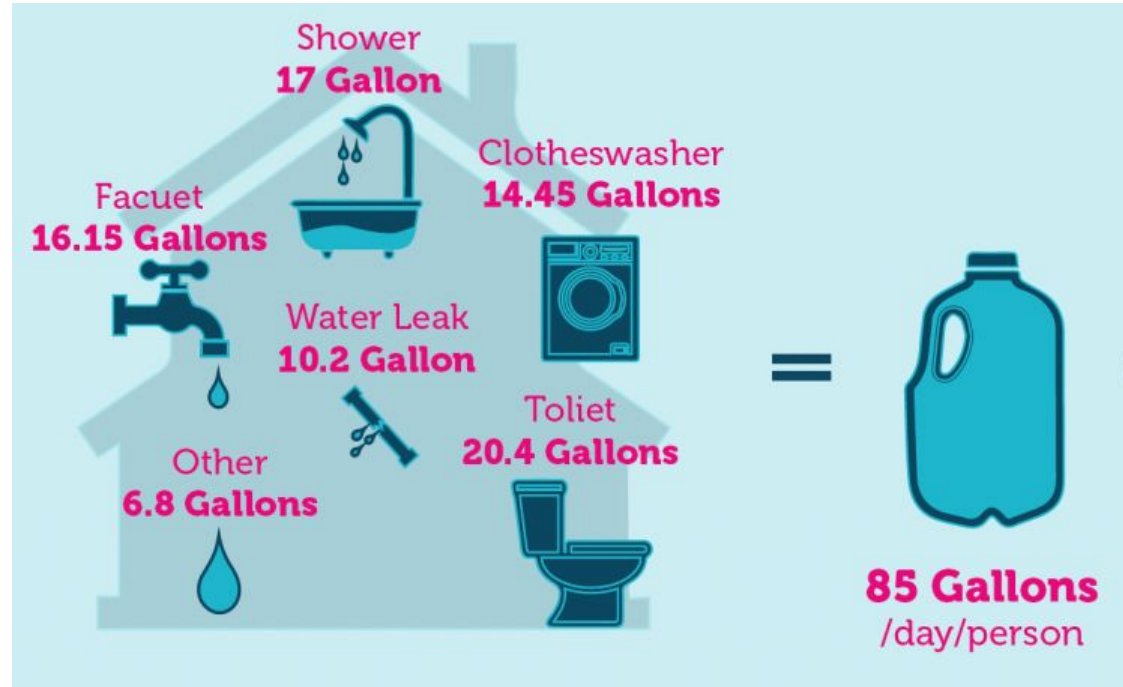
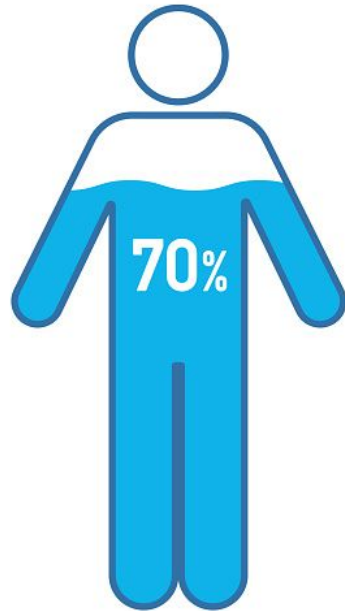


What is Water Quality



Water is a vital resource for human survival. A person can survive for only three days without it. Each American uses an average of 85 gallons of water per day at home. The quality of this water is essential to our hygiene, health, and survival.



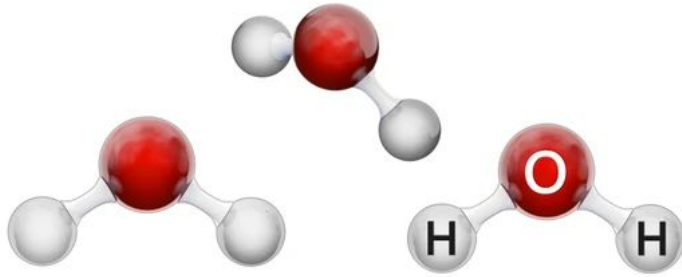
Water Quality is a measure of how clean or polluted water is. Water quality describes conditions including chemical, physical, and biological characteristics. The quality of water can determine if it is suitable for drinking, swimming, bathing or washing. Poor water quality is sometimes easy to see, but not always.



Water quality can be contaminated in a variety of ways. Three categories of water pollution are **physical**, **chemical**, and **biological**. All can be harmful to humans and should be understood.



In its purest form, water is only the chemical **H₂O**. Pure H₂O is called **distilled water** because it can be created by boiling water into a vapor and condensing back into a liquid, distilling. Pure water is rare, all of the water we drink and use contains some amounts of minerals (sodium, fluoride, potassium, zinc, etc.)



Physical Contamination

When physical particles are mixed in with the water, contaminants primarily impact the appearance and consistency of water.

Examples of physical contaminants are sediment or organic material suspended in the water of lakes, rivers and streams from soil erosion.



Chemical Contamination

Chemical contaminants are often invisible and may be naturally occurring or man-made.

Examples of chemical contaminants include nitrogen, bleach, salts, pesticides, metals, and pharmaceutical drugs.



Biological Contamination

Biological contaminants are organisms in water. They are also referred to as microbes or microbiological contaminants. These microbes can often make you sick if swallowed.

Examples of biological or microbial contaminants include bacteria, viruses, protozoa, and parasites.



Have you, or anyone that you know, gotten food poisoning?

What type of contamination do you think leads to food poisoning?

Water Filtering removes impurities by lowering contamination of water using a physical barrier, a chemical process, or a biological process. Water filters can be as small and simple as the charcoal filter pitcher in your refrigerator or as large and complex as city water filtration plants.

