How does a septic system work?

Households not served by public sewers usually depend on septic systems to treat wastewater. Raw wastewater flows into a septic tank where the solids separate from the liquid. Light solids float, forming a scum layer which remains on top and gradually thickens until you have the tank cleaned. Heavier solids settle to the bottom of the tank. While bacteria gradually decompose most of the solids, some solids remain, forming a sludge layer that eventually must be pumped out.

The remaining liquid moves to a drain field. There, natural filtration and organisms in the soil finish treating the waste.

Flooding a drain field with more water than it can absorb reduces the ability of the system to filter sewage. It also increases the risk that untreated waste will run off into surface water or nearby water wells.

Typical systems treat about 50 gallons per day for each person in the family. Avoid overloading your system by using water-saving devices, taking shorter showers, spreading out laundry loads over the week and keeping downspouts from draining into the system.

Maintain your septic system to avoid costly repair or replacement.
In a septic system, wastewater is treated by settling, filtering and bacteria.

The septic system holds wastewater in the tank, allowing solids to settle and scum to rise to the top. Up to 50 percent of the solids will decompose into liquids and gases. The remaining solids accumulate in the tank. Solids remain in the tank, and the liquid flows to the drain field. There, filtering through the soil and microbes remove germs (bacteria and viruses) before the liquid reaches the groundwater.

A properly functioning septic system does not pollute ground or surface water.

When solids and scum build up, the septic tank can no longer treat waste. Untreated solids overflow, polluting groundwater and exposing people and animals to the disease-causing germs in sewage.

To prevent this from happening, it is important to check the tank and have it serviced when needed. A 1,000 gallon tank serving a family of four will usually need to be cleaned about every three years. Excessive water use will increase pumping frequency.

The property owner is responsible for making sure the septic tank is properly installed and maintained.

A licensed septic hauler can clean your tank.

A septic system can treat:
- human waste
- white toilet paper

A septic system cannot treat:

**Trash** which fills the tank and blocks the system.
- paper towels
- dental floss
- feminine hygiene products and applicators
- cat litter
- cigarettes
- plastics
- disposable diapers

Put these items in the trash.

**Fats, oils and grease** which solidify and clog the soil filter.
- meat fats and scraps
- oil, shortening and margarine
- sauces
- dairy products: milk, butter, cheese

Allow hot fat to cool, then put in the trash.

**Vegetable material** which increases the solids in the tank.
- coffee grounds
- vegetable scraps

Compost vegetable material, or put in the trash.

**Chemicals** which kill the bacteria and pollute groundwater.
- motor oil and auto fluids
- pesticides, fertilizers and lawn care products
- fertilizers
- bleach and disinfectants
- beauty products
- medicine
- paint, varnish, paint remover
- photographic chemicals

Take chemicals to a hazardous waste collection.

Chemicals pass through your septic system and pollute wells, ground water, streams and rivers.

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### Information

**Septic tank care and regulations**
Butler County Health Department  
513.863.1770
Ohio Department of Health  
www.odh.ohio.gov
United States Environmental Protection Agency  
www.epa.gov
Ohio Environmental Protection Agency  
www.epa.state.oh.us

Wastewater treatment, septage program or household hazardous waste
Butler County Water and Sewer Department  
513.887.3066  
www.butlercountyws.org