

Fact Sheet: Working safely with lead



Lead and your health

Historically, lead was widely used because it was cheap and its properties enhanced certain products.

Exposure to lead is linked with harmful effects on many organs and bodily functions. People of all ages may be harmed by lead but the risks are greatest for pregnant women, infants and children. Factors which influence the symptoms and health effects include the age and health status of the person, the amount of lead, and the duration of exposure.

It is well established that elevated blood lead levels can have harmful effects including anaemia, kidney problems and neurological or developmental effects, particularly in children.

If you suspect that you or your family have been exposed to lead, visit your doctor for further advice. For more information regarding the health effects of lead please refer to the NHMRC Statement and Information Paper on the Health Effects of Lead at www.nhmrc.gov.au/health-topics/lead-blood-levels.

Lead in your workplace

Many building and demolition workers can unknowingly expose themselves to lead because they are unaware of lead hazards on the job.

If you work in any of the following professions or do similar work, it's important that you are aware of the dangers of lead and how you can protect yourself.

Workers who may be at lead-risk in their jobs:

- abrasive blasters and coaters
- architects
- armourers
- battery makers
- building inspectors



- cable layers
- carpenters
- carpet layers
- cabinet makers
- demolition workers
- electricians
- gasfitters and plumbers
- glaziers
- plumbers
- painters and decorators
- metalworkers
- plasterers
- roofing contractors.

Building products including flashing, sheet lead, PVC products, lead solder and plumbing fittings may contain lead. Hazardous lead dust can build up in workplaces which are not cleaned properly. Many work practices commonly used in industry, such as burning, sanding and grinding, can disturb or create hazardous lead fumes and dust which increases the risk of exposure.

Sources of lead

- Domestic paint used in many houses built before 1970.
- Protective coatings used on industrial buildings, plant and equipment.
- Marine, automotive and vehicle paints.
- Anti-corrosive paints.
- Road-marking and sign-writing paint.
- Old ceiling and wall cavity dust, especially in homes near busy roads or lead industries.
- Lead-contaminated soil, e.g. historical industrial sites, market garden and orchard sites where

lead arsenate pesticides were used, battery manufacturers, sheet-lead manufacturers, sites near busy roads.

Employer responsibility

- A person conducting a business or an undertaking at a workplace is required to ensure, so far as reasonably practicable, the health and safety of workers and others.
- Notifications to SafeWork NSW of lead-risk work and the removal of workers from lead-risk work may be required in certain circumstances.
- In some cases worker health monitoring may also be required, both before lead-risk work begins and afterwards. The monitoring must be carried out by or under the supervision of a registered medical practitioner with relevant experience.

If you are a business or an employer you must:

- provide workers with information about the lead work
- assess the risk of working with lead at work
- identify, implement and review and revise control measures to manage that risk. This must include the containment of contamination, keeping relevant areas clean, banning all eating, drinking and smoking in certain areas, and providing appropriate washing facilities and means of dealing with personal protective equipment.

What workers can do

1. Find out if you are being exposed to lead at work.

Ask your employer or safety coordinator, or contact SafeWork NSW for more information. Find Safety Data Sheets (SDS) for any materials or chemicals you are using and believe may contain lead.

2. Use alternatives to lead.

If there is another product which does not have lead in it or has less lead, use it!

3. Create a safe workplace.

Many simple changes to plant, machinery, production, processes, equipment and work practices can reduce your exposure to lead. To find out more, ask your employer, safety coordinator, or SafeWork NSW (see 'Where to get advice').

4. Use the proper Personal Protective Equipment (PPE or safety equipment) at work and look after it.

Always wear an AS-1716-approved respirator fitted with P1 (dust) or P2 (dust and fumes) filters and coveralls secure or firm. Facial fit of dust masks is very important to ensure protection.

Using appropriate respiratory protection, coveralls, gloves and other PPE will help protect you from lead and other dangerous materials. It is your employer's responsibility to provide the right equipment, maintain it and show you how to use it.

5. Wash your hands and face before meals and before smoking.

This will significantly reduce your risk of inadvertently ingesting lead. Also, don't smoke or carry cigarettes where lead dust is present. Dust can settle on food or cigarettes and can be accidentally ingested.

6. Clean up and change out of work clothes when you have finished your shift.

This greatly reduces the risk of taking lead dust home on your body, clothes and car that may contaminate your home and family. Children under the age of five, women of child-bearing age and unborn babies are most at risk. Wash work clothes separately from all other clothes and rinse the washing machine afterwards.

Where to get advice

For information on lead in the workplace and how to protect yourself, phone SafeWork NSW on 131 050.

Call SafeWork NSW and ask for the Hygiene and Toxicology Team on 131 050.

For information on lead and the environment call the NSW EPA's Environment Line on 131 555 or visit the NSW EPA lead safety webpage: www.epa.nsw.gov.au/lead.

For further information and advice about protecting yourself from lead, testing for lead and removal services and guidelines for safe home renovation, call The LEAD Group on 1800 626 026 or (02) 9716 0014. Lead test kits are available from the Lead Group (www.leadsafeworld.com/shop) and most hardware stores.

If you have reason to believe you or your family may have had a significant exposure to lead, ask your doctor for information about blood tests and the effects of lead on your health.

© 2016 State of NSW and Environment Protection Authority

Every effort has been made to ensure that the information in this document is accurate at the time of publication. However, as appropriate, readers should obtain independent advice before making any decision based on this information.

Published by Environment Protection Authority
59 Goulburn Street, Sydney NSW 2000

Phone: 131 555 (environment information and publications requests) TTY users:

phone 133 677, then ask for 131 555
Speak and listen users: phone 1300 555 727, then ask for 131 555

Email: info@environment.nsw.gov.au
Web: www.epa.nsw.gov.au

Report pollution and environmental incidents:
Environment Line: 131 555 (NSW only)

ISBN 978 1 76039 274 1; EPA 2016/0086;
May 2016

Photos by Simon Luckhurst, EPA

Printed on environmentally sustainable paper