What's in your tap water?

In addition to H20, your water contains a number of substances. Most of these are perfectly harmless and that water would taste foul if they weren't there (try tasting distilled water if you're not convinced!). Others are safe in the minute concentrations found in tap water.

Why add chlorine?

Water in the environment naturally contains bacteria, and they must be removed before the water is put into supply. This is done by adding a small amount of chlorine to the water as it leaves the treatment works to kill any harmful bacteria present. One advantage of chlorine is that it continues its disinfecting role as the water passes through the mains network on its way to your tap. That way your water is always safe to drink.

Some people do not like the taste or smell of chlorine in their tap water but there is an easy and effective way to get round this. At night before you go to bed simply fill a jug with tap water and put it in your fridge. During the night the chlorine will bubble off and the water will become chilled. In the morning you will find that the water tastes as good, if not better, than any water you can buy in a bottle.

Is fluoride added?

We do not fluoridate the water we supply in the south east of England. However, around 40% of the water we supply in the north east of England is fluoridated. The fluoridated areas include much of Northumberland and Tyne and Wear and north west Durham. Fluoridation began in these areas in the early 1970s at the request of the local health authorities and has continued ever since. It is paid for by the health authorities.

For more information please see the **Strategic Health Authority (SHA)**.

The list below gives some brief information regarding some of the chemicals that may be present in water.

Calcium	Occurs naturally especially where the water flows through limestone or chalk.
Sulphate, Magnesium, Sodium and Potassium	Naturally occurring as a result of the passage of water through minerals.
Manganese	Occurs naturally and is an essential part of our diet; may also come from the corrosion of cast iron water mains.
Iron	Occurs naturally and is removed at the treatment works; may also come from the corrosion of cast iron water mains causing a rusty brown colouration to the water.
Aluminium	Found naturally in all water sources; chemical aluminium is used in the treatment process at some works in the north east to remove naturally-occurring aluminium.

Nitrates	Occur naturally from both mineral and soil processes and from agricultural activity; where present they are removed by sophisticated treatment or reduced to safe levels by mixing with low-nitrate water.
Phosphorus	Occurs naturally and in fertilisers and detergents; phosphate is added to treated water in some areas to protect the uptake of lead from domestic plumbing systems processes.
Copper and Zinc	Presence is largely due to contact with domestic plumbing systems.
Lead	Treated water is virtually lead free; lead was used as a plumbing material and is still common in many older properties; we treat the water to make it less likely to absorb lead from plumbing but the safest way to deal with lead pipes is to replace them.
Chlorine	Small amounts are added to the water as it leaves the treatment works to kill any harmful bacteria present and to keep the water safe on its way to your tap.
Fluoride	Occurs naturally in some sources; is added to some supplies in the north east of England at the request of the local health authority.
Pesticides	May be found in water from land that has been intensively farmed; where present they are removed by sophisticated treatment processes.
PAH (Polynuclear aromatic hydrocarbons)	May result from the corrosion of the linings of old cast iron mains.
Bacteria	If found they indicate that the water has been contaminated on its way to your home or as it passes through a dirty tap.