Flooding Can Cause Cascade of Public Health Threats

As I write this column, Helena and the southern part of Lewis and Clark County are under a flood watch issued by the National Weather Service. That’s not surprising given the amount of snowfall we’ve had this winter!

Flooding is often an issue in the Helena area in the spring. We live in a giant, geologic bowl. As temperatures warm, melting mountain snowpack flows downhill into the valley and, all too often, into people’s basements and yards.

While the focus during floods tends to be on protecting property, it’s important to remember that flood water can put your health at risk, too.

A Germ Cocktail

Flood water mixes with everything it touches, including raw sewage, animal waste, pesticides, and other chemicals. You should assume that flood water is a swirling cocktail of bacteria and other disease-carrying germs that can cause intestinal problems, headaches, flu symptoms, and skin infections. Even when the water subsides, clean-up can be risky.

For that reason, health and environmental experts recommend that you avoid contact with flood water whenever possible. Discourage children from playing in it, too! If you can’t avoid contact, wash your hands thoroughly and often with soap and uncontaminated water – especially before eating.

Being up to date on tetanus and other vaccinations is another important way to lower your risk of getting sick.

I hope it goes without saying that you should never drink flood water or use it to wash dishes, brush teeth, or wash and prepare food.

Here are some more tips from the health department’s environmental health specialists for restoring your home after flooding and making sure your food and water are safe to use. These apply whether the flood is big or small.

Cleaning Up, Drying Out
When cleaning up after flood waters have receded:

- Wear rubber boots and waterproof gloves.
- If it’s safe to use electricity, use a “wet-dry” shop vacuum, a water transfer pump, or a sump pump to remove standing water – or hire a service professional to do it for you.
- If you use a portable generator to power your vacuum or pump, make sure it’s at least 20 feet from any door, window, or vent, to prevent carbon monoxide poisoning.
- If weather permits, open doors and windows to help everything dry out.
- Use fans and dehumidifiers to evaporate moisture.
- If your home heating, ventilating, and air-conditioning system was flooded, have it checked and cleaned by a professional who’s familiar with mold clean-up.
- If you can, take damp furniture outside to dry and clean, because direct sunlight prevents mold growth.
- Steam-clean all carpeting.
- Replace fiberglass insulation that’s been exposed to flood waters.
- Wash water-stained walls and floors with a chlorine solution (1 cup of household bleach to 5 gallons of water). Rinse metal and wood surfaces with clean water after 10 minutes to avoid rusting or other chemical reactions.
- Use bleach or another disinfectant when laundering clothes, bedding, or other fabric items.

**When In Doubt, Throw It Out**

Flood water can mix harmful bacteria into all but airtight food containers. And that can cause nasty foodborne illness.

So carefully inspect all food packages and metal cans. If an airtight package is leaking, bulging, or possibly punctured, throw it away. If it’s in good condition, clean it in warm, soapy water. Then disinfect it by soaking for at least 2 minutes in a tub of 1 cup of household bleach and 5 gallons of water (or 2 tablespoons per quart). Use waterproof gloves. Rinse in clean water before opening.

If any of the following have been in contact with flood water, discard them:

- Fresh meats and poultry
- Fresh fruits and vegetables (including anything growing in an inundated garden)
- Ready-to-eat foods
- Lunch meats
- Cheese
- Home-canned foods
- Medicines and cosmetics
- Flour and other food in bags
- Packaged frozen foods
- Crown-capped bottles
- Screw-top glass containers

If your refrigerator has been out of operation and the temperature inside is above 41 degrees, throw everything inside away.
**How Well Is Your Well?**

If you have a private well and flood waters have reached your wellhead, assume that your well water is contaminated. Don’t use it for any domestic purpose like cooking, drinking, bathing, brushing your teeth, or making baby formula.

Instead, use bottled water or water that you’ve disinfected either by allowing it to boil for 5 minutes or mixing it with household bleach at a ratio of 5 drops of bleach per quart of water.

To get your well water tested for contamination, contact one of these local laboratories:
- Alpine Analytical, 449-6282
- Energy Laboratories, 442-0711
- State of Montana Environmental Laboratory, 444-2642

After your pump and electrical system have dried out, don’t turn on the equipment until the wiring system has been checked by a qualified electrician, well contractor, or pump contractor.

For more information on flood clean-up and safety, call the health department’s Environmental Services Division, 447-8355.

For more information about salvaging food, contact our Licensed Establishment Program at 457-8900.

You can also find fact sheets on these issues on our website: [www.LewisAndClarkHealth.org](http://www.LewisAndClarkHealth.org)