

FACTSHEET

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Lead

What is Lead?

Lead is a natural metal found in the ground. Before 1970 it was used in many building materials and lead is still used in industry today. Until 2002 most petrol contained lead and exhaust from cars has deposited more lead into the soil of urban areas.

Lead is poisonous if swallowed. If lead is allowed to enter a child's body it can cause serious long-term health problems.

How may a child be exposed?

Lead can enter the body when children breathe, eat or drink substances that contain lead. Lead is not broken down by the body. It stays toxic and takes a long time to be removed from the body. If a child swallows something containing a high amount of lead (eg sinker, bullet, shot, lead-light) they need to go to hospital for assessment.

The most common sources of lead exposure for children in Australia include:

Paint in older buildings

- Lead-based paint from buildings built before 1970. Lead paint has a sweet taste which is appealing to children.
- Lead-based paint that is disturbed during renovation. Sanding lead based paint creates dust that can be inhaled or swallowed.

Older buildings

- Lead flashing in roofing materials.

- Contaminated water from pipes. Lead is used in the make up of both old and new taps. New plumbing may release low levels of lead for up to 5 years.

Imported toys and cosmetics

- Lead-containing paint used in toys (in, particular those made overseas).
- Some Hashmi eyeliners imported from overseas have been found to contain lead.

Environment

- Lead based fuel was banned in Australia in 2002. The lead contamination in soil, the environment and home, from previous heavy motor traffic in some urban environments, can still result in increased lead levels in children.
- Lead is present in many common consumer products and can build up, over the years, in the soil of gardens and in the dust of ceilings in the home. This is particularly true of homes close to industries that produce or use lead.

Other exposures include

- Lead in herbal medicines, especially traditional Chinese and Indian medicines.
- Glazed pottery and lead crystal food containers.¹
- Lead in fishing sinkers and other metal objects.
- Lead from family and friends work or hobbies ie; lead lighting, shooting, glazing, making fishing sinkers.

Lead poisoning

Lead poisoning is when a person has elevated levels of lead in their blood. Poisoning may be as a result of a single high level of exposure (acute exposure) or as a

result of exposure over a longer period of time (chronic exposure).

Symptoms of both types of exposure may include:

Acute exposure (a high level of exposure at one time)

- Muscle pains
- Abdominal discomfort
- Lethargy
- Headache
- Vomiting
- Fits
- Coma

Chronic exposure (ongoing exposure)

- Learning disabilities
- Poor hearing
- Behavioural problems
- Poor school performance
- Poor co-ordination
- Impaired growth^{2,3}

How common is lead exposure?

At least 75,000 Australian pre-school children have elevated blood lead levels. Children under the age of four are at the greatest risk because:

- The developing brain is more sensitive to lead.
- Children absorb more lead, if swallowed, than adults.
- Children are more likely to eat non-food substances.
- Children have more hand to mouth contact.⁴

Lead exposures often happen in groups. Children and families living with adults found to have lead poisoning should have blood lead levels measured.

If you think your child may have been exposed to lead please contact your general practitioner for further advice and a blood test.

Prevention of lead exposure

- Test for lead in any pre-1970 paint in your home and contact a professional for lead paint removal.
- Avoid homes and child care near any known lead industry.
- Limit the use and purchase of lead-based products and keep such products in secure places in the home.
- Wash your children's hands regularly to minimise the amount of dust and dirt that is transferred from their hands to the mouth.⁶

- Dust and mop with a damp cloth regularly to remove lead containing dust.
- Encourage a diet with plenty of foods rich in iron, calcium and vitamin C, this will minimise the absorption of any lead into your child's body.
- Be cautious of imported cosmetics, alternative medicines and toys.
- Keep dust contaminated clothes from work places where there is lead out of the home and away from children.

Remember:

- Lead can be found in the home.
- Lead exposure can affect your child's development.
- If your child swallows a solid lead item take them to hospital.
- Contact your general practitioner for further advice if you think your child may have been exposed to lead

References

- ¹ Lead Reference Centre, New South Wales Environment Protection Authority, Australia, Lead Poisoning Guide for Families Accessed via <http://www.leadpoison.net/prevent/guide-family.htm>
- ² Reith, D.M., O'Regan, P., Bailey, C. & Acworth, J. (2003) Serious Lead Poisoning in Childhood: Still a Problem After a Century Paediatric Child Health 39. 623-626.
- ³ Ringold, S. (2005) Lead Poisoning The Journal of the American Medical Association (293) 18. 2304.
- ⁴ Lead Advisory Service, Australia (1997) How Would You Know if You or Your Child is Lead Poisoned? Lead Action News Accessed via <http://www.lead.org.au/fs/fst3.html>
- ⁵ Centers for Disease Control & Prevention. <http://www.cdc.gov/nceh/lead/tips.htm>
- ⁶ Lead Advisory Service, Australia (1997) The Main Sources of Lead Accessed via <http://www.lead.org.au/fs/fst2.html>