

Bacteria in water

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

At the Water Treatment Works, raw water is treated to remove any harmful micro-organisms that may be present, to produce a final product that is safe to drink.

At the final stage of the water treatment process, drinking water is disinfected and a small residual amount of chlorine is left in the drinking water. The residual chlorine helps to maintain the microbiological quality of your drinking water as it travels through the network of mains, reservoirs and pipes to your property.

Residual chlorine levels are regularly checked and monitored at the Water Treatment Works and within the distribution system to ensure that your drinking water supplies remain safe.

For more information on chlorine in water, take a look at our useful factsheet on Chlorine or contact IWNL on 02920 028711.

Sampling and analysis

Every month Independent Water Networks visit homes and businesses to collect samples for analysis at our independent laboratory. These samples are analysed for a range of microbiological parameters that help ensure that your drinking water remains safe to drink.

We are required to 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 drinking water is taken as a sign of the possibility that other more infectious micro-organisms may also be present.

Types of 'indicator bacteria'



There are four sorts of 'indicator bacteria' that we look out for....

Coliform bacteria

These are commonly found in various environments, e.g., soil, vegetation, and water. Coliforms are generally harmless. If only coliform bacteria are detected in drinking water, the source of contamination is probably environmental.

E-Coli (Escherichia coli)

This 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 may cause illness. The presence of E. coli in a drinking water sample almost always indicates recent faecal contamination – this means that there is a greater risk that harmful micro-organisms are present

Enterococci

These are harmless 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.

Heterotrophic Bacteria

These are a large group of micro-organisms that are naturally present in drinking water. Regular tests ensure that they only occur in low numbers. However, unusually high levels can give rise to off-tastes and are investigated further.



Steps taken when 'indicator bacteria' are detected

Steps are taken immediately to identify where contamination may have entered the system.

Repeat samples are collected along with samples from neighboring properties. If appropriate the supplying reservoir and the water treatment works are also sampled.

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 only my property is affected?

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. If you rent your property then it is your landlord's.

You may be able to fix the problem yourself. Alternatively, you can employ a plumber to carry out any necessary work. When choosing a plumber we recommend you select one that is WIAPS approved (Water Industry Approved Plumbing Scheme).

You can find a list of WIAPS approved plumbers and contractors by contacting the Water Regulations Advisory Scheme on 01495 248454 or via their website: www.wras.co.uk/WIAPS

