



Northampton and lead exposure

June 2011

A background to lead exposure in Northampton

Northampton and the surrounding district have a long history of lead mining and processing. Tailings; the left-over materials from mined lead, were used throughout the Northampton township for various purposes including; building foundations, driveways and car parks.

During 2010, the State government engaged environmental consultants to assess the extent of this practice and the potential health and environmental impacts.

In September 2010, a public meeting was held so that local community members could learn more about lead issues at Northampton and be given the opportunity to have their property inspected and tested. A number of local households and small businesses were tested, and lead tailings were confirmed at several properties. However, the full extent and distribution of lead tailings in and around Northampton is uncertain.

One source of lead tailings in Northampton was the old State Battery which was demolished, and the site remediated, at the end of 2010. Tailings have been contained in a specially-constructed chamber and the site is securely fenced with warning signs to prevent further risk to the public.

Identifying lead tailings and health risks

Lead tailings are generally a fine, sandy material, which are white, light grey or pale yellow in colour. They are easily distinguishable from the red clay earth commonly found in and around Northampton. Vegetation does not usually grow well in this material.

Where lead tailings have been covered with clean soil, concrete or bitumen, making them inaccessible, there is no health risk.

Where lead tailings are uncovered, fine dust from the surface can enter the atmosphere and may transfer to objects or people. The most common methods of lead getting into the body are through ingestion or swallowing of lead-contaminated material and inhalation of dust. Lead can then be absorbed into the blood.

For information about minimising your exposure to, and the health risks of, lead, see our fact sheet '**Minimising the health risks of lead**'.



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Who is most at risk?

Children aged less than five and unborn babies are most at risk from the adverse health effects of lead. Young children absorb ingested lead more easily than adults. Toddlers and young children are also at increased risk because of their tendency to place their hands and other non-food objects, which may have touched lead-contaminated soil, in their mouths.

Children with medically diagnosed pica, a medical disorder characterised by an appetite for non-food substances such as sand, are at particular risk.

Pregnant women are at risk as lead can be passed to an unborn child through the placenta. Studies show that lead crossing the placenta during pregnancy or absorbed by the baby after birth can delay intellectual development and affect a child's behaviour.

Blood lead levels

In 2009, the National Health and Medical Research Council (NH&MRC) released a public statement recommending:

- all Australians should have a blood lead level below 10 micrograms per deciliter of blood ($\mu\text{g}/\text{dL}$)
- all children's exposure to lead should be minimised
- all women are advised to minimise their exposure to lead before and during pregnancy and while breastfeeding.

In line with the NH&MRC recommendations, the Department of Health advises that all Western Australians should have a blood lead level less than 10 $\mu\text{g}/\text{dL}$. The Department of Health also recommends that all possible lead sources and exposure be investigated and promptly remedied to keep blood lead levels below 5 $\mu\text{g}/\text{dL}$ in children aged five years and younger.

Queries on lead?

For health-related queries, contact the Department of Health's Toxicology Section on (08) 9388 4999. The Public Health Physician based in the MidWest is also available on (08) 9956 1978.

For queries on the environmental impacts of lead, contact the Department of Environment and Conservation's Contaminated Sites Branch on 1300 762 982.



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Other Useful Information

There are many other useful resources available on the internet.

- NH&MRC (2009) Blood Lead Levels, available from:
www.nhmrc.gov.au/files_nhmrc/file/publications/synopses/gp03-lead-pub-stmnt.pdf
- NH&MRC (2009) Information Paper. Blood Lead Levels for Australians, available from:
www.nhmrc.gov.au/files_nhmrc/file/publications/synopses/gp02-lead-info-paper.pdf
- Department of Health (2011) WA Health Notification of Lead Poisoning, available from
www.public.health.wa.gov.au/3/507/2/notification_of_lead_poisoning.pm
- Department of Sustainability, Environment, Water, Population and Communities (2009) Lead alert facts: Lead and your health, available from:
www.environment.gov.au/atmosphere/airquality/publications/health.html

