



Brown, Black or Orange Water

Drinking water is normally clear and bright in appearance but very occasionally it may appear discoloured (brown, black or orange in colour) or contain particles.

What causes discoloured water?

Brown, black or orange coloured water is normally caused by the disturbance of sediments from older pipes in the network. When the sediments are disturbed, the water can be discoloured or contain particles, until this is allowed to settle out again. Examples of when this might happen include:

- A burst on a water main
- The opening or closing of valves in the network
- Reinstatement of a main after repairs
- The use of water by third parties such as fire fighting

Sometimes these sediments are not from the mains network but instead may be caused by:

- The condition of the service pipe connecting a property to the water main
- The condition of internal plumbing inside a property
- An internal tank which may need cleaning

If the cause is internal it is likely the discolouration will persist for many weeks or months.

What should I do if I experience discoloured water that is brown, black or orange?

If the problem has been present for less than 24 hours, run the tap to help clear the water.

If you also experience an unusual taste or odour to the water, your water has been discoloured for more than 24 hours and is not clearing, or you would not describe it as different to brown, black or orange in colour, we suggest you contact your water supplier for further advice.

Why are there deposits in the water mains?

There are two basic reasons for the build-up of deposits.

a) Most of the older water mains in this country are cast iron. Originally these were unlined and over time they corrode giving rise to iron particles (rust) which become loose and are carried along with the water flow until they lodge in areas of low flow in the network (known as dead ends or null points).

b) Some ground waters and soft surface water sources contain naturally occurring iron and manganese. A lack of water treatment historically will have resulted in iron and manganese entering the mains network. Similarly, in very hard water areas there can be a build-up of chalk in the mains.

Are these deposits harmful to health?

If your tap water is suddenly discoloured, you should not assume that it is safe to drink until you have sought advice from your water supplier. If you live in an area where it is known there is a problem with iron or manganese, the water company will be able to tell you if there is a short term incident affecting your supply and also advise you of any programme of work to clean and refurbish water mains in your area. In these circumstances, if you have run your tap until the water becomes clear, it will then be safe to use unless the water supplier has issued a warning notice to say otherwise.

Is anything being done about this?

Water suppliers maintain their distribution systems to minimise the build-up of deposits in the mains by carrying out flushing, by careful operation of valves and giving licences to third party operators. Water suppliers are tackling the problem of iron corrosion by identifying the affected mains and then lining or replacing them. The worst affected areas are prioritised over others. Long term programmes of mains refurbishment have been in place since 1995. However, there are about 315,000 kilometres of water mains in England and Wales and maintaining them is a continuous process.

Further Information

The Drinking Water Inspectorate is the independent regulator of drinking water quality for public water supplies in England and Wales. Visit www.dwi.gov.uk. Contact us at dwi.enquiries@defra.gov.uk or telephone 0300 068 6400.