

A SOUTH AFRICAN EMPLOYER'S GUIDE TO OCCUPATIONAL ASTHMA

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based on an original by
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For more information on asthma please visit
the National Asthma Education Programme
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This pamphlet provides important information on the symptoms and effects of occupational asthma, as well as advice on how to comply with your legal duty to protect your employees from exposure to substances that can cause occupational asthma.

What is occupational asthma?

Occupational asthma is asthma caused by substances inhaled in the workplace. It is a preventable disease. About 10% - 15% of workers may develop this condition, but this may be higher in industries where workers are exposed to agents that cause asthma.

What causes it?

Substances called respiratory sensitisers are the main cause, but respiratory irritants can also trigger asthma attacks. Sensitisers cause an allergic reaction in the airways of exposed individuals, resulting in the typical symptoms of asthma. Some of the common sensitisers are shown below, but there are many more.

Substance group	Common activities/workers at risk
Isocyanates	Spray painting; plastic and foam manufacturing
Flour / Grain and cereals	Handling grain; milling; malting; baking
Soldering fumes, Welding fumes	Soldering; electronic assembly welding
Animal fur, hair or feathers	Working with animals
Wood dusts	Sawmilling; woodwork
Anhydrides, glues or resins	Working with epoxy resin or methacrylate
Latex	Wearing latex rubber gloves, healthcare workers
Platinum salts	Refining platinum
Enzymes	Detergent users, pharmaceutical workers, bakers
Amines	Lacquer workers, soldering
Dyes	Textile workers
Formaldehyde, glutaraldehyde	Healthcare workers, x-ray processing
Metals	Soldering, metal refiners

Who is at risk?

All workers exposed to sensitisers in the workplace are at risk. Exposure to sensitisers above the **occupational exposure limit (OEL)** increases the risk. There are various other individual factors that can increase the risk of a worker acquiring asthma. However, only a small percentage of people with such risk factors are likely to develop the disease. Legally this cannot be considered a reason for excluding a worker from employment. Sometimes high level exposure to an irritant substance such as chlorine or sulphur dioxide may cause irritant occupational asthma without sensitisation.

What are the early warning symptoms and signs?

- Runny or stuffy nose, watery or prickly eyes
- Wheezing, tight chest
- Repeated doctor's diagnosis of "acute bronchitis"
- Breathlessness
- Coughing, with or without phlegm, especially late at night or early in the morning.

These symptoms need not be present only at the workplace, but can be seen when the worker returns home from work. It may take from a few weeks to many years of exposure to a sensitiser before symptoms start. Once a worker is sensitised, asthma symptoms can occur within minutes of beginning work, or many hours after leaving work. Symptoms usually improve when the worker is away from work for long periods (weekends and holidays).

What does this mean for the worker?

The sensitised employee should be **relocated as soon as possible**. Even minute quantities of the sensitising agent can cause an asthma attack. Continued exposure leads to increasingly severe symptoms, permanent damage and disability.

What does this mean for you?

Early diagnosis and relocation of the worker away from exposed areas will ensure that the worker remains healthy and productive, without the need for chronic medical treatment. The employer is therefore able to make direct savings from an early intervention. This also provides the employer with the opportunity to review the workplace hazard controls as per our legislation.

How can you determine whether your workplace has this problem or is likely to cause workers to become ill?

The first step is to identify the hazardous substances which are sensitisers that may be present in your workplace. As an employer you have a legal obligation under the **Occupational Health and Safety Act 1993** and the Regulations for Hazardous Chemical Substances, 1995. These include carrying out risk assessments which identifies these agents and the extent of the risk that they pose.

The next step, should your workers be exposed to a sensitiser, is to determine whether any of your workers are likely to be affected by these exposures. This (also a legal obligation) requires your workplace to have a medical surveillance programme. Consult an occupational health professional on setting up the procedures. The Regulations for Hazardous Chemical Substances also provide guidelines.

What are your legal duties?

Under the abovementioned legislation, your legal duty is to:

- Assess the risk to health
- Prevent or control exposure or as last resort, provide protective equipment
- Educate and train workers on the risk and the precautions needed
- Monitor the health of your workers

The Labour Relations Act 1995 (Department of Labour) states that it is the employer's duty to investigate cases of disability in workers and consider reasonable methods to accommodate incapacitated workers, especially if the disability is as a result of an occupational injury or disease (like occupational asthma).

Workers with occupational asthma are entitled to compensation in terms of the **Compensation for Occupational Injuries and Diseases Act 1993** for non-mine workers, and the **Occupational Diseases in Mines and Works Act** for workers on mines and in scheduled works (in the case of platinum salt sensitivity). Employers should ensure they are registered with the relevant Compensation authority.

How can you prevent or control exposure at your workplace?

You should first try to prevent the exposure by:

- Changing the method or modifying the process
- Substituting an alternative to the substance

If this is not reasonably practicable, you must adequately control exposure by one or more of the following:

- Total enclosure of the process
- Partial enclosure and extraction
- Minimise the chances of spills and leaks

If this still cannot achieve adequate control, you must provide suitable protective equipment and ensure it is correctly maintained.

Information and training

Workers should be trained about the potential risks from substances to which they are exposed. They should understand the control mechanisms in place.

Medical Surveillance

Health surveillance is necessary for all employees exposed to respiratory sensitisers. It is not a substitute for prevention or control. If medical surveillance indicates that an employee has developed occupational asthma:

- The diagnosis should be confirmed by a doctor or chest physician
- Relocate the employee away from exposure
- Review your control systems to prevent other employees becoming sensitised.

Information Sources

Legislation

Occupational Health and Safety Act (Act 85 of 1993).
Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993).

Occupational Diseases in Mines and Works Act (Act 78 of 1973) amended in 1993.

Labour Relations Act (Act 66 of 1995).

Occupational Medicine Resources

Public Sector Occupational Medicine Clinics:

Kwazulu Natal	Occupational Medicine Clinic, King Edward Hospital	031 260 4471
Gauteng	Occupational Medicine Clinic, National Institute for Occupational Health	011 712 6420
Western Cape	WorkHealth Occupational Diseases Clinic, Groote Schuur Hospital	021 404 4369

Occupational Hygiene

Lists of approved inspection authorities, risk assessment companies and PPE suppliers in South Africa are available from the Department of Labour.

National Compensation Offices

Compensation Commissioner
(Department of Labour) **012 319 9111**

Compensation Commissioner
(Miners) (Department of Health) **011 403 6322**

Circular Instructions of the Office of the Compensation Commissioner (Department of Labour)

- Circular Instruction 176 regarding compensation on Occupational Asthma
- Circular Instruction on 177 regarding compensation for Irritant induced asthma
- Circular Instruction 184 regarding compensation for Work Aggravated Asthma

The Circular Instructions are guidance documents on how the Compensation Commissioner processes claims for compensation. The above are useful documents for work related asthma.



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EDUCATION PROGRAMME

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