

Analysis of the Three Methods of Water Purification Recommended by FEMA and the Red Cross in the Event of an Emergency.

	Method #1: Boiling Water	Method #2: Chemical Disinfection	Method #3: Steam-Distillation
Kills live micro-organisms? ¹	YES	YES	YES
Kills cysts & spores? ²	WITH PROLONGED BOILING	MAYBE	YES
Removes dead microorganisms? ³	NO	NO	YES
Removes toxins from the water? ⁴	NO	NO	YES
Removes radiological contaminants? ⁵	NO	NO	YES
Purifies sea water? ⁶	NO	NO	YES
Creates high-purity drinking water? ⁷	NO	NO	YES
Incorporates a phase change? ⁸	NO	NO	YES
Improved Taste? ⁹	NO	NO	YES
Does it produce safe drinking water? ¹⁰	PROBABLY SAFE FOR SHORT TERM CONSUMPTION	PROBABLY SAFE FOR SHORT TERM CONSUMPTION	VERY SAFE

Notes:

1. Boiling, chemical disinfection and steam-distillation kills micro-organisms.
2. Chemical disinfection does not necessarily kill spores or cysts. Prolonged boiling and steam-distillation will kill cysts and spores.
3. Disinfection and boiling don't remove dead microorganisms or endotoxins created by dead microorganisms. Steam-distillation does remove these.
4. Disinfection does not remove toxins. Boiling actually concentrates toxins that are present. Steam-distillation is extremely effective at removing virtually all toxins.
5. Disinfection and boiling does not remove radiological contaminants. Steam-distillation is extremely effective at removing radioactive contaminants.
6. A properly designed steam-distillation machine can purify highly-concentrated sea water into high-purity drinking water.
7. Steam-distillation produces high-purity drinking water. Boiling and chemical disinfection do not.
8. Steam-distillation changes water from a liquid to a gas and then back to liquid, thus leaving contaminants behind.
9. Chemical disinfection adds chemicals to the already contaminated water. Boiling concentrates the contaminants. Steam-distillation produces great-tasting water.
10. Disinfection and boiling probably kill the most deadly contaminants, but both processes have major flaws that make prolonged consumption risky. Steam-distillation produces extremely safe water.

NOTE: No other methods are recommended by FEMA and the Red Cross