

Anti-Bacterial Products in Onsite Systems

What are these antibacterial products we are talking about? They include: 'antibacterial' hand soaps, tub, tile and shower cleaners, drain cleaners, toilet bowl cleaners, laundry bleach products, and others. Also included are 'antibiotics' that may be prescribed for medical treatment. These products are found in nearly all homes. They often carry a "safe for septic systems" statement printed on the label. The question is "How Safe?"

An onsite wastewater treatment system or "onsite system," when cared for properly, can effectively and safely recycle household wastewater back into the natural environment. An onsite system uses soil to treat the waste can remove disease causing organisms and some of the nutrients contained in wastewater if it is properly designed, installed, operated and maintained. "Operation" refers to everything we do to or put into the system.

An onsite system needs millions of naturally occurring bacteria throughout the system in order to treat household wastewater. For example, anaerobic bacteria (bacteria that live in the absence of oxygen) in the septic tank decompose organic materials in the wastewater and aerobic bacteria (bacteria that live in the presence of oxygen) in the sand filter or soil destroy disease-causing pathogens. We add many of these good bacteria through our normal daily activities that send wastewater down the drain.

The use of anti-bacterial or 'disinfectant' products in the home can destroy the bad bacteria in our kitchens and bathrooms but also the good bacteria in the treatment system once the cleaning products are washed into sinks, toilets or tubs. Using a product according to the manufacturer's directions will destroy some beneficial bacteria in the onsite system but the population should remain large enough to recover quickly and not cause major treatment problems. Often the use of a single product or a single application of a product will not cause major problems but the combined use of many products or many applications of the same product throughout the home can cause problems. High levels of these products in the onsite system can cause major or even total destruction of the population of needed bacteria. Right now we don't know how much is too much when using these products. We also don't know which products are more harmful to onsite systems than others. To make matters more complex, more and more products are labeled "anti-bacterial."

Anti-bacterial products affect all types of onsite systems to some degree but may have a greater effect on the newer treatment systems now being introduced. In some instances, service providers trying to diagnose ailing onsite systems have found that removing anti-bacterial products from the home will rejuvenate the system. Even though we don't know all of the effects of these products, you can help protect your onsite system by limiting or eliminating the use of anti-bacterial soaps and cleaners in your home.

It might be that in an effort to be "super clean" and protective of family health through the use of antibacterial products in our homes, we might compromise our health in another way – by damaging our onsite wastewater treatment system!

Simple suggestions to help your onsite system

Do not use 'every flush' toilet bowl cleaners

Reduce use of drain cleaners by keeping hair, grease, and food particles from going down the drain

Use more elbow grease and less cleanser

Use just enough soap, detergent and bleach to do the job. Frequent use of detergents with bleach additives can kill off the beneficial bacteria you want.

Use mild cleaners only as needed

Drain chlorine-treated water from swimming pools and hot-tubs to a separate drainfield dedicated to that purpose

Take your unwanted solvents, paints, antifreeze, and chemicals to a local recycling and hazardous waste drop off site

Do not flush unneeded prescription or over-the-counter medications down the toilet. Instead, wrap them securely and dispose of them in the trash.

Save your money and don't buy septic tank additives like enzymes or other "starters." These additives are not necessary because bacteria and enzymes that do the same job are present in normal household sewage. In addition, they cannot make up for the damage caused by the use of too many anti-bacterial products.

This handout adapted from text by Ken Olson, University of Minnesota Extension Educator.

Web page courtesy of the La Pine National Demonstration Project, funded by the US Environmental Protection Agency