



FAQs for lead exceeding the drinking water regulatory limit in Bristol primary Schools

What is lead?

Lead is a metal found naturally in soil and rocks. Lead can get into the environment as a result of industrial emissions from mining, smelting, recycling or waste incineration. It used to be more common in the environment due to its widespread historic use in petrol, paint, and water pipes. From the 1970s onwards these uses of lead have been prohibited because of the risk lead poses to human health.

You may be exposed to lead through your food, drinking water, soil, dust, air, and from small flakes or chips of old paint containing lead. Lead is rarely present in drinking water 'naturally', but mainly as a result of dissolution from lead pipes or lead solder used in the plumbing.

What is the acceptable level of lead in drinking water?

The current UK drinking water quality regulations state that the level of lead in any drinking water supply must not exceed 10 micrograms per litre ($\mu\text{g}/\text{l}$) (also known as 10 parts per billion). This came into force in December 2013 when the previous regulatory limit of $25\mu\text{g}/\text{l}$ was tightened. The UK standard is derived from the World Health Organization's (WHO) *Guidelines for Drinking-water Quality* and was implemented to protect the most vulnerable consumers, infants and children, over a whole lifetime, which therefore will also be protective for other age groups. A WHO review in 2011 concluded that no level of lead can be considered without risk. However the guideline value of $10\mu\text{g}/\text{l}$ was recommended as this was considered to be practically achievable.

A history of the guideline development for lead in drinking water can also be found on the [World Health Organisation's website](#).

Is lead harmful?

Eating food or drinking water containing low levels of lead for a short time (i.e. over days or weeks) usually does not cause any ill effects. The risk to health and the health effects generally relate to the total amount of lead ingested and duration of exposure. The risk is greater for long-term exposure (over many years), because the levels of lead build up in the body over time. There is evidence of effects on the nervous system, increased blood pressure and kidney toxicity in adults following long-term low level exposure to lead. Infants, the unborn child and young children are particularly at risk as lead exposure can adversely affect development of the nervous system (e.g. the brain) and behaviour. It is not possible to identify a level of lead exposure that is not associated with some

evidence of adverse effect. Therefore, exposure should be limited to as low as reasonably practicable.

Further information on the health based knowledge about lead can be found on the [World Health Organisation \(WHO\) website.](#)

My child has been drinking water from the school for a few years, how will it affect them?

The drinking water from the school is unlikely to have been the only source of drinking water for your child. Your child is likely to get a significant proportion of his/her drinking water from home or other sources.

It is not possible to provide any specific advice in terms of any potential health risks until further sampling shows what the representative lead concentrations are over a period of time.