

Lead poisoning in children: Frequently Asked Questions



Question 1: What is lead?

Answer: Lead is a metal that is widely found in soil, rock, air and water.

Question 2: What is lead used for?

Answer: It is used in businesses involving steel welding, battery manufacturing, glazing and pottery.

Question 3: How does lead get into the environment?

Answer: Through emissions from mining, smelting, recycling and waste incineration.

Question 4: How could I be exposed to lead?

Answer: Most people are exposed to lead by eating or drinking food or drink containing lead. In children, the ingestion of flaking paint chips or soil is the major source of exposure. People who work in industries that use lead may also be exposed.

Question 5: How common is lead poisoning in the UK?

Answer: The use of lead in petrol, paint and pipes has been phased out in the UK, resulting in a decrease in the amount of lead in the environment which has caused a decrease in the levels of lead in the population. Occasional cases of lead poisoning do still occur, although there are no reliable data on exactly how many cases there are. The HPA is carrying out a study to find out how many childhood cases occur per year.

Question 6: How can I ensure that the toys I buy for my child do not contain lead?

Answer: When buying toys in the European Union you should make sure that they are branded with the 'CE' mark to ensure that lead levels do not exceed regulated limits.

In the EU, toys must comply with the *Toy Safety Directive* (Council Directive 88/378/EEC) to carry the CE mark. The directive provides a list of requirements that toys must comply with, including the maximum amount of lead that toys are allowed to contain. The directive is interpreted by laws in each member state, such as the UK's *Toys (Safety) Regulations 1995* (*Statutory Instrument 1995 No. 204*).

The CE mark should ensure regulations are met for all toys sold in the EU, even for products manufactured outside Europe.

Question 7: How can I tell whether my child has lead poisoning?

Answer: There are two types of lead poisoning: acute poisoning may occur following a brief exposure to large amounts of lead, while chronic poisoning takes place after a longer exposure to lower levels of lead.

Symptoms of acute lead poisoning include sickness and diarrhoea, a metallic taste, lack of appetite and stomach pain, tiredness or drowsiness and high blood pressure.

Chronic lead poisoning symptoms include tiredness, headache, sleep disturbance, anorexia, abdominal pain, constipation, irritability and muscle weakness.

If you think your child has some of the symptoms of lead poisoning then you should contact your GP, particularly if you have spotted a potential source of lead poisoning such as flaking leaded paint, which can be found in older houses painted before the 1992 ban on lead in paint.

Lead poisoning can be confirmed by measuring the levels of lead in the blood after the health care professional has identified the clinical symptoms.

Question 8: Will my GP know what signs and symptoms to look for if my child has lead poisoning?

Answer: GPs should know the signs and symptoms of lead poisoning and if necessary can refer you to a clinical toxicologist for specialist advice.

Question 9: Are the tests for lead poisoning expensive and therefore is my GP unlikely to carry them out?

Answer: The cost of the tests will not prevent them being carried out if they are thought necessary by the GP based on clinical features and/or potential exposure to lead.

Question 10: Is lead poisoning more harmful to certain age groups of children and do the symptoms vary with age?

Answer: Recent research has shown long term exposure to lead is more strongly linked to reduced IQ among children aged up to six. Children up to the age of six, including the unborn child in the womb, are therefore more susceptible to learning and behavioural effects following long term exposure to lead.

However, following a brief exposure, children would need to be exposed to slightly higher amounts of lead than adults before symptoms occur, although the actual types of symptoms experienced by children and adults are the same.

Question 11: How much soil would a child need to eat before becoming unwell if it was contaminated with lead?

Answer: This would depend on several factors including the amount of lead in the soil, the type of soil (such as clay or sandy soil) and the health of the child – e.g. if they are anaemic (low red blood cell count) then they would be at greater risk.

Question 12: After consuming lead, where does it go in the body?

Answer: About 70 percent of lead in children (95 percent in adults) is stored in the skeleton and will remain there for a long time as the 'half life' (the time it takes for the amount of lead to decrease by half) is more than 10 years.

Question 13: Can the seasons or other environmental factors increase the chances of my child having lead poisoning, e.g. can the temperature and moisture of soil contaminated with lead make it more poisonous?

Answer: Changes in temperature or moisture will not make lead more poisonous but they may affect the amount of dust that is present. In wet weather soil will be less dusty hence swallowing or breathing in soil dust containing with lead will be reduced.

Question 14: What are chelating agents and are they an effective treatment for lead poisoning? What, if any, are the side effects?

Answer: Chelating agents help to remove heavy metals from the body. There are chelating agents for lead but these should only be prescribed by a suitable health care professional. They work by binding lead into a molecule which can be excreted.

There are two main drugs used as chelating agents in lead poisoning; one that is given intravenously and one that can be taken orally.

Side effects are rare provided these drugs are given at the correct dose and under close specialist medical supervision. Severe adverse effects may occur if these drugs are used inappropriately. Potential side effects for intravenous treatment include nausea, abdominal pain, diarrhoea, low blood pressure, kidney damage, muscular pains, sneezing and chills. If taken orally, patients may occasionally experience fever, dizziness, nausea and skin rash.

Question 15: Are there any health benefits from drinking milk either as a prevention or treatment for lead poisoning?

Answer: There is no evidence to suggest that drinking milk is effective in either preventing or treating lead poisoning.

Question 16: How can I tell whether I am reading facts about lead poisoning on-line or whether it's just someone's opinion or a myth?

Answer: You should search for information on the websites of officially recognised health protection organisations such as the Health Protection Agency or similar agencies in other countries (e.g. Environmental Protection Agency in the US).

Question 17: Can lead cause cancer?

Answer: The scientific consensus is that lead probably causes cancer as workers exposed to lead were found more likely to develop of lung, bladder and kidney cancer.

Question 18: Does the HPA or local authorities have maps showing where lead deposits are greatest in former industrial areas?

Answer: Local authorities will have maps showing former industrial sites in your area. However, they may not have data specifically relating to lead as the information will depend on what was tested for. For further information you should contact your contaminated land officer in your local authority's environmental health team.

Question 19: [How can I find out whether there is lead in the soil in my garden?](#)

Answer: If you own your own house, then you can contact your local authority to try to find out if you might have lead in your garden because of previous industrial activity. Alternatively, you could contact an environmental consultancy which should be able to measure the amount of lead in the soil for a quoted price. If you live in social housing you should contact the housing association or the local authority for information.

Question 20: [How can I find out if my local industrial estate uses lead products and whether they represent a risk to children who live and play nearby?](#)

Answer: You should contact your local authority for information. Current industries are well regulated and the risks to the public should be minimal.

Question 21: [Will my health visitor know how to advise me about the risks from lead poisoning in my home?](#)

Answer: Yes, your health visitor, local authority or your local Health Protection Unit should be able to advise you about potential sources of lead within the home.

Question 22: [Do surveyor reports take into account possible sources of lead when they conduct searches and will they advise me if there is a risk to me and my children?](#)

Answer: A surveyor report will not investigate environmental issues such as potential sources of lead in your house and garden. Your solicitor or an environmental consultancy could carry out environmental searches to find previous uses of the land in an attempt to establish whether there have been past industries that could have contaminated the land. Such searches will not provide information specifically related to lead, however, or advise if there is risk to you or your children.

The contaminated land team in the local authority will also be able to carry out a contaminated land search, but again, no data on specific chemicals will be included.

Question 23: [Is it safe to work with lead products near children e.g. making lead weights for fishing or forging toy soldiers?](#)

Answer: Workplace limits set by the Health and Safety Executive are devised to protect adults, so children may not be sufficiently protected. It would be sensible to keep children away from such activities if they produce dust or vapours.