

Lead in Drinking Water



Lead occurs naturally in our environment and can be present in air, food, water and soil. Lead has long been recognised as being harmful, so various measures have been introduced to reduce everyone's exposure to it. For instance, lead has been reduced in paint and petrol.

This leaflet explains what Northern Ireland Water is doing to reduce lead levels in our drinking water. Our aim is to contribute to public health by improving drinking water quality.

In response to the European Drinking Water Directive, the law has been changed in the United Kingdom to halve the amount of lead allowed in drinking water. The limit from 25 December 2003 is 25 micrograms per litre. (This will reduce to 10 micrograms in 2013.)

We have been working on how to put this new law into practice in Northern Ireland with the Drinking Water Inspectorate (a part of the Department of the Environment), which is responsible for regulating the quality of drinking water.

Water leaving our treatment works and travelling through the water mains contains only tiny traces of lead. If lead is present in a customer's drinking water, almost all of it will have been dissolved from lead pipes and fittings between the mains and the customer's tap.

Whilst most of this pipework is the customer's responsibility, we must, by law, treat the water supply so it dissolves as little lead as possible.

We tackle the problem in two ways: by chemical treatment and the replacement of lead pipes.

Chemical Treatment

To meet the new targets, we have agreed with the Drinking Water Inspectorate to add a chemical, orthophosphoric acid, to the water supply at 32 treatment sites across Northern Ireland. Orthophosphoric acid treatment has been implemented at all of the agreed sites.

Orthophosphoric acid is a common additive in many soft drinks at concentrations up to 100 times higher than that used in the treatment of drinking water. It has been used to reduce dissolved lead in water for over 20 years.



Replacement of Lead Pipes

As part of our ongoing maintenance, we are systematically replacing any lead pipe work in our distribution systems. Houses built after 1970 should not have any lead pipes, but some properties built before this may have a few.

We also carry out regular sampling and will let you know if your drinking water has more than the permitted levels of lead.

If we tell you that lead concentrations are higher than 25 micrograms per litre, it will be up to you (or your landlord if you do not own the property) to decide whether to replace any lead pipework on your property. You (or your landlord) will be responsible for paying to replace these pipes, but you may be eligible for a means-tested Housing Executive grant to help with the costs.



Questions and Answers

How do I know if there are lead pipes in my house?

If your home has been modernised since 1970 and all the pipework has been replaced between the Northern Ireland Water stop valve outside your home and the kitchen tap, there should be no lead in your property.

If your home was built before 1970, it may have lead pipes; after 1970 it is unlikely to have lead pipes. If you are unsure, you can make the following simple checks:

• Inside your home

Look in or behind the cupboards in your kitchen. You may also need to look in other places, such as the cupboard under the stairs. Find the pipe leading to the kitchen tap. Check if it is lead along as much of its length as possible. Unpainted lead pipes are dull grey, and the surface feels soft. If you scrape the surface gently with a kitchen knife, you will see the shiny, silver-coloured metal beneath.

• Outside your home

Open the flap of the stop valve outside your property. Examine the pipe leading from the stop valve to your property. If you can, scrape its surface gently with a knife. (In some cases it may be out of reach.)

Other pipe materials in common use are:

- Copper – bright, hard and dull brown
- Iron – dark, very hard and may be rusty
- Plastic – may be grey, black or blue.

What can I do to reduce the lead levels in my water?

If you have lead pipes between the stop valve outside your home and your kitchen tap, the best solution is to replace it with copper or plastic pipes. Make sure that the removal of lead pipes does not reduce electrical safety – if your electrical supply is earthed to your pipes, it will need to be earthed by another method. If in doubt, ask an approved electrical contractor.

If you do replace your part of the service pipe, you can ask us to replace our part between the water main and the boundary of your property. We will do this free of charge.

You can also take some simple short-term precautions:

- Do not drink water that has been standing in the pipes for long periods, overnight or for several hours while no one has been at home.

In these circumstances, clear the water that has been standing in the pipes by flushing a toilet or filling a bowl from the kitchen tap. (If you have more than 40 metres (132 feet) of lead pipe, you will need to run more than a bowlful of water.) Don't waste that water – use it on the garden or for something else other than drinking or cooking.

- You can then use the water from the kitchen tap as usual.

Can I measure the amount of lead in my water?

On request we will take a sample from your tap and test it for lead. To arrange this, please contact 08457 440088

What is Northern Ireland Water doing to reduce lead in my drinking water?

In many parts of the UK, including Northern Ireland, orthophosphoric acid is used to prevent lead dissolving into the water supply.

Will I notice any effects in my water supply?

Orthophosphoric treatment has not produced any harmful effects in the UK.

You may have noticed some slight changes in the coating left on the inside of your kettle, but orthophosphoric acid will not change the taste, colour or odour of your drinking water.

What will orthophosphoric acid do to my tropical fish?

At such low levels, nothing.

I have replaced my lead pipes. Can I opt out of chemically treated water?

No. We apply the chemical at the treatment plant that services your mains water supply.

Does orthophosphoric acid do any damage to the environment?

Orthophosphoric acid has been approved for use in the treatment of drinking water and is used by the UK water industry.

The introduction of orthophosphoric acid to drinking water will add to the overall levels of phosphates in the environment. Northern Ireland Water have set a maximum dose rate to ensure treatment is effective and that phosphate levels are kept as low as possible.

High levels of phosphates can increase algae growth in lakes and estuaries. Algae use up oxygen and reduce light in the water: this can affect the health and diversity of fish and plant life. Our larger wastewater treatment works have treatment stages, which reduce the levels of phosphate being discharged to the environment.

Contact us:

Waterline 08457 440088

Report leaks on roads and footpaths to Leakline: 08000 282011

Text phone 0800 0515446

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