

HEALTH CONSEQUENCES OF FAILING SEPTIC SYSTEMS

***Did you know that worldwide, 80% of all infectious diseases may be water related?
Did you know that diarrheal diseases traced to contaminated water kill approximately 2 million children and cause about 90 million episodes of illness worldwide each year?***

This information sheet illustrates the health hazardous failing septic systems pose to your community and offers some tips on preventing this problem.

What Diseases Are Commonly Caused by Wastewater?

Septic tank systems are the largest of all contributors of wastewater to the ground and are the most frequently reported sources of groundwater contamination in the United States. Bacteria, viruses, and parasites (including worms and protozoans) are the types of pathogens in wastewater that are hazardous to humans. Fungi that can cause skin, eye, and respiratory infections also grow in sewage and sewage sludge. These bacteria and viruses may be transported very rapidly and could contaminate nearby drinking water supplies or recreational surface water, such as our RIVERS.

Bacteria are microscopic organisms that are responsible for several wastewater related diseases, including typhoid, paratyphoid, bacillary dysentery, gastroenteritis, and cholera. Most infect the stomach and intestinal tract and can cause symptoms like headache, diarrhea (sometimes with blood), abdominal cramps, fever, nausea, and vomiting. Depending on the bacteria involved, symptoms can begin hours to several days after ingestion.

Viruses can't multiply outside their hosts, and wastewater is a hostile environment for them. But enough viruses survive in water to make people sick. Hepatitis A, polio, and viral gastroenteritis are a few of the diseases that can be contracted from viruses in wastewater. ***HIV IS NOT TRANSMITTED THROUGH WASTEWATER CONTACT.*** There may be as many as 100 different virus types present in raw sewage, but they are difficult to identify.

The types of parasites found in wastewater include protozoans and parasitic worms. When people drink water contaminated with protozoans, they can multiply inside the body and cause mild to severe diarrhea. Another protozoan is the cause of amebiasis, also known as amebic dysentery. Parasitic worms can also dwell in untreated sewage. Tapeworms and roundworms are the most common types found in the U.S. Their eggs are found in untreated wastewater and can be ingested.

Children and the elderly are the most significantly affected groups to wastewater related diseases. The reason is that most of the diseases cause severe dehydration.

How Can I Prevent These Diseases?

Preventing potentially harmful substances from polluting water in the first place is always the best strategy for protecting health and the environment and preserving valuable water resources for community use and recreation. The following suggestions may help avoid wastewater contamination:

- Regularly inspect, pump, and maintain your septic tank system.
- Conserve water in your home.
- Redirect surface water flow away from your septic system.
- Do not drive vehicles or heavy equipment over the septic system.

- Plant a greenbelt (grassy strip or small, short-rooted vegetation) between your septic system and the shoreline.

How Can I Tell If Contaminants Are Reaching the Water?

Look for these symptoms to determine if waste from your septic tank system is reaching surface water:

- **Excessive weed or algae growth in the water near your shore.** Nutrients leaking from septic tank systems could be a major cause of this type of growth.
- **Unpleasant odors, soggy soil, or liquid waste flow over the land surface.** These symptoms often indicate failure of the system and the need for repairing, expanding, or replacing the absorption field.
- **Health department test results indicate the presence of biological contamination.** These tests may show the presence of harmful bacteria in the water. Although wastes from septic systems are not the only source of these contaminants, they are likely suspects.
- **Indicator dye put into your septic tank reaches nearby river or ditches.** Special dyes are available from your local health department that may help to find the problems that otherwise are difficult to notice. This method can help verify the other symptoms listed above.

Please contact the Uvalde County Health Department if you know of any failing septic system. We would appreciate your cooperation.

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