The content of water is complex and varies with the different rocks and soils it filters through.

This means that its taste can vary from area to area, for example, in a chalk area the mineral calcium carbonate will be present in the water whereas soft, upland water contains fewer minerals.

The temperature of water also influences the perception of taste and odour.

Some people are more sensitive to taste and odour than others. They can detect tastes in water that most people do not notice.

Many tastes and odours in water are related to plumbing or appliances within a property.

### Chlorine taste

It is a legal requirement to disinfect water. We use a dose of chlorine during the treatment process to disinfect water.

The residual level of chlorine in the water may vary according to:

- the time of day – it may seem higher in the mornings and at dinner time due to increased water usage
- the proximity of your home to a water treatment works – the nearer your home, the higher the level as the water has travelled least distance
- the water treatment works supplying your home - if it changes you may notice a change in taste.

If you dislike the chlorine taste to your water it can be removed using a water filter. Please follow the manufacturer’s instructions with regard to cleaning, maintaining and replacing the filter at specified intervals.

### Top tip

Chilling tap water in the fridge will reduce the chlorine taste and smell. Without chlorine, the water is at risk of bacterial contamination so it should be kept covered in the fridge for no more than 24 hours after being drawn from the tap.

### Other tastes

You may notice other tastes which when investigated, may be caused by materials in your household plumbing system.

Water acts as a solvent for many materials – it will dissolve trace amounts of metals, plastics and rubber and this can cause a strange taste.

**Plastic tastes** are often caused by the use of unsuitable plumbing materials. Only materials approved for use in contact with drinking water should be used.

**Medicinal or TCP type tastes** are usually traced to unsuitable or degraded tap washers, rubber tap extensions and other fittings, such as sealing rings in electric kettles.

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Water sources

About 80% of the water supplied by us comes from deep underground boreholes, having percolated slowly through the soil and layers of rock.

There are three main rock formations in our region – oolitic limestone, greensand and chalk. Groundwaters from these are generally free from adverse tastes.

The remaining 20% of our water comes mainly from surface water reservoirs.

At times of high demand for water, for example, during a very dry summer, you may notice that your drinking water tastes different.

This may also happen during maintenance or repair work when we may move water from one area to another to maintain supplies.
If these contain even very low concentrations of phenolic chemicals, traces can dissolve in water and react with the chlorine forming chlorophenols, including TCP. Although these are not considered harmful, they can cause noticeable tastes and odours at extremely low levels.

A frequent cause of TCP taints in water is the flexible cold water feed pipes on washing machines or dishwashers. To identify whether an appliance connection is causing the taste issue, turn off the water supply to the appliance using the service valve at the point where the hose connects to the mains supply.

If the TCP taste disappears after running the tap for a short while when this valve is closed, this suggests that the flexible hose is the source of the problem.

The best solution is to have a one-way check valve fitted to the connector just before the flexible pipe to prevent backflow. Check valves are simple to install and can be purchased from most plumbing merchants and DIY stores.

Another cause of TCP taints in water is the dissolving of materials from within your kettle, particularly when new. Always follow the manufacturer’s instructions when using a new kettle for the first time.

If a TCP taste is only present in hot drinks, boil some water in a clean saucepan. If the taste is no longer apparent, it suggests that something in the kettle is responsible.

**Metallic, bitter or sharp tastes** may be the result of metal dissolving from copper, iron or galvanised pipes in the plumbing system. This may arise after the installation of new metal pipes but the taste will reduce over time as the pipework becomes conditioned with a protective layer of limescale or metal oxide which prevents the metal from dissolving. In the meantime, metallic or bitter tastes can be reduced by running the tap to flush out the water that has been sitting in the pipes before drinking.

**Salty tastes** can be caused by incorrectly installed ion exchange water softeners. This may result in a backflow which can allow salty water from the softener to syphon back into the drinking water system.

To avoid this, always follow the requirements of the Water Supply (Water Fittings) Regulations 1999 and the British Water code of practice on installing water softeners. We recommend you use approved plumbers to carry out plumbing work and do not drink softened water. One tap in your home, ideally the kitchen cold water tap, should be reserved for drinking water and remain unsoftened.

**Earthly or musty tastes** can occur if a pipe is warmed, perhaps because it is next to an uninsulated hot water pipe.

Warm water is less palatable and facilitates the dissolving of metals from the domestic plumbing system.

Musty or stale tasting water can also be caused by the water standing in pipes or storage tanks for prolonged periods. To avoid this, ensure that both hot and cold water pipes in your property are separated and insulated and that you only drink water directly from the mains supply.

Sometimes, naturally occurring environmental factors can contribute an earthy or musty taste. The most common cause is algal growth in reservoirs.

During hot weather, some algae can release low levels of naturally occurring organic compounds such as geosmin, which are capable of giving a characteristic earthy or musty taste and odour, and detectable by some people at very low levels.

We optimise treatment processes on an ongoing basis to prevent unusual tastes and odours in drinking water.

**Top tip**

Before using water for drinking and cooking, run your tap for a short while to flush out any water standing in the pipes. The run off water can be used on your houseplants.

To avoid metallic, bitter or sharp tastes in your drinking water, never use water from the hot water system for drinking and cooking.
Eggy or sulphorous smells are usually a result of the odour from the waste trap of the sink affecting your perception of the water.

You can prove this by filling a clean glass with water from the tap, and taking it away from the sink (preferably into another room) before smelling it again. If the water smells fresher away from the sink, it suggests the waste trap is the cause of the smell.

Over time, organic matter (such as food waste and soap) can accumulate on the walls of the drain and bacteria can grow on these deposits.

As the bacteria grow and multiply, they can produce gases that may smell like eggs or waste water. To get rid of this smell, clean and disinfect the drain pipe below the sink.

Petrol, diesel or solvent taste or smells can be associated with spills of chemicals or fuels such as heating oils, petrol or diesel on the ground near water pipes. These contain chemicals that can soak rapidly through a driveway or soil and permeate plastic water pipes to cause an unpleasant taste or smell. If you become aware of a spill or notice an oily taste or smell to your water, contact us immediately.

How you can reduce tastes and odours

WRAS (Water Regulations Advice Service) is responsible for approving materials and fittings and endorsing them as complying with regulations to ensure they do not affect drinking water quality. All WRAS approved products come with the following logo:

WRAS APPROVED PRODUCT

You can also reduce tastes and odours in water by:

✓ not reboiling water that has been allowed to stand and cool in the kettle. ‘Off flavours’ are more pronounced when reboiled water is used

✓ only using freshly drawn water for drinking or cooking, taking it from a cold water tap supplied directly off the water mains. This is nearly always the cold tap in your kitchen

✓ flushing the tap before taking water for drinking if none has been used in your home for several hours. This ensures that you do not drink water which may have lost its freshness while standing in the domestic pipework. Ideally use the water you run off for other purposes, eg, watering plants.

How we test and analyse water

Water sampled from our water treatment works, local service reservoirs and customers’ taps is analysed regularly for many different qualities. Samples of tap water are checked on the spot for taste and odour by our water quality inspectors as well as in our laboratory to ensure they comply with stringent UK and European standards.

Other laboratory tests measure the amount of any taste or odour in water samples. This involves a tasting panel and making up dilutions of the sample. The water and dilutions of the water are compared with taste and odour free water to identify the nature and strength of any taste and odour present.

Our laboratory at Saltford, near Bath, is equipped with a special room free from smells for carrying out these comparisons.

Our standards are among the highest of any of the UK’s water companies:

• more than 40,000 samples are tested by our water quality inspectors and examined in our scientific centre each year

• nearly one million tests on drinking water are carried out each year. More than 99.9% of the tests required by law comply with UK and European standards.
Meet our people

We have a great team here at Wessex Water and we want to introduce them to you. Visit www.wessexwater.co.uk/careers

Need a plumber?

To find your nearest plumber visit www.watersafe.org.uk or call WaterSafe on 0333 207 9030 (Monday to Thursday, 8.30am to 5pm; Friday, 8.30am to 4.30pm).

For more information visit:
www.wessexwater.co.uk/waterquality or contact us on 0345 600 4 600 (Monday to Friday, 8am to 6pm).