

Asthma in the Workplace-

you can do something
about it



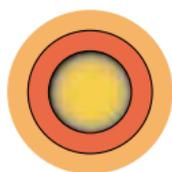
This brochure provides information and how to avoid it.

What is asthma?

People with asthma have sensitive airways in their lungs. When they are exposed to certain triggers, their airways **narrow**, making it hard for them to breathe.

There are two main changes in the airways that cause them to become narrow:

1. The inside lining of the airways becomes red and swollen (inflammation) and extra mucus (sticky fluid) may be produced.
2. The muscle around the airways tightens (bronchoconstriction).



Normal airway



Red and swollen



Extra mucus



Muscle spasm

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What are the most common symptoms of asthma?

- Wheeze
- Shortness of breath
- Chest tightness
- Cough

What causes asthma in the workplace?

1. Occupational asthma

Many substances in the workplace may cause asthma to develop in a previously healthy person. These substances are called **sensitisers**. Exposure to a sensitiser at work may cause the airways to narrow. This is known as **occupational asthma**.

tion about asthma in the workplace

These substances may sensitise the airways of a healthy person. The person may then develop asthma, or if they already have asthma it may become worse.

This usually occurs as a result of many exposures to a sensitiser over a period of time. Symptoms do not usually appear after the first exposure. The time taken before symptoms appear may vary from weeks to years.

Once the airways are sensitised:

- Continued exposure to the same sensitiser, even in very small amounts, will produce symptoms. It may result in more and more severe symptoms and perhaps permanent asthma.
- Exposure to another trigger (e.g. cigarette smoke) may produce symptoms.

Occupational asthma is hard to tell apart from other forms of asthma except that it may first appear in adulthood.

Symptoms may vary during the working shift or week.

They may occur only at night or the morning after significant exposure.

They may also appear during the working day. In the early stages of the disease, symptoms usually improve over weekends or holidays.

Symptoms may occur up to 2 years after first contact with a sensitiser. The affected person may not even link





work exposure to their asthma. Failure to detect **occupational asthma** early enough may lead to permanent asthma, even after the worker leaves the industry.

2. Work-aggravated asthma

If a person already has asthma, **triggers** in the workplace may worsen their symptoms. This is called **work-aggravated asthma**. This is different from occupational asthma, as the symptoms have not been caused by exposure to a sensitiser at work.

Workplace triggers may include:

- Tobacco smoke
- Exercise
- Allergens (e.g. pollens, moulds, animals and dust mite)
- Changes in the weather/temperature
- Emotions (e.g. distress, excitement)
- Foods, preservatives and colourings

Not all people with asthma are affected by the same trigger factors. It is important that people with asthma find out which triggers they need to avoid.



3. Reactive Airways Dysfunction Syndrome (RADS)

When inhaled, some substances may cause severe irritation in the airways. These substances are called **irritants**. They may cause symptoms similar to those of asthma. This is known as **reactive airways dysfunction syndrome** (RADS). This is usually the result of a single high exposure to a known irritant.

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Irritants may cause wheeze and shortness of breath in people who already have asthma. Symptoms usually appear within 24 hours of exposure. Some known irritants include:

- Solvent vapours
- Corrosive mists (e.g. acid mist)
- Irritant gases (e.g. hydrogen chloride, ammonia, chlorine, sulphur dioxide, nitrogen dioxide)
- Irritant particles (e.g. dust, smoke)
- Some perfumes
- Cleaning agents

Irritants may also be found at home (e.g. cleaning agents). When using these products it is important to follow the directions on the container. Make sure there is proper ventilation and use a mask if necessary.

Preventing asthma in the workplace

In contrast with usual forms of asthma, taking action early may cure the problem.

1. Reduce exposure to sensitisers, triggers and irritants

Avoiding exposure to known asthma **triggers** and **irritants** can prevent workplace-aggravated asthma and RADS.

To prevent development of occupational asthma, exposure to **sensitisers** must also be prevented. There are three common groups of sensitisers - substances of **plant**, **animal** and **chemical** origin. Some common examples are listed in the table opposite.



SENSITISER**OCCUPATIONS MOST AT RISK*****Substances of plant origin***

Grain dust, wheat/rye dusts and flour	Food processors, grain handlers, millers, bakers
Colophony resin	Electronics workers
Western red cedar dust and other woods	Woodworkers
Latex	Health care workers, sex workers
Tea and coffee dusts	Packing workers, food process workers
Flowers (e.g. Gypsophila)	Florists, gardeners
Hay	Farm and produce workers
Cotton	Cotton ginnery workers

Substances of animal origin

Laboratory animal dust	Animal carers, laboratory workers
Bird products	Poultry farmers, farmers
Shellfish and crustaceans (e.g. lobsters, crabs)	Shellfish processors
Detergent enzymes (e.g. alcalase)	Detergent manufacturers
Insects (e.g. silkworms)	Silkworker farmers
Cockroaches	Entomologists, laboratory workers

Substances of chemical origin

Glutaraldehyde	Nurses, pathology assistants
Di-isocyanates	Spray painters, polyurethane foam manufacturers
Acid anhydrides (epoxy and alkyd resins)	Spray painters, polyurethane foam manufacturers
Aluminium pot room fumes	Smelter workers
Metal salts, platinum, cobalt, nickel	Metal platers, processors

2. Occupational health and safety procedures

Employers are obliged to ensure the health and safety of their employees at work. You are obliged to follow the safety instructions given by your employer and to wear any protective equipment or clothing provided by your employer.

Hazard identification

It is the role of your employer to:

- Identify substances in the workplace that may be harmful and inform employees about them (Material Safety Data Sheet).
- Have safety measures in place that lessen the risk of being exposed to sensitisers and irritants in the workplace (e.g. provide protective clothing).
- Carry out regular employee health checks if exposure to these substances cannot be removed or controlled. Make sure employees are properly trained and supervised in the use of these substances.
- Check with the local Occupational Health & Safety Authority to assess the risks to employees being exposed to these substances.

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Asthma Friendly Workplace guidelines

Workplaces that are asthma friendly have policies and procedures that eliminate or at least minimise exposure to sensitisers, irritants and triggers.

Information on hazard management may be obtained from the Occupational Health and Safety Commission in your state or territory.

These guidelines serve as a checklist in determining whether your workplace is asthma friendly.

1. Is your workplace smoke free?
2. Are dusts and other chemical agents controlled?
3. Do workers use substances that are thought to be safe?
4. Does your work area have adequate ventilation systems?
5. Are ventilation systems well maintained?
6. Are control systems regularly monitored and maintained?
7. Are staff trained to respond to an asthma emergency?
8. Do you have asthma first aid kits provided?
9. Are the hygiene facilities in accordance with OH&S regulations?
10. Are workers educated about asthma?
11. Do you have effective health reporting and consultation mechanisms?
12. Are workers advised about the asthma provisions (training opportunities, asthma first aid kits, policies, guidelines and procedures) in place?

ASTHMA FIRST AID PLAN

- Step 1** Sit person upright and give reassurance.
- Step 2** Without delay give 4 separate puffs of a reliever (*Airomir, Asmol, Bricanyl* or *Ventolin*). The medication is best given one puff at a time via a spacer device*. Ask the person to take 4 breaths from the spacer after each puff of medication.
- Step 3** Wait 4 minutes.
- Step 4** If there is little or no improvement, repeat steps 2 and 3.

If there is still little or no improvement, call an ambulance immediately (Dial 000).

Continuously repeat steps 2 and 3 while waiting for the ambulance.

**Just use the puffer on its own if you don't have a spacer*

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Further information

For further information about asthma or to receive an Asthma First Aid poster contact your local Asthma Foundation on 1800 645 130.

Occupational Health and Safety Authorities:

New South Wales

Ph: 02 9370 5000

Fax: 02 9370 5999

www.workcover.nsw.gov.au

Victoria

Ph: 03 9641 1444

Toll free: 1800 136 089

Fax: 03 9641 1353

www.workcover.vic.gov.au

Queensland

Ph: 07 3247 4711

Fax: 07 3220 0143

www.detir.qld.gov.au/hs/hs.htm

South Australia

Ph: 08 8233 2222

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www.workcover.sa.gov.au

Tasmania

Ph: 03 6233 7657

Fax: 03 6233 8338

www.wsa.tas.gov.au

Northern Territory

Ph: 08 8999 5010

Fax: 03 8999 6650

www.nt.gov.au/wha

Western Australia

Ph: 08 9327 8777

Fax: 9321 8973

www.safetyline.wa.gov.au

ACT

Ph: 02 6205 0200

Fax: 08 0321 8973

National Occupational Health & Safety Council

Ph: 02 9577 9555

Fax: 02 9577 9202

www.worksafe.gov.au

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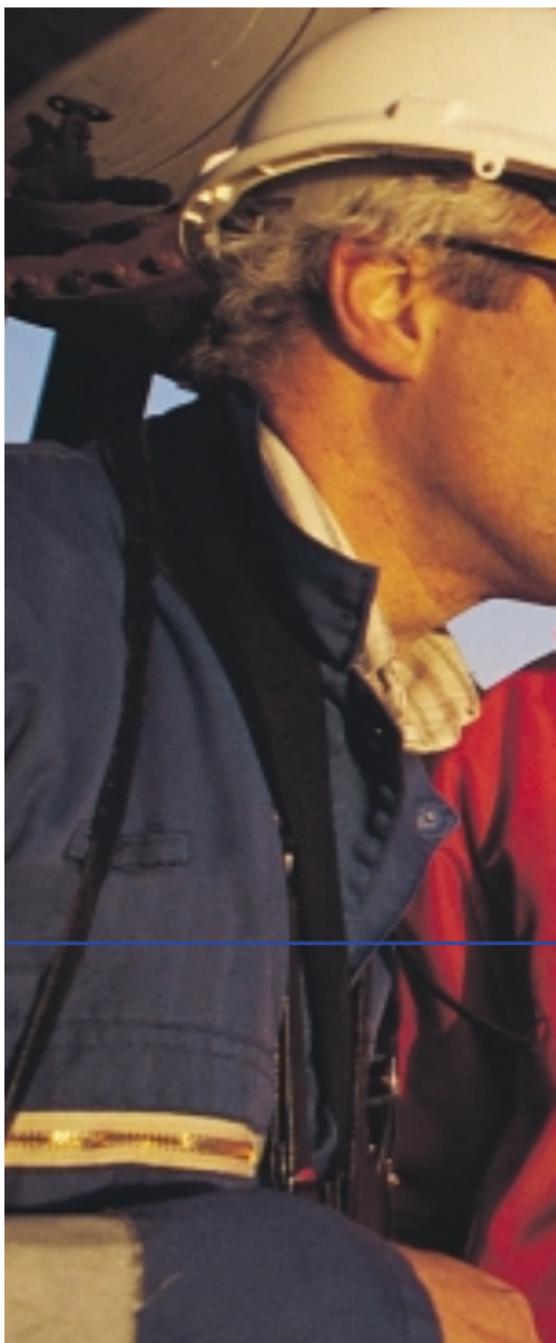
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Call 1800 645 130

(office hours)

for professional, confidential and independent information about asthma

www.asthmaaustralia.org.au



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