



Did you know . . .

Performance capabilities can vary widely from one system to the next. When selecting a system, be sure to research the quality of your incoming water supply first, and then look for systems that are NSF certified to address the contaminants of most concern in your area.



What You Should Know About Bacteria, Cysts & Pink Slime

Although bacteria are more commonly found in untreated water supplies such as private wells, they can also be present in public water supplies given the right conditions. The three most common types of microorganisms include bacteria, cysts and viruses.

Bacteria

Coliform bacteria are the most common type of bacteria for which water is tested. They are found naturally in the intestines of humans and animals. Although some forms can be infectious, such as fecal coliform, most are not considered to be disease-causing. However, their presence in drinking water indicates that conditions exist that would allow other potentially harmful types of bacteria to be present as well.

If a coliform test is negative, the microbiological quality is considered to be good. If coliform is detected, additional testing is usually performed to determine if other types of bacteria are present, like fecal coliform or *E. coli*.

Parasites (Cysts)

Similar to bacteria, intestinal parasites or cysts live in the intestines of humans and animals. The most common cysts include *Cryptosporidium* and *Giardia*. Cysts are actually considered protozoa, not bacteria, and because they have a protective outer layer, they are somewhat immune to the effects of chlorine and other chemical disinfectants. However, their larger size and inability to change shape allows them to be more easily filtered through mechanical means compared to other types of microorganisms.

Viruses

In situations where there is *E. coli* contamination, viruses may be present as well. Viruses are the smallest type of infectious microorganism. Although not all are waterborne, viruses that are sometimes found in water include hepatitis A virus, Norwalk virus and rotaviruses.

Options for Protection and/or Treatment

There are several options individuals can use to disinfect their incoming water supply if they suspect that bacteria, viruses or cysts are present.

- **Boiling.** Boiling water for at least two to three minutes once it reaches a good rolling boil will destroy all three types of organisms.
- **Ultraviolet Systems.** Ultraviolet light can be used to disinfect drinking water. UV systems certified to [NSF/ANSI 55 - Class A](#) can be used to disinfect water containing bacteria, viruses and some cysts, while units certified to [NSF/ANSI 55 - Class B](#) can be used with municipal or treated water to provide supplemental protection. A filter certified for [cyst reduction](#) can be used with both types of UV systems for additional protection against cysts.
- **Chemical/Filtration.** Chlorine can be used to disinfect water supplies containing bacteria or viruses. As chlorine requires a minimum contact time in order to kill these organisms, a holding tank is usually installed after the chlorinator. A filter certified for [cyst reduction](#) can also be installed for protection against cysts. Microbiological purifiers like those certified to [NSF P231](#) also offer protection against many types of microorganisms.

To ensure ongoing performance, change the filter, UV lamp or membrane components of your system as instructed by the manufacturer, and always use the manufacturer's recommended replacement components for your unit.

Pink Slime

If you see a pink slime appearing around drains or along the water rim in toilets or pet dishes, it is most likely due to *Serratia marcescens*. This airborne bacterium likes to settle in warm moist places. While the residue is difficult to eliminate completely, more frequent cleaning of the affected areas with a disinfectant cleaner (drains/sinks) or hot soapy water (pet dishes) will usually help keep it from re-forming.