

Occupational Cancer Risk Series

Asbestos



There may be some hazards where you work that increase your risk of developing cancer. This factsheet discusses occupational hazards related to *asbestos*.

Key messages

- Exposure to asbestos increases your risk of developing some cancers.
- New uses of asbestos were banned in Australia in 2003, but existing asbestos remained, meaning many workers are still at risk of exposure.
- Eliminate or reduce exposure to asbestos by using recommended controls.
- Refer to Safe Work Australia's '[How to Manage and Control Asbestos in the Workplace](#)' and '[How to Safely Remove Asbestos](#)' for more information.

Asbestos and cancer

Asbestos is the name given to a group of naturally occurring fibrous minerals. These fibres are fire, heat and chemical resistant and do not conduct electricity. Because of this, asbestos was used worldwide in many building, construction and other industrial products. Inhalation of loose airborne asbestos fibres can cause long-term health problems, including asbestosis, cancer of the [lung](#), [ovary](#) and larynx and [mesothelioma](#) (cancer of the lining of the lung); which can take decades to develop.

Your cancer risk from asbestos varies depending upon the:

- length of time you are exposed to airborne asbestos fibres
- amount of asbestos fibres in the air breathed
- frequency of exposure to asbestos fibres
- time since exposure occurred
- age at which exposure occurred
- type and size of asbestos fibres.

What makes asbestos dangerous?

Asbestos fibres are released into the air when people handle asbestos-containing materials with poor safety procedures. Asbestos fibres are around 50 to

200 times thinner than a human hair, can be invisible and be breathed in easily. They can become trapped deep in your lungs and cause damage over a long time.

The two asbestos-containing material groups

- **Bonded (non-friable) asbestos** materials are made up of a bonding agent (such as cement) with asbestos fibres added. They usually contain less than 15 per cent of asbestos and normally do not release fibres unless they are disturbed, damaged or have deteriorated over time.
- **Friable (loosely bound) asbestos** materials are those which can be crumbled or reduced to powder by hand. Bonded asbestos can become friable if severely fire damaged or crusted. Friable asbestos materials are the most dangerous as the fibres can be released into the air.

Asbestos manufacturing in Australia and your risk at work today

Many products were manufactured using asbestos until the late 1980s. Examples include building and construction materials (flat or corrugated sheeting and cement pipe), insulation, floor tiles (and their adhesives), roofing, textured paints and textiles. Gaskets and friction parts containing asbestos were made in Australia up until 2003. These were the last asbestos containing products to be made in Australia.

Many asbestos-containing materials still remain in place throughout Australia. [Tradespeople and home renovators](#) are still at risk of exposure to the asbestos fibres in these materials.

[Safe Work Australia warns workers to be careful of all construction materials, insulation products, gaskets, friction brake products, vehicle and plant equipment that were installed, built, manufactured, commissioned or designed prior to 1 January 2004.](#)

→ **Do you work with any of these materials?**

Naturally occurring asbestos

Asbestos may exist in its natural state in soil and rock formations. You may come across this in road building, site and construction work, other

excavation activities and in the mining industry. There are many locations where there is naturally occurring asbestos (such as the Pilbara region of WA). Geological survey information should be checked when working in these areas (refer to your [state and territory mapping agencies](#) or [Geoscience Australia](#)).

Effective controls

All Australian workplaces must follow work health and safety laws; however these vary slightly between states and territories, but the duty of care for employers and responsibilities of workers across Australia is similar:

- Employers are required to ensure the health and safety of their workers at their workplace.
- Employers are required to ensure the health and safety of other people due to the work carried out.
- Employers have a duty to control the risks associated with work.
- Workers must take reasonable care of their own health and safety.
- Workers must not negatively affect the health and safety of other people.
- Workers must follow any reasonable instruction and workplace health and safety policies, of which they have been notified.

For specific information regarding the laws or regulations in your state or territory please use the links supplied on the landing page under 'useful resources'.

To follow work health and safety laws or regulations, employers should eliminate or reduce exposure to hazards using the hierarchy of control (Figure 1) and implement a [risk management process](#). Workers

should always be involved in this process to correctly identify hazards and put in place controls that suit the workplace. Training workers on the hazards in the workplace and the procedures used to manage them is also a work health and safety requirement.

Safe Work Australia's, [How to Manage and Control Asbestos in the Workplace](#) and [How to Safely Remove Asbestos](#) outline how you can control asbestos dangers in the workplace. A summary of recommended controls are outlined in Table 1 (Page 3).

If control measures are not in place, **anyone working with or around airborne asbestos** is at an increased risk of developing cancer.

Safe Work Australia has an [exposure standard for airborne asbestos](#) which must not be exceeded. Air monitoring can check if exposure to asbestos is being managed properly. The need to monitor can vary among workplaces and you should refer to Safe Work Australia's, [How to Safely Remove Asbestos](#). An occupational hygienist can help with air monitoring.

Health monitoring identifies workers who have an increased risk of developing a work-related disease. In some states and territories, [health monitoring](#) must be provided to a worker if they are carrying out asbestos-related work.

For any concerns related to adequacy of control measures at your workplace, contact:

- your workplace supervisor or management (if you are an employee)
- your workplace health and safety representative or union representative
- [state and territory work health and safety regulators](#)
- [Safe Work Australia](#).

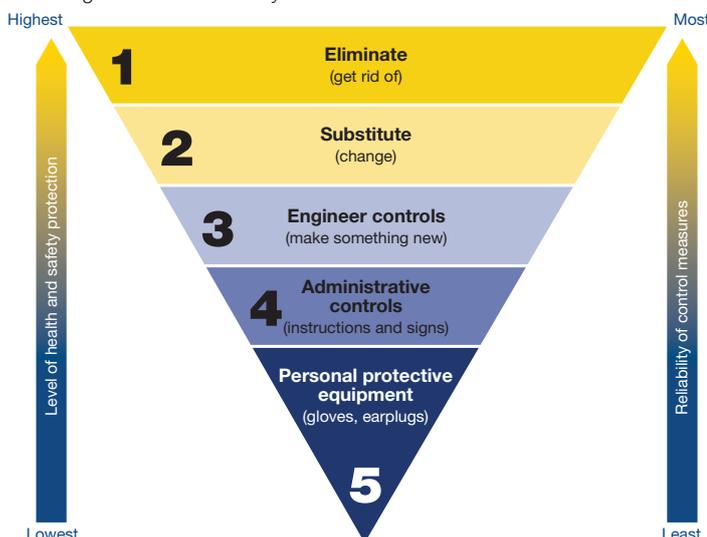
How do I reduce my cancer risk?

If you are concerned about your health or think you may have been exposed to a cancer-causing agent, it is important to speak with your doctor.

To find out what you can do to create a workplace that supports healthy choices to help reduce cancer risk, contact Cancer Council on 13 11 20.

For more information visit the 'useful websites' listed on www.cancer.org.au/preventing-cancer/workplace-

Figure 1. The hierarchy of risk control



Asbestos

Table 1. Summary of control measures for asbestos

cancer/asbestos.html

CONTROL	ACTIVITY
Asbestos removal	Use wet, non-destructive methods. Saturation and water injection may be needed during friable asbestos removal. Dry removal should only be used when wet spray methods are not suitable (e.g. near electrical equipment). Negative air enclosures, glove bag methods or continuous misting sprays may also be needed.
Enclosing asbestos	Only use on non-friable asbestos where removal is not possible and asbestos is at risk of damage from work tasks. To enclose asbestos completely cover, seal and prevent access to the material. Seal with resilient matrix or protective coating that prevents the release of asbestos fibres. Never use dry sanding or water blasting to prepare surfaces for sealing.
Selection of tools and equipment	Use manually operated or low-speed battery-powered tools. All low-speed battery-powered tools should be fitted with exhaust ventilation dust control hoods. Do not use high-powered tools.
Isolation	Limit access, display warning signs and install barricades around asbestos work areas. Close windows and doors if working inside. Put up enclosures if required. Notify others of asbestos work in the area. When preparing the work area, items that are not needed should be removed to prevent contamination and make the clean up easier.
Clean-up	Use wet clean-up methods (water misting or wet wiping only). Do not sweep asbestos-contaminated material. Use an approved asbestos vacuum cleaner (not domestic). For commercial removal, clearance inspections are compulsory before re-occupation.
Disposal	Wet asbestos waste. Double bag or wrap in 0.2mm polythene bags (sheeting for large materials) no greater than 1200mm long and 900mm wide. Seal with tape using the 'gooseneck' method for bags. Half fill waste bags to avoid tearing and put on warning labels. Clean the outside of bags or sheets before removal. Place in labelled waste bins for secure storage and disposal, or remove immediately from site using a licenced carrier.

CONTROL	ACTIVITY
Identification	Use a competent person with relevant training and experience in asbestos identification to confirm the presence of asbestos. Test suspected asbestos-containing materials using a NATA-accredited laboratory. Identify the presence of asbestos using warning labels.
Training	Train workers about the asbestos risks, how to identify them, and how to manage asbestos dangers. Ensure workers who do or could work with asbestos-containing materials get the proper level of training. Note: specialised training and licences are required for asbestos assessors, removalists and supervisors.
PPE	For friable removal, wear air supplied or air purifying respiratory protection that filters asbestos fibres, fitted for each worker individually. For non-friable removal, Class P2 respirators are needed. For all asbestos removal use disposable coveralls with fitted hoods that prevent penetration of asbestos fibres (type 5, category 3), impermeable gloves, gumboots (not laced boots), boot covers and eye protection. Seal wrist and ankle openings with tape.
Decontamination	Wipe down protective clothing using a wet rag. Remove all PPE in order (pg. 35 of linked document); remove coveralls first and wipe down and remove boots, gloves and goggles. Any clothing worn under coveralls must be disposed of or bagged for laundering where disposable clothing is not possible (e.g. emergency services clothing). Remove respirator last. All waste, wet rags, PPE and cleaning materials must be double bagged, sealed and labelled before disposal.
Planning	Develop a staged plan the replacement of all identified asbestos containing materials.