

HEALTH RISKS AFTER A FLOOD

PROTECT YOUR HEALTH AND SAFETY

When returning to your home or helping clean up your community after a flood, please take precautions to reduce the possibility of illness, disease or injury.

Before going onto your property or any other property, consider:

- Damaged gas or electricity supplies - These hazards need to be declared safe by a qualified electrician or plumber.
- The structural integrity of your home and structures may be affected – this needs to be declared safe by a qualified building surveyor.
- Cuts from broken glass and debris are a risk - wear sturdy waterproof boots and rubber or leather gloves.
- Food may be contaminated by the floodwater or spoiled due to power failure.
- If you have a private well/ bore or underground water tanks, your drinking water may be contaminated – Do not drink any water unless you know it is safe (bottled, boiled or disinfected, see further advice in this leaflet).
- Flood water may contain sewage. Contaminated areas must be cleaned and disinfected. Keep children and pets away until clean-up is completed.
- Wading or playing in floodwater is dangerous due to the risk of drowning and potential skin infection through open wounds coming into contact with the floodwater. It may also contain sewage.
- If power is off and you have gas appliances, use torches or other battery operated lights instead of candles. Do not smoke or use matches, lighters or other open flames in case gas has collected inside.
- Flooding can cause excessive mould growth, which should be cleaned up before moving back to your home.
- Buildings with considerable flood damage may have damaged material containing asbestos. Where necessary take precautions for handling asbestos containing debris.

Be careful when cleaning up

When cleaning up, wear protective clothing, such as sturdy footwear, loose long-sleeved shirts and trousers and heavy-duty work gloves.

Sheds and garages may contain asbestos. Only handle wet asbestos cement debris.

Asbestos debris should be separated from general flood damaged debris.

Where there is extensive demolition, repair and renovation work involving asbestos-containing material, licensed asbestos contractors should be used to undertake the work.

Managing floodwater, sewage and silt overflow inside your house

All floodwater and silt should be treated as if it contains sewage. Sewage contains harmful bacteria and viruses and needs to be cleaned up as soon as possible. Keep children and pets away from the area until this is done. When cleaning up:

- Use rubber gloves, boots, and eye protection.
- Remove and discard contaminated household materials that cannot be cleaned or disinfected, such as mattresses, carpet and children's soft toys.
- Clean and disinfect all contaminated areas with hot water and detergent, then disinfect with a solution of 1.5 cups of household chlorine bleach in 10 Litres of

cold water (a household bucket).

- Dry the property out as quickly as possible to avoid mould growth.
- Clean children's toys that have come into contact with floodwater in a solution of 1.5 cups of household bleach in 10 Litres of cold water (a household bucket) for 2 minutes. Rinse in clean water. Let toys air dry after cleaning.
- Pay special attention to cooking utensils, work surfaces and other surfaces in kitchens such as floors and walls.
- For utensils, dip them in a solution of 1.5 cups of household chlorine bleach in 10 Litres of cold water (a household bucket) for 2 minutes. Rinse in clean water. Or put them through a hot wash in a dishwasher.
- Disinfect cleaning mops, brooms and brushes with the bleach solution.
- After a clean-up wash and dry dirty footwear, and wash your clothes separately.
- Wash your hands and any affected parts of your body with soap and water.
- Contact your insurance company or local council Environmental Health Officer for further advice.

Managing sewage overflow and flood debris on your section

- Use rubber gloves and boots, and eye protection.
- Do NOT dig out the bottom of a slip as the rest of the slip may become unstable. If in doubt keep away and await instructions from Civil Defence staff.
- First priority should be to clear an access way to your dwelling so you can access the house without bringing contamination in on your footwear.
- Use a spade or shovel to remove all gross contamination from the surface of your section. Place it at the edge of your section or other accessible area where it can easily be removed later, but ensure it does not block drainage channels.
- Do not eat raw vegetables or salads from soil that has been submerged in flood water.
- Leave garden surfaces exposed to the air and sunshine to dry out naturally. Make drainage holes with a fork to aerate. Sprinkle hydrated lime on ground that has been contaminated
- Hard surfaces such as yards can be cleaned and disinfected with bleach solution of 1.5 cups of household chlorine bleach in 10 Litres of cold water (a household bucket).
- Wash your hands and any wet parts of your body with soap and water afterwards.

Hygiene is essential to prevent infectious diseases.

A number of infectious diseases, including gastrointestinal infections, can spread through contact with contaminated surfaces. The likelihood of illness increases when floodwater contains faecal material (poo) from overflowing sewage systems, agricultural or industrial wastes.

Use safe disinfected water to wash dishes, brush your teeth, wash your hands, wash and prepare food, make ice or make baby formula.

Always wash your hands with soap and safe water (that has been boiled or disinfected):

- Before preparing or eating food
- After using the toilet
- After handling items contaminated with floodwater or sewage and cleaning up

If boiled or disinfected water is not available, you can use alcohol-based products to disinfect your hands.

If you have any open cut or sore that has been exposed to floodwater:

- Keep it as clean as possible by washing with soap and covering with a plaster.

- If necessary, contact a doctor for further treatment advice (such as a tetanus shot).
- If redness, swelling or discharge occurs seek medical attention.

Parents need to help their children avoid waterborne illness:

- Do not allow children to play in floodwater areas.
- Wash children's hands frequently and always before meals.
- Do not allow children to play with toys contaminated with floodwater until they have been disinfected.

Preventing illness from water

It is important to use safe water for drinking, brushing teeth, handwashing, food preparation, cooking food, and making ice. There will be advice on the council website if any boil water notices have been issued for the Council's reticulated schemes. If the water is not safe, use bottled, boiled or disinfected water.

If you have your own water supply Council will not know if it's safe to drink. An above ground rainwater tank that has not been inundated with floodwaters or damaged should be safe for continued use. Check if your treatment system is still working after a flood. Other sources such as bores and wells that have been submerged by floods may be contaminated. To disinfect a water tank, see the Council's website for further advice.

To disinfect (make safe) water by boiling:

- Bring water to a rolling boil in a pot or electric jug. An electric jug only needs to be boiled once, until it automatically shuts off.
- Store the boiled water in a clean container with a lid. Boiled water is best used within 24 hours and can be boiled again to be sure it is safe. This is especially important for preparing infant formula.
- If you suspect the water is contaminated with chemicals boiling will not make it safe to drink – only use bottled water.

To disinfect (make safe) drinking water with bleach:

- You can add plain unscented bleach to your water (*do not use* Janola as it contains cleaning chemicals which make it unsuitable for treating drinking water).
- To disinfect the water, add 5 drops of bleach to 1 litre of water or 1/2 teaspoon to 10 litres of water.
- Stir the water well, and let it stand for 30 minutes before using it.
- Do not try to disinfect highly contaminated water with bleach, especially water that has been contaminated with sewage, as sewage contains some bugs that are not killed by chlorine. Boil it instead.

For infants:

- If breastfeeding, continue as usual.
- If you are using infant formula, prepare using commercially bottled or cooled, boiled water. Wash and sterilise bottles and teats in boiling water or use sterilisation tablets and follow manufacturer's instructions.

Use only pre-prepared canned baby food that is not contaminated.

Children and elderly people are particularly at risk from dehydration. Ensure they drink plenty of safe (i.e. bottled, boiled or disinfected) water until the drinking water supply is declared safe.

More information on water safety in emergencies is available from Taumata Arowai at:

<https://www.taumataarowai.govt.nz/for-communities/emergencies/>

Preventing illness from food

Floodwaters can affect food by direct contact, or from interrupted power supply to fridges and freezers. Throw away:

- Food that has come into direct contact with floodwater. This includes vegetables and fruit in your garden.
- Any food that has an unusual odour, colour or texture.
- Perishable foods (including meat, poultry, fish, eggs or leftovers) that have been above 5 degrees Celsius for more than 4 hours.
- Canned food if the can is open, bulging or damaged.
- Food containers with screwcaps, snap-lids, crimped caps (soft drink bottles), twist caps, flip top lids and home canned foods that were under water as these are also likely to be contaminated.

To clean cans that are sealed, not bulging and intact but have come into contact with floodwater:

- Remove the labels
- Wash the cans
- Dip them in a solution of 1.5 cups of household chlorine bleach in 10 Litres of cold water (a household bucket) for 2 minutes.
- Re-label the cans with a waterproof marker pen.

If the power is on:

- You can refreeze thawed food if it contains ice crystals and still cold, but only if it has not come into direct contact with floodwater. Or cook the food and eat straight away.

If the power is off:

- Keep the fridge and freezer doors closed as much as possible.
- Add icepacks to your fridge if the power is likely to be off for longer than 4 hours.

For further information

- If you or anyone in your family feels unwell, seek medical advice from your local doctor or call Healthline 0800 611 116