Bacteria in Water

Mains drinking water, like bottled mineral and spring waters, contains naturally occurring, harmless bacteria. The drinking water supplying your taps is disinfected with chlorine at treatment works to make sure that it is free from pathogens i.e. microorganisms that could cause illness.

Water quality sampling

Chlorine levels are continuously monitored at all water treatment works. In addition, thousands of water samples are collected from treatment works, treated water storage tanks and from randomly selected homes and businesses for testing to make sure that they meet water quality standards.

Indicator bacteria

Drinking water is not tested for every micro-organism known as this is unnecessary and impracticable. Instead, we test for particular types of bacteria, called 'indicator bacteria' as they indicate where there may be a possible problem with the quality of the water. We test for 3 main types of "indicator bacteria":-

(1) **Coliform bacteria**: they are commonly found in the environment (e.g. soil, vegetation and water). Their presence in water alone does not represent a risk to health. They can reproduce and grow on surfaces in the home such as the plastic inserts at the end of taps. The presence of coliform bacteria in the absence of any other indicator bacteria usually means that the source is probably environmental.

(2) **E.coli** ***(Escherichia coli)***: is a coliform that is found in large numbers in the intestinal tract of all warm-blooded animals. Some strains of *E.coli* can cause illness. The presence of *E.coli* in drinking water almost always indicates recent faecal contamination – meaning that there is a possibility that harmful germs are also present.

(3) **Enterococci** are harmless bacteria, which like *E.coli*, are found in the intestinal tract of all warm-blooded animals. As with *E.coli*, finding Enterococci in water indicates faecal contamination.

When indicator bacteria are detected

The results of tests for coliform bacteria are reported the day after the sample was taken. As soon as we are notified of any positive results an immediate investigation takes place to try and locate the source of the contamination. This generally involves taking repeat samples at the original property and additional samples at neighbouring properties and, if necessary, at service reservoirs and the local water treatment works. Repeat sampling helps us understand if there is a genuine problem with the water supply or if the problem is isolated to one household in which case the internal plumbing is usually the cause of the water test failure.

The vast majority of re-samples give satisfactory quality results. In many cases a swab sample from the tap where the original sample was taken from confirms that bacterial growth at the end of the tap was the probable reason for the sample failing the quality standard.

In the rare event that investigative samples confirm the presence of bacteria, we liaise closely with the local Environmental Health Department to jointly agree what measures are necessary to protect public health. We let any customers that are or could be affected know of the situation by writing to them personally and, in the case of an issue that affects a wide area, we inform people through the local news media.

Where can I get further information?

Please call us first on our operational helpline on **0800 052 0130**.

One of our regulators, the Drinking Water Inspectorate, is responsible for ensuring the high quality of public water supplies. You can visit their website at: **www.dwi.gov.uk**