

Disease Prevention After the Flood or Sewage Back-Up

If you are faced with cleaning up an area that has been flooded or contaminated with sewage, you may be concerned about the health risks associated with this activity. There are disease-causing organisms that can be transmitted by contact with flood water or sewage. Although remote, these include:

- Campylobacter
- Enteroviruses
- Pinworms
- Giardia
- Solmonella
- Cryptosporidium
- E. Coli
- Hepatitis A
- Rotavirus
- Shigella

Even though there is some risk of disease transmission during contact with flood water and sewage, that risk is relatively small. There have been many studies of individuals who work in sewage treatment plants. In the studies, it was found that these individuals do not have any greater incidence of infection from the above organisms than the general adult population. It was also found that the standard immunization requirements which apply to the general population would apply to those exposed to sewage. Therefore, no additional immunizations are needed after a flood or sewage back-up.

The answers to the following questions provide information that can help you further reduce your risk:

What is the greatest danger in a flood or sewage back-up?

The greatest danger is not the risk of disease, but the risk of electrocution or explosion. *Do not* enter a flooded basement or light matches until the utility companies have shut off the gas and electric service.

How do people get an illness from flood water or sewage?

The illnesses people get from the aforementioned organisms are called *fecal-oral diseases*. People get these diseases when they get feces or stool in their mouth, often from dirty hands. Fecal-oral diseases are spread in two ways:

- Direct contact with flood water, sewage or a person sick with a fecal-oral disease.
- Indirect contact with flood water and sewage by using objects like toys and furniture or eating food that has touched flood water or sewage.

Fecal-oral diseases are infections of the intestinal tract. Symptoms include:

- Fever
- Nausea
- Cramps
- Headache
- Vomiting
- Diarrhea

If you have these symptoms and they last longer than two days, call your doctor. If a child under one year of age gets these symptoms, call your doctor right away. The incubation period for a fecal-oral disease (i.e., the time between initial contact with contamination and onset of illness) is usually one to three days.

What can be done to prevent a fecal-oral disease?

Prevention is the key. Follow these steps to reduce your risk:

1. Wash your hands after every contact with the flooded area, after using the toilet, and before eating.
 - Wash hands under warm running water.
 - Use liquid soap.
 - Lather hands for at least 20 seconds.
 - Dry hands with a paper towel.
2. Follow appropriate sanitizing procedures.
 - Put 8 tablespoons of laundry bleach (i.e., Clorox, Roman Cleanser) in each gallon of water used to sanitize contaminated areas and objects.
 - Discard cloth items that cannot be laundered, like stuffed animal toys or pillows.
 - Open windows and use fans to ventilate the contaminated area.
 - Keep pets out of the flooded area to prevent them from tracking sewage to other areas.
3. Dispose of trash, including objects like toys and clothing, in leak proof bags and label as contaminated with sewage. Large items that cannot be bagged, such as furniture or carpet, should also be labeled as contaminated with sewage. Warning labels, attached to trash that is placed at the curb for pickup, will help prevent other people from salvaging these items.

Note: This information base was compiled from various state and local health agencies. Although this outline may be sufficient for your community's needs, contact your local health agency for further suggestions.