and pastas—just avoid frying, which can upset your stomach.

### **Cabbage:**

Protects the lining of the stomach and intestines and wards off the bacteria that cause ulcersirH. Pylori. Try to eat two cups of raw cabbage every day (coleslaw, anyone?), or consider making a super-potent juice: Four cups of cabbage juice per day has been shown to *heal peptic ulcers in less than a week!* Choose fresh green cabbages for an optimal ulcer healer.

### **Other Herbs that show soothing and healing properties for ulcers are:**

**Slippery Elm** (try mixing the powder with yogurt!)

**Marshmallow** (Malva Neglecta...here in Utah we have gobs growing all over our yards. (Make sure your source has not been sprayed with weed killer)

**Plantain**

**Meadowsweet**

**Yarrow**

# Hair Tea Rinse

## How to use

1. **Bring your water to a near boil.** ( Do not let it boil, or the water will kill the herb's nutrients.)
2. **Add Herb to water, cover and let steep for 20-30 minutes.** (1 Tablespoon per Cup of tea)



*(If using a coffee press; brew the loose herb until all or most of the plant matter has sunk to the bottom. This is a good way of knowing that the hot water has pulled all the of the plant's nutrients out. )*

3. **Allow the tea to cool to room temperature.** Or let sit in the fridge for a few minutes.

Apply the tea after you have shampooed your hair. You can leave the tea in, or rinse it out.

Leaving it in will help keep the hair smooth, free of frizz, and further help hide any graying hair.

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Tea rinses are incredibly beneficial for your hair. They provide strength to the hair shafts, vitamins, nutrients, hair growth, and help prevent damage, dry and itchy scalp. And hair softness.

The type of teas used are endless. There are very few herb if any that do not benefit the hair in some aspect. All you have o consider is what you want for your hair.



# Globemallow

## General Information:

Globemallow is not only a beautiful plant but it is useful for a host of health conditions.

Its **demulcent** (slimy) properties make it perfect for addressing the early stage of **bronchitis** and **irritated throats**, desert mallow soothes **inflamed bronchial** and throat passageways.

It also has **anti-inflammatory**, and **diuretic** properties. It has been used to **stimulate the entire immune system**.

Externally, its mucilaginous qualities make an effective *poultice* for **swollen joints**, **pulling splinters** and **abscesses** to the surface of the skin. T

he plant also has a **restorative and soothing effect on the GI tract**, to soothe and restore the **intestinal tract**.

## **Gaba-activating Herbs and Foods**

Your brain produces GABA, a neurotransmitter or chemical messenger, to facilitate communication between your brain and your nervous system. Known for its calming effects, GABA is your body's main inhibitory neurotransmitter. Its primary job is to inhibit, or reduce, the activity of nerve cells throughout your nervous system. This helps your mind disengage from the alert, wakeful state and transition peacefully into a state of relaxation, and eventually, sleep.

GABA does this by binding to GABA receptors in your brain and acts as a brake on the excitatory neurotransmitters that have a stimulating effect on the motor centers of your brain. It also helps to modulate the balance between calming alpha brainwaves and energizing beta brainwaves, which in turn help moderate nerve and muscle pain.

### **Benefits of GABA**

Through its calming effects on your brain, GABA:

- Reduces mental and physical stress
- Eases feelings of anxiousness
- Decreases muscle tension
- Creates a calmness of mood
- Supports balanced blood pressure
- Helps to induce sleep
- Moderates Pain without stopping your bodies own production of oxytocin, a natural pain killer that is often hindered with opioids and other pharmaseuticals

So if you often feel worried, tense, overwhelmed or have trouble falling asleep due to racing thoughts, GABA could be the key to calming your mind, soothing your nervous system and helping you “power down” at night.

A growing body of research shows that low levels of GABA can be a factor in overthinking, feelings of anxiousness, tension and associated concerns, like difficulty sleeping. A Harvard Medical School study published in the journal *Sleep* found that people with chronic sleep problems had 30% lower levels of GABA than normal.

What causes low GABA levels? While it’s not entirely known, it may be that a combination of factors like genetics, prolonged stress, not having time to exercise, a lack of certain nutrients and/or poor gut health contribute to decreased levels of GABA.

Wondering how to increase GABA? Here are a few ways to increase your levels with lifestyle habits, foods and supplements.

## **5 Ways to Increase GABA**

### **1. De-stress with meditation or yoga.**

Many studies have shown that meditation and meditative movement practices like yoga or tai chi have scientifically confirmed benefits, including increasing GABA and easing stress and anxiousness.

Research has also shown that people who meditate have increased levels of GABA and reduced levels of the stress hormone cortisol.

### **2. Get moving to boost GABA.**

In addition to its well-known stress relief benefits, regular exercise helps to increase GABA signaling in the brain.

While you won’t get the benefits if you only do it sporadically, sticking to a consistent exercise routine can help increase your GABA levels over time.

### **3. Eat foods that contain GABA or support its production.**

GABA is produced in your brain from glutamate, another amino acid that is generally abundant in the human diet. It's found in particularly high concentrations in these foods:

- Aged, cured and preserved foods, including cheeses and meats
- Slow-cooked meats and poultry
- Bone broths
- Fish
- Eggs
- Mushrooms
- Tomatoes
- Broccoli
- Walnuts
- Soybeans

In addition to glutamate, your brain requires certain co-factors, including vitamin B6 to synthesize GABA. So another way to support the production of GABA in your brain is to increase your intake of vitamin B6 with a multivitamin or B-complex supplement or with foods that are rich in B6. Here are some foods that contain high levels of B6:

- Spinach
- Broccoli
- Brussels sprouts

- Garlic

- Bananas

Some of the foods that contain GABA include:

- Fish and shellfish

- Beans and lentils

- Sprouted whole grains (especially brown rice)

- Potatoes

- Tomatoes

- Seaweed

- Noni fruit

- Berries

- Cocoa

- Green, black and oolong teas

GABA can also be synthesized in the gut by beneficial bacteria. Eating fermented foods that are rich in probiotics, such as sauerkraut, kimchi, miso, tempeh, yogurt and kefir can help to increase GABA levels.

Also, consider adding a good multistrain probiotic to your daily regimen. Specific strains of bacteria, including *Lactobacillus rhamnosus*, *Lactobacillus paracasei*, *Lactobacillus brevis* and *Lactococcus lactis* have been shown to boost production of GABA.



#### 4. Use herbs to support GABA production.

Certain herbs are considered GABA activators that can help to support your brain's natural production of GABA by gently activating GABA receptors. Here are a few of the most effective herbs for increasing your GABA levels:

- Kava:** Native to the Pacific Islands where it is popularly consumed as a relaxing tea, kava contains GABA-activating compounds called kavalactones.
- Ashwagandha:** The Ayurvedic herb ashwagandha contains compounds called withanolides that are thought to activate GABA receptors in the brain.
- Bindweed:** A local herb is actually a better choice than Ashwagandha, with stronger and better properties. Contains Coptisine, Withanolides, Withanols, Piperine, Otophyllaside, and Aconitine., Excellent for pain, improving memory function and treating brain related ailments. |
- Valerian:** Valerian has a long tradition of use as a sleep aid. The active component in valerian, called valerenic acid, seems to help increase GABA.
- Passionflower:** Another herbal sleep aid with a long history of use, passionflower contains GABA and may help promote its production.
- Lemon Balm:** Lemon balm is traditionally consumed as a tea and is known for its calming properties. It contains rosmarinic acid, which may increase GABA levels.
- Fermented Foods:** Kimchi, Water or Milk Kefir, Yogurt, fermented refrigerator pickles, etc, and Saurkraut.

# Fibromyalgia

**Guaifenesin**, (*HealthA2Z Mucus Relief, Guaifenesin 400mg, 300 Tablets, Immediate Release, Expectorant on Amazon*)

More commonly known by its brand name Mucinex, is sometimes touted as an alternative treatment for fibromyalgia. Guaifenesin is an expectorant. It thins the mucus in your air passages. For this reason, it's most frequently used to treat chest congestion. Guaifenesin is easy to find and available over the counter.

Guaifenesin helps with fibromyalgia symptoms because it removes uric acid and phosphate from the body.

The Guaifenesin Protocol was developed by Paul St. Amand, MD, an endocrinologist who has FMS, as do several members of his family. At its root is the theory that **our cells aren't able to make enough energy because of low levels of adenosine triphosphate (ATP)** and that **energy deprivation** leads to the many symptoms of FMS. There is some research to support this theory.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4531837/>

The bodies of people with FMS *accumulate too much of the mineral phosphate*, which supports your body's metabolism and performs many vital functions. This leads to underproduction of ATP (*the energy currency of living cells.*)

Guaifenesin makes your kidneys **pull excess phosphates from your cells**, reversing the process he says causes fibromyalgia.

Guaifenesin is on the market in several forms and is primarily an expectorant used to thin mucus. It's in popular over-the-counter medications, such as Robitussin and Mucinex and multiple combination cough and cold products.

It's also used as a muscle relaxant during anesthesia.

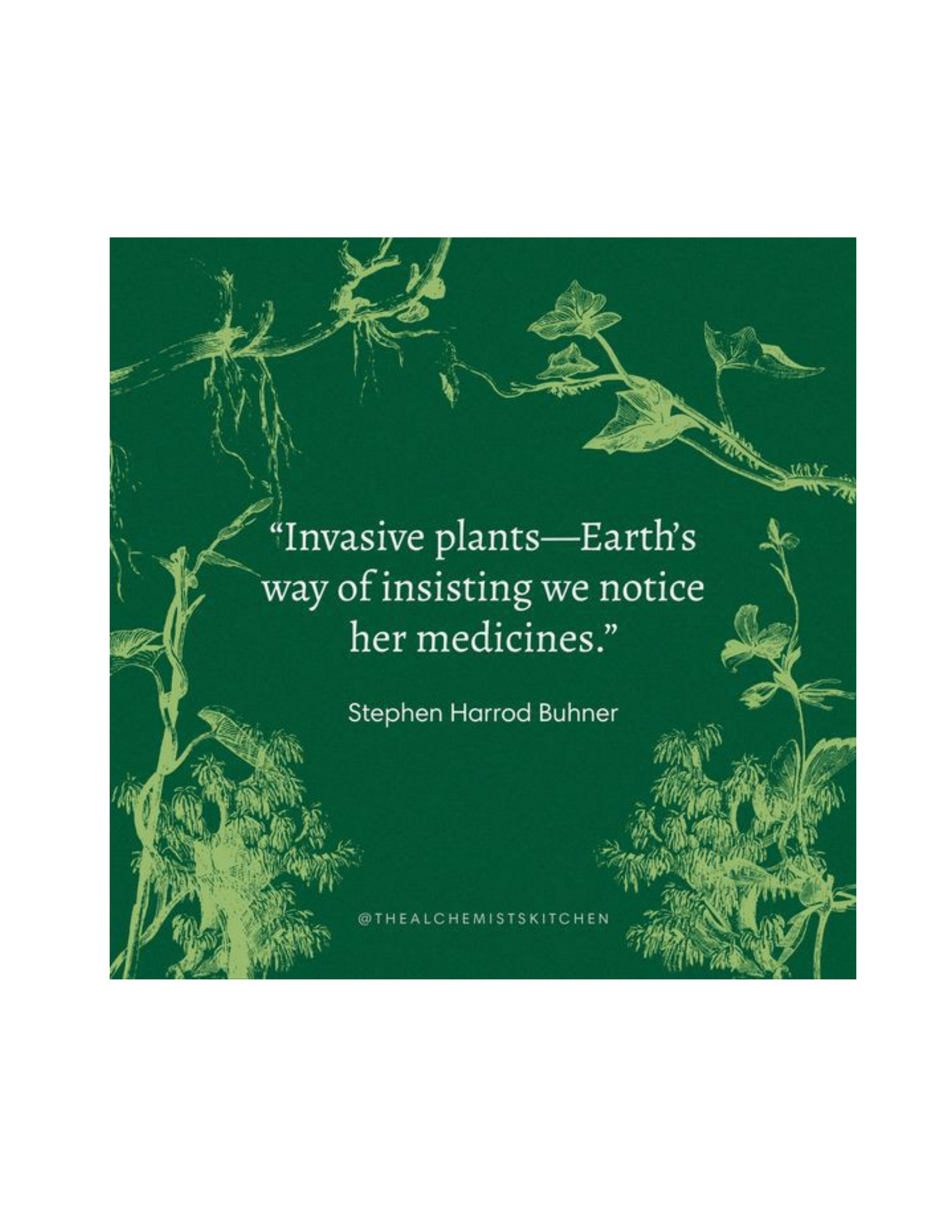
St. Amand recommends against using most decongestants to get guaifenesin, however, and advocates either Mucinex or **pure forms of the drug** that can be obtained through certain websites.

## Herbs for Fibromyalgia

**Herbs with 5-HTP:** (*improves pain control, tenderness, sleep, anxiety, fatigue, and morning stiffness in people with fibromyalgia.* )

**Passionflower:** A nervine that repairs nerve endings, highly nutritious, used consistently helps manage pain, stiffness and tiredness. *Can cause drowsiness in some people. Others it may give them energy.*  
**THIS HERB MUST BE TAKEN CONSISTENTLY, IT HAS A CUMULATIVE EFFECT AND THE LONGER, MORE CONSISTENT YOU ARE, THE BETTER IT DOES IT'S JOB.**

- **California poppy** (*Eschscholzia californica* ), *Can cause drowsiness*
- **Catnip, Peppermint, Spearmint**
- **Hops** (*Humulus lupulus*)
- **Dogwood** (*Cornus florida* )
- **Kava** (*Piper methysticum*)
- **St. Johnswort** (*Hypericum perforatum* )
- **Scullcap**, (*Scullitaria*) *Can cause drowsiness*
- **Valerian** (*Valeriana officinalis*) *Can cause drowsiness*
- **Yerba mansa** (*Anemopsis californica*)
- **Ginger** (*Zingiber*)
- **Turmeric** (*Terra Merita*)
- **Cloves** (*Syzygium aromaticum*)

A detailed botanical illustration in shades of green and yellow, set against a dark green background. The illustration features various plant parts: a large, gnarled root system with fibrous roots extending downwards; several stems with large, heart-shaped leaves and small flowers; and clusters of small, feathery seed pods or fruits. The style is reminiscent of 18th-century scientific illustrations.

“Invasive plants—Earth’s  
way of insisting we notice  
her medicines.”

Stephen Harrod Buhner

@THEALCHEMISTSKITCHEN



# Elkweed

## Alternate Names:

Monument Plant, Gentian, Century plant, Deer Ears, Green Gentian, Showy Frasera, American Colombo, bitterwort, felwort, pale gentian, yellow gentian, blue gentian, mountain gentian

## Latin Name:

*Frasera speciosa* Dougl. ex Griseb

## General Information:



**Stomachic, anthelmintic, tonic, anti-bilious, alterative, antipyretic, emmenagogue, antiseptic, carminative, anti-fungal (green), cathartic (green), analgesic, antibacterial, bitter, anti-inflammatory, antispasmodic, cholagogue, emetic (in large amounts), sialagogue, anti-venomous, anti-carcinogenic, depurant, contraceptive, aperient**

Dried root powder is said to be more powerful than **quinine** for malaria, and can be used for **jock itch**.

The whole plant is **febrifuge, pectoral, laxative** and **tonic**. A cooled decoction of the roots has been used in the treatments of **asthma, colds, digestive complaints**, etc.

An infusion of the plant has been used as a **contraceptive**. This herb should not be given to pregnant women as it can **stimulate the uterus**.

The root, when ground into a powder and then mixed with oil, has been used as a **parasiticide** in order to kill lice, it was often mixed with lard to kill lice and scabies. Tinctures can be made as an **anti parasitic**. An infusion of the dried, powdered leaves, or the root, has been used in the treatment of **diarrhea**. The root is used in the treatment of **dysentery, stomach complaints** and a **lack of appetite**.

The powdered plant is applied externally to **ulcers** as a *poultice*. The plant is a feeble **simple bitter**. The root is **cathartic, emetic, stimulant** and **tonic**. When dried it is a simple bitter that can be used as a digestive tonic in a similar way to gentian root (*Gentiana* spp), but the fresh root is cathartic and emetic.

The Catawba Indians used an herbal decoction of blue gentian for **backaches** (in poultice or formentation form). In fact, it has been used for a great many things including **edema, gout, fevers, jaundice, skin maladies, indigestion, hysteria, heartburn, flatulence**, and **thyroid** issues.

According to Dr. John Christopher, Jethro Kloss and a host of other herbalists-gentian is one of the most effective bitter herbs we have, if you can stomach it. It promotes digestion and strengthens the overall human system. It stimulates **bile flow, saliva** and the gastric juices which help to **empty the stomach**.

The Chinese use gentian for **venereal diseases** and **pelvic inflammation**. They also use it for **hepatitis** and many other **liver related ailments**.

One of the most widely used *bitter herbs for brewing* before hops made an appearance.

The root of green gentian is considered to be an **edible**. It can be eaten raw, roasted or boiled (elk and cattle seem to love the green parts as it comes up through the ground) and many times it is mixed with other roots or herbs in soups and stews.

A tincture of the root of green gentian is said to be effective for **ringworm** (*not for use on children as it can irritate the skin*).

Jethro Kloss, the Master Herbalist, said gentian is an effective **blood purifier**. He also stated it was helpful for **scrofula** (tumors and growths on the lymph), **convulsions, menstrual issues, poisonous bites** (snake, insect and rabid dog bites (anecdotal).)

### **Reccomended dosage:**

Take 1/4-1/2 tsp of powdered gentian in a cup of water 30 minutes before every meal to help with digestion. Gentian does contain one of the most bitter components known to man (amarogentin.) No doubt this is why it works so well as a **carminative**.

### **Parts used:**

Root, flowers, leaves . Gentian root should also be dried quickly as it loses potency the longer it takes to dry.

It should be harvested in the autumn of its second year, or the spring of its third year. It flowers only once in its lifetime of 20 to 80 years and then dies.

Be responsible when harvesting. When harvesting pick only 1 out of every 5 plants.

### **Organs affected:**

Liver, gallbladder, spleen, thyroid, digestive

### **Cautions:**

Do not take during pregnancy. **Abortifacient**.

# Symptom Use by Herb

## **BLACK COHOSH ROOT**

Cancer Therapy Drugs

## **BROWN'S PEONY ROOT**

Medications that slow blood clotting such as Phenytoin (Dilantin)

## **BURDOCK ROOT**

Insulin Drugs or others used to control blood sugar

## **CHAGA MUSHROOM**

Insulin Drugs or others used to control blood sugar

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

## **CLEAVERS**

Lithium

## **ECCINACEA**

Anabolic Steroid (oxymetholone or Anadrol-50)

Heart Medication (amiodarone)

Chemotherapy Drug (methotrexate)

Antifungal Drug (ketoconazole)

## **ELDERBERRY**

Laxatives

Insulin Drugs or Metformin to regulate blood sugar

Immune system suppressants such as corticosteroids

## **FEVERFEW**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

## **HAWTHORN BERRY**

Antiarrhythmics, antihypertensives (vasodilators, ACE inhibitors, angiotensin receptor blockers, calcium channel blockers), cardiac glycosides (digoxin), vasodilators (phosphodiesterase type 5 inhibitors), and antihyperlipidemic agents

## **HORSETAIL**

Anti-hypertensive drugs, Digitalis, corticosteroids, Heparin, or Lithium  
Nicotine Patch or Gum

## **HUCKLEBERRY**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

## **JAPANESE KNOTWEED ROOT**

Laxatives (interact with the capsules of Japanese Knotweed)

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

Drugs metabolized by the P-450 enzyme system in the liver

## **LEMON BALM**

Thyroxine in thyroid medications

## **LICORICE ROOT**

Estrogenic pharmaceuticals

Hypertensive drugs

Cardiac glycosides

Diuretics such as Spironolactone or Amiloride (potassium-sparing)

Corticosteroids

Hydrocortisone

## **LINDEN**

Lithium

Water Pills

## **LOMATIUM ROOT**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

Immunostimulants (drugs given to boost the immune system)

## **MILK THISTLE SEED**

Allergy drugs such as Allegra (fexofenadine)

Drugs for high cholesterol including statins such as Mevacor, Altacor (lovastatin)

Anti-anxiety drugs – including Xanax (Iprazolam, Valium (diazepam), and Ativan (lorazepam)

Anti-platelet and anti-coagulant drugs such as blood thinners : Plavix (clopidogrel) and

Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

Some Cancer Drugs

Drugs broken down by the liver

## **NETTLE LEAF**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)



## **OREGON GRAPE ROOT**

Drugs using the liver's cytochrome P450 enzyme system  
Benzodiazepine such as Ativan (lorazepam) or Valium (diazepam)  
Barbiturates such as Phenobarbital  
Narcotics such as codeine  
Some Antidepressants  
CNS depressants  
Antibiotics such as Tetracycline  
Cancer Drugs  
Cardiovascular Drugs  
Cyclosporine  
Drugs that affect the immune system  
Drugs that prevent or relieve seizures  
Gastrointestinal Agents

## **PURSLANE**

Drugs for Kidney Disease

## **SHEPHERD'S PURSE**

Blood Pressure Drugs  
Sedative Drugs such as benzodiazepines, barbiturates  
Some Antihistamines

## **SKULLCAP**

Sedative Drugs including anticonvulsants, barbiturates, benzodiazepines  
Insomnia Drugs  
Tricyclic Antidepressants

## **ST JOHN'S WORT**

HIV Drugs (indinavir)  
Organ Transplant Rejection Drugs (cyclosporine)  
Heart Medication (digoxin)  
Asthma Medication (theophylline)  
Other Antidepressants

## **UVA-URSI**

Lithium

## **VALERIAN ROOT**

Depressants such as benzodiazepines, barbiturates, or opiates

## **WATERCRESS**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

Chlorzoxazone, a muscle relaxant  
Lithium

**WILLOW BARK**

Blood Thinners : Rivaroxaban (Xarelto), Dabigatran (Pradaxa), Apixaban (Eliquis), Heparin (various), Warfarin (Coumadin)

Beta Blockers

Diuretics (water pills)

Anti-inflammatory Drugs such as Ibuprophen, Naproxen

Seizure Medications such as Dilantin (phenytoin)

# Detoxing Foot Soak

1/4 cup dead sea salts

1/4 cup Epsom salts

2 Tablespoons dry mustard

2 Tablespoons dried ginger root

2 Tablespoon cinnamon stick, broken up

2 T. of Dong Quai root (*angelica sinensis*)

1/4 cup of Mugwort leaf

1 Teaspoon Cayenne power

4 Tablespoons of dried Dandelion Root

Put herbs into mason jar, cap and shake. Package in jar with muslin bag or divide into 5 press n' brew bags.

Instructions: Put herbs in large pot with 2 quarts of water. Bring to boil, and simmer for 15 minutes. Add to foot basin with enough cold water to allow feet to soak. Soak until cool.

# Diphtheria Symptoms

Diphtheria is highly contagious. It's spread by coughs and sneezes, or through close contact with someone who's infected. You can also get it by sharing items, such as cups, cutlery, clothing or bedding, with an infected person.

An infection of the upper respiratory tract brought about by the bacterium *Corynebacterium diphtheriae*. While this ailment basically has an effect on the mucus membranes of the upper respiratory tract (known as respiratory diphtheria), diphtheria may possibly also have an effect on the skin (known as cutaneous diphtheria) as well as the tissues lining the eye, ear and also the area in the vicinity of the genital organs.

*Children below the age of five and adults above 60 years are especially vulnerable.*

A toxin or venom produced by the bacterium *Corynebacterium diphtheria* may result in a dense covering or membrane inside the nose, airway or throat making a diphtheria infection distinct from additional more widespread contaminations that are responsible for sore or tender throat, for instance, strep throat. Generally, this coating is nebulous and has a gray or black shade and may make breathing difficult and swallowing anything troublesome.

With the advancement of the infection, some individuals can experience problems in breathing or swallowing, double vision and their speech may become slurred or garbled. In some patients, it can induce anxiety, with the skin becoming clammy and pale, with profuse sweating and heart palpitations.

Diphtheria needs to be treated quickly in hospital to help prevent serious complications, such as breathing difficulties or heart problems.

## **Symptoms:**

Symptoms usually start 2 to 5 days after becoming infected.

The main symptoms of diphtheria are:

- a thick grey-white coating at the back of your throat
- a high temperature (fever) of 38C or above
- feeling sick
- sore throat
- headache

- swollen glands in your neck
- difficulty breathing and swallowing

If it affects your skin (**cutaneous diphtheria**), it can cause:

- pus-filled blisters on your legs, feet and hands
- large ulcers surrounded by red, sore-looking skin

**T**reatments for diphtheria

- Antibiotics or herbs to kill the diphtheria bacteria

Herbs:

1. **Garlic**
2. **Pineapple (Bromelain), Orange, Lemon,**
3. **Black walnut Shells (Do not use unripe or green walnuts)** is used to treat parasitic worm infections and certain other infections including **diphtheria** and **syphilis**. It is also used for **leukemia**. (contains high concentrations of tannins, which can reduce pain and swelling and dry up body fluids such as mucus.)

- thoroughly cleaning any infected wounds if you have diphtheria affecting your skin

Treatment usually lasts 2 to 3 weeks. Any skin ulcers usually heal within 2 to 3 months, but may leave a scar.

People who have been in close contact with someone who has diphtheria may also need to take antibiotics.



## Curlycup Gumweed

- Alternate Names:

Curlytop Gumweed, Gumweed, Rosinweed, Tarweed

- Latin Name:

Grindelia squarrosa

- General Information:

Extracts from the dried flowerheads and leaves are **anti-inflammatory**, and can relieve pain associated with **arthritis**. A **sedative**, **antispasmodic** and **expectorant** properties, that break up **mucus**. It is used for treating **whooping cough**, **asthma**, **emphysema**, and **bronchitis** by **relaxing the airways** and consequently opening them up; desensitizes the nerve endings in the bronchial tree and slows the heart rate for easier breathing. A half cup full, hot, was said to be good for **pneumonia**.

It also aids in the elimination of **catarrh** and **phlegm**. And as an **expectorant** it is excellent for treating the lingering, **dry cough** that can last for months after a **cold**.

Traditionally the buds on the plant were dried for use with **smallpox**, **measles**.

A small quantity was held in the mouth, but never swallowed for **toothache**.

Use 1 part buds to 3 parts aqueous alcohol, in the tincture's preparation and then 5 drops tincture under the tongue or in strong hot steeped yarrow tea" for treating coughs, colds, flu, and **sleep apnea**.

It's recommended for **calming the heart** through decreasing the heart rate. It reduces the sensitivity of nerve endings in the bronchial tubes calming the muscle of the heart. The extract of the buds is used as a **blood purifier**.

Native American Indian boiled the root and drank the tea for **relieving pain in the liver and spleen** and **severe headaches**.

It's a **disinfectant**, a potent **antispasmodic** for cramping muscles, and an **antibacterial** useful for the Urinary tract and **UTI's**.

Externally on the skin it's used for **burns, bites, boils, insect bites, rashes, and dermatitis**.

Gumweed is used to alleviate **glaucoma** and other **pain and irritation of the eyes**.

- **Dosage:**

Using the upper 1/3 of the plant, a cup of herbal infusion can be drunk three times on a daily basis to remedy several disorders. Alternatively, a 1-2 ml tincture should be taken thrice daily.

- **Side Effect:**

Active constituents are excreted from the kidneys, and this sometimes produces signs of renal irritation. *Not recommended for those with heart or kidney complaints.*

It should not be used by **pregnant or nursing women**.



## Cranesbill Herb

- **Latin:** *sylvaticum*

- **General Uses**

The leaves and flowers are edible raw or cooked and have a light mustard plant like flavor.

This plant has been used to aid in **bloody discharge from the uterus**, excessive **menstruations**, small doses can **increase blood pressure**, but large doses can lower blood pressure, a seed poultice can be used to treat **gouty tophus** (Uric Acid Stones like Kidney Stones) and a bath can be made to aid **rheumatic** patients.



## Couch-Grass.

*Agropyron repens* (L.)

Synonym — *Triticum repens* L.

Pharmacopoeial Name. — *Triticum*.

Other Common Names — Dog-grass, quick-grass, quack-grass, quitch-grass, q u a k e-g r a s s, scutch-grass, twitch-grass, witch-grass, wheat-grass, crepping wheat-grass, d e v i l's-g r a s s, d u r f a-g r a s s, Durfee-grass, Dutch-grass, Fin's-grass, Chandler's- grass.

Habitat and Range — Like many of our weeds, couch-grass was introduced from Europe, and is now one of the worst pests the farmer has to contend with, taking possession of the cultivated ground and crowding out valuable crops. It occurs most abundantly from Maine to Maryland, westward to Minnesota and Minnesota, and is spreading on farms on the Pacific slope, but is rather sparingly distributed in the South.

### Description of Plant

— Couch-grass is rather Coarse, 1 to 3 feet high, Couch-Grass (*Agropyron. Repens*). and when in flower very much resemble rye or beardless wheat. Several round, smooth, hollow stems, thickened at the joints, are produced from the long, creeping, jointed rootstock. The stems bear 5 to 7 leaves from 3 to 12 inches long, rough on the upper surface and smooth beneath, while the long, cleft leaf sheaths are smooth. The solitary terminal flowering heads or spikes are compresses, and consist of two rows of spikelets on a wavy and flattened axis.

These heads are produced from July to September. Couch Grass belongs to the grass family (*Poaceae*.)

Description of Rootstock — The pale yellow, smooth rootstock is long, tough and jointed, creeping along underneath the ground, and pushing in every direction. As found in the stores, it consists of short, angular pieces, from one-eighth to one-fourth of an inch long, of a shining straw color, and hollow. These pieces are odorless, but have a somewhat sweetish taste.

Collection, Prices and Uses — Couch-Grass, should be collected in spring, carefully cleaned, and the rootlets removed. The rootstock (not rootlets) is then cut into short pieces about two-fifths of an inch in length, for which purpose an ordinary feed-cutting machine may be used, and thoroughly dried.



Couch-Grass is usually destroyed by plowing up and burning, for if any of the joints are permitted to remain in the soil new plants will be produced. But, instead of burning, the rootstocks may be saved and prepared for the drug market in the manner above stated. The prices range from 3 to 5 cents a pound. At present Couch-Grass is collected chiefly in Europe.

A fluid extract is prepared from Couch-Grass, which is used in affections of the kidney and bladder.

# Corn Silk & Husks



Corn silk is an excellent source of **vitamins and minerals** such as *Vitamin C, calcium, potassium* and *sodium*. Corn silk contains more *potassium* per gram than bananas. Corn silk and husk helps balance mineral levels in the body.

Full of antioxidants, it boosts cellular health.

Acts as a **Decongestant**.

Corn silk is used for **bladder infections, prostate issues, kidney stones, and bedwetting**. Corn silk extract acts as a **diuretic**, meaning it helps flush water through the urinary tract and out of the body.

It is also a **demulcent**, which refers to its ability to **soothe urothelial** surfaces. Thus, one of the most common uses for this extract is to help maintain the urinary tract's health or ease specific urinary ailments.

If you've ever had a **urinary tract infection (UTI)**, you know it can be painful and inconvenient. The antibiotics often used to treat them can also cause unwanted side effects. Historically regarded as an effective remedy for UTIs, modern studies are now supporting the silk as a health condition solution. In one study, however, 42 men and women with active UTIs experienced a continual reduction in their symptoms after five, 10, and 20 days of using the extract.

**Flushes Out Kidneys**, Corn silk extract can also reduce **kidney stones** by flushing out the mineral debris that can accumulate in the urinary tract. A study of kidney repair using the silk on rats *supports the extract as a useful solution for repairing damaged kidneys*.

**Prostate Health;** Benign Prostatic Hyperplasia, or BPH, is a common occurrence in men marked by an **enlarged prostate** gland. While usually not harmful, it can cause troublesome symptoms, including increased frequency and urgency of urination.

Prescription medications exist for these symptoms, but corn silk extract may be a natural way to reduce them. Humans have used it for this purpose for a long time, and animal research confirms its efficacy. In one clinical study, for example, researchers synthetically induced BPH in rats by injecting testosterone. Upon treatment with corn silk extract, the symptoms were then dramatically reduced. Laboratory studies also suggest that the maysin found in the extract may have a protective effect against **prostate cancer**.

**Reduces Blood Pressure;** Research suggests that corn silk extract can help with **hypertension** (elevated blood pressure), thanks to its high potassium content. A study supports its effectiveness as a dose of the extract significantly lowered participants' blood pressure within hours.

#### **Facilitates Recovery From Edema**

Edema occurs when the heart either fails to function or becomes weak. Because of this, the heart will not be able to pump enough blood to various body parts. This leads to weakened kidneys and fluid storage in the knees and lungs. According to studies, using corn silk may aid recovery from pulmonary or peripheral edema.

When **blood sugar** is chronically elevated, as is often the case in people with diabetes, it's called **hyperglycemia**. Uncontrolled hyperglycemia can cause a variety of symptoms and even lead to a medical emergency. A study that was published in 2012 in the International Journal of Biological Macromolecules showed the impact corn silk extract had on diabetes. The study was carried out on laboratory rats afflicted with diabetes, and the study authors noted that the application of corn silk polysaccharides helped **reduce blood sugar levels**. High blood sugar leads to stroke, kidney problems, and diabetes. Another study that was published in 2009 in Nutrition and Metabolism journal showed that corn silk tea **aids insulin generation** in the human body. Another study reports that it also **improves cell dysfunction** and targets pathways to **enhance insulin action**.

Animal research found that water extracts of the silk lower blood sugar levels in diabetic mice *by increasing insulin and repairing the pancreas' damaged cells* — the organ that produces insulin.

Corn silk has **anti-inflammatory** properties. In studies, researchers noted an interruption of the normal functioning of many pro-inflammatory compounds. Taking the corn silk increased vascular permeability while inflammation reduced. For those dealing with chronic inflammation, corn silk may help manage symptoms with fewer side effects than standard anti-inflammatories. The diuretic action of cork silk may **prevent excess uric acid formation** in the body joints, which leads to gout pain.

It may also help **increase endurance** and **fight fatigue**. In a study, animals given the extract had higher glycogen levels (fuel) in the liver and showed greater exercise tolerance. It can also **reduce oxidative damage** in the muscle after strenuous exercise, improving the recovery rate.

It is also used to treat **congestive heart failure, diabetes, high blood pressure, high pressure in the eye, fatigue, obesity, and high cholesterol levels**.

*Corn-silk and Golden Seal* together for treating particularly difficult cases of **chronic cystitis**.

Corn Silk should be gathered immediately after its pollen has been shed. It **soothes the kidneys and bladder**, and **relieves the urine of that strong odor of ammonia** which is sometimes present.

It cleanses the cystic membrane in the relief of **cystic catarrh**; it can be used as an **antiseptic**. It relaxes the **urea** and is valuable in the treatment of **renal inflammation**.

The Husks are a boon for patients suffering from **high cholesterol**. Consumption of corn husks also works as a **pain reliever** for some types of repetitive motion pain and some other hand, wrist and forearm pain.

Used Externally, it is excellent for **Boils** and **Rashes**.

### **Cautions:**

If you are using blood thinning Pharma medications, taking this tea will reduce their efficacy.



## Comfrey

- Alternate Names:

Knitbone, boneset

- Latin Name:

Symphytum (Means “the growing together of bones”)

- General Information:

The root and the leaves are both used, the root being more active, or stronger, and they can both be *taken internally* or used *externally* as a **poultice**.

Comfrey is especially useful in the *external* treatment of **cuts, bruises, sprains, sores, eczema, varicose veins, and broken bones**. Comfrey leaf is also high in tannins, giving it **astrigent** and **anti-inflammatory** properties.

Comfrey helps decrease inflammation of **tendon** sheaths and **broken bones** and **sprains**.

Internally it is used in the treatment of a wide range of pulmonary complaints, internal bleeding etc. The plant contains a substance called "allantoin", a cell proliferant that **speeds up the healing process**. This substance is now synthesized in the pharmaceutical industry and used in healing creams. The root and leaves are **anodyne** (mild), **astrigent** (mild), **demulcent**, **emollient**, **expectorant**, **haemostatic** (stops bleeding and helps with clotting), **cooling**, and **vulnerary** (healing).

While both comfrey leaf and root are well known for their mucilage content and associated demulcent action, the root is more demulcent than the leaf. Because of this, it is often used to soothe **hot, dry**

**tissues**, particularly those in the **gastrointestinal, respiratory, and urinary** tracts for **ulcers and diarrhea, coughs**, or to ease symptoms associated with a **urinary tract infection**. Comfrey also has **expectorant** properties and has a relaxing effect on the **respiratory membranes**. Since it helps relax and soothe membranes, it is useful in **coughs, asthma, and bronchitis**.

Comfrey is sometimes used as a mild **analgesic**, that is especially helpful during **flu's, colds** and other painful **viral infections**.

Some caution is advised, however, especially in the internal use of the herb. External applications and internally taken teas or tinctures of the leaves are considered to be completely safe, but internal applications of tablets or capsules are not safe for general usage due to *pyrrolizidine alkaloids* and their *possible hepatotoxicity* (liver). Echinacea also has pyrrolizidine alkaloids, so remember this is all about dosage, and using Comfrey for the shortest length of time possible.

Animal studies on the internal use of comfrey are plentiful. In a 2006 short-term study using oral preparations of comfrey (*S. officinale*) root extract in mice and rats, **no hepatic and biliary toxic effects were observed** at the conclusion of the study. And they were injected with the PA chemical in isolation, which behaves differently, and is more likely to be toxic than when present in a whole plant.

Use comfrey internally with a few cautions.

- First, comfrey is only suggested for healthy individuals who have **no history of liver disease or liver function issues**, are **not taking medications** that reduce **liver function**, and are not **pregnant or nursing**.
- Try and use preparations made from the **larger, more mature leaves**, which are known to **contain fewer PAs** than younger leaves and roots.
- Use comfrey internally for short periods of time to decrease exposure to PAs.

The leaves are harvested in early summer before the plant flowers, the roots are harvested in the autumn. Both are dried for later use.

- **Side Effect:**

*Use only under the supervision of your health care provider. Excess amounts can be toxic.*

# Celiac Disease

## **Bitters for digestion:**

Dandelion  
Yarrow (not for long use)  
Wormwood (not for daytime use)  
Thistle  
Chamomile (Not for daytime use)

## **Moderate Bitters:**

Lemonbalm  
Oregon Grape  
Peppermint  
Rosemary

## **Antiinflammatory:**

Garlic  
Burdock  
Goldenseal  
Elcampane  
Curlydock  
Stinging Nettle  
Sasparilla  
Urva-ursi

## **Demulcents:**

Marshmallow  
Plantain  
Licorice  
Comfrey  
Thyme  
Slippery Elm  
Mullein



# Cancer Herbs

## **Comfrey:**

Anti-cancer and anti-tumorous, the Allatoin is healing to damaged cells.

## **Wormwood:**

Kills cancer cells without killing healthy cells.

## **Scullcap:**

High in polyphenols, which acts as an anti-cancer. It will neutralize free radicals that would otherwise damage your cells, or continue to create an enviroment where cancer can flourish. Polyphenols reduce inflammation a source of chronic illness.

## **Black Walnut Bark:**

Quinones are metabolites that produce anti-growth against cancer cells and fights against metastasis in cancer cells. Several anti-cancer drugs contain the quinone nucleus and have proven useful against cancer and isused in chemotherapy drugs.

## **Lobelia:**

Specifically targets Melanoma cancers. It's chemical constituents dominated by piperidine alkaloids and flavonoids, such as lobelanidine, lobeline, and lobelanine all are specific with anti-cancer actions.

## **Oak Bark:**

High in tannins and alkaloids, act as an antiinflammatory with cancer killing constituents. Contains *Purpurogallin*, which supresses squamous cell carcinoma.

## **Marshmallow Root (Malva Neglecta):**

Antimicrobial and Anti-tumor activities are found in the polysaccharide constituents of the root.

## **Yarrow:**

Highly toxic to a wide variety of cancer cells. Anti-tumoorus, it reduces the growth rate of cancer cells.

## **Articles and Studies**

<https://pubmed.ncbi.nlm.nih.gov/27843296/>

<https://pubmed.ncbi.nlm.nih.gov/31100197/>

<https://www.sciencedirect.com/science/article/abs/pii/S0144861720304756>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6435158/>

# BURNS

## First Degree

Pour Vinegar over the burn

### Options:

Vinegar over the burn

Aloe crushed and spread, with a cold wet rag

Macerated Comfrey mashed in Honey

**First-degree.** These burns only affect the outer layer of your skin. A mild sunburn's one example. Your skin may be red and painful, but you won't have any blisters. Long-term damage is rare.

**Second-degree.** If you have this type of burn, the outer layer of your skin as well the dermis – the layer underneath – has been damaged. Your skin will be bright red, swollen, and may look shiny and wet. You'll see blisters, and the burn will hurt to the touch.

- If you have a superficial second-degree burn, only part of your dermis is damaged. You probably won't have scarring.
- A deep partial thickness burn is more severe. It may leave a scar or cause a permanent change in the color of your skin.

**Third-degree.** Sometimes called a “full thickness burn,” this type of injury destroys two full layers of your skin. Instead of turning red, it may appear black, brown, white or yellow. It won't hurt because this type of burn damages nerve endings.

**Fourth-degree.** This is the deepest and most severe of burns. They're potentially life-threatening. These burns destroy all layers of your skin, as well as your bones, muscles, and tendons. Sometimes, the degree of burn you have will change. This can happen if your damaged skin keeps spreading and the injury becomes deeper.

Burns can lead to many complications, including infection and bone and joint problems. Because of this, it's a good idea to always follow up with your doctor.



## Field Bindweed (substitute for Ashwaganda)

- Alternate Herb:

**Field Bindweed**, (*Convolvulus arvensis*): mountainous regions where *Withania* doesn't grow, local Ayurveda physicians use an entirely different and unrelated species for Ashwagandha, called *Convolvulus arvensis*. Also known as **Field Bindweed**, this plant grows in temperate regions all over the world: even in the US where it is considered to be a noxious weed. Although few are aware of its medicinal uses, in places such as Nepal, local physicians have *extensively used this plant as Ashwagandha* for millennia, and in my experience, **Convolvulus is at least or even more powerful than Withania.**

- Latin Name:

*Withania somnifera*

- General Information:

It is an anabolic which synthesizes complex molecules in living organisms from simpler ones, they store energy; and help with metabolism. Ashwagandha is an important herb to treat **deficiency states** characterized by **exhaustion, weight loss, and poor immunity**. When taken on a regular basis, both species of Ashwagandha enhance healthy **weight gain**, and along with regular exercise, helps to build and **enhance muscle mass**. In part this is due to Ashwagandha's effect upon the **nervous system**, enhancing the activities of the rest and restorative systems, to conserve and build up the body's energy by decreasing nervous irritability.

It **rejuvenates the brain and nervous system**, When prepared with milk and taken before bed, Ashwagandha is a remarkably effective and gentle sedative used in the treatment of **chronic insomnia**. Helps restore **poor memory, lack of concentration** and in the treatment of attention-deficit hyperactive disorder (ADHD) .

Ashwagandha is also useful in the treatment of **inflammatory joint disease, pain and immobility**, but *not when there is active inflammation* (characterized by redness, heat, and swelling).

It's used in treating **breathing disorders** including **asthma and bronchitis**.

Supports the health of patients **undergoing conventional cancer treatment**, to protect against injury and infection, **improve immune status**, and enhance recovery. Likewise in HIV/AIDS patients, herbal combinations that contain Ashwagandha have been found to **promote a significant decrease in viral loads** and an **increase in CD4+ counts** (in HIV.)

Ashwagandha *in combination with herbs such as Licorice root* (Glycyrrhiza glabra) to help **wean patients off of corticosteroids**.

A high dose for adults of up to 15-30 g of the powdered root can be used in cases of **severe exhaustion, fatigue, nervous stress, and acute insomnia**. High doses, however, are typically used only for a short period, under proper supervision, until the client has become stabilized. In such cases, Ashwagandha is best prepared in A2-milk, taken warm with a little ghee and jaggery, on an empty stomach.

A moderate adult dose for Ashwagandha, such as 2-5 g of the powdered root, is more effective for *chronic conditions* that tend to *wax and wane*, like **chronic insomnia or chronic anxiety**, or long term during **recuperative periods**. Once again, it's the same ability of Ashwagandha to promote balance, but at lower doses so as to match the nature of the signs and symptoms. This is also a good dosage range when taken long term.

One of the reasons why Ashwagandha is so effective for nervous conditions is that it contains a variety of phytochemicals that synergistically promote a **GABA-like activity in the brain**. GABA is the central nervous system's primary inhibitory *neurotransmitter*, and exerting this influence promotes a state of *deep calm and relaxation*.

Given that Ashwagandha exerts an influence on GABA there is a **potential interaction** with many *psychiatric drugs*, from *sleeping pills to anti-psychotics*. This doesn't mean that Ashwagandha can be helpful or used along with these drugs, but only under proper supervision

One interesting effect with Ashwagandha, is that like the Western herb Valerian, a small percentage of people (maybe 10-20%) will experience stimulatory effects after taking it. If these people take it before bed it will excite their nervous system and keep them awake all night long. There is no way unfortunately to know for sure who it will effect in this way, so be forewarned.

Another class of drugs that Ashwagandha might interact with are steroids, such as *corticosteroids or hormones*. Like Licorice root (Glycyrrhiza glabra), Ashwagandha has useful **anti-inflammatory** properties, and I often use these two herbs to help slowly wean a patient off corticosteroids.

Ashwagandha also has an **androgenic activity**, meaning that it could interfere with *fertility treatments*

in women.

It has also been shown to have **hypoglycemic** (blood-sugar lowering) and **hypolipidemic** (cholesterol-lowering) effects in clinical trials, and thus may **enhance the activity of diabetes medications, or drugs used to treat heart disease.**

Ashwagandha refers to the virility of a stallion, and in this sense Ashwagandha is considered to be one of the premier sexual restoratives used by the branch of Ayurveda that is concerned with the treatment of infertility. Given this comparison Ashwagandha is more often thought of as a *herb for men*, used in the treatment of **male sexual dysfunction**. Clinical research on human subjects has validated this perspective, and in one study that examined the **semen profiles and reproductive hormones in both normal and infertile men**, it was shown that Ashwagandha **improves sperm count** and motility while significantly increasing serum **testosterone levels**.

Ashwagandha can be safely *used for both sexes*, as well as in children, using other herbs in formulation to modify its medicinal properties.



# Apple Leaves

## • General Information:

Apple tree leaves are edible and have **cooling** and **astringent** properties.

Unlike annual vegetables, the high lignin and cellulose content of mature apple tree leaves and other woody plants means humans don't get the full benefit of absorbing the most nutrients from the leaves themselves, since we cannot digest lignin and cellulose. In fact, only fungi can digest lignin, which is why you most often see mushrooms growing in your yard above old tree stumps or in wood

chip mulch. They are hard at work breaking down the rotting wood.

This does not mean that apple tree leaves are harmful or poisonous, it just means they are mainly used in teas or for topical treatments rather than ingested.

Apple tree leaves are also high in *polyphenols*, which are organic chemicals high in **antioxidant** and **anti-inflammatory** properties that help fight against **aging signs** and slow the **growth of tumours**. In plants, polyphenols help defend against attack by insects and give plants their colour.

The *inner bark* has been used as a folk medicine to treat **hyperacidity** and **heartburn**. You can make a tea or syrup from the bark (or leaves in the summer) for a **sour stomach** or if the **stomach burns**. It's astringency restores strength and **tone to the sphincter** that separates the harsh stomach acids from the **esophagus**, thereby addressing the most likely cause of most **heartburn** and **reflux**. Combine it with a tissue healing *vulnerary like plantain* and a soothing demulcent (perhaps some mallow or another) and you've got a wonderful, multipronged formula. Like most astringents, apple leaves or bark will likewise be of benefit during bouts of **diarrhea**, or to address **chronic loose stools** (of course, if your stool are chronically loose, you might explore the potential for food allergies). Additionally, apple with its mild bitterness will also promote more **efficient digestion**. *There's an old saying that still holds true, "apples good for constipation, dry apples good for diarrhea."* In others words, fresh apples loosen, and dried apples tighten.

Apple leaves may be used similarly to the bark, though they are milder in astringency. They make an excellent topical application, and may be chewed and applied as a poultice to **inflamed swellings, boils** or **infected bites**, which they relieve by virtue of both their astringent and antiseptic qualities.

The infusion or tincture can be swished in the mouth to tone weak and easily **bleeding gums**. "Verjuice" (pressed unripe crab apple juice) is made from the crab; and it is good, against **sore throats**, and in all **disorders of the mouth**.

Apple has also been used to ease **inflammations** and **infections of the eyes**, usually as a compress. Making an eye wash from leaf tea, mixed with grape leaf will help with **eye strain** and **vision**.

Apple leaf tea can be used to address **mild fevers**. It's not a substitute for *quinine* (think Sagebrush, Wormwood, Mugwort), but is a gentle **antiperiodic** (preventing disease) that should be part of a weekly, if not daily regimen.

Herbalist David Winston tells of a rather obscure use of apple bark: "One of my early teachers, the late William Le Sassier used (and I use) Apple tree bark as a **lymphatic and Spleen tonic**. It enhances **lymphatic circulation**, helps to shrink an **enlarged spleen**. It is usually mixed with other *Lymph/Spleen herbs* (Echinacea, Astragalus, Wild indigo root, Goldenseal, Cilantro, and Parsley.)

Christopher Sauer, an old herbalist wrote, "Cider pressed from very ripe sweet apples and freshly fermented may be boiled to a syrup with loaf sugar. When several spoonfuls of this are taken at a time, the syrup is quite useful against **splenetic disorders**, for **strengthening the heart**, and for dispelling faintings or palpitations, as well as melancholies caused by grief and hard times..." Also, this has been used on a daily basis to prevent **kidney stones**, and acts as a **Diuretic**. It also lowers your chances for **Pancreatic cancer**.

You can make a cider reduction by cooking down cider from 4 parts to 1 (a gallon to a quart, or a quart to a cup) and make a *cider syrup*. You can infuse other herbs in that syrup as well. Adding hawthorne or blueberries is a good combo. Add dried berries to a gallon of cider at the beginning of your cook. Strain them out about halfway through the reduction. Sometimes I add a pound of frozen blueberries as well, or a bit of cinnamon, or whatever I have around and deem inspiring. What I do is make a batch, freeze most of it, and just keep a smaller "in use" batch in the fridge. You could also make a tincture using the apple leaves.

"Apples that have turned mealy, pared and with the seeds and cores removed, may be browned in butter or oil. After they are browned, lay them between a double folded cloth and place this on sores of the breast (such as **Mastitis**.) This reduces the swelling or else causes the sores to head up and break.

Once they have opened, daub them with a little honey, which will cleanse them and cause them to heal up quickly".

Another, which he suggests for **pleurisy** and also **backache**, cooks past-their-prime apples in an infused oil of chamomile with a bit of saffron, *applied is hot to the chest or back in a poultice*.

Another old remedy says, *"The vapor of apple cider vinegar, inhaled over heat, is of decided service in most varieties of laryngeal inflammation, tonsillitis, hoarseness, putrid sore throat, diphtheria, relaxed sore throat, and will also be found of great utility in dryness and irritation of the pulmonary tubes during measles and other rash-type diseases."*

Apple fruit can't act as your toothbrush, but chewing apple leaves trigger the production of saliva in your mouth, lowering **tooth decay** by reducing the levels of bacteria present there.

New research shows that drinking apple tea could guard against **Alzheimer's** and protects against aging of the brain. It also showed better control for **Parkinson's** patients.

### **Making a Tea:**

To make apple leaf tea, pick a handful of fresh young apple tree leaves. Rip them up in your hand and toss them into a tea cup. Pour boiling water over the leaves and let steep for 10-15 minutes. Strain the leaves out, and enjoy your cooling herbal apple leaf tea.

### **Cautions:**

It must be stated that Apple leaves, bark and seeds all contain *hydrocyanic acid* - "cyanide" - and that this means some sensible, informed caution needs to be exerted in using preparations of Apple. King's American Dispensatory states, "Apple tree bark (tea) may be given in doses of **1 to 4 fluid ounces, 3 times a day.**" Small doses of the tincture, from 5-15 drops, would be preferable to larger doses, and this much would likely be sufficient to handle run of the mill heartburn (apple's cousin peach is also very good for this). Despite my opinions about its general safety, it makes sense to be informed about the symptoms of **hydrocyanic acid poisoning**: *anxiety, confusion, dizziness, headache and vomiting are initial indicators, and warrant a call to your local poison control center.*

It should be stated that apple seeds (which are not traditionally used medicinally) can be dangerous. About 1/2 cup of seeds can be deadly for the average adult, but considerably less is fatal for children and the elderly.



# Antiviral Herbs, Plants, Trees and Shrubs

**Licorice** (*Glycyrrhiza* spp) (**Parainfluenza, rhinovirus, Influenza Rhinovirus, RSV**)

**Elderberry** (*Sambucus* spp) (**RSV**)

**Garlic** (*Allium sativum*)

**South African geranium** (*Pelargonium sidoides*) (**Influenza, Coronavirus, Coxsackie, parainfluenza, Rhinovirus, RSV Flu**)

**Cranesbill** (*Geranium sanguineum*)

**Poplar** (*Populus* spp)

**Japanese Honeysuckle** (*Lonicera japonica*) (**RSV, Flu**)

**Oregano** (**RSV**)

**Sage**

**Basil**

**Fennel**

**Lemonbalm**

**Peppermint**

**Astragalus**

**Ginger**

**Dandelion**

**Astragalus Utahensis** (Utah milkvetch)

## Apiaceae group:

**Alpine Lovage** (*Ligusticum* spp)  
(*Lomatium dissectum*)

**Dill**  
(*Osmorhiza occidentalis*)

**Ivy** (*Hedera helix*)

### **Lamiaceae group:**

**White Sage** (*Salvia apiana*)

**Thyme** (*Thymus vulgaris*) (**RSV**)

**Rosemary** (*Rosmarinus officinalis*) (**RSV**)

### **Evergreen group:**

Trees from two evergreen families, the Pinaceae and Cupressaceae, make up the third family group of antivirals. Their resin and branch tips are all **antiviral** and **inflammation modulators** with a **respiratory tract affinity**. These herbs are extremely sustainable sources of medicine, available year-round and with little negative impact on the trees from harvesting reasonable amounts of medicine.

**Pine Tree** (*Pinus* spp) (**Flu**)

**Norway Spruce** (*Picea* spp or *Abies* spp)

**White Cedar** (*Thuja occidentalis*) (**RSV**)

**Juniper Bush** (*Juniperus* spp)

### Further information:

All three of these groups are **inflammation modulators**, which is important for two reasons. The *symptoms of VRI* are significantly due to immune responses to the infecting virus.

More importantly, severe influenza is in part due to what has been dubbed “cytokine storm”: a hyperreaction of the immune system to certain influenza strains.<sup>13</sup> Thus, inflammation-modulating herbs are important to decrease symptoms and to prevent severe consequences, at least in the case of influenza infection. Additionally, these herbs frequently have immune-stimulating effects, running the risk of increasing symptoms of VRI or making cytokine storms worse. With concomitant inflammation-modulating effects, this potential problem is avoided.

# Anti-Viral Protocol

Remember with Herbs it's all about hitting the illness quick, hard and sustaining it until symptoms are gone.

## Have on Hand:

Dried Elderberries or Elderberry Tincture  
Raw Honey  
Dried Sagebrush or Sagebrush Tincture  
Lung Tea or Tincture

- **Tea:** 1 T Elderberries to 2 c boiling water. Cover and let stand for 20 mins. Add raw honey to taste. Sip at this over two hours until gone.  
**OR**  
**Tincture:** 15-30 drops for an Adult, 1-3 for children, every hour.
- Keep this up until all symptoms are gone. Usually by the first day.
- **If delayed**, start drinking the tea as quickly as possible, the later you do, the less chance you have of knocking it out quickly.

**If illness sets in hard** continue to sip elderberry tea, add to the tea **1 t Sagebrush** (this is very bitter), to the tea, add honey and continue to sip at this.

At this point for those who can, it might be easier to use *tinctures*; you can also place the drops in a gelatin capsule and take hourly, with a good **lung tonic** tincture at recommended dose on the bottle.

**Dosage in capsules:** 1 "00" capsule hourly for adults (holds 30 drops) (20 drops Elderberry and 10 Sagebrush.) 1-3 drops for children. Hourly until symptoms subside.

**Do not take Elderberry longer than 10 days**

**These are only guidelines. Please consult a Master Herbalist or your family Doctor.**

## Vocabulary

### **Menstruum = solvent**

Alcohol or a combo of alcohol and water, but can also be honey, oil, etc

### **Macerate = to let steep and shake periodically**

traditional tincture method

**Marc = leftover “spent” herb** after making and straining your remedy

1:2 or 1:5 = ratio of herb to solvent in weight to volume (i.e.: 1 oz herb by weight to 2 oz alcohol by volume = 1:2 extract)

### **Tincture Methods**

**Maceration** = extract by macerating (standard tincture technique - put it in a jar, let it sit, shake regularly, strain after a month)

**Percolation** = tincture extract via percolation (discussed below)

**Decoction Tincture** = tincture extract that includes a step where the material is simmered in water as part of the process (i.e.: simmer herb in water, then pour into jar with alcohol OR make tincture, use strained mark to make a decoction, then combine that water extract with the tincture).

Care must be taken to have at least 25% alcohol in the final product for preservation. You can strain and simmer the water portion down to condense it before adding it with the alcohol for a stronger extract.

This method is best for plants and mushrooms extracted best in hot water.

## **Proof or % Alcohol Percent alcohol in your solvent**

You can purchase the exact proof you'd like or cut it with water to get a different ratio.

The percent alcohol is half the proof (*i.e.: 100 proof vodka is 50% alcohol, 50% water out of the bottle*). 95% = 190 proof = whole grain/ethanol (when using it with other stuff, just estimate it at 100%)

75% = 151 proof = certain types of grain alcohol, vodka, rum 50% = 100 proof = certain types of vodka 40% = 80 proof = regular brandy, vodka, and many other spirits 25% = need to cut water with other alcohol (i.e.: 50/50 100-proof

vodka with filtered or distilled water)

## Standard Tincture Ratios and Alcohol Proofs

### Standard Ratios

**Fresh 1:2 95%** - preferred for most plants available fresh

**Dry 1:5 40-60%** - used when plants are only available dry

A few plants are better or safer *dry* such as *elder*, *cherry bark* (both mildly toxic and more nauseating fresh), *alder* (emetic when fresh), *stimulating adaptogens* (*ashwagandha*, *codonopsis*), and some toxic plants.

**“Best Dry”** 50% alcohol (=100 proof vodka) is a great range for almost any dry herb. Of course you can also use regular vodka or brandy (40% 80 proof) if that's all you've got. I prefer a higher proof for fresh plants, but you can get away with lower proofs, of course. Some herbalists only work in brandy, etc.

### Tips for matching your alcohol strength to the herb being tinctured:

**40% to 50% alcohol by volume** (80- to 90-proof vodka)

- "Standard" percentage range for tinctures.
- Good for most dried herbs and fresh herbs that are not super juicy.
- Good for extraction of water-soluble properties.

**67.5% to 70% alcohol by volume** (half 80-proof vodka and half 190-proof grain alcohol)

- Extracts the most volatile aromatic properties.
- Good for fresh, high-moisture herbs like lemon balm, berries, and aromatic roots.
- The higher alcohol percentage will draw out more of the plant juices.

**85% to 95% alcohol by volume** (190-proof grain alcohol)

- Good for dissolving gums and resins but not necessary for most plant material.
- Extracts the aromatics and essential oils bound in a plant that don't dissipate easily.
- This alcohol strength can produce a tincture that's not easy to take and will also dehydrate the herbs if used for botanicals beyond gums and resins.

## Finicky Herbs that Break % Alcohol Trends

### Mucilaginous and Polysaccharide

Herbs and Mushrooms: prefer water (mucilage actually repels alcohol), so use just 25-30% alcohol (enough to preserve) and consider using a decoction tincture method instead of maceration or percolation.

Resinous Herbs: prefer alcohol (pure resin repels water), so use 70-95% alcohol for plants like boswellia, myrrh (both pure resin) and when targeting resin in evergreen needles.

Turmeric also extracts better in alcohol than water.

**High Tannin Plants/Formulas:** For tinctures and other remedies stored for longer than a year, bear in mind that some will get gloppy over time, which is usually because of tannins that bind with other compounds (alkaloids, etc.) and precipitate out. I find this happens especially with cinnamon, alder, wild cherry (note that all of these are barks) as well as bacopa.

This can also happen when combining high tannin plants with high-alkyd plants in formula. *Adding 10% or so glycerin helps prevent/slow that process.* You may also want to make no more than 1-2 years' worth of these tinctures.

### **Step 1:** Grind the Herb into a Powder.

Take your dry cut/sifted herb in a blender, coffee grinder, magic bullet, Ninja, or Vitamix (in order of increasing strength) and then sift it through a fine wire mesh strainer to make a powder. It's a pain, but it works great.

Unfortunately powdered herbs available in commerce are more commonly adulterated and/or of poor quality, or don't retain potency compared to cut/sifted herbs.

*If you're a medicine maker attempting to follow GMP requirements, it's also more difficult to prove identity with low-tech methods if the herb has been powdered - you would at least need a microscope and possibly also chemical testing alongside your organoleptics to keep the FDA happy.*

*Wear a good mask and ensure ventilation while grinding and sifting your own herbs into a powder, especially if you're doing it for an extended period of time or frequently - inhaling herb dust is not good for your lungs. Some tough plants, especially roots, may not grind well with standard kitchen equipment.*

### **Step 2:** Measure

You're going to start by measuring your herb by both volume (using a Pyrex measuring cup) and weight (with a scale) - although most of your ratios will revolve around how much your herb weighs, the volume helps us guess how much extra menstruum to add to accommodate for what will remain in the herb after your percolation, as well as how much to use for pre-moistening.

Once you know how much herb you have, fill out the worksheet and work out your math: you'll calculate how much menstruum you'll need and what percentage alcohol it should be. Then prep your solvent by pouring exactly what you'll need for your recipe into a container.

**Discussion:** You can cheat and do everything as a 1:5 extract in 50% alcohol (=100 proof vodka). So, if you have one ounce (weight) of herb, your finished product should be 5 ounces (volume) of tincture. I find it easiest to measure backwards. If I want a pint of tincture, I start with about 3.5 ounces of dry herb. If I want a quart, I start with about 6 or 7 ounces.

Even if you screw up your math, chances are the tincture will still be serviceable.

## ALCOHOL-INTERMEDIARY OIL

First some basics on making herb-infused oils in general. Even though you can easily make natural body care products without ever infusing herbs into your oil, doing so will add extra healing properties to your products – whether the recipes are simple or complex.

Herb infused oils will not have the strong fragrance that essential oils have and their healing properties are generally gentler than their more aromatic counterparts.

For most herbs, oil is not the best solvent (alcohol and water tend to be best), nor is it a good preservative (*alcohol and vinegar are better*).

However, we prefer to infuse herbs in oil for most topical recipes. It has the added benefit (in most situations) of holding in moisture and keeping skin soft. Infused oils can be used “as is” for many health concerns—warmed mullein oil dropped in the ear for earaches, St. John’s wort oil applied along nerve pain or for bedsores, calendula oil on sore mama nipples, eczema, and rashes. Or, you can use your herbal oil as a base for other products—salves, lip balms, massage oils, creams, etc.

**Note:** *Herbal oils are NOT the same as ESSENTIAL OILS (EOs).* An EO is made through distillation in a process that is not available to most home herbalists unless you have the equipment. EOs are highly concentrated due to their processing, so their medicinal value is often increased or changed compared to home herbalist preparations of the same plant. They’re also more apt to pose health risks— EOs are often extremely toxic when taken internally, particularly in doses more than a drop or two. Even topically, most EOs need to be diluted to about 2%. Herbal oils are much gentler, bring out different constituents, and

have a much more mild fragrance. You can certainly dilute an EO in an herbal oil to combine their healing effects.

**Shelf Life & Rancidity:** Infused oils generally last for up to one year on the shelf. Toss it if it gets cloudy, smells funny or goes “tsss” when opened. These oils are not recommended to be consumed as food.

There are MANY methods for making an herbal oil. Some of it is personal preference. Also, some herbs extract better through different methods.

### **Alcohol-Intermediary Oil**

In this super cool oil technique, we grind up dry herb with a little alcohol and let it sit for a day or so before blending it with oil for a few minutes. Even though the herb and oil are only in contact for a few minutes (!!), the oils come out amazing. I use this method for all of my herbal oils (except St. John’s wort), particularly *plantain*, *comfrey leaf*, *chaparral*, *thuja*, and *calendula* (*combined with heat method for calendula*).

**Pros:** The little bit of alcohol does two major things for your oil: 1. It significantly improves the extraction process since most herbs’ constituents are more alcohol-soluble than oil-soluble. 2. It disinfects the herb. Both using dry herb (instead of fresh) and “bathing” it in alcohol dramatically improve the shelf life of your herbal oils. I’m don’t think I’ve ever had an alcohol-intermediary oil go bad, although I still stick to small batches and toss them after 1-2 years to be safe.

**Cons:** Very few! Mainly, since this is only workable for dry herbs, it is not a good method for herbs that lose most or all of their properties upon drying and thus are best used fresh – St. John’s wort being the biggie. Also, some folks might balk at needing to use alcohol, electricity, and noisy blenders. (This technique definitely shortens the lifespan of your household blender.)

### **Alcohol-Intermediary Oil Technique**

- 1 oz of dried herb • 1/2 oz whole grain alcohol (vodka can be substituted) • 7 oz olive or other carrier oil
1. Coarsely grind your herb in a blender or bullet.
  - 2.
  3. Mix the ground, dried herb with alcohol. Let sit, tightly covered, for 2-24 hours. Longer is fine as long as it doesn’t dry out.
  4. Place the mix into a blender, add oil, and slowly blend the mixture. Increase the speed. Let blend until the blender gets warm, about 5 minutes.



5. Strain, squeezing tightly, through cheesecloth or muslin cloth. Filter again through a coffee filter (this is a slow process, taking a few filter changes) if desired to remove all sediment.
6. Store in glass in a cool, dark place. This should keep for 6-12 months and often keeps for longer.

**Note:** For calendula, I like to give the herb some extra time with the oil with added heat to extract resins and carotenoids. After I blend the alcohol-soaked herb with oil in the blender, I put it all the slop into a mason jar and let it sit in the warm car, or sunny window, for a few days, then strain it out. Careful for leaking oil on your car.

Choosing Your Carrier Oil Herb-infused oils, and most natural body care recipes, start with a carrier oil. A carrier oil is your base oil for massage oil, infused oil, lip balms, body butters, and so on. It generally has little to no scent and does not evaporate, unlike essential oils which are heavily scented, volatile, evaporate quickly, and are used in small quantities only (1-2% of an entire formula). By far the most popular carrier oil in herbal products is olive oil.

A good quality olive oil has a relatively long shelf life—1 to 2 years if stored properly—and has its own healing properties. It's not too expensive and already ubiquitous in the American kitchen, making it an easy ingredient in natural recipes. However, there are other options for carrier oils as well, each with slightly different properties.

## Common oils

**Olive Oil:** Advantages: As mentioned, olive oil is the carrier oil of choice for most herbalists and natural body care craftswomen. It will go rancid more slowly than other oils, meaning you can still use your lip balm a year later without getting a nasty, acrid flavor and gummy texture. It is of medium viscosity, is easily available, and not too expensive. It is easily available unrefined. Disadvantages: Olive oil has a distinctive scent that may not be popular in body care products. Some people do not like the texture and feel that it does not sink into the skin well. It does not withstand high temperatures well.

**Coconut Oil:** Advantages: This saturated fat is semi-solid at room temperature, hard at cooler temps, and liquid in warm climates. It is very rich and soothing for dry skin. Extra virgin, raw, and unrefined coconut oil is the best for skincare and has a slight coconut scent and flavor. It has a good shelf life if kept in a cool, dark spot, and withstands higher temperatures. Refined coconut oil is not as useful herbally but it does have an even longer shelf life and is scent/flavor free for those who prefer it. Coconut oil is lovely solo as a body moisturizer or tanning

oil. Some report that it has light sunscreen properties. Disadvantages: Quality coconut oil is somewhat pricy. The temperature-sensitive consistency can be a pain since lip balms turn to liquid on a summer day and massage oils solidify in the jars during the winter. Some people find it too thick for their tastes. While the coconut scent and flavor can be a boon to some body care makers, others don't care for it. If you're making an herbal oil with coconut, heat methods or hot summer days are likely to work better.

**Grapeseed Oil:** Advantages: Grapeseed oil is a light, fragrance-free oil with possible antioxidant properties. Many favor it for massage oils because of its lighter viscosity and glide effect. It is priced comparatively with high quality olive oil. It has a relatively good shelf life (though this depends on the brand) and supposedly withstands high temperatures. Disadvantages: Grapeseed is almost always refined

### **Great Herbs for Alcohol Intermediary Oils**

*Leaves and flowers most readily lend their properties to oil.* You can use "harder" parts of the plants like roots, bark, and nuts, but they may not extract as well. If you only keep two herbal oils in your pantry, make them calendula and St. John's wort. In my opinion, they're the most useful and "miraculous." May have slight SPF action.

- **Calendula flowers (Calendula officinalis)** Use dried bright yellow or orange blossoms, which make a golden oil. Calendula flowers have slight antimicrobial properties and are soothing to inflamed skin. It's great in formula's for baby's skin, itches and rashes, superficial wounds, and some cases of dermatitis, eczema, and psoriasis. Dry or fresh (wilted) herbal oil infusion.

- **Plantain** (Plantago spp), **Chickweed** (Stellaria spp) leaves - These two miracle weeds are usually only used fresh (slightly wilted) in classic folk herbalism. The three can be used separately or together for wound healing and itchy skin including eczema, dermatitis, psoriasis, and poison ivy. Fresh (wilted) herbal oil infusion.

- **Chaparral** (Larrea tridentata) - Chaparral is a supreme summer skin herb that grows prolifically in the southwest. It seems to have some sun-protective properties as well as antioxidants that may be helpful for post-burn healing. Chaparral is also amongst our best herbal antifungals, making it a nice choice for foot fungus and other "icky critter" salves. (If you'd like, you can combine it with oregano, lavender, sage, thyme, thuja, or other anti-fungal/bacterial infused oils... a few drops of essential oil would work nicely, too.)

### **Dry herbal oil infusion**

Note: *Internal use without consulting your Health Care Provider is not recommended.*

- **Comfrey leaf** (best for *salves*) or **root** (*Symphytum officinale*) This is a classic herb for wound healing and strengthening the skin. The primary known constituent allantoin is a cell proliferative and may or may not be extracted in oil (modern science says it's water soluble only—more so in hot water—yet herbalists have traditionally used in oil-based products). Dry herbal oil infusion.
- **St. John's wort** is best fresh, but as a tincture it is still valuable when there is no fresh.



## Rosehips

- General Information:

Rose Hips are a rich source of **Vitamin C**, they contain 50% more vitamin C than oranges. They contain a number of important antioxidants, **vitamin E**, **beta-carotene**, and **lycopene**. Because they contain a variety of antioxidants; carotenoids, flavonoids, polyphenols, leucoanthocyanins and catechins, rose hips are considered to be a good **cancer preventative**.

The vitamin A is also beneficial to the **immune system**. It can help to prevent infections from both **bacteria** and **viruses**.

Helpful for **rheumatoid arthritis**; reduces symptoms of knee and hip **osteoarthritis**. rosehips decrease inflammation by *inhibiting the production of inflammatory proteins*. Research in Denmark and Germany used a rose hip tea daily for those suffering from rheumatoid arthritis. The group taking the remedy had an improvement in their mobility by 20 to 25%.

They fight **free radicals**; assist the nervous system by converting amino acids into **neurotransmitters**. They'll prevent **scurvy**; **joints** and **connective tissues**. Supports **adrenal function** and can help prevent **urinary tract** and **bladder infections**.

Helpful for **back pain**, **Diabetes**, **Diarrhea**, **Gallstones**, **Gout**, and **Ulcers**.

A good tea for **dizziness** and **headaches**. Acts as an **astringent** and treats **constipation**.

They also contain high amounts of **iron** and should be used during menstruation to make up for iron loss.

Supports **Heart Health**, protect against cardiovascular including **heart attack** and **blood clots**. The anti-inflammatory properties of rosehip tea help to *reduce inflammation in arteries and blood vessels to improve circulation*.

## **Caution:**

Herbal teas might interact with certain medications including those for Type 2 diabetes. Always ask our doctor before using rose hip tea if you have a serious medical condition.

Ingesting large amounts of vitamin C may also increase the risk of developing kidney stones. If you have a kidney condition, seek medical advice before drinking rose hip tea.

Rose hip tea may cause allergic reactions in individuals sensitive to the plant. Avoid drinking this tea if you have known rose hip allergies.

People who use rose hips in moisturizing skincare products or as topical face washes should use caution as the herb may cause irritation and redness.

# Hair Care



## Egg Wash Shampoo

### How to Use

1. Crack a large whole egg into a cup of luke warm water. Beat well and run through a strainer to catch the bits that didn't liquefy.
2. Add a drop of Rose-hip oil if desired. Or any essential oil of choice.
3. Wet the hair well and use the egg mixture like shampoo. You may also let the egg sit in your hair for a few moments if desired. **(Note: that doing so will cleanse your hair deeper, and may strip it of it's natural oils if left too long.)**
4. Rinse well with cool water. And apply hair rinse of choice.

Egg is rich in protein, vitamins A, E, biotin, and folate are just some of the nutrients linked to hair growth and healthy hair.

The yolk may be especially useful to moisturize hair that appears dry. It will also help new hair grow out stronger and less prone to breakage and shedding.

# Hair Tea Rinse

## How to use

1. **Bring your water to a near boil.** ( Do not let it boil, or the water will kill the herb's nutrients.)
2. **Add Herb to water, cover and let steep for 20-30 minutes.** (1 Tablespoon per Cup of tea)



*(If using a coffee press; brew the loose herb until all or most of the plant matter has sunk to the bottom. This is a good way of knowing that the hot water has pulled all the of the plant's nutrients out. )*

3. **Allow the tea to cool to room temperature.** Or let sit in the fridge for a few minutes.

Apply the tea after you have shampooed your hair. You can leave the tea in, or rinse it out.

Leaving it in will help keep the hair smooth, free of frizz, and further help hide any graying hair.

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Tea rinses are incredibly beneficial for your hair. They provide strength to the hair shafts, vitamins, nutrients, hair growth, and help prevent damage, dry and itchy scalp. And hair softness.

The type of teas used are endless. There are very few herb if any that do not benefit the hair in some aspect. All you have to consider is what you want for your hair.

# Regulating Blood Sugar

A hypoglycemic herb, remedy, or food is one that decreases blood sugar levels, ideally bringing high blood sugar into a healthy range. Different remedies work in various ways: improving cells' insulin sensitivity, improving insulin output, decreasing the glycemic effect of food, improving the function of the beta cells that make insulin, altering the way your body absorbs, stores, and releases sugar.

Generally taken with meals to help prevent blood sugar spikes and crashes, these herbs can benefit both types of diabetes, insulin resistance, obesity, and high cholesterol in particular. These also offer antioxidant and anti-inflammatory properties, which indirectly improve blood sugar levels while also lessening the collateral damage of chronic hyperglycemia (high blood sugar).

## **Wormwood**

Alcoholic extracts of species of *Artemisia* produced significant hypoglycemic effects diabetic humans with different mechanisms of action as compared to standard antidiabetic medications.

## **Curcumin**

The compound curcumin, which is found in the spice turmeric, has been shown to both boost blood sugar control and help prevent the disease. In a nine-month study of 240 adults with pre-diabetes, those who took curcumin capsules (which are available over-the-counter) completely avoided developing diabetes while a sixth of patients in the placebo group did.

## **Ginseng**

Ginseng has been used as a traditional medicine for more than 2,000 years. Studies suggest that both Asian and American ginseng may help lower blood sugar in people with diabetes. One study found that extract from the ginseng berry was able to normalize blood sugar and improve insulin sensitivity in mice who were bred to develop diabetes.

## **Fenugreek**

This herb has been used as a medicine and as a spice for thousands of years in the Middle East. Benefits of Fenugreek for diabetes have been demonstrated in both animal and human trials. In one study of 25 people with type 2 diabetes, Fenugreek was found to have a significant effect on controlling blood sugar. Studies have shown some impressive benefits for blood sugar, and improves glycemic control and decreases insulin resistance in type 2 diabetics.

## **Psyllium**

This plant fiber is found in common bulk laxatives and fiber supplements. Psyllium has also been used historically to treat diabetes. Studies show that people with type 2 diabetes who take 10 grams of psyllium every day can improve their blood sugar and lower blood cholesterol.

## **Cinnamon**

Consuming about half a teaspoon of cinnamon per day can result in significant improvement in blood sugar, cholesterol, and triglyceride levels in people with type 2 diabetes. Studies using cinnamon have shown benefits in lowering hemoglobin A1C levels in patients with type 2 diabetes<sup>3</sup> and improved glucose levels.

3 grams of cinnamon a day will moderately lower plasma glucose levels while taking 6 grams a day



makes a significant difference. A gram is around a teaspoon and a capsule usually 500mg which is about half a teaspoon.

### **Aloe Vera**

This plant has been used for thousands of years for its healing properties. Some studies suggest that the juice from the aloe vera plant can help lower blood sugar in people with types 2 diabetes. The dried sap of the aloe vera plant has traditionally been used in Arabia to treat diabetes.

### **Milk thistle**

This flowering herb is found around the Mediterranean Sea. It has been used for its medicinal properties for thousands of years. It is sometimes known by the name of its active component, silybinin. Milk thistle may reduce insulin resistance in people with type 2 diabetes who also have liver disease.

### **Holy basil.**

This herb is commonly used in India as a traditional medicine for diabetes. Studies in animals suggest that holy basil may increase the secretion of insulin. A controlled trial of holy basil in people with type 2 diabetes showed a positive effect on fasting blood sugar and on blood sugar following a meal.

### **Herbs with Chromium help lower and maintain blood sugar:**

Ginger Root

Turmeric Root

Oat Straw

Barley Grass

Wild Yam Root

Nettle Root

Catnip Leaf

Licorice Root

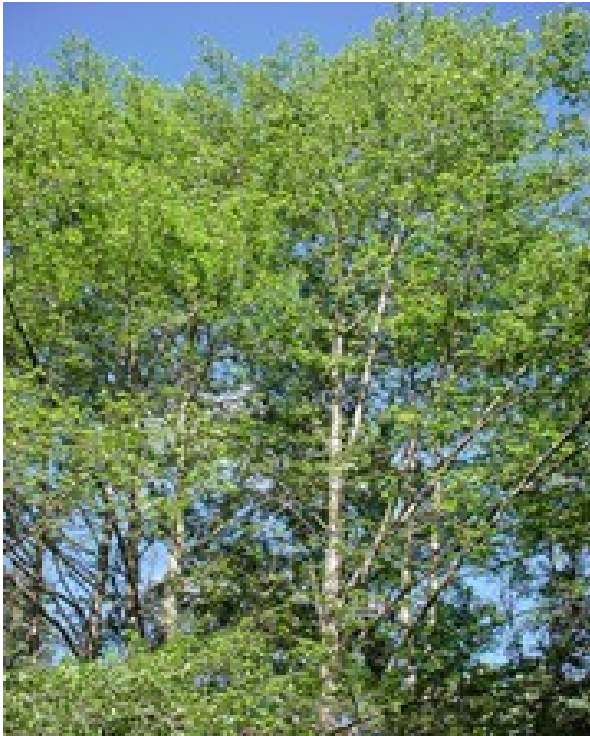
Shavegrass

Yarrow Root

Red Clover Blossoms

Sarsaparilla Root

Star Anise



## Alder Tree

- *Alnus oblongifolia*

- **General Use Information**

Famed for its powerful actions against **Microbial Infections**, (including gram negative and positive bacteria, fungi and virus) infections of the **gut, gums/mouth, urinary, vagina, skin** and **systemic infections**. It can be used as one would use Echinacea. It's a first choice for **lymphatic stagnation and pain**.

However, given its **lymphatic, immune enhancing** actions it is well suited to many **respiratory** formulas and when combined with more directly respiratory anti- microbial herbs such as *Elecampane*, and *Cottonwood*, it makes a powerful respiratory formula.

Repeatedly successful is case studies of **staph** (including several confirmed cases of **MRSA**) infection showing as repeated outbreaks of **boils** clear up with the consistent use of Alder tincture. It works similarly on **cellulitis** and even on cases of **sepsis** *when treated quickly and aggressively*.

**Vaginal** and **urinary tract infections** also respond very favorably to Alder, and I have seen it clear up even several year long and seemingly intractable combined Vaginal/UTI type situations.

Alder appears to act both topically and internally on microbial infections, and local application of *leaf poultice, salve or infused honey* is often enough to clear up a mild infection. Dealing with more serious or systemic infections however, it is best to use the plant internally as well.

Specifically, using the recently dried twigs, cones and catkins in a 1:5 tincture made with 50% alcohol.

**Frequency and dosage in systemic infections is critical and for an**

**average sized adult, I usually recommend 1/2-2/4 ml every 3 hours for a progressing, acute infection.**

In the treatment of infections, I find that Alder works even more efficiently and rapidly when combined with a diffusive, circulatory stimulating herb such as Monarda. Formulating the herb in this way speeds its impact on the body and seems to add to overall effect on the infection.

**Viral Infections**

Alder has proven itself strongly anti-viral against influenza, some strains of the common cold, herpes, and some manifestations of viral hepatitis through dozens upon dozens of clinical cases in my practice at this point. As with bacterial infections, it's important to take the Alder frequently and consistently. One big dose isn't going have anywhere the same effects as a moderate dose ever 2-3 hours.

**Anti-Inflammatory: Cooling, Tonifying and Soothing**

Alder can act as an anti-inflammatory both internally and externally and is excellent for relieving acute inflammation from microbial infection, waste product buildup from poor metabolism and even seems to initiate an overall cooling action in many cases of acute hepatitis. Combined with its blood moving action, Alder is ideal in many cases of excess heat with pain.

*Alnus* spp., like their *Betula* relatives, contain salicin, a constituent that acts as an anti-inflammatory in the human body. I have been unable to track down solid research citing the amount of salicin found in *Alnus* bark, but its presence seems worth mentioning in this monograph, as it likely has some bearing on the overall anti-inflammatory and anodyne effects of the herb.

**Anodyne: Remediating Pain**

Alder can provide significant pain relief, both externally and internally. It seems specifically suited for head/tooth/gum pain when used internally and general topical pain relief. It is especially ideal for the headache and radiating facial pain of toothaches. Not only does the Alder help with the pain, but it also directly addresses any occurrence of infection and inflammation.

The bark and leaf of this remarkable tree are nearly always present in my pain liniment and salve formulations and I find that the addition of Alder to these blends significantly improves their ability to lessen swelling and pain in both chronic and acute injuries. I find that it blends especially well with resinous *Populus* spp., as well as *Solidago* spp., and *Artemisia* spp., in the treatment of injured or strained muscles.

**Drawing Agent: Poultice Plant Extraordinaire**

I often use Alder leaves in place of where many would reach for Plantain leaves when treating venomous stings and bites as well as simple wounds, splinters and scrapes. This began simply because Plantain isn't very common where I live while Alder grows all along the rivers, streams and seeps with leaves aplenty.

It works well to alleviate pain, lessen inflammation, draw out venom or splinters, stop or prevent infections and I have even seen it address festering sores that were refusing to heal even with the standard antibiotic and steroid treatment. It combines especially well with Peach leaf/twig when treating inflamed insect bites/stings where it is unclear whether there is a histamine reaction or bacterial

infection or a bit of both. Applying a poultice or compress of both herbs covers both bases, with Peach working to allay excessive histamine and Alder addressing infection and overall inflammation.

### **Vulnerary: Wound Healing, Injury Soothing, Burn Cooling & Pain Relieving**

Alder has a place in almost every salve recipe I use. Its overall healing effects make it broadly useful for almost any abrasion, wound, bruise or musco-skeletal injury. This in combination with its complete lack of toxicity makes it a great salve to have on hand for little ones, including babies.

Baths, compresses or liniment made of the twigs and leaves are all effective for treating muscular and joint pain. Indigenous tribes such as the Mohegans used it in this and Culpeper recommended similar treatment. In my practice I've found Alder to be an invaluable addition to my pain salves and liniments. It's not an analogue for the similarly useful Birch, but complements it very nicely in formulae and can provide a reasonable substitute in recipes calling for Birch.

It's my impression and experience that Alder tends to treat surface inflammation most effectively when used alone and works well with other herbs that help to drive it deeper, especially with warming counterirritants such as Arnica, Goldenrod and Cottonwood. It's also excellent when combined with pain relieving herbs with an affinity for nerve pain such as St. John's Wort and Vervain.

### **Case Studies**

1. **Confirmed MRSA with boils** - 28 year old woman who works as an RN presenting with reoccurring sores and boils, diagnosed as MRSA. Previously treated by primary care doctor with 3 rounds of undisclosed antibiotics which gave mild temporary relief but each time the boils/sores would reappear within days after antibiotics were completed. Client also has mild Type II Diabetes following standard American diet and a history of poor healing wounds.

Glands in neck found to be swollen and mildly tender to the touch.

Treatment consisted of a tincture formula made with 3 parts *Alnus oblongifolia* (freshly dried twigs, catkins and cones, 1:5, 50%) and 1 part *Monarda fistulosa var. menthifolia* (fresh flowering tops, 1:2, 95%), 1/2 ml every 3-4 hours. Boils/sores resolved completely within 1 week, formula was continued for another week after that. 6 week followup indicated no return of symptoms, as did 1 year followup.

2. **Lymphatic stagnation with hyp immunity** - 5 year old girl with extremely swollen glands, too sore to touch and so swollen she was unable to turn her head without crying from the pain. Other complaints included fatigue, listlessness, inability to sleep from glandular discomfort and frequent influenza onset as well as slow-healing wounds and injuries. Extensive examination and testing by primary care doctor, ER doctors and oncologists were inconclusive. Multiple rounds of antibiotics and steroids were given over a period of several months with no perceivable results.

Treatment was a tincture formula of 1 part Elderberry (*Sambucus neomexicana*, dried berries, 1:5 40%), 1 part *Alnus oblongifolia* (freshly dried twigs, catkins and cones, 1:5, 50%) and 1/4 part Ginger root (fresh rhizome, 1:2, 95%), 1/3 ml 4x/day.

Glandular swelling and soreness resolved entirely within 1.5 weeks, with no reoccurrence at 10 month followup. Vulnerability to viral onset was at least temporarily abated, and wounds were healing more normally at the 10 month followup.

3. **Tooth/Gum Infection with acute pain** - 54 year old male with extensive dental issues, including advanced periodontal disease and several severely infected areas in the gums where teeth were rotting and needed to be extracted. Due to financial limitations and unavailability of oral surgeon, client came to me for help with pain relief.

Treatment was a tincture formula of 3 parts *Alnus oblongifolia* (freshly dried twigs, catkins and cones, 1:5, 50%) and 1 part *Monarda fistulosa* var. *menthifolia* (fresh flowering tops, 1:2, 95%), 1/2 ml every 3-4 hours.

Pain abated by 50% within 24 hours, all swelling and 85% of total pain relieved within one week. Dropped dosage to 1 ml 2x/day at one week as maintenance dose until able to see surgeon. Pain, infection and swelling kept at bay until the teeth were extracted a month later. Surgeon noted no active infection or acute inflammation, only prolonged decay and previous tissue damage.

**4. Insect bites with infection** - 32 year old female was bitten 6 times on right hip while in bed by unidentified insect, likely a spider. Client ignored bites for 4 days until each bite was a purple-red mark the size of a half dollar and rapidly widening. Bites were hard and swollen, itching and painful enough that client was unable to lay on the side or wear jeans or other restrictive/tight clothing on the area. After examination and noting rapid spreading of inflammation, I told the client that if there wasn't significant improvement within 24 hours of beginning herbal treatment that I would recommend she see her primary care doctor for further treatment.

Treatment was a tincture formula of 1 part *Alnus oblongifolia* (freshly dried twigs, catkins and cones, 1:5, 50%) and 1 part Peach (*Prunus persica*, fresh leaves, twigs and flowers, 1:2, 40%), 1/2 ml every 3-4 hours internally, and applied externally diluted 1:2 with distilled water as a compress every four hours.

Inflammation, pain and itching receded 50% within 24 hours, and cleared entirely within 4 days.

### **Favored Preparations**

**Tincture** - The preparation I most commonly work with for internal use is the lovely red tincture made from the freshly dried twigs, cones and catkins. It takes a few days to dry and then only requires about 40-50% alcohol for optimal extraction.

**Infused Honey** - The infused honey made with fresh twigs and/or leaves is also a very effective medicine and quite tasty as well. I use this externally for wounds and burns and internally for immune support, some infections, lymphatic stagnation and even just for the lovely flavor it adds to tea.

**Salve** - Infused into oil or tallow/lard, Alder makes a wonderful and widely applicable salve. It formulates well but is also quite lovely all on its own.

**Liniment** - A combination of alcohol tincture, vinegar tincture (optional) and infused oil, Alder liniment is a multi-purpose medicine for muscular pain, inflammation and infections.

### **• Considerations & Contraindications**

Alder is one of the safest and most effective herbs with very few contraindications. While not a food-like medicine, it's only real side effects seems to have to do with its inherent astringency which, in water-based preparations, can prevent nutrient absorption and will cause nausea, vomiting and other

digestive upset when used in large doses or over a long period of time. This consideration does not seem to apply to the tincture which apparently does not sufficiently extract enough tannins into the maceration to be an issue.

Fresh Alder is sometimes called an emetic, but this definitely doesn't seem to apply to fresh plant tincture, and this attribution may be simply due to the astringent nature of fresh bark preparations. Otherwise, simply keep in mind that this is a cooling, drying remedy and use in the appropriate constitutional context and/or formulate it with balancing herbs.



## Grape Leaf

- **Alternate Names:**

Sultanas, Lady de Coverly , Kishmish

- **Latin Name:**

Vitis vinifera

- **General Information:**

Grape Leaves are rich in **vitamins, minerals, and dietary fiber**; high in **Vitamin A, C, riboflavin, niacin, folate, pantothenic acid, and thiamine**. **Anti-inflammatory** in *tonsillitis, arthritis* and *chronic gastritis* may find grape leaves to be helpful. It contains **omega-3** fatty acid as well as **antioxidant** which are responsible for the inflammation process. It lowers **inflammation**, protects and heals the **liver** and treats **chronic illness**. Grape Leaves contain stilbene synthase which is an enzyme that helps create *resveratrol* in the body, a phenolic compound produced by spermatophytes, can inhibit the replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the causative pathogen of coronavirus disease 2019 (COVID-19), in vitro setups; used against **Pneumonia**.

Used throughout the ancient world for **bleeding, pain, nausea, diarrhea, gastroenteritis**, mineral such as *zinc* that helps to **repair and protect intestinal mucosa** and prevents **constipation**. Helpful for healing **skin diseases**. Improves parameters as **blood lipids** (avoiding an overabundance of fatty lipids in your blood that can clog artery walls), **narrowing of the arteries** in the heart, **blood clotting** (anti-coagulant), **edema** and **cardiovascular disease**.

Leaves are a rich source of polyphenols (**antioxidants**) that fight against **cancer**, and other therapeutic compounds, such as *Ace-Inhibitors* (relax arteries and keep blood from clotting where it shouldn't.) **Anticomplementary** (removing toxins from the blood); relieves severe **Arthritic Pain**, with a longer lasting, Narcotic type pain relief (indomethacin), and is **Anti-HIV**. A good source of *manganese*, it has an imperative role in *formation of cartilage*. It helps lubricate joints and is a good source of *Calcium* for bones and teeth.

Leaves help control **Glucose** levels, rich in Iron, it prevents **Anemia**. High in *Potassium* for proper **heart function**, and is a **muscle relaxant**. Helps the body **form Collagen** with it's Copper content and it's Vitamin B6, lowers the body's response to pain. They protect the brain and promote **cognitive functioning of the brain**.







Giant Hyssop



## Nettle Giant Hyssop

- Alternate Names:

Horsemint, Anise Hyssop, Horse Nettle, Mountain

- Latin Name:

Agastache urticifolia

- General Information:

Hyssop is one of Nature's most effective **deep organ cleansers** and also **support digestion, respiratory function, circulation, immune response**, and the removal of **parasites**. The leaves are **analgesic, antirheumatic, antibacterial** and have **anti-inflammatory** properties. A mild **sedative**.

With a highly fragrant and minty aroma, the nettleleaf giant hyssop makes a wonderful and unique **tea**. The aromatic oils help to **settle the stomach** and improve **digestion**.

A poultice or wash made from the fresh leaves and tops soothes **irritated skin** and helps your body decrease inflammation from injury or irritation. Made into a Salve it's useful for **wounds**.

Used as an infusion in tea and **cold remedies, relieves congestion** and used to **relieve pains in the chest from excessive coughing**. *Pectoral* (Used to treat **lung issues**) - Often combined with licorice

for lung conditions such as **respiratory infections** and **bronchitis**. It is an **expectorant** and **cough suppressant**.

The leaves are **cardio protective**. An infusion of the leaves is used in the treatment of **fevers** and a **weak heart**. When left to go cold, the infusion is used to treat **pains in the chest** (such as when the lungs are sore from too much coughing)

It's a aromatic digestant, therefore **preventing gas, bloating**. Simply sip some tea with you meals to prevent gas and bloating. Tea is a treatment for Diarrhea, Take a bath in the leaves for treating **sunburn** or for **fungal** conditions such as **athletes foot** or **yeast** overgrowth.

Being aromatic, the oils in the plant are useful in **opening up the airways**.

As a cardiac herb, it is also used to **strengthen a weak heart**. Clinical research has shown that the essential oils of Anise Hyssop is **antiviral** toward Herpes simplex I and II. A poultice is also useful in treating **burns**. Indians used the leaves in incense to treat **depression** as it provided an uplifting fragrance.

A decoction is taken internally in the treatment of **measles, stomach pains** and **colds**. Externally, a poultice of the mashed leaves is applied to swellings. Lewis and Clark used it to treat chronic, severe **back pain**.

Seeds can be **eaten** raw or cooked as well as Leaves and flowers. They are used as a flavoring in raw or cooked dishes. Excellent raw, they have a sweet aniseed flavour and are one of our favorite flavorings in salad. They make a delicious addition to the salad bowl and can also be used to flavour cooked foods, especially acid fruits. The only drawback to the leaves is that they tend to have a drying effect in the mouth and so cannot be eaten in quantity. A pleasant tasting tea is made from the leaves

- **Harvesting and Identification**

July to early August

- **Side Effect:**

Hyssop Mint Tea consumed in large amounts for several days can *be dehydrating* due to its cleansing effects. This is less so for moderate amounts of one or two cups per day.

With the more intense cleanses, best to drink the greater amounts of the Hyssop Mint Tea for 3-5 days then off for 2-3 days while replacing it with the consumption of pure water. Take daily clay baths

(which also hydrates the body and draws out the toxins being released from the body).

Hyssop purges heat from the deep tissues of the body. In the process the body warms up, especially at night. Drinking more than two cups per day can *promote night sweats*, which is one of the ways the body **releases toxins** safely during nighttime rejuvenation.



# • Horse Chestnut

## • Alternate Names:

Conkers

## • Latin Name:

• Plantago subnuda

## • General Information:

For Varicose veins, chronic venous insufficiency, antiinflammatory, antioxidant,

cancer fighting, male infertility, Historically, horse chestnut seed extract was used for joint pain, bladder and gastrointestinal problems, fever, and leg cramps.

Evidence suggests that aescin, especially pure  $\beta$ -aescin, is a safe and effective treatment for short-term treatment of chronic venous insufficiency (when the veins of the lower leg are unable to send blood back toward the heart),. Horse chestnut extract may be as effective and well tolerated as the use of compression stockings. Good for hemorrhoids, and swelling after surgery.

Preparations made from the tree's bark are applied to skin sores.

This supplement has been used in connection with the following health conditions:

Used for	Why
<p>★ ★ ★  <b>Chronic Venous Insufficiency</b>            Standardized extract providing 50 mg aescin two to three times per day</p>	<p>Horse chestnut is traditionally used for venous problems, and its effectiveness has been backed up by an extensive overview of clinical trials. <a href="#">More</a></p>
<p>★ ★ ☆  <b>Hemorrhoids</b>            Take a standardized herbal extract providing 90 to 150 mg aescin daily</p>	<p>Horse chestnut extracts have been reported to reduce hemorrhoid symptoms. <a href="#">More</a></p>
<p>★ ★ ☆  <b>Sprains and Strains</b>            Apply a 2% gel every two hours</p>	<p>Horse chestnut contains a compound called aescin that acts as an anti-inflammatory and reduces edema (swelling with fluid) following injuries. <a href="#">More</a></p>
<p>★ ★ ☆  <b>Wound Healing</b>            Apply topically</p>	<p>Horse chestnut contains a compound called aescin that acts as an anti-inflammatory and reduces swelling after trauma, particularly sports injuries, surgery, and head injury. <a href="#">More</a></p>

## • Medicinal Parts

Usable parts of the plant include the seed, bark, and leaf, but seed extracts are most common.

## • Habitat and Growing Instructions:

Manti our house

## • Time to Harvest:

Summer

## • Side Effects:

Properly processing horse chestnut seed extract removes esculin. The processed extract is considered generally safe when used for short periods of time. However, the extract can cause some side effects, including itching, nausea, gastrointestinal upset, muscle spasm, or headache.

- **Other Medical Information:**

**Aescin** or **escin** is a mixture of saponins with anti-inflammatory, vasoconstrictor and vasoprotective effects found in *Aesculus hippocastanum* (the horse chestnut). Aescin is the main active component in horse chestnut, and is responsible for most of its medicinal properties. The main active compound of aescin is **β-aescin**, although the mixture also contains various other components including **α-aescin**, protoescigenin, barringtonol, cryptoescin and benzopyrones.

A 2012 systematic review of 17 studies published between 1976 and 2002 suggested that horse chestnut seed extract can improve leg pain, swelling, and itching in people with chronic venous insufficiency when taken for a short time. Results from one of these studies suggested that horse chestnut seed extract may be as effective as wearing compression stockings.

## **Aescin: Pharmacology, Pharmacokinetics and Therapeutic Profile**

C R Sirtori <sup>1</sup>

Affiliations + expand

PMID: 11529685 DOI: [10.1006/phrs.2001.0847](https://doi.org/10.1006/phrs.2001.0847)

### **Abstract**

Aescin, the major active principle from *Aesculus hippocastanum* (Hippocastanaceae) the horse chestnut tree, has shown satisfactory evidence for a clinically significant activity in chronic venous insufficiency (CVI), haemorrhoids and post-operative oedema. In one controlled trial aescin was shown to be as effective as compression therapy as an alternative to medical treatment for CVI. The therapeutic benefit is well supported by a number of experimental investigations in different animal models, indicative of clearcut anti-oedematous, anti-inflammatory and venotonic properties, mainly related to the molecular mechanism of the agent, allowing improved entry of ions into channels, thus raising venous tension in both in vitro and in vivo conditions. Other mechanisms, i.e. release of PGF(2) from veins, antagonism to 5-HT and histamine, reduced catabolism of tissue mucopolysaccharides, further underline the wide ranging mechanisms of the therapeutic activity of aescin. The excellent tolerability of aescin in the clinic indicates this treatment is of definite clinical benefit in patients with clinical conditions resulting in CVI, haemorrhoids or peripheral oedema formation.

# Hound's Tongue

- **Latin Name:**

Cynoglossum officinale (LINN.)

- **Alternate Names:**

Lindefolia spectabilis. Dog's Tongue.



Traditionally, the root was used in decoction and as pills for **coughs, colds** in the head and **shortness of breath**, and the leaves were

tinctured as a cure for dysentery. Culpepper tells us, 'Bruising the leaves or the juice of them boiled in hog's lard and applied helpeth to preserve the hair from falling and easeth the pain of a scald or burn. A bruised leaf laid to a green wound speedily heals the same. The baked roots are good for piles, also the distilled water of the herb and root is used with good effect for all the aforesaid purposes, taken inwardly or applied outwardly, especially as a wash for wounds or punctures.'

In modern medicine it is often used internally and externally to relieve **Hemorrhoids**. It is **soothing to the digestive organs**.

The leaves have been used in the same manner as comfrey for **burns, scalds, hemorrhoids, wounds, punctures, gangrene** and **cancer**

According to the Herbalist Almanac, hound's tongue was used as a **rodent deterrent**. It was said that if you gathered this plant when the sap was flowing and bruised it with a hammer and then placed it in the house, barn or wherever the rodent infestation might be, that the rodents would move their domiciles elsewhere.

Hound's tongue has been used internally for **coughs, diarrhea, dysentery, neuritis, neuralgia, ulcers, urinary infections, catarrh, colic, indigestion, chronic bronchitis** and other **lung issues**.

It has been used externally for **bruising, burns, insect and snake bites, tumors, abrasions, boils, scrofula** (abnormal growths on the lymph areas), **goiter, scratches** and **difficult wounds** that fail to heal.

The **root is best gathered in the spring** before the plant flowers and the leaves in the summertime as the plant comes into flower.







## Lambs Quarters

- **Alternate Names:**

Fat Hen, Goosefoot

- **Latin Name:**

Chenopodium album

- **General Information:**

Packed with calcium - a vital nutrient, removed by many gardeners who then plant an inferior plant nutritionally speaking, Great tasting and can be used in many ways (raw as a salad base, a green in sandwiches, cooked in casseroles and soups, as a pot green alone or with other greens). Lamb's quarters also has a famous cousin: quinoa (*Chenopodium quinoa*), a cultivated grain from South America that is closely related (same genus).

The tiny black seeds can also be painstakingly harvested, winnowed and cooked as a grain or ground for flour. You can also use the seeds whole in breads and other baked products.

Pick the tender leaves, especially early in the spring. But even once the plant is four feet tall or more, the new leaves can be eaten as is. The older leaves are better cooked. You can also harvest the leaves now to eat this winter. Simply dunk them for a few seconds in boiling water, then place in a freezer container. They are then great in soups, casseroles, with rice, and so many other ways later on.

It has some medicinal properties like anthelmintic, antiphlogistic, antirheumatic, contraceptive, laxative, odontalgic, and is used in the treatment of rheumatism, bug bites, sunstroke, urinary problems, and skin problems.

## Wild Greens Pâté

- Sauté 3 chopped cloves of garlic in extra virgin olive oil for a few minutes in a deep pot
- Add the washed tender tops of purslane, lambs quarters and pigweed (about 7 big handfuls)
- Sautee until tender and add tamari or soy sauce to taste
- Blend in a blender or food processor with more olive oil, nutritional yeast and your choice of raw nuts
- Be creative with your ingredients – miso, freshly grated parmesan cheese and raw garlic are just some of the many ways you can put a little twist on this recipe. **Note:** This recipe is still delicious even if you only have one of these wild greens. Nettles and lady's thumbs are other wild greens which blend well with lambs quarters.

# Mountain Mahogany



## **Latin name:**

*Cercocarpus ledifolius*

## **Medicinal use of Mountain Mahogany:**

Mountain mahogany was employed medicinally by a number of native North American Indian tribes who used it to treat a variety of complaints. It is virtually not used in modern herbalism. The bark is antihemorrhagic, cardiac, stomachic and tonic. A decoction has been used in the treatment of coughs and colds, pneumonia, spitting up of blood, stomach aches, diarrhoea (including for children), tuberculosis and VD. A poultice of the green powdered wood has been applied to sores, cuts, wounds and burns. It has also been sprinkled on syphilitic sores. An exudation from the plant has been dried, ground into a powder and applied to the ear to treat earaches.

## **Habitat of the herb:**

Dry gravelly arid slopes in the mountain ranges of the interior regions, 1500 - 2700 metres.

## **Edible parts of Mountain Mahogany:**

The scraped bark makes a flavourful addition to a brew of Mormon tea (*Ephedra* spp.).

## **Other uses of the herb:**

A red dye is obtained from the inner bark. The wood is extremely hard and so dense that it will not float in water. It is also brittle. It makes an excellent fuel, giving off intense heat whilst burning for a long time. It is occasionally used in the manufacture of small articles for domestic and industrial use.





## Yellow Mustard Seed

- Latin Name:

Brassica alba

- General Information:

Mustard seeds can be a rich source of **minerals** such as *calcium*, *magnesium*, *phosphorus*, and *potassium*, and a good source of dietary *folate* and *vitamin A* as well.

Phenolic components (**antiseptic properties**) help relieve Symptoms of Psoriasis (chronic inflammatory autoimmune disorder.) Chinese researchers have shown it as an **anti-inflammatory** agent, and the use of the seeds also encourage topical healing action against psoriasis-led lesions & contact dermatitis.

Mustard seeds can be a rich source of antioxidants such as *kaempferol*, which reduce the risk of chronic diseases, especially **cancer**. *Kaempferol* augments the body's **antioxidant** defense against free radicals. It modulates **apoptosis** (death of cells and DNA fragmentation & mRNA decay), assists in **angiogenesis** (creation of new blood vessels), **metastasis** (new cancer growth site), carotenoids (antioxidants that enhance your immune system) and have Provitamin A carotenoids can be **converted into vitamin A**, which is essential for *growth*, *immune system function*, and *eye health*.

Another antioxidant is *isorhamnetin* helps to promote **heart health**. It lowers the oxidation of HDL, resulting in lower chances of **arteriosclerosis**. It helps to **lower blood pressure** and is **vascular protective**.

The oils contained in Mustard is good for heart ailments. Mustard oil has demonstrated positive results concerning the reduction in the rate of cardiac **arrhythmia**, and decreased the **ventricular enlargement**, and the **chest pain** associated with it. [10]

The cardioprotective properties of mustard oil are possibly attributed to the presence of **omega-3 fatty acids** among other helpful components.

Offers relief from **Respiratory Disorders**. Mustard seeds have always been valued for their therapeutic effects against **cold and sinus** problems. It is considered a wonderful **decongestant** and **expectorant**, which may help in clearing the **mucus** in the air passage. Applied topically, the use of mustard seed has treated sinus-related ailments because of its heat-generating properties.

A 2020 study published in the Evidence-Based Complementary and Alternative Medicine Journal suggests that when ground mustard seeds are added to *foot soak* it may help relieve **congestion** in the

*respiratory tract*. Mustard seeds when taken medically helps relieve the symptoms of **chronic bronchitis**. Gargling with tea made of mustard seeds, it helps soothe a **sore throat**.

During an **asthma attack**, massaging a mix of mustard oil and a small amount of camphor may promote easy breathing by **breaking down phlegm**. Mustard seeds also stimulate healthy blood **circulation** in the body.

Poultice, or plaster, made from mustard seeds helps in reducing **pains and spasms**, as well. Remember that Mustard is a rubefacient (causing redness from the heat) and can cause **sore blistering** if *applied directly on the naked skin*. To avoid that, *a linen sheet should be used between the skin and the plaster*.

A Tea or decoction made with its seeds might help in **cleansing the body** especially if **poisoning** is caused by **narcotics or excess intake of alcohol**.

In Bacterial & Fungal Infections, Mustard Seed research studies showed protections against infections caused by various kinds of **bacteria and fungi**.

In Skin & Hair Care, the seeds, roasted in sesame or coconut oil, enrich the resultant sieved oil and might make it an effective remedy for **acne**, and when mixed with aloe vera gel, it may act as a great **hydrating agent for the skin**. Furthermore, it is a rich source of antioxidants that slows down the **aging process**. Also good for **hair** as a tea.

Mustard leaves can help in **reducing the levels of blood sugar** in the body more effectively than medication alone. It may aid in stimulating glucose metabolism as well.

It's Vitamin B6 content in the greens may prevent the platelets from clumping and might moderate the risk of **thrombosis** (blood clotting).

Mustard greens contain *magnesium*, along with *calcium*, which can encourage **bone health**.

- **Caution:**

Mustard can generate heat, use with caution on the skin, and always place a barrier of cloth between the skin and mustard plaster.





## Mountain Myrtle

- **Alternate Names:**

Oregon Boxwood, Bladder Sage, mountain hedge, Myrtle Boxleaf, Stafftree or Burning-Bush, False Box, Myrtle Box Leaf, Myrtle pachystima Mountain Love

- **Latin Name:**

Paxistima myrsinites

- **General Information:**

For treating **lung infections** including **bronchitis, whooping cough, and tuberculosis**. They also take it for **bladder** conditions, **diarrhea, persistent heartburn, heavy periods, yeast infections, and worms**.

Myrtle is used on the skin for **warts** and in the mouth for **canker sores** and **thrush**. Myrtle is used in the vagina for the sexually transmitted infection, **human papillomavirus (HPV)**. Protective against **intestinal conditions, regulating the endocrine system**, reduce the risk of certain **cancers**, treat **skin diseases, lower blood sugar levels**, improve the **functioning of the kidneys**, boost **cognitive strength**, and improve **heart health**.

Substitute for Bay Leaf in Cooking.

The leaves are **aromatic, balsamic, haemostatic** (stops bleeding) and **tonic**. Recent research has revealed a substance in the plant that has an *antibiotic action*.

The active ingredients in myrtle are rapidly absorbed and give a violet-like scent to the urine within 15 minutes. The plant is taken internally in the treatment of **urinary infections, digestive problems, vaginal discharge, bronchial congestion, sinusitis** and **dry coughs**.

In India it is considered to be useful in the treatment of **cerebral affections**, especially **epilepsy**. *Externally*, it is used in the treatment of **acne** (the essential oil is normally used here), **wounds, gum**



**infections**- this is used as a remedy for **gingivitis**. and hemorrhoids.

The leaves are picked as required and *used fresh or dried*. An essential oil obtained from the plant is **antiseptic**. (Made as a tea and used to clean countertops and other surfaces will disinfect the surface.)

It contains the substance myrtol , and is used as a local application in the treatment of **rheumatism**. The fruit is **carminative** (Anti-gas). It is used in the treatment of **dysentery, diarrhoea, haemorrhoids**, internal **ulceration** and **rheumatism**.

- **Side Effect:**

Caution should be used if pregnant or breastfeeding.

- **Edible parts of Myrtle:**

Fruit - raw or cooked. The fruit has an aromatic flavour, it can be eaten fresh when ripe or can be dried and is then used as an aromatic food flavouring, especially in the Middle East. It can also be made into an acid drink. The fruit is about 8mm in diameter. The leaves are used as a flavouring in cooked savoury dishes. The dried fruits and flower buds are used to flavour sauces, syrups etc. An essential oil from the leaves and twigs is used as a condiment, especially when mixed with other spices. In Italy the flower buds are eaten. The flowers have a sweet flavour and are used in salads.

- **Other uses of the herb:**

The plant is very tolerant of regular clipping and can be grown as a hedge in the milder parts of Britain. An essential oil from the bark, leaves and flowers is used in perfumery, soaps and skin-care products. An average yield of 10g of oil is obtained from 100 kilos of leaves. A perfumed water, known as "eau d'ange", is obtained from the flowers. A high quality charcoal is made from the wood. Wood - hard, elastic, very fine grained. Used for walking sticks, tool handles, furniture etc.

# Red Poppy

*Papaver rhoeas*

## Other Common Names:

Corn poppy, common poppy, common red poppy, field poppy, flanders poppy, coquelicot (French), amapola (Spanish), Mohn (German), deplasól (Icelandic), silkkiunikko (Finnish), kornvalmue (Norwegian), kornvallmo (Swedish).



**Habitat:** Red poppy is originally native to southern Europe, North Africa and temperate regions of Asia, but can now be found around the world where the climate is suitable.

The plant thrives best in dry, nutritious and mineral rich soil and is often found close to railways and in cultivated fields and fallows. Red poppy is also popular as an ornamental plant in gardens and parks.

**Description:** Red poppy is an annual plant that belongs to the poppy family (Papaveraceae). It is 30-80 cm high with thin, erect and branched hairy stalks and pinnately lobed leaves.

The flower-stems are long, blue-green and grow from the leaf axils. The flowering takes place from June to August and the red four petal flowers have a special opium-like scent when they are fresh, but odorless when they are dried.

The fruit is a 1-2 cm long, oval and hairless capsule containing several dark red seeds.

All the green parts of the plant are hairy and secrete a white latex if damaged.

**Plant Parts Used:** It is the flowers and seeds that are used as herbal medicine. The flower petals are harvested from newly opened flowers in a dry weather when the dew has evaporated.

The petals should be dried as quickly as possible in shade at temperatures up to 40 ° C.

The dried petals can then be stored in sealed containers that are kept in a dry place. They are mostly used in extracts, herbal teas, and cough syrup.

The seeds are edible just as the seeds of the opium poppy (*Papaver somniferum*) and are collected from mature seed capsules. They are dried and used whole or ground. The seeds can also be pressed in order to produce an oil that can be used in cooking.

## ***Common Therapeutic Uses and Benefits of Red Poppy***

**Active Ingredient and Substances:** The flower petals contain alkaloids (papaverine, rhoeadine, isorhoeadine, rhoeagenin to name a few).

In addition, the plant contains flavonoids (anthocyanin, meconic acid and cyanidol), polysaccharides (mucilage) and tannins.

The alkaloids in red poppy are similar but not identical to those found in the opium poppy. They have a much weaker effect and are considered to be non-addictive.

### **An Ancient Crop**

The red poppy was well known and popular in ancient Egypt and was often depicted on murals and relics. Its seeds have been found mixed with barley grain in Egyptian artifacts dated back to 2500 BC.

Ancient Greeks and Romans used the red poppy seeds as food, and through the ages extracts of the plant have been used to relieve pain.

### **Medicinal Uses of Red Poppy**

The red poppy flowers have for a long time been used for its weak anesthetic, analgesic, relaxing and mild sedative properties.

The constituents present in the petals are also responsible for the herbs softening and mildly expectorant action and explains its uses in herbal medicine to treat throat irritations, a cough, hoarseness, bronchitis, asthma, and tonsillitis.

The herb is often combined with other herbs like marshmallow (*Althaea officinalis*), liquorice (*Glycyrrhiza glabra*), mullein (*Verbascum thapsus*) and mallow flowers (*Malva sylvestris*) as a remedy for common ailments of the respiratory system.

The herb is also applied as a treatment indigestion caused by anxiety and stress, insomnia and restlessness.

It is regarded to be especially beneficial for children, the elderly and people who can not tolerate other medications or when other treatments have not been effective.

Furthermore, red poppy seems also to have a soothing effect and may help to promote a good and peaceful sleep. The herb is commonly used in the form of herbal tea in that regard.

## Culinary Uses

### Red Poppy (Papaver rhoeas)

The red poppy seeds can be eaten raw or cooked. They have pleasant nutty flavor and can be sprinkled on bread and cakes or added in soups and salads.

The seeds are rather small but relatively easy to harvest from the large seed pods. They are completely safe to eat because they do not contain the toxic alkaloids found in the green parts (leaves, stems, and stalks) of the plant.

The seeds can be pressed to produce an excellent oil which can be used as a substitute for olive oil in cooking or used as salad dressing.

The flower petals are often added to herbal teas and potpourris to give red color. The red dye in the petals has been used to add color to wine, and in the pharmaceutical industry to color pills.

People have tried to use the flowers to dye fabrics and clothes red but it seems that the color does not last very long.

## Therapeutic Dosages

**As a tea** 1-2 teaspoons of the dried petals in a cup of boiling water and simmer for 10-15 minutes. The recommended dosage is one cup, three times a day.

**As a tincture:** 2-4 ml, three times daily.

For all commercial preparations containing red poppy, the manufacturer's instructions should be followed.

**Cough syrup recipe for children:** Add 100 g of the dried petals in 1/3 of a liter of boiling water with the juice from a 1/2 lemon and then allow it to stand for eight hours.

Then add 2.5 kg of sugar and allow it to simmer for a while (10 to 5 minutes).

The cough syrup can be used for children up to 15 months using 5 ml (1 teaspoon) daily. For older children 10-30 ml (2-6 teaspoons) daily.

## Side Effects and Interactions of Red Poppy:

There are no reports of contraindications or side effects when the herb is used properly.





## SALSIFY

- **Latin:**

Tragopogon dubius, Tragopogon pratensis, Tragopogon porrifilius, Scorzonera hispanica

- **Other Names:** Oyster plant, Goatsbeard, Ba Boba Sheeb Dauxa, Shepherd's Clock, Noon Flower, Jack-go-to-bed-at-noon, Meadow salsify, Yellow salsify, Black salsify, Purple salsify, Star of Jerusalem, etc.

**Systems/Organs affected:** liver, gallbladder, immune, cardiovascular, digestive

Properties: antibilious, deobstruent, aperient, fibrous, cooling, diuretic, stomachic

For centuries it has been used as both an **edible and medicinal** plant. The reference to oysters is believed to be from the purple variety as the root is said to taste like oysters. It is often **substituted for asparagus and artichoke hearts**. It has a nutty like flower and contains a high amount of the fiber **inulin**, making it a plant good for **diabetics**. (Inulin is a prebiotic type fiber that boosts the growth of bifido bacteria in the large intestines. That type of bacteria in particular helps to reduce carcinogenic enzymes in the intestines, improves immune function and helps the body excrete waste assisting with constipation).

Salsify has been used for many things in the past. A poultice of the mashed root was used for **bee stings**, the root tea was used for **excess urination, gonorrhea, stomach pain, diarrhea, fevers, internal bleeding** and to retard/stay **bleeding** after childbirth and as a wash for **rheumatic joints**.

Culpeper said that the roots were particularly good for the **liver** and **gall bladder** and would help to **remove obstructions** from both. The early Myddfai physicians (a small town in Wales) used it for **pneumonia** and **fevers**. They even gave somewhat of a recipe.

"Let (the patient) take, for three successive days, of the following herbs: hemlock, agrimony, herb Robert and asarabacca, then let him undergo a three day's course of aperients. When the disease is thus removed from the bronchial tubes, an emetic should be given him (daily) to the end of nine days. Afterwards let a medicine be prepared, by digesting the following herbs in wheat ale or red wine: madder, sharp dock, anise, agrimony, daisy, round birthwort, meadow sweet, yellow goat's beard, heath, water avens, wood ruff, crake berry, the corn cockle, caraway, and such other herbs as will seem good to the physician."

Culpeper also said that a decoction of the roots was good for **loss of appetite, heartburn, gallstones, kidney stones** and **liver** and/or **breast issues**. He stated that cooking the roots with butter (like parsnips) was good for cold, watery stomachs and helped to **strengthen the weak or chronically ill**. He also used the distilled water from the plant for **pleurisy** and **side aches**.

This plant has been used, also, for **sore throats, tonsillitis, whooping cough, hemoptysis, nosebleeds, urinary tract infections** and **lung** and **phlegm** issues in general. Also, it is said to **lower blood pressure, stimulate hair growth, increase circulation, improve bone density, improve digestion** and **boost immunity**. Black salsify, native to Spain, southern Europe and the Middle East, is said to be highly nutritive. It contains a significant amount of potassium, manganese, iron, magnesium, calcium, copper, phosphorus and the vitamins C, B5, B1, B2, folate and B6. It has a decent amount of protein also aside from its fiber content. A virtual powerhouse of nutrition. This helps to explain its benefits and use for things like blood pressure, bone structure, digestion and hair growth.

It appears to have a **detoxifying effect** and may stimulate the appetite and digestion. Its high inulin content makes this herb a useful food for diabetics since inulin is a **nutrient made of fructose** rather than glucose units and therefore **does not raise blood sugar levels**. The root has medicinal properties that has been used for its ability to **contract tissue, purify** and **cleanse the blood, induce urination**, acts as an **expectorant, increase weight**, and give strength and tone to the stomach. A syrup made from the root gives great relief in cases of **obstinate coughs** and **bronchitis**. A decoction of the root has been given in the treatment of **heartburn, loss of appetite** and disorders of the **breast** or **liver**.

The root is harvested in the autumn and dried for later use. The fresh juice of young plants is said to be a good **dissolver of bile**, relieving the stomach without side effects.

The native americans would chew the coagulated milky sap to help ease **indigestion**, it was also used for **wounds**. The Greeks and Romans would soak linen pads in the distilled juice for **bleeding wounds** and **sores**. Pliny would mix the milky juice with human milk and said it was a cure all for **eye issues**. The tea was also used as a **lotion**

and/or drink to treat **rabid** dog bites on both humans and livestock.

- **As Food:**

*All parts of the plant are edible.* The stem and seed pods should be eaten young as should the leaves. The flowers can be mixed into soups or salads or sauteed like the stems and eaten like asparagus. The root can be eaten raw or cooked but should be cleaned well and the skin scraped off. The root is best eaten young as well. The root can be grated and added to salads or stews or sauteed. The seeds can be sprouted and are great with eggs.

The roots of meadow salsify can be eaten, raw or cooked. They have a sweet flavor due to their inulin content. Young roots can be eaten raw while older roots are best cooked like parsnips. They are often blanched before use. Young leaves and shoots has been used for food as well, raw or cooked. They can be added to mixed salads or used in soups etc. The leaves are best used as they come into growth in the spring. The flowering stem, including the buds, can be cooked and served like asparagus.

Culpepper says of Purple Goat's Beard: *'The virtues of this are the same as the other, only less pleasant, therefore more bitter, astringent, detersive and medicinal. This, however, may be eaten in great quantities, and so will be useful in chronic complaints. The roots are particularly specific in obstructions of the gall and the jaundice; the best way to use them is stewed like [artichokes].'*

***-Baked Salsafy-***

*Scrape 1 bundle of Salsafy, wash and cut into short pieces, and put into a basin of cold water containing lemon juice or vinegar. Drain and cook in stock or seasoned water till tender. Make a white sauce, put in the Salsafy previously drained and blend both carefully. Place on a buttered dish, pour over the sauce sprinkle breadcrumbs over, add a few small pieces of butter and bake for 10 minutes in a sharp oven.*

***-Salsafy with Cheese-***

Cook and drain and place a layer of Salsafy in a shallow dish. Sprinkle with grated cheese, then a layer of Bechamel sauce, again a layer of Salsafy, then more cheese and sauce, and sprinkle breadcrumbs over the top. Place in a quick oven to get well hot through and brown.

To serve plain boiled, the roots must be scraped lightly first, cut up into two or three portions, and placed in water, with a few drops of lemon juice or vinegar, to prevent them discolouring. Then boiled for an hour, quickly, in salt water till tender, drained and served with a white sauce.

***-Stewed Salsafy-***

Scrape about 20 heads of Salsafy, cut into pieces about 2 inches long, sprinkle them with salt and steep in water and milk. Cut a small onion, half a carrot, half a turnip and half a head of celery into small pieces. Put these on in a stewpan with 1/4 lb. of lean bacon cut into pieces. Cook for 20 minutes. Mix 1 OZ. flour with a little milk and stir in, fill up with a quart of stock or water, stir and bring to the boil. Put in the Salsafy and let it simmer till tender. Add a tablespoonful of cream, one of chopped parsley, and a little lemon juice. Season with pepper, grated nutmeg and castor sugar. Reheat and arrange the Salsafy neatly on a dish, garnish with button mushrooms, pour over the sauce and serve.

***-Salsafy Cream Soup-***

Scrape and wash a bundle of Salsafy. Cut it up small and place in a stewpan, with 3 OZ. of butter and a finely-minced onion, and stir for a few minutes. Then moisten with about a quart of white stock, add also 1 OZ. rice. When cooked, drain and pound with the rice and pass all through a fine sieve. Then put the purée with a stock, stir over the fire, boil up the soup, season with salt, pepper and nutmeg. At



the last add half a gill of cream, 2 beaten-up yolks of eggs, but do not let the soup boil again.

- Growing Information:

Salsify is a member of the Compositae family (Sunflower or Aster). It is sometimes confusing as all salsifies are used similarly but there are varying opinions about which one is best for edible purposes. It is not to be confused with Aruncus Dioicus, which is a member of the Rose family but is also referred to as goatsbeard.

Salsify (depending on the variety) is both a biennial and a perennial. It can get up to 4 feet tall, has long, grass-like leaves and a stem with a single flower on top and is similar to a dandelion when seeded out. The variety we often see here would be classified as yellow salsify (we are in the pacific northwest of the united states) because it has a daisy like flower with bracts of leaves spiking out around it. It has a long tapered root (around 8-12 inches long and 1 inch around) that needs to be in the ground at least 4 months in order to produce a decent enough size for harvesting. It can be found growing in fields, meadows, pastures, along roadsides and waste places throughout Europe, parts of Asia, Canada and the northern United States. It blooms from April to July but can sometimes be found still blooming in September. Its flower heads open in the morning hours and then close during the day; on a cloudy say or rainy day they may not open at all. There are three species of salsify (technically): two are yellow-flowered and one is purple.

Salsify comes from the Latin word 'solsequium'. 'Sol' means 'sun' and 'sequens' means 'following'. In essence, the plant follows the sun.



## SALSIFY *Calories*

Parts Used: roots, leaves, flowers, seeds, stems (young)

### Nutrition Facts

#### Tinned Salsify(100g)

Total Calories 68	Sodium 560g
Proteins 2.2g	Potassium 238g
Total Fat 0.2g	Vitamin E 2.5mg
Fiber 8g	

#### Tinned Salsify(100g)

Carbohydrate 4.9g	Fat 0.4g
Proteins 2.6g	Potassium 263mg
Sodium 18g	Vitamin E 3mg
Fiber 9g	

*\*Based on a 2000 caloric diet*



### Health Benefits of Salsify

*Organic Facts*  
www.organicfacts.net



#### Minerals\*

Manganese 13%
Potassium 11%
Phosphorus 7%
Magnesium 6%

#### Vitamins\*

Vitamin B6 14%
Riboflavin 13%
Vitamin C 13%
Folate 6%

#### Nutrients\*

Dietary Fiber 13%
Protein 7%
Carbohydrate 6%
Calories 4%



Boosts immune system



Helps to improve digestion



Aids in prevention of cancer



Helps to maintain blood pressure



Boosts cognitive ability and bone health



Reduces risk of osteoporosis and arthritis



Minimizes risk of heart attacks and strokes



Improves hair strength and reduces graying



Helps to prevent constipation and gastric ulcers

\*% Daily Value per 100g. For e.g. 100g of salsify provides 14% of daily requirement of vitamin B6

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## Shepherd's Purse

- Alternate Names:

Wild Spinich, Blind Weed, Bolsa del Pastor, Bolsa-de-Pastor, Bourse à Berger, Bourse-à-Pasteur, Bourse de Capucin, Boursette, Bursae Pastoris Herba, Capsella, Capselle, Capselle a Pasteur, Capselle Bourse-à-Pasteur, Capsella bursa-pastoris, Caseweed, Cocowort, Corne de Lion, Erva-Do-Bom-Pastor, Hirtentaschel, Lady's Purse, Molette de Berger, Mother's-Heart, Moutarde Sauvage, Naeng-i, Pepper-And-Salt, Pick-Pocket, Poor Man's Parmacettie, Rattle Pouches, Sanguinary, Shepherd's Heart, Shepherd's Scrip, Shepherd's Sprout, Shovelweed, St. James' Weed, Tabouret, Tabouret des Champs, Thlaspi, Thlaspi Bourse à Pasteur, Thlaspi bursa-pastoris, Toywort, Witches' Pouches, Zurron de Pastor.

- Latin Name:

Capsella bursa-pastoris

- General Information:

Shepherd's purse is used as an **Anti-inflammatory**, for **heart and circulatory problems** including **mild heart failure, low blood pressure, and mild palpitations**. It is also used for **headache, vomiting blood, blood in the urine, diarrhea, and bladder infections**.

**Emmenagogue** (increase menstrual flow), **haemostatic** (stop bleeding), **hypotensive** (lowering blood pressure), **oxytocic**, (a substance that stimulates contraction of uterine smooth muscle or hastens childbirth.) **stimulant, vasoconstrictor, vasodilator**. The plant is a folk remedy for **cancer** - it contains *fumaric acid* which has markedly reduced growth and viability of Ehrlich tumour in mice.

Women use shepherd's purse for **premenstrual problems, long periods, and menstrual cramps**. Shepherd's Purse is mostly used for women who are experiencing excessively **heavy menstruation** caused by problems such as **fibroids** or **endometriosis**

Shepherd's purse is sometimes applied directly to the skin for **nosebleeds, superficial burns, and bleeding skin** injuries. **Brightens the eyes**.

When dried and infused, it yields a tea which is still considered by herbalists one of the best specifics for **stopping haemorrhages** of all kinds - *of the stomach, the lungs, or the uterus, and more especially bleeding from the kidneys*.

Its *haemostyptic* (astringent helps to stop bleeding) properties have long been known and are said to equal those of ergot and hydrastis. During the Great War, when these were no longer obtainable in German commerce, a liquid extract or tea of Shepherd's Purse was used as a substitute. Use promptly to **arrest bleeding** in doses of 1 to 2 spoonfuls until bleeding stops.

The tea dropped into ears, heals **earache**.

A good *ointment* may be made of it for all **wounds**, especially wounds in the head.'

Good for **hemorrhoids, chronic diarrhea, dysentery** and in **nose-bleeds**, which is checked by inserting the juice on cotton-wool. Also used for **haematemesis** (vomiting of blood).

It is also used as an application in **rheumatic affections** (*characterized by inflammation that affects the connecting or supporting structures of the body — most commonly the joints, but also sometimes the tendons, ligaments, bones, and muscles*) and has been found curative in various **uterine haemorrhages**, especially those with which **uterine cramp** and **colic** are associated, and also in various passive hemorrhages from mucous surfaces.

It is a remedy of the first importance in **mucus conditions** (*catarrhal*) of the bladder and ureters, also in **ulcerated conditions** and **abscess of the bladder** (*a pocket of pus around one or both kidneys. It is caused by an infection.* ) It increases the **flow of urine**. Its use is specially indicated when there is white mucous matter voided with the urine; relief in these cases following at once.

Internally Shepherd's Purse has been highly regarded as a medicine to prevent the **excess loss of fluids**. This certainly applied to blood, but it also applied to an excess **loss of moisture** (through

problems such as diarrhoea, blood in the urine, frequent and excessive nose bleeds or from prolonged and debilitating fevers. )

Its **antiscorbutic** (anti Scurvy), **stimulant** and **diuretic** action causes it to be much used in **kidney complaints** and **dropsy (edema)**; other similar stimulating diuretics such as Couch Grass may be combined with it.

Dr. Ellingwood, in his valuable work in Therapeutics, says of Shepherd's Purse: 'This agent has been noted for its influence in **haematuria** (blood in urine) . . soothing **irritation of the renal or vesical organs**.

In cases of uncomplicated **chronic menorrhagia** (excessive menstruation) it has accomplished permanent cures, especially if the discharge be persistent. The agent is also useful where uric acid or insoluble phosphates or carbonates produce **irritation of the urinary tract**.

Externally, the bruised herb has been applied to **bruised, sprained, and strained parts, to rheumatic joints**, and where there was **bruising** within or beneath the skin.

Shepherd's purse contains a protein that acts in the same way in the body as the **hormone oxytocin**, constricting the smooth muscles that support and surround blood vessels, especially those in the uterus.

Other chemicals in the herb **may accelerate clotting**. Still other compounds in the herb **help the uterus contract**, explaining the long-time use of the herb to **help the womb return to normal size** after childbirth.

'The herb is rather unpleasant to take, but the infusion may be taken in wineglassful doses, four times a day.'

The medicinal infusion should be made with an ounce of the plant to 12 OZ. of water, reduced by boiling to 1/2 pint, strained and taken cold.

Tea or fluid extract is given in doses of 1/2 to 1 drachm. In the United States, the fluid extract is given for dropsy in doses of 1/2 to 1 teaspoonful in water.

A tincture dose is 1-4mls of the ethanolic extract (a well rounded tsp is approx 1.5 grams)

- **How to Use:**

Shepherd's Purse leaves, scrunched up into a wad, can be used to quickly help staunch bleeding. On unbroken skin but where there is a bad bruise or internal trauma Shepherd's Purse was made into a poultice by mashing the leaves, mixing with some hot water, and then being applied over the affected area with a wrapping to keep it on for a few hours.

The plant can be used fresh or dried, for drying it is harvested in the summer. The dried herb quickly loses its effectiveness and should not be stored for more than a year.

It increases neural signal transmission.

- **Harvesting and Identification**

Use aerial parts

- **Constituents:**

Flavonoids (luteolin, quercetin, rutin, hesperidin); sinigrin and other glucosinolates; amines (acetylcholine, choline, 2.33% amino acids, histamine, tyramine; volatile oils 0.02% including camphor as the major component and at least 74 components identified; fixed oil; resin; and other constituents including carotenoids, fumaric acid, sinigrin [mustard oil glucoside], ascorbic acid [vitamin C], and vitamin K.

- **Side Effects:**

Shepherd's Purse is certainly a safe herb to use for all ages however there are some doubts about its safety to use in pregnancy and so it is best avoided at this time (Shepherd's Purse is used to induce contractions at birth in traditional Bolivian medicine and it is thought to stimulate the uterus in Ayurvedic medicine). Likewise, it is recommended to avoid Shepherd's Purse during breastfeeding, not because of concerns re safety but because it is suspected that ingredients in the herb (glucosinolates) may flavor the milk.



## Star Anise

- Alternate Names:

Wild Spinich,

- Latin Name:

Illicium verum

- General Information:

The most valuable component of star anise may lie within its dense supply of flavonoids and polyphenols. These may primarily be responsible for the spice's broad applications and medicinal benefits. Together, these compounds may contribute to the **antioxidant, anti-inflammatory** and **antimicrobial** properties of star anise. Some animal and test-tube research indicates that the antioxidant capacity of this spice may even possess **anti-cancer** properties, such as reducing **tumor** size. By reducing free radical levels and supporting the immune system, there is a lower risk of mutagenic effects in the body, which can lead to cancer cells and tumor formation.

Pathogenic bacteria can cause a variety of ailments, ranging from **ear infections to urinary tract infections**. Star anise has been shown to possess powerful antibacterial properties and may be beneficial in protecting against these harmful strains of bacteria. More specifically, star anise helps in supporting **respiratory health**, so if you have a **cough** or a **sore throat**, or feel the early stirrings of the **flu**, a cup of anise tea may be able to sort out the inflammation rapidly and neutralize the underlying infection before more serious symptoms arise.

*Shikimic acid* is a compound with strong **antiviral** capabilities. In fact, it's one of the main active ingredients in Tamiflu.

Currently, star anise is the primary source of shikimic acid used for pharmaceutical product development. As the influenza pandemic continues to mount as a threat to global health, the demand for star anise is on the rise.

Some test-tube research has also shown that star anise may treat other types of viral infections, including **herpes simplex type 1**.

Star anise is a rich source of the flavonoid *anethole*. This compound is responsible for the spice's distinct flavor and offers potent antifungal benefits.

Some agricultural research has found that *trans*-anethole derived from star anise may inhibit the growth of pathogenic fungi. This compound is responsible for the spice's distinct flavor and offers potent antifungal benefits.

Other bioactive compounds found in star anise essential oil, like *terpene linalool*, may **suppress biofilm** and **cell wall formation** of infectious fungi in humans. Excellent against **Yeast (Candida)** Infections, including Athlete's foot, and ringworm.

Another important medicinal benefit of star anise is its ability to **inhibit bacterial growth** implicated in a variety of common illnesses.

Some research has revealed that star anise extract is as effective as **antibiotics** against multiple drug-resistant pathogenic bacteria. Studies show Star Anise against E. Coli helps to stop the growth.

Excellent for improving **Heart Health** and **regulating blood sugar**.

With a relatively high level of various antioxidants, star anise can help to promote the **elimination of free radicals** throughout the body, particularly those that can cause **oxidative stress in the skin**. This can help minimize the appearance of wrinkles, boost skin elasticity, and cover up old scars and blemishes to keep your skin looking young and vibrant.

Numerous studies have found that star anise possesses some level of **sedative** properties, attributed to the antioxidant levels and the **magnesium content** of the spice. It can **stimulate the release of certain neurotransmitters** that induce **relaxation** and **sleep**, making this spice valuable for people who suffer from **insomnia** and regularly interrupted sleep patterns.

The most notable mineral found in star anise is **iron**, and a single tablespoon of these small fruiting bodies contains roughly *13% of your daily recommended value*. While eating an entire tablespoon of these fruits is unlikely, the concentration of iron can still help **boost red blood cell** production, thus **increasing energy levels** by promoting **circulation** and proper **oxygenation** of the body's extremities.

Anecdotal evidence points to star anise as being an effective **digestive**, and the fruits are commonly eaten after meals to promote proper digestion. It can also help to relieve **bloating** and excess **flatulence**, while also easing **cramping** and improving the **bacterial balance in your gut** for high **nutrient uptake** efficiency.



It can have quite a powerful effect on both men and women. In men, it can provide an energy boost and increase sex drive, whereas in women it can regulate menstrual cycles, control mood swings and other hormone-driven side effects of menstruation.

## Healing Star Anise Tea Recipe

Star anise tea has many healing properties. It has a strong licorice flavor with a sweet, spicy taste.

Cook Time	Steeping Time
3 mins	15 mins

Course: Tea    Cuisine: Chinese    Keyword: star anise tea    Author: Paromita Datta  
Servings: 1 cup

### Ingredients

- 1 cup water
- 2 star anise
- Honey to taste

### Instructions

1. Boil the water in a small pot or kettle.
2. Pour the water over the star anise fruits.
3. Steep the mixture for 10-15 minutes.
4. Remove the star anise and add honey to taste.
5. Serve hot and consume 2-3 times per day for best effects.

- **Active Constituents:**

Some of the major health-promoting compounds found in star anise include Linalool, Quercetin, Anethole, Shikimic acid, Gallic acid, *Limonene*



## Tansy

•**Alternative Name:**  
Tansy , Bitter Buttons

•**Botanical Name**  
*Tanacetum vulgare*

•**Family**  
•**ASTERACEAE**

### **Uses:**

**Amenorrhea, Insect Repellent, Parasites/worms , Scabies , Abortifacient, Antiparasite, Aromatic, Bitter, Stimulant, Vermifuge**

Tansy was once a widely grown herb with a number of traditional medicinal uses, but one that has lost favor over time with the modern herbal community. Older herbals recommend the use of tansy for many purposes including as an **anthelmintic** to kill parasites. Mrs. Grieve highly recommends an infusion of tansy be given to children to **kill worms** among other things.

Tansy was also used to **alleviate the pain** of for **migraine headaches, neuralgia, rheumatism** and **gout, meteorism**( distended stomach due to trapped gas), and **loss of appetite**.

Tansy was a popular **strewing herb** (on floors) in times past because it's clean, **camphorous scent repelled flies** and other pests. It is still a good custom to plant tansy outside the kitchen door and around the garden for the same reasons. Although tansy is useful as a **vermifuge**, and can be used externally as **poultice** to treat **skin infections**, it might be wise to look to less dangerous herbs that can serve the same purposes.

**Preparation Methods & Dosage :** Tansy tea can be made from fresh or dried leaves and is strong and bitter in taste. Tansy tea should be *used seldom*, if at all, and then only under the guidance of an experienced herbalist. A better use for this herb is to plant it near the garden and enjoy the cheerful yellow blooms while it acts as a natural insect repellent.

- **Parts Used:** The leaves and tops. The plant is cut off close above the root, when first coming into flower in August.
- **Constituents:** volatile oil (containing up to 70% thujone), bitter glycosides, sesquiterpene lactones, terpenoids including pyrethrins, tannin, resin, vitamin c, citric acid, oxalic acid
- **Warnings, Concerns and Contraindications:**  
The danger with using tansy rests primarily with it's thujone content, which is responsible for much of tansy's medicinal actions. Thujone is powerful but toxic in large doses. The amount of thujone contained can vary from plant to plant making safe dosing problematic. According to the German Commission E " Uncontrolled usage of tansy, depending on the quality of the herb,

can result in the absorption of thujone in toxic amounts, even at normal dosages."

Perhaps the least savory uses of tansy was to end an unwanted pregnancy by drinking a strong tea made of tansy leaves and flowers. This can cause miscarriage and there have been reports of deaths in women attempting to use the tea as an abortifacient. Tansy essential oil is poisonous and should not be used under any circumstances. In large doses, Tansy becomes a violent irritant, and induces venous congestion of the abdominal organs.

- **Historical Medicinal Uses**

Medicinal use of tansy goes back at least as far as the ancient Greeks. Since that time, internal preparations of the plant's leaves and tops have been used for purposes that include:

- Purging parasitic intestinal worms from children
- Increasing female fertility
- Reducing the chances for a miscarriage
- Reducing intestinal gas
- Easing stomach distress and intestinal spasms
- Reducing the frequency of epileptic seizures
- Relieving anxiety, "hysteria" or nervousness
- Reducing low-grade fevers
- Easing the effects of the arthritic condition called gout

External preparations of the plant have been used for purposes that include:

- Relief of rheumatoid arthritis
- Relief of skin eruptions
- Treatment of sprained joints



## Valerian Root

- **Alternate Names:**

Garden valerian, All-heal, Cut-finger, and Garden Heliotrope

- **Latin Name:**

Valeriana officinalis

- **General Information:**

Valerian is a powerful **nervine, stimulant, carminative** and **antispasmodic**. Valerian was first brought to notice as a specific for **epilepsy** by Fabius Calumna in 1592, he having cured himself of the disease with it.

It has a remarkable influence on the *cerebro-spinal system*, and is used as a **sedative** to the *higher nerve centers* in conditions of **nervous unrest**.

The drug allays pain and promotes sleep. It is of especial use and benefit to those suffering from nervous overstrain, as it possesses none of the after-effects produced by narcotics.

The name comes from the Latin “valere,” meaning to be strong or to be healthy. Valerian is used as a **sleep aid**, for **anxiety, stress**, to treat **addictions, convulsions, gas, pain, hyperactivity, intestinal cramping, migraines, aggression, nervous exhaustion, coughs, epilepsy**, and **flu**. Our ancestors would make a wash from the root and use it to **clean out wounds**. Also used as a **diuretic**, to **bring on menstrual periods**, and to treat **epilepsy**. Later, it was prescribed as an **antispasmodic, calmative, dandruff, coughs, constipation, cholera**, and **flatulence** as well as to **counter fatigue**.

It is sometimes given in combination with quinine, increasing the tonic power of the Quinine.

Though in ordinary doses, it exerts an influence quieting and soothing in its nature upon the brain and nervous system, large doses, too often repeated, have a tendency to produce pain in the head, heaviness and stupor.

*Valerian combines well with skullcap, passion flower, hops, lemon balm, and lavender.*

Valerian Salve on feet are a gentle relaxant that helps with **sleep**.

A poultice made from the root has been known to **draw out splinters**.

*Compresses* of a heavy decoction or tincture, were used to relax **cramping**.

Valerian is *non-habit-forming* .which is a good thing if you have irregular sleep patterns and there are a few ways to take it.

- **Nutrition**

Valerian has a *high calcium* content and is also high in *selenium, tin, aluminum, chromium, iron, and magnesium*.

- **Culinary Uses**

In the middle ages, Valerian was used as a condiment and was considered a staple food. It was regularly added to soups and stews, and the dried root was made into flour. The young leaves were eaten in early spring.

- **Cautions**

Valerian should only be **used for two to three weeks**, followed by a break of the same duration. Continual use *can cause depression and headaches* in some people. Another caution: In a small percentage of the population, valerian has the opposite effect – it can cause *agitation, giddiness, restlessness, and sleeplessness*. *Just be aware, in case you're one of the approximately 5 – 7%.*

Avoid using valerian with small children, and for those over 65, ***start with very small amounts***.

- **In History:**

- Pliny (23 AD – 79 AD) recommended valerian for pain relief
- Dioscorides (40 AD – 90 AD) used it as a diuretic
- Galen (129 AD – 200 AD) as a decongestant
- Hildegard of Binger (1098 – 1179, 100 years before the Pied Piper) used it as a tranquilizer and in sleep aids
- John Gerard (1545 – 1611) touted it as an aid for chest congestion, convulsions, and bruises
- Culpepper (1616 – 1654) claimed it was useful against the plague, but also for coughs and wounds
- The 19th century Eclectics used it as a calmative and for epilepsy
- During World War I and II, it was used as a nervine for shell shock and for calming nervous citizens (more on that here)
- It was in the U.S. Pharmacopeia from 1820 – 1942

- **Harvesting and Preparations:**

The easiest way to prepare valerian is by decocting the root and sipping the tea as needed. I was taught not to boil the root, but to “*simmer it hard.*”

Use fresh or dried second-year roots to make a type of simmered tea, called a decoction, and for that, you mix 3 g dried valerian (or 6 g fresh) with one cup of water. Simmer, but don't boil, for fifteen minutes, then cool to a drinking temperature. Strain and drink before you want to go to sleep.

Tincturing with fresh Valerian root is best, but dried valerian will also work when the fresh root is not available.



## Virginia Creeper

### Alternate Names:

Woodbind, false grapes, American Ivy, five-leaf ivy, and thicket creeper

### Latin Names:

Parthenocissus quinquefolia

### General Information:

The bark, leaves and roots are used medicinally. Used as an Aperiant (**Constipation**), **alterative**, **emetic**, **expectorant** and **tonic**. A poultice to help **reduce swellings**. A tea made from the leaves is an **astringent** and **diuretic**. Use only the very young leafing shoots.

It is used as a wash on **swellings** and **poison ivy** rash. A tea made from the plant is used in the treatment of **jaundice**. A tea made from the roots is used in the treatment of **gonorrhoea** and **diarrhea**, **Cholera**, and **Pneumonia**. The fruit can be useful in treating **fevers** and **Spleen** troubles.

**Stimulating, diaphoretic and cathartic.**

**Bark and twigs.** A tincture is made of the fresh young shoots and bark, which are chopped and pounded to a pulp, mixed with 2 parts by weight of alcohol, and left for 8 days in the dark before being strained and filtered off.

The properties depend on the special balsamic resin contained in its leaves and stems, as well as in its particular aromatic gum. The berries contain a very bitter principle somewhat like *quinine*. The alkaloid contained in it is termed Hederin with **anticancer** activities (especially Breast Cancer).

In **Tuberculosis & Lymph nodes** the drug is principally employed in the form of a syrup.

The juice is said to cure **headache**, when applied to the nostrils.

A decoction of the leaves applied externally will destroy **head lice** in children, and fresh Ivy leaves

bruised and applied will afford great relief to **bunions** and shooting **corns**.

The leaves have also been employed as *poultices and fomentations* in **glandular enlargements**, recurring **ulcers**, a specific type **corneal ulcer** in which the outer layer of the cornea (the epithelium) will not adhere to the underlying layer (the stroma).

A decoction of the leaves has been used as a **black dye**.

The berries possess much the same properties as the leaves, being strongly **purgative** and **emetic**.

An infusion of the berries has been frequently found serviceable in rheumatic (**Arthritic**) complaints and is reported to have cured **edema**.

The dried bark is also used in a decoction. When stripped from the branches (after the berries have ripened) and dried in the sun, it occurs in quilled pieces 2 to 3 inches long and from 1/4 to 1/2 inch in diameter, externally brown with enlarged transverse scars, the fracture showing a white bark with coarse flattened fibres in the inner portion. One ounce of the bark to a pint of boiling water is taken in wine glassful doses.

A fluid extract is also prepared from the bark and twigs, of which the dose is 1/2 to 1 drachm.

## **Cautions:**

Berries can be for many people poisonous and cause nausea, abdominal pain, bloody vomiting and diarrhea, dilated pupils, headache, sweating, weak pulse, drowsiness, twitching of face. Skin contact with the leaves in autumn can cause dermatitis in some people. The tissues of the plant contain microscopic, irritating needle-like crystals called raphides.





# White Sage

- Alternate Names:

Silver wormwood, Estafiate, White Sage, Louisiana Sage, Prairie Sage, Western Mugwort, Louisiana wormwood, cudweed sagewort, gray sagewort, mugwort wormwood, white sagebrush

- Latin Name:

*Artemisia ludoviciana*

- General Information:

Commonly used as a smudge, the smoke carries its purifying scent as well as its **antimicrobial** properties through the air (and into the **lungs**). The leaves are **astringent**. They were commonly used by the N. American Indians to induce **sweating**, curb **pain** and diarrhea. A weak tea was used in the treatment of **stomach ache** and **menstrual disorders**.

Externally, a wash of the leaves was applied to **itching, rashes, swellings, boils, tonsillitis** and **sores**. The wash was also applied to **eczema** and the leaves can be placed in the shoes as a **foot deodorant** and an **underarm deodorant**.

A poultice of the leaves can be applied to **spider bites, blisters** and burst **boils**. A snuff of the crushed leaves has been used to treat **headaches, sinuses** and **nosebleeds**.

Prairie sage was used “Smudge Sticks” and burned to **ward off mosquitoes**.



## Willow & Poplar Bark

- Alternate Names:

Quakies, Quaking Aspen, Lombardy Poplar, Poplars,

- General Information:

Salicylate-rich plants have been used traditionally and with good results for **pain** and **inflammation**, however their analgesic actions are typically *slow-acting but longer lasting* (won't work fast like aspirin can for a headache). Used in Smallpox. It's analgesic effects are slower than that of aspirin, but of longer duration and without the gastric side effects. Mild flus and colds with fever, mild headaches and other pain caused by inflammation are indications for this plant. Salix sp. has been used for various forms of arthritis for centuries and is specific for RA and other systemic connective tissue conditions with inflammatory changes. Conditions with inflammation pain such as ankylosing spondylitis, gout, muscular rheumatism, joint pain, OA, osteoporosis, tendinitis, sprains, sciatica and neuralgia it can be of great use. It should be noted that the irreversible inhibition of platelet aggregation seen with aspirin cannot be induced by Willow.

### **Salicylates**

Salicylates are a widely distributed group of simple phenolics, found in many flowering plant families including *Salicaceae* (Populus sp & Salix sp) and *Caprifoliaceae* (Viburnum sp.) and include compounds such as **salicin, methyl salicylate & salicylic acid**, with salicin being the first identified compound in this class and used to create the well known pharmaceutical drug Aspirin.

When willow bark research began in 1829 the crude extraction techniques isolated salicylic acid not

salicin, from the bark. Salicylic acid was adopted into mainstream therapy but had the drawback of being a strong irritant to the stomach, though far more effective as an analgesic & anti-platelet agent than the crude original. (Note: Had these scientists studied salicin instead, they would have found that nature had already designed a substance with a good yield of salicylic acid that was also kind to the stomach too!).

In the plant, salicylates act as a phytohormone involved in plant growth & development, photosynthesis, transpiration, ion uptake and transport, and the endogenous signaling involved in mediating the plants' defense against pathogens by inducing the production of pathogenesis-related proteins. These signals can also move to nearby plants by being converted to the volatile ester, methyl salicylate, providing mutual immune support within the forest.

In the body, Salicin is converted into Salicylic acid and is used primarily as an **analgesic, anti-inflammatory and anti-rheumatic agent**. It is also a key ingredient in many skin care products as a keratolytic and comedolytic agent by causing the cells of the epidermis to shed more readily, opening clogged pores and neutralizing bacteria within, preventing pores from clogging up again by constricting pore diameter, and allowing room for new cell growth.

In general the action of salicylates are:

- Anti-inflammatory
- Analgesic
- Antipyretic
- Antiseptic
- Keratolytic & Comedolytic
- Note: Salicin does not demonstrate the antiplatelet effect seen with aspirin

## • **Key Components**

- Salicin is converted in the body into salicylic acid, which interacts with the enzymes that mediate inflammation.
- When salicin reaches the distal ileum or colon, **bacterial gut flora** digest salicin into salicyl alcohol & glucose
- Conversion of salicyl alcohol to **salicylic acid** occurs preferentially in areas of higher acidity in the blood and body tissues

## • **Medicinal Parts**

Bark, 2-3 year old branches, Dried bark: 1-3 g, TID (the effective dose of salicin is 60-120 mg/day). Decoction: 2-3 g/cup, simmer 20 min, TID. Tincture (1:5, 25%), 5-8ml TID.

## • **Pharmacology:**

- Inhibition of cyclooxygenase accounts for anti-inflammatory, anti-pyretic, and analgesic effects.

- **Salicin** is analgesic & anti-inflammatory. Is metabolized to saligenin in the bowels, then absorbed and metabolized to **salicylic acid**, which has aspirin-like effects *without irritating the gastric lining*.
- Salicylates are also uricosuric and promote blood clotting time and plasma albumin binding.

- **Contraindications:**

Side-effects are not expected when using the whole plant. High doses may cause gastric & renal irritation. Persons with known hypersensitivity to salicylates may experience a reaction (urticaria, rhinitis, asthma, bronchial spasms).

Avoid in children with the flu due to Reye's syndrome (theoretical)

**Interactions:** Avoid while using aspirin or other salicylate containing substances, alcohol, barbiturates/sedatives, NSAIDs, anticoagulants, methotrexate, spironolactone, phenytoin, valproate medications.

# Yellow Sweet Clover

## Latin Name:

Melilotus officinalis

## Description:

Yellow sweet clover has fragrant leaves; when crushed or dried they give off the scent of new-mown hay. The yellow flowers are in racemes that are about two to four inches long. Each leaf is divided into three leaflets and finely toothed. Yellow sweet clover stands three to eight feet high, and can be seen from late spring to fall (Newcomb 1977).



Yellow sweet clover has been cultivated for forage, hay, and pasturelands. It has also been used to improve soil; the roots help to prevent erosion and fix nitrogen in the soil through numerous nitrogen-fixation nodules. The seeds were once substituted for Tonka beans and the roots were eaten by Kalmuks. Yellow sweet clover was also used for honeybee pastures and as a moth repellent (Duke 2001).

Hemorrhagic disease in cattle in the late 19th century was traced to spoiled hay made from yellow sweet clover and acted on by Aspergillus mold. In 1889, Link and Campbell named the hemorrhagic agent dicoumarol. Dicoumarol was first tested as a rat poison and then began to be used to treat heart attacks in humans in 1943. Dicoumarol was the drug model for warfarin (also first tested as a rat poison)! Warfarin was first tested in humans in 1953, and remains an important, widely used anticoagulant drug today. (Mueller 1994)

Yellow sweet clover has also been used for symptoms of **chronic venous insufficiency, varicose veins, thrombophlebitis, hemorrhoids, post-thrombotic syndromes, and lymphatic congestion** (Duke 2001). Additionally, it has been used as an **anticoagulant, diuretic, laxative, stimulant, and tonic**. When smoked, it has been used for asthma (Duke 2001, Foster 1990). Dried, the whole plant has been used in tea for **neuralgic headaches, painful urination, gastrointestinal conditions, and aching muscles**. Topically, as a poultice, it has been used for **inflammation, ulcers, wounds, and rheumatism** (Foster 1990).

Sweet clover has also been used in foods. In France, sweet clover is used in stuffing for rabbits. Gruyère and Sapsago cheeses, made in Switzerland, are flavored with the flowers and seeds of sweet clover. The roots are cooked and eaten in Iceland. And throughout Europe, leaves and flowers have been used to flavor soups, stews, and marinades (Kiple 2000).

## Current Medicinal Uses:

Yellow sweet clover is not a commonly used medicinal herb today, but played a crucial role in the development of the widely used **anticoagulant drug warfarin** (see History).

## Common Terms in Herbalism

**Adaptogen:** Herbs that improve the ability of the body to adapt to stress. They promote well-being, balance and health. Adaptogens help regulate or normalize organ and system function on a broad basis.

**Adjuvant:** Herbs which enhance a body's response to a remedy. An adjuvant aids the action of other ingredients of a formula to encourage assimilation, balance energetic or other qualities, or catalyze the overall response.

**Analgesic:** A substance that relieves pain.

**Anodynes:** Herbs used to relieve pain.

**Antiemetics:** Herbs used to lessen nausea and prevent or relieve vomiting.

**Aperient:** Chiefly used to describe a mild laxative, aperients also encourage the appetite or digestion, typically preparing the digestive environment.

**Astringents:** Herbs that contract tissues, make them denser and firmer, and regulate body secretions. Astringents herbs tighten and tone the body.

**Balsamic:** Herbs that soothe and mitigate inflammation.

**Carminative:** The volatile oils in carminative plants support digestion and help prevent gas.

**Cathartic:** Causing psychological relief through the open expression of strong emotions; causing catharsis. "crying is a cathartic release"

**Compress:** A cloth or gauze soaked in a liquid herbal preparation such as an infusion or decoction, and then applied externally to the skin/body.

**Decoction:** A concentrated water extraction of plant material made through boiling or simmering. A water extraction using a continuous heat supply, usually a long simmer (20-45 minutes). Typically used for denser plant parts such as roots, bark, seeds, berries and mushrooms. A decoction is more concentrated than an infusion, which is typically made by simply pouring boiling water over fresh or dried herbs.

**Demulcent:** An herb that creates a soothing film over a mucous membrane. If applied topically and used on the skin they are called emollients. Slippery elm, an herb used for sore throats, is an example of a demulcent.

**Emetics:** Herbs that induce vomiting.

**Emmenagogue:** Herbs that stimulate and regulate menstrual flow and help normalize hormonal levels, often through their action on the liver.

**Expectorant:** Herbs that loosen mucus so it can coughed up and expelled.

**Herbal medicine:** Herbal medicine, which has roots in ancient cultures, involves the medicinal use of plants to treat disease and support general health and well-being.

**Hypnotics:** Herbs that help support healthy sleep.

**Infusion:** A drink, remedy, or extract made by soaking the plant material in liquid (usually water). Infusions are recommended especially for flowers & leaves, whose volatile oils, vitamins and enzymes are easily extracted through being submerged in hot water.

**Infused Oil:** An oil into which qualities of an herb have been transferred by infusion over a length of time from hours to several weeks, sometimes by applying heat.

**Maceration:** Maceration means chopping or grinding the herb, putting it in a jar and covering with a solvent (usually a combination of alcohol and water). Let it sit for a month, then strain it out. The liquid leftover is the tincture, having extracted the active constituents of the plant.

**Mucilage:** A thick, gluey substance produced by nearly all plants, mucilaginous herbs tend to be demulcent.

**Nervine:** Herbs **that specifically benefit the nervous system**. Actions can vary: Some stimulate, some relax, some tone and strengthen.

**Poultice:** A soft, moist, mass of plant material applied topically to sores. The poulticed herbs are held in place with a cloth, leaf, bandage, or other suitable material.

**Rubefacient:** Promotes dilation of capillaries near the surface of the skin, causing the skin to redden. Stimulates circulation and relieves inflammation or congestion.

**Salve:** Semi-solid fatty herbal mixture typically applied externally. Common ingredients are primarily an oil and a wax, such as extra virgin olive oil infused with herbs and combined with melted beeswax.

**Tincture:** An extract of a plant made by soaking herbs in a dark place with a desired amount of either glycerine, alcohol or vinegar for two to six weeks. The liquid is strained from the plant material and then the herbal tincture is used therapeutically.

**Tonic:** Herbs that stimulate, energize and strengthen the body.

