Bacteria in water

Just like the air we breathe and the food we eat, drinking water is not sterile - nor does it need to be. It should, however, be free from pathogens - micro-organisms capable of causing disease.

Drinking water is treated to remove any pathogens that may be present and is disinfected before it leaves the treatment works. A small residual amount of chlorine is left in the water to maintain quality as it travels through the network of mains and pipes that deliver water to our customers. Chlorine levels are checked daily to ensure that water supplies remain safe.

Testing

In addition to extensive real time monitoring at the treatment works, every month we visit thousands of homes and businesses to ensure that drinking water meets stringent water quality standards. On average, 18,000 samples are analysed annually from customers’ properties across the region. Over 99% of these samples meet strict bacteriological standards. It is impractical to analyse drinking water directly for the wide range of pathogens that could be present. Instead we look for particular types of bacteria which suggest that, despite our precautions, the water may not be of the usual high standard. These are known as 'indicator bacteria.' Their presence in treated drinking water is taken as a possible sign that pathogens could also be present. There are three sorts of indicator bacteria that we look for:

Coliform bacteria are commonly found in the environment (e.g., soil, vegetation, and water) and are generally harmless.

If only coliform bacteria are detected in drinking water, the source is probably environmental.

E. coli (Escherichia coli) is a sub-group of the coliform group. Most E. coli are harmless and present in large numbers in the intestines of people and warm-blooded animals. Some strains, however, may cause illness. The presence of E. coli in a drinking water sample means that there is a greater risk that harmful germs are present.

Enterococci are harm less bacteria found in the intestines of people and warm-blooded animals. As with E. coli, finding Enterococci invariably indicates recent faecal contamination bringing with it the risk that harmful germs may be present.

We also carry out tests to measure levels of bacteria that are normally present in drinking water. These bacteria are harmless. However, unusually high levels can give rise to "off tastes" and would be investigated further.

What happens if we find indicator bacteria?

Steps are taken immediately to identify where contamination may have entered the system. A repeat sample is collected the same day along with samples from neighbouring properties, the supplying reservoir and the water treatment works. We also check that the treatment works is operating correctly. Taking repeat samples helps determine whether there is a problem with the water system generally or if it is limited to the household plumbing. Samples are analysed by our laboratory and the results are available within a few days*.

In most cases, repeat samples are clear and our investigations provide no evidence that there is a problem with the water supply system.

In the unlikely event that there is widespread contamination we will discuss this with local health departments and jointly agree what measures are necessary to protect public health.

Any customers that are affected would be advised in writing and via the news media.

What happens if the problem only affects my property?

Occasionally repeat samples confirm the presence of bacteria. Possible sources include plumbed-in water filters or softeners, incorrectly installed washing machines or dishwashers, incorrect fittings, and taps supplied from storage tanks.

We are responsible for the length of pipe from the water main in the street up to the boundary of your property. In most cases this includes the external stop tap. The remainder of this supply pipe and all internal plumbing is your responsibility if you are the property owner; otherwise it is your landlord’s.

We have produced a short domestic plumbing guide that may help you in identifying the source of the problem. This is available for download on our web site unitedutilities.com/waterquality or by telephoning the number opposite. Alternatively, you can employ a plumber to advise and carry out any necessary work.

You can find a list of water industry-approved plumbers in your area by visiting watersafe.org.uk and entering your postcode.

More information about drinking water quality and testing is available from the World Health Organization at: who.int/water_sanitation_health/dwq/en

* If we need to visit again to collect further samples we will inform you in writing of the results and advise what further action, if any, is necessary. If you have not heard from us within 10 working days please call the number overleaf.
Your water quality

If you’re interested in finding out more about the quality of your drinking water, please visit unitedutilities.com/waterquality and enter your postcode. We’ll tell you where your water comes from, together with other information such as its hardness.

About us

United Utilities is the North West’s water company. We keep the taps flowing and toilets flushing for seven million customers every day. From Crewe to Carlisle, we work hard behind the scenes to help your life flow smoothly.