

What To Do If Your Septic System Fails

Reviewed and updated by John M. Jemison, Jr., Extension water quality and soil specialist

Discovering that your septic system is failing is a miserable experience. This fact sheet is designed to help you recognize this problem, determine what to do if it happens and, most importantly, learn how to prevent it. Use these tips in conjunction with the information in *Your Septic System*, a water quality fact sheet (UMCE bulletin # 7080).

What is a Septic System Failure?

A septic system should effectively accept waste water from your house and prevent biological and nutrient pollutants from getting into your well and nearby lakes and streams. Any time your septic system is not treating or disposing of sewage effectively, the system is failing.

For example, when waste water backs up into your home or is bubbling up on your backyard, the system has obviously failed. If significant amounts of biological or nutrient pollutants reach your well or surface waters, the system is also failing, even though it may appear to be working just fine.

Why Septic Systems Fail

Most septic systems will fail eventually. These systems are designed to have an average life span of 15 to 25 years, under the best conditions. Eventually, the soil in the absorption field becomes clogged with organic material, making the system unusable.

Many other factors can cause the system to fail well before the end of its “natural”

lifetime. Pipes blocked by roots, soils saturated by high water tables, crushed distribution pipes, improper location, poor original design or poor installation (the most common) can all lead to major problems.

One reason for early failure is improper maintenance by homeowners. When a system is poorly maintained (not pumped out on a regular basis) solids build up in the septic tank, then flow into the absorption field, clogging it beyond repair.

How to Know if Your System is Failing

Look for these symptoms of system problems:

- **Sewage backup in your drains or toilets.** This is often a gray or black liquid with a disagreeable odor.
- **Slowly draining sinks, bathtubs and toilets.** The drains in your house will drain much more slowly than usual, despite the use of plungers or drain cleaners.
- **Surface flow of waste water.** Sometimes you will notice soggy areas or standing water on the ground above or near your septic system. There may be a foul odor.
- **Lush green grass over the absorption field, even during dry weather.** Often, this indicates that an excessive amount of liquid from your system is moving upward through the soil instead of downward,

as it should. While some upward movement of liquid from the absorption field is good, too much indicates a problem.

- **The presence of nitrates or bacteria in your drinking well.** This indicates that waste water from the system may be flowing into the well through the ground or over the surface. A water test will indicate if you have this problem. Your local health department can advise you where to have tests done.
- **Excessive growth of aquatic weeds or algae in lakes or ponds adjacent to your home.** This may indicate that nutrient-rich septic system water is leaching into the surface water. This may lead to both inconvenience and possible health problems.
- **Unpleasant odors around your house.** Often, improperly vented or failing septic systems cause a buildup up of disagreeable odors around the house.

Health and Economic Effects of a Failing System

The most serious effect of a failing system is the potential for dangerous disease from the improperly treated waste water. Dysentery and hepatitis can be spread by these wastes. In addition to these diseases, mosquitoes and flies that can spread infectious diseases can breed in areas where liquid waste reaches the surface.

Chemical or nutrient poisoning can also be a problem. Many of the products you use around the house, such as strong cleaning products, can be poisonous to humans, pets and wildlife if they travel through soil to your well or on the surface to lakes, streams or ponds. Excess nitrate levels in drinking water can pose serious health threats to infants.

The health of plants around your home also can be seriously affected.

The economic costs of failure are no less important. The most obvious effect is the direct expense of replacing your septic system. This could cost up to \$5,000 (or more depending on where you live). Also consider the indirect cost of losing the use of your house while the system isn't working and the long-term inconvenience of a system that doesn't operate properly.

Immediate Actions

Follow these steps if you suspect a problem:

- Call the Maine Department of Health Engineering, Plumbing Program, at 207-289-5672. They may refer you to your local plumbing inspector or a licensed site evaluator. (Extension offices have a list of Maine licensed site evaluators).
- Exercise caution in working near an opened septic tank. Toxic and explosive gases present a hazard. Never enter a septic tank.
- Have your septic tank pumped. This will help the problem temporarily, especially when it is combined with drastic water conservation. If a clog does not exist between the house and the septic tank, or if very high water levels are not the cause of the problem, pumping may be an effective solution, provided that the absorption field is still in good condition.
- Conserve water in your home. This is particularly effective if your system has not failed completely. It can help lessen the problem for a short time. Water-saving devices and reduced consumption, especially in your bathroom, can have a significant effect.

- Fence off the area. If liquid waste is seeping to the surface, prevent people and pets from coming into contact with the effluent.

Long-Term Options

In many, if not most cases, redesigning and replacing the system in a new location is the only practical long-term solution. **Your first step is to have a licensed site evaluator design a new system, or an extension of your existing system.**

Other solutions include:

- **Conserve water in your home on a long-term basis.** The smaller the amount of water flowing through your system, the longer it will last. For systems that perform marginally or leak nutrients into nearby lakes and streams, this is a good alternative.
- **If periodically saturated soils are a main cause of problems, consider installing perimeter drains.** This involves installing tile drains underground at a specified distance around the absorption field to help lower water levels. It works in some but not all situations and requires the assistance of a qualified contractor. Again, a licensed site evaluator is recommended to design the drain system.
- **Connect to a community sewage system, if one is available.** Although the long-term costs may seem high, the benefit of reduced worry and lowered maintenance for the homeowner are often worth the cost.

How to Prevent Septic Problems

One key to preventing your septic system from failing is proper maintenance. Pump the tank regularly, be careful what you put down the drains and avoid planting trees over the absorption field or covering the system with patios and home additions.

Proper design and installation are critical in preventing system failure. Be sure the system is designed to meet your present and future needs. If, for example, you are building a small home with plans to enlarge it as your family grows, design the septic system to accommodate the size you expect your family to grow to. Consider asking your contractor to include such useful features as junction boxes and observation ports, which aid in assessing the condition of the system.

Many septic systems are doomed from the start because they are put in poor locations or constructed improperly. You should obtain help from a plumbing inspector or licensed site evaluator.

Where to Go for Help

If you believe your system is failing or need help, contact the Maine Department of Health Engineering (207-287-5338) or your local health department or Cooperative Extension office.

For more information on water quality concerns, contact your county Extension office.

Adapted from “Maintaining Your Septic System,” a set of Cornell Cooperative Extension fact sheets. Original authors include D. Solomon, E. Dersch, J. Saumier, A. Meyer, M. Keith, J. Saumier, and M. Shortlidge.

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