

## Floodwater and Your Health: Frequently Asked Questions

### What is in the floodwater and can it cause illness?

Floodwater contains micro-organisms – bacteria, viruses and parasites – that can make you ill. It may also contain chemicals, but the large volume of floodwater dilutes these chemicals and they are generally not a major health concern.

The most common flood-related illnesses are gastrointestinal infections (GI). They are caused by drinking water from a contaminated source or eating food that has been in contact with contaminated water. GI symptoms include:

- stomach ache
- fever
- vomiting
- diarrhea

Skin with cuts or sores can become infected if it comes into contact with floodwater. If this occurs, wash with soap and water, apply an antibiotic ointment to avoid infection and cover with clean gauze or bandages.

If you have a deep wound that is exposed to floodwater or if you develop GI symptoms after working in a flood-affected area, get medical help and tell your doctor you've been in contact with floodwater.

### How do I protect myself during sandbagging or other flood relief activities?

The best way to protect yourself is to wear protective clothing – gloves, boots, overalls, etc. – and wash your hands with soap and warm, running water for at least 15 seconds:

- after sandbagging
- after contact with floodwater
- after handling garbage or debris contaminated with floodwater
- after handling animals or animal waste in a flood affected area
- after changing clothes worn to work in a flood affected area
- before eating or preparing food when you're working in a flood affected area
- before touching other people when you're working in a flood affected area

## What if...

- If soap and water aren't readily available, and hands are not visibly soiled, you can use an alcohol-based product – commercial hand sanitizers – to clean your hands.
- If your eyes come into contact with floodwater, rinse with large amounts of clean water to avoid infection. If your eyes get red or show a discharge within the first few hours after exposure, get medical attention as soon as possible.
- If you accidentally get drops of floodwater in your mouth, spit it out immediately and rinse and spit several times. If you swallow larger amounts, rinse and spit several times. If you develop GI symptoms, get medical attention as soon as possible and tell the doctor you've ingested floodwater.

## How safe is my drinking water during a flood if it comes from a private well?

For information on drinking water, from private wells affected by floods, go to [www.manitoba.ca/flooding/health\\_safety.html](http://www.manitoba.ca/flooding/health_safety.html)

## How safe is my drinking water during a flood if it comes from a municipal water supply?

Most municipal water supplies will not be affected by flooding. Municipal water supplies are monitored regularly. For example, the City of Winnipeg's water comes from Shoal Lake, down an aqueduct to the Deacon Reservoir just East of Winnipeg. From there, it goes to three pumping stations and out to homes in Winnipeg. Shoal Lake will not be affected by the flood.

If there is a concern over the quality of water from a municipal water supply, a boil water advisory will be issued. Residents will be notified and should follow the instructions in the advisory notice.

## How safe is drinking water collected in cisterns during a flood?

Water in cisterns becomes more vulnerable to contamination during a flood. Saturated soil increases the possibility of untreated water seeping into the cistern through cracks or improperly sealed joints and fittings. There is a higher risk of contamination if there is free-standing water above the cistern because it could seep through an improperly sealed lid or vent.

If your cistern water changes in taste or clarity, it is likely contaminated. If you haven't had to fill the cistern as often as usual, this could indicate ground water is seeping into the tank causing contamination.

If you think your cistern has been affected by floodwater, follow the boil water advisory and testing instructions included in the [Flooding and Well Water Safety](http://www.manitoba.ca/flooding/health_safety.html) fact sheet, found on [www.manitoba.ca/flooding/health\\_safety.html](http://www.manitoba.ca/flooding/health_safety.html).

If tests indicate your cistern water supply is contaminated, continue to boil your water and contact a qualified contractor. A professional contractor will inspect, clean/repair and disinfect the cistern and tell you when tests indicate the water is safe to use.

## **Do I need extra vaccinations/immunizations because of a flood?**

You do not need extra vaccinations/immunizations because of a flood. However, if you're going to be in contact with anything that's been contaminated by floodwater, ensure your immunizations are up-to-date, particularly for tetanus. Check with your local public health office [www.gov.mb.ca/health/publichealth/offices.html](http://www.gov.mb.ca/health/publichealth/offices.html) if you have questions.

## **Are there problems when dead animals are found in floodwater?**

Dead animals in floodwater pose minimal health risks. Micro-organisms found on the surface of animals (living or dead) will be washed away in the floodwater and diluted many times. Floodwater passes over farm yards, sewage lagoons, fields, yards and other areas that significantly contaminate the water and animal carcasses are unlikely to pose any additional health risks.

If you find dead birds or animals on your property when you're cleaning up, don't touch them with bare hands – use a shovel, trowel, work gloves, rubber gloves or a piece of plastic. Put the carcass in a heavy plastic bag and tie it shut. Place the bag into a second plastic bag, tie it shut and put it in a garbage container for removal. Wash whatever you used to move the carcass and then wash your hands with soap and warm water. If you find an animal carcass that's too large to fit into a plastic bag, call your RM or the nearest [Manitoba Sustainable Development office www.gov.mb.ca/sd/ece/contact.html](http://www.gov.mb.ca/sd/ece/contact.html)

## **Are there health risks if my sewer backs up during a flood?**

High water can increase the risk of sewer backups and basement flooding. Sewage contains micro-organisms that can make you sick. Don't enter your basement if water is near the level of electrical outlets or if there is live electrical equipment submerged. If you come into contact with water from sewer backup, wash your hands thoroughly with soap and water.

## **Are there health risks if my septic system fails during a flood?**

Wastewater in septic fields doesn't generally back up into homes during a flood. However, septic fields may become saturated, and if floodwater does back up into your septic tank, or if it leaks into your tank, it can cause the system to fail. If this happens, you should:

- Try to reduce the amount of debris entering the septic tank and plumbing systems (ex: don't put sludge left over from floodwater down the drain or toilet).
- Avoid using the plumbing system if the septic tank or the disposal field is still under water.
- Do not use the plumbing system if sewage is backing up into the house.
- Avoid contact with the sewage from failed septic systems – raw sewage can cause disease.
- Avoid contact with all the electrical components of mechanical sewage treatment systems.

For more information, talk to your municipal office staff, or to Manitoba Sustainable Development's

[www.gov.mb.ca/asset\\_library/en/spring\\_outlook/onsite\\_wastewater\\_mgmt\\_systems.pdf](http://www.gov.mb.ca/asset_library/en/spring_outlook/onsite_wastewater_mgmt_systems.pdf)

## **Are fertilizers or pesticides in floodwater a health problem?**

Floodwater may come in contact with chemicals, fertilizers and pesticides during a flood, but the large volume of floodwater will dilute them and they're generally not a cause for concern. Concentrations of these elements may be significant closer to the areas where they were stored before the flooding. For more information, go to [Securing Hazardous Materials Containers Before and After Flooding](#) fact sheet.

## **If I'm preparing food for groups of flood workers, how do I ensure food safety?**

There are several steps you need to take to ensure food safety when cooking for large groups:

- Wash your hands with soap and water for at least 15 seconds before handling food and after handling raw meat or poultry, using the bathroom, touching pets or changing diapers.
- Wash all food preparation and cooking surfaces with hot water and soap.
- Always wash raw fruit and vegetables in clean water.
- Keep raw food separate from cooked food to avoid cross contamination.
- If you're packing a cooler to carry food, wrap raw meat and poultry securely in plastic and put them on the bottom to prevent them dripping on other food.
- Wash all plates, cutlery and cutting boards that have come in contact with raw meat or poultry, before you use them again.
- Cook food thoroughly to kill bacteria. Visual cues like colour or odour do not guarantee that food is safe to eat. Use a meat thermometer to ensure meat and poultry are cooked properly. For details on cooking times, see the cooking section of the [www.canada.ca/en/health-canada/services/general-food-safety-tips/safe-food-handling-home.html](http://www.canada.ca/en/health-canada/services/general-food-safety-tips/safe-food-handling-home.html) website.
- Keep perishable food, like lunch meats, salads with mayonnaise or other dressings, chicken, etc. cold. If there's no fridge available, keep perishable food in an insulated cooler with freezer packs or blocks of ice.
- Keep leftovers refrigerated or in the cooler. If you're not sure about the safety of any food, throw it out.

More information on food safety is available on the [www.canada.ca/en/health-canada/services/general-food-safety-tips/safe-food-handling-home.html](http://www.canada.ca/en/health-canada/services/general-food-safety-tips/safe-food-handling-home.html) website.

## **Is it safe to grow a garden in an area that's been flooded?**

Much of the soil in southern Manitoba has been deposited in past floods and is one reason the area is such a productive growing zone. Unless the soil is visibly contaminated with heavy concentrations of petroleum or similar products, there shouldn't be any health risks from food grown in gardens that have been flooded.

## **Is it safe to swim in rivers or lakes affected by the flood?**

Floodwater isn't expected to affect the quality of recreational water this summer. As floodwaters move, they dilute micro-organisms, which also die off fairly quickly because of ultraviolet rays from the sun. More information is available from Manitoba Sustainable Development's

[www.gov.mb.ca/sd/waterstewardship/water\\_quality/lake\\_winnipeg/clean\\_beaches.html](http://www.gov.mb.ca/sd/waterstewardship/water_quality/lake_winnipeg/clean_beaches.html) Clean Beaches Program. Although most beaches will not be directly affected by flooding, you should use caution when swimming in flood conditions due to fast moving water and the risks of undercurrents, eddies and unseen objects.

## **What health measures are needed when cleaning my home after a flood?**

For information on clean up, go to [After the Flood](http://www.manitoba.ca/flooding/flood_recovery.html) booklet, found on [www.manitoba.ca/flooding/flood\\_recovery.html](http://www.manitoba.ca/flooding/flood_recovery.html)

## **What do I do about mold after a flood?**

For information on mold, go to the [Protect Yourself From Mold](http://www.manitoba.ca/flooding/flood_recovery.html) fact sheet found on [www.manitoba.ca/flooding/flood\\_recovery.html](http://www.manitoba.ca/flooding/flood_recovery.html)

## **Who can I call if I have health questions about returning to my house after a flood?**

You can call your local [public health inspector](http://www.gov.mb.ca/health/publichealth/environmentalhealth/protection/contact.html) [www.gov.mb.ca/health/publichealth/environmentalhealth/protection/contact.html](http://www.gov.mb.ca/health/publichealth/environmentalhealth/protection/contact.html).