

E. coli in drinking water

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What are coliforms?

- Coliforms are bacteria that are always present in the digestive tracts of warm-blooded animals, including humans.
- They are also found in plant and soil material.
- The presence of coliforms in a water sample does not necessarily mean that your water is contaminated, as some coliforms occur naturally.

What is *E. coli*?

- *Escherichia coli* (*E. coli*) is the major species of bacteria in the coliform group.
- It is generally not found growing or reproducing in the environment.
- *E. coli* is an indicator organism used to detect faecal contamination in water samples.
- The quality of surface waters and collected rainwater is influenced by activities that can shed coliforms (for example, leaking sewage, animal faeces, and dead animals).

What does this mean?

- *E. coli* being present in a water sample suggests that your water has been contaminated by human and/or animal faecal waste.
- Not all *E. coli* is pathogenic (disease causing) but the potential to become unwell remains high.
- As *E. coli* is only an indicator organism, it is not possible to know if any other pathogens are present in your water sample.
- Pathogens include bacteria, viruses, and protozoa.
- It is best to be cautious and assume that there are other pathogens present if you have detected *E. coli*.

Is there a safe level of *E. coli*?

- No. The Australian Drinking Water Guidelines requires water to contain less than 1 *E. coli*/100mL for it to be suitable for human consumption.
- Any concentration of *E. coli* is considered unsafe for consumption.

What should I do?

- Immediately stop using this water for human consumption until the water can be treated (see more on treatment below).
- Use packaged water (bottled/cask) for human consumption if the water cannot be treated.
- Before using the water source again, it is a good idea to take another sample to ensure that the treatment you have done has been successful and *E. coli* is no longer present

What is human consumption?

Human consumption includes:

- drinking
- preparing food that will not be cooked (e.g. washing salad items)
- making ice
- making baby formula
- brushing teeth.

What can I use the contaminated water for?

Any domestic use that is not mentioned above.

Additional measures to consider:

- use warm water and soap when bathing.
- supervise children when bathing to ensure that they do not drink any water.
- allow dishes to air dry after washing in hot soapy water.
- leafy greens from vegetable gardens should be washed with clean water before eating.

What is a suitable treatment?

- Bringing the water to a rolling boil and being allowed to cool will kill any pathogens and make the water safe to consume.
- You can boil water in a kettle or on a stove top.
- Other treatment options may be available for a medium to longer term solution, depending on your situation.
- [Guidance on the use of rainwater tanks provided by the Australian Government Department of Health and Aged Care](#) provides some handy information for those that are serviced by a rainwater tank.
- Discuss treatment options with a licenced plumber who may install a treatment barrier such as Ultraviolet (UV) disinfection.
- Check with your local council to make sure you do not require plumbing permits for any changes to your water collection and storage.

More information

- Phone the Department's Public Health Hotline on 1800 671 738 and ask to speak with the State Water Officer during business hours or the Senior Environmental Health Officer outside of office hours if your matter is urgent.



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