

Rural health advice after a flood

There are potential health risks associated with contaminated flood water, including from overflowing septic tanks. It can be assumed that all flood water is potentially contaminated by run-off from the surrounding environment e.g. this might be farm run-off with faecal matter from animals, sewage, farm chemicals, diesel/petrol from roads etc. Avoid contact with flood waters if possible.

General advice

- Most importantly, use basic hygiene. Always wash your hands with soap and water:
 - » After handling items contaminated with flood water or sewage
 - » Before eating or preparing food, and before smoking
 - » After participating in flood clean-up activities
- Do not allow children to play in flood-affected areas until clean-up is complete. If children have been in flood-affected areas, make sure they wash their hands well afterwards.
- If you have any cuts or wounds that were in contact with flood waters, wash well with soap to prevent infection. Check with your family doctor, as you may need a tetanus booster, especially if the wound is deep. If any wounds develop redness, swelling or oozing seek medical attention.
- Use protective clothing (i.e. rubber gloves, boots and eye protection) while cleaning.
- Take photos of all damage prior to clean-up for insurance purposes.

Drinking water safety after a flood

- Flush your water pipes, if on town supply, by turning the taps on and running until the water is clear. Follow any instructions from the council or water supplier regarding the safety of the water supply.
- If you collect water from your roof make sure there is no contamination e.g. windblown debris. If there is, disconnect the tank at the downpipe and clean the roof (e.g. brush off debris and rinse if sufficient water available). Water contaminated with debris should be discarded, otherwise it is advisable to boil or add bleach to water to make it safe to drink.
- If your water tank is affected by floodwater, get rid of the water (it may be polluted), clean the tank out and disinfect it. It is recommended that you continue to boil your water until the water in the tank has turned over. You will need to know the size of your tank and have an understanding of how much water you use on average, to estimate when at least one full tank has gone through. Alternatively you can add additional chlorine (unscented plain bleach) to your tank as per the instructions in www.healthed.govt.nz/resource/household-water-supplies (page 23).
- If you use bore water that may have been affected, pump the bore to waste for 24 hours. If the bore is under water, do not pump. Boil water before drinking until you can arrange for water quality tests at a later date.
- If your water comes from a shallow bore/well that may have been affected by floodwater or surface water run-off, mix 2.5 litres of plain, unscented household bleach with 45 litres of water and pour down the well. Replace the well cover and turn on each tap until there is a smell of chlorine in the water. Turn off the tap, but do not use the water for 8 hours. Then open all taps and flush out the chlorine.

Drinking water safety after a flood

1. Boil water for 1 minute before drinking or
2. Add plain/unscented bleach (1/2 teaspoon to 10 litres of water or 5 drops per litre) and stand for 30 minutes before drinking
3. If using your stored emergency water add bleach before drinking as above.

Contaminated food

Floodwater can carry bugs that can contaminate food.

- Throw away all food and drinking water that has come in contact with floodwater, including things stored in containers. It is impossible to know if containers have been damaged and the seals compromised.
- Do not eat garden produce if the soil has been flooded. Clean up and remove debris and sprinkle gardens with lime.
- Leave garden surfaces exposed to the air and sunshine to dry out naturally. Make drainage holes with a fork to aerate.
- Natural processes such as sun light, drying and wind, will make your outside areas safer over the short to medium term.
- Do not eat shellfish from the river mouth or harbour after a flood.
- Follow any boil water notice instructions from your local authorities, if they are issued.

For more information visit the Ministry of Health website: www.health.govt.nz/your-health/healthy-living/emergency-management/protecting-your-health-emergency/floods-and-health

Preparing and making food

Maintaining hygiene around food preparation and cooking is really important, as surfaces and utensils may have been contaminated during the flood.

- Always wash and dry your hands before preparing food – if water is in short supply, keep some in a bowl with disinfectant.
- Decontaminate any surfaces that may have come into contact with floodwater.
- Ensure all kitchen utensils and food preparation surfaces are clean before use. Rinse thoroughly in safe water, then disinfect by immersing for 1 minute in a solution of 500 ml (about 2 cups) of

plain, unperfumed household bleach in 10 litres of water. Rinse again in safe water. Alternatively, boil all utensils for 1 minute and let cool.

- Cook food thoroughly.
- Cover all food with plastic wrap or store in waterproof containers.
- Rubbish containing food scraps must be protected from flies and rats by wrapping the scraps or putting them in a sealed container.

For more information on food safety visit the Ministry of Primary Industries website: www.mpi.govt.nz/funding-rural-support/adverse-events/food-safety-in-natural-disasters-and-emergencies/

Sewage contamination concerns

If you rely on septic tank systems for collecting, treating, and disposing of sewage, during flooding contents of the septic tank may make its way to the surface resulting in flood waters being contaminated. You should consider an alternative emergency toilet option while septic tanks operation may be compromised.

Making an emergency bucket toilet

Bucket one (wees):

- Add 2-3cm of water to bucket before use
- Don't put toilet paper in this bucket
- Empty daily into an area of your garden or other green space (dilute with water first)



Bucket two (poos):

- Add layer of mulch to bucket before use
- After each use, add a handful of mulch to cover your poos
- Empty every 3 days into the hole you've dug
- Keep dry (reduce smell)
- Menstrual cups should be emptied in this bucket



For further instructions go to: www.wremo.nz/get-ready/home-ready/emergency-toilets/

What to do if you have gastroenteritis (tummy bug) symptoms

One of the main risks from contact with floodwater is gastroenteritis, which causes diarrhoea and vomiting. Most people who develop gastroenteritis can self-manage their symptoms at home, but it can be more serious for those who are very young, very old, or, have underlying medical conditions.

It's important to stay hydrated – drink plenty of water, diluted cordials, and ice blocks are also good.

If you feel unwell after coming into contact with floodwater contact your doctor, or call Healthline for free on 0800 611 116.

Drying out your house

- Take out all items that are wet and put them outside to dry when the weather is fine.
- Air out the rooms each day to help remove dampness.
- Use a dehumidifier in the living and bedrooms to keep the moisture levels down to a manageable level.

Flood water contamination inside your home

- In all cases approach your insurance company about damaged goods before disposing of them.
- Get rid of contaminated carpets, flooring and upholstered furniture unless they can be cleaned and disinfected.
- Lino will need to be assessed on a case-by-case basis depending on damage.
- Damaged pillows, mattresses and soft upholstered furnishings should be discarded.
- Get rid of contaminated clothing, sheets, toys, etc., unless they can be thoroughly cleaned and disinfected. Other items of value such as drapes and blankets can be restored by dry cleaning.
- Contact an electrician before switching power on again if water has reached underfloor wiring or wall sockets. Electrical appliances such as refrigerators, freezers and heaters should also be checked by an electrician before re-use.

Flood water contamination outside your home

- Use a shovel to remove surface contamination. Place it at the edge of your section ensuring it does not block drainage channels.
- Any hard surfaces e.g. concreted areas can be cleaned and disinfected with bleach solution of 1 litre of household chlorine bleach in 10 litres of cold water (a household bucket). Leave on for 30 minutes before rinsing with water. You may have residual contamination from surface mud on the lawns and paths so always remove your footwear when entering the house.

Hazardous substances

Hazardous substances are harmful to health because they may be poisonous, corrosive, flammable, explosive or irritant. They can also cause contamination and damage if they are accidentally spilt in a disaster situation. You can recognise the most hazardous substances by the coloured diamond on the container. Get rid of contaminated carpets, flooring and upholstered furniture unless they can be cleaned and disinfected.



- DO NOT wade through floodwaters that could contain hazardous substances without wearing protective footwear and clothing.
- DO NOT rely on your sense of smell to assess danger. Be extra careful and get expert advice.
- DO NOT move explosives that have been wet. Contact Civil Defence.
- DO NOT go near or handle any drums or containers of chemicals you find without having protective clothing and equipment. Report them to the local authority.
- Wear rubber boots and rubber gloves during clean-up procedures so your skin is not exposed to any contamination.

Removing mould

Residual dampness inside your home may lead to mould growth. Small amounts of mould can be removed using a mild solution of 1 litre household bleach in 10 litres of water. Wipe down walls, floors and other surfaces. Leave the solution on for 30 minutes then rinse with clean water. Don't forget to protect yourself by wearing gloves and avoiding splashes to the face and eyes. Keep windows open during the treatment.

Dead animal management

Decomposing animals can carry diseases that affect human and animal health. They must be disposed of quickly to avoid contamination of waterways, or contact with remaining stock on your property.

The principles of dead stock management:

- Dispose of the animal as soon as possible to reduce risk of disease spread.
- Utilise dead stock collection services if available.
- Do not leave dead stock on the roadside or within public view. Most collection services prefer to pick up inside the farm gate.
- The carcass must not be left within 45m of the farm dairy or within 50m of a water source
- Keep dead stock out of waterways.

Dead animals can be disposed by

- Burial, or
- Offal pits or
- Composting or
- Burning

If you are unable to deal with the carcass yourself you may be able to call in a support service to help deal with the animal on-farm. Further guidance is available here: www.dairynz.co.nz/environment/waste-management/dead-stock-disposal

Getting rid of rubbish

- Listen for Civil Defence or the local council's instructions on getting rid of rubbish.
- Sort perishable and non-perishable rubbish and flatten any bulky items.
- Bury rubbish away from any water course, such as a stream or river. Cover each layer with soil and add lime or disinfectant to reduce smells. Mark all sites.
- Compost all organic refuse if possible.
- Burn dry rubbish in the backyard using large drums, or build a makeshift incinerator from concrete blocks, bricks and wire mesh.
- Store rubbish that cannot be buried or burnt in covered containers or tightly tied plastic bags, ready for collection.
- Report any rubbish contaminated by hazardous substances to Civil Defence.
- Tell your insurance company about any condemned item of property before getting rid of it. If you are not insured, make a list of any items being dumped. Take photos if necessary to record what you are getting rid of.

Mental wellbeing and emotional support

We appreciate this will be a very difficult time for many people. For help with anxiety, distress or mental wellbeing call/text "Need to Talk" on 1737 to speak to a trained counsellor for free, 24 hours a day, 7 days a week.

Or call Rural Support Trust on: 0800 787 254 to talk to someone who understands the pressures of rural life.

For more information

Contact your Local Authority or the National Public Health Service.

