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Eliminating Water-Borne Pathogens — Effectivity Matrix

Pathogen	Class/ Type	Size	Effective Filter	Halogens (Cl& I)	Chlorine Diox (Cl02)	131F/55C Kill	167F/75C Kill	Boiling	3	Reverse Osmosis
All Bacteria	Bacteria	.5 - 1 micron	0.2 micron Absolute	~~	~~	30 min	< 1 min	Instant	**//	***//
Cryptosporidium {Cryptosporidiosis}	Protozoa/ Parasite	4 micron	1 micron Absolute	Ao Liffe	Effective w/ Extended	5 min	2 min	Instant	lo Tffe	***//
Giardia Lamblia {Giardia Intestinalis}	Protozoa/ Parasite	6 micron	1 micron Absolute	Moderate Effect (Extend Jime & Raise Temp)	Effective w/ Extended	5 min	2 min	Instant	Ao keest	***//
All Other Protozoa	Protozoa/ Parasite	4 - 10 micron	1 micron Absolute	Moderate	Effective w/ Extended Time	5 min	2 min	Instant	Moderate Effect on Some, But Not All	***//
All Virus Except Hepatitis A	Virus	0.01 - 0.05 micron	*01	~~	~~	50 min	< 1 min	Instant	**//	Removes Some, But Not All
Hepatitis A	Virus	0.01 - 0.03 micron	*01	~~	~~	A THE	10 min	2 min	**//	Removes Some, But Not All
Parasitic Worm Eggs	Parasitic Worms (Tape, Hook, Round, Pin, Fluke)	20 - 60 micron	3 micron Absolute	Little Effect	Little Effect	2 min	< 1 min	Instant	A Lefter	***//
* There are some ultra-filters that will filter to this range, however, durability is an issue with them.	i-filters that	will filter t	o this rang	e, however, durabili	ity is an issue wit	th them.				

** The water must be clear and between 1" to 4" deep depending on the UV intensity and exposure time.

*** A system with pre-treatment to remove particulates, turbidity, parasites, protazoa, and algea to provide clear water to the RO Membrane at 45-85 psi

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RD-2015/02/24, v2.2-2020,08 [Jim Phillips]