

Water Collection

Tanks

and safe
household water

SAFE DRINKING WATER

Safe water is vital for good health.

Water used for drinking, teeth cleaning, hand washing, bathing, showering, food preparation and cooking needs to be free from harmful germs and chemicals. So does drinking water for stock and pets.

Water for washing clothes, toilet flushing and general cleaning should be clear to prevent staining.

If your water comes from a mains supply, your water safety is monitored by your local authority. If your water comes from a water collection tank, it is up to you to keep your water safe.

WATER COLLECTION TANKS

Tank water may be collected from

- rain off the roof
- natural water, eg, streams or lakes
- a bore (a deep hole in the ground).

Water supplies from all these sources can become unsafe. For example:

- **roof water** may be corrosive, or may become contaminated from agricultural spraying or bird or possum droppings
- **river or stream water** and shallow bore water may contain harmful germs or chemicals or be discoloured and unpleasant to taste
- **bore water** can be hard and corrosive.

If you are unsure about the quality of your water, have it tested in a laboratory. See the box at the back for details.

Water contamination

Water contamination can cause illness (diarrhoea and vomiting) which can be particularly dangerous for infants, very old people or people with damaged immune systems.

Contamination of a collection-tank water supply may be caused by:

- animal or human faeces entering at the source of the supply. These can carry harmful germs such as Cryptosporidium, Giardia, Campylobacter, and E.coli 0157 which can cause serious illness
- bird, possum or other animal droppings on the roof
- sewage, etc, agricultural spraydrift
- lead flashing on the roof, causing high lead levels in collected water
- leaves, volcanic ash, etc, entering the tank.

WAYS TO KEEP YOUR ROOF COLLECTION WATER SAFE *

Install the entire system correctly

- include a first flush diverter (a device that prevents the first water collected from carrying any debris into the collection tank). Place on the pipe directly from your roof if you have an older tank.
- use plastic pipes
- use safe roof paint
 - check the old paint for lead through your public health service, and
 - choose paint the manufacturer advises is safe for roof water
- if possible avoid placing TV aerials, etc, on roof for birds to perch on
- avoid planting trees close to the house
- further improvement in water quality can be obtained by installing the inlet pipe to the tank so that the roof water enters the bottom of the tank. Using a flexible outlet hose attached below a float (so that it is always just below the surface of the water in the tank), extract tank water from near the top of the tank.

Cover the tank to prevent animals, birds and other matter from entering.



Check the cleanliness of your roof and spouting regularly and if they need cleaning:

- disconnect the pipe that feeds water to the tank
- use clean water to scrub the roof and spouting to clean off all dirt, animal droppings and paint flakes
- thoroughly flush clean water through the spouting to remove any dirt left from cleaning the roof
- reconnect the pipe that feeds water to the tank.

Clean and disinfect your tank after dry spells or if dirty

Most tanks need cleaning every six to twelve months. Flush the tank out with water, using a broom to push sludge out through the scour valve. After cleaning, disinfect the tank using about 167 ml (about 2/3 cup) of household bleach per 1000 litres of water.

Run the mixture through all your household water pipes and taps until it is gone. Then refill the cleaned tank with water for household use.

If you have a water filter (point of use device) it needs regular maintenance too.

OTHER WAYS TO KEEP HOUSEHOLD WATER SAFE

A water filter or point-of-use device

A water filter helps prevent contamination of your household water. It can be used to treat all household water and placed where all water

entering the house passes through it, or can be used for just one tap. It should be placed where you can get at it for cleaning.

A water filter can

- remove tastes and smells
- filter out harmful bugs, and
- remove chemicals.

Note: most filters will only do one or two of these. It is important to get the appropriate filter for your needs.

Water pipes

Untreated water, and water from mixed sources, is often corrosive, so plastic pipes should be used to carry cold water. If you are installing a new system, see *Household Water Supplies*.*

A backflow prevention device

A backflow prevention device stops contaminated water from flowing back into the home supply. It is needed on:

- home-made toilet flush cisterns
- animal dosing, washing and watering systems
- connections for hoses used in mixing sprays, washing down animal or bird droppings.

Disinfecting unsafe water

If you are unsure about the safety of your drinking water supply, you can disinfect some by:

- using an approved filter or purifier
- boiling the water for one minute
- adding chlorine. Half a teaspoon of household bleach added to 10 litres of water kills most germs, but only boiling kills *Cryptosporidium*.

* For more information on water safety and tank installation, read household Water Supplies (code 4602), available from your local public health service or your local authority (council).

If you are concerned about your water supply contact a Health Protection Officer at your local public health service or an Environment Health Officer at your local council. They will recommend a local water testing laboratory. Remember, a master plumber can advise on all aspects of a water supply system.

