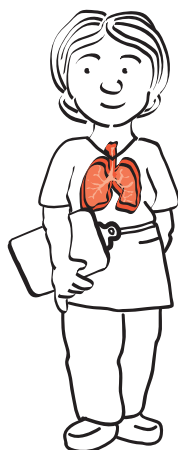


Work-related Asthma in Health Care: Recognition and Prevention



Asthma is a common lung disease that makes breathing difficult. It can affect your ability to work and your overall quality of life. When asthma is not well controlled, it can even threaten your life. If you work in health care, you are potentially at risk for developing work-related asthma.

What is work-related Asthma?

When asthma is caused or triggered by breathing in one or more substances in the workplace, it is called “work-related” asthma. There are two types of work-related asthma: *occupational asthma* (OA) and *work-aggravated asthma* (WAA).

Occupational asthma occurs when a substance at work causes the worker’s asthma. Table 1 lists some of the substances in health care that can cause OA.

Work-aggravated asthma takes place when a worker already has asthma and it worsens because of irritants or other exposures/factors in the workplace. Irritants include dust, smoke, fumes, sprays, and perfumes and scented products. Cold temperatures, dry air or exertion at work can also aggravate asthma.

What Are the Symptoms of Work-related Asthma?

People suffering from work-related asthma often do not realize that their symptoms are related to exposures/factors at work because work-related asthma and regular asthma have the same symptoms. They include any or all of the following:

- cough
- shortness of breath
- wheezing, and
- chest tightness.

In work-related asthma, the symptoms usually become worse during the working day or up to several hours after work, and throughout the workweek. These symptoms decrease on days off work, such as over the weekend, and during vacations.

If you have these symptoms, go to your doctor and the occupational health/employee health department at work. Also, tell your supervisor, union representative and joint health and safety committee (JHSC) if your doctor or occupational health/employee health department think that the asthma is possibly work-related.

What Causes or Triggers Work-related Asthma in Health Care?

A number of agents commonly used in health care can cause occupational asthma. The following Table lists some examples.

Table 1: Some Agents that Cause Occupational Asthma in Health Care

Agent	Workers at Highest Risk
Natural rubber latex	All workers, particularly those who wear powdered natural rubber latex gloves
Glutaraldehyde	Radiographers, nursing staff ¹ (in particular, endoscopy nurses)
Quaternary ammonium disinfectants and other disinfectants (e.g., chloramine T and ethylene oxide)	Nursing staff, housekeeping staff and any other staff involved in cleaning or exposed to freshly cleaned areas
Proteolytic enzymes	Pharmacists and pharmaceutical technicians, laboratory technicians, respiratory therapists, nursing staff
Formaldehyde	Radiographers, laboratory technicians, morgue attendants and technicians, researchers, doctors

In addition to agents that can cause occupational asthma (Table 1), some *irritants are common triggers* of work-aggravated asthma in health care workers. The most common are:

- perfumes and strongly scented personal care products
- cleaning products, and
- other chemicals (e.g., glues and solvents).

If you have asthma that seems worsen with these exposures at work, you should see your doctor to ensure your asthma medications are optimal. Also talk to your supervisor and JHSC about possible ways to reduce your exposure to these irritants. For example, a scent-free work area or workplace can help to reduce exposure to perfumes. In addition, “green” cleaning products, which have been certified to have less effect on the environment and health, are now available for institutional use.

Gloves

The proper gloves provide an effective barrier against blood, other body fluids and most chemical agents. However, all gloves are not the same. Gloves made from natural rubber latex (NRL), if powdered, can lead to latex allergy and work-related asthma. To protect yourself and your co-workers, wear gloves made from other substances, such as nitrile, vinyl, butyl rubber, neoprene or polyurethane. If NRL gloves are needed, they should be low-protein and powder-free. If you are allergic to NRL, you should never use NRL gloves and should avoid direct contact with other NRL products.

Your workplace should have a policy, measures and procedures for glove use, as well as provide education and training for workers. If your organization does not have glove use guidelines in place, ask your JHSC to make a written recommendation to the employer to develop a glove use policy, measures and procedures.

¹ Nursing staff refers to registered nurses, registered practical nurses and nurse practitioners

How Can Work-related Asthma be Prevented?

Work-related asthma can largely be prevented by eliminating or reducing exposure to any agents that are known to cause it (Table 1). Both employers and employees have a role to play in preventing work-related asthma.

Employers:

- first, try to **eliminate** the asthma-causing agent from the workplace
- if elimination is not possible, **substitute** a less hazardous agent
- when substitution is not possible, **control the exposure** by closing off the work processes that release the agent into the air and install ventilation systems to capture and contain emissions (e.g., gases or vapours) at the source
- apply administrative controls, such as policies, procedures, safe work practices, job rotation and minimizing exposure time of workers
- provide **personal protective equipment** (PPE) to employees and training on the proper use, storage and maintenance of this equipment; PPE is the last line of defence, to be used when exposures cannot be prevented or significantly reduced by elimination, substitution and control
- train employees on safe working and housekeeping procedures, and
- monitor the exposure level of hazardous agents in the workplace, such as ethylene oxide and formaldehyde, to make sure that workers are not at risk.

It is important to inform employees about potential workplace hazards and provide proper training. Seek advice from occupational health professionals on how to recognize, evaluate and control workplace hazards and their health effects. Provide education and information to employees on work-related asthma and its control measures.

Employees:

- learn about the hazards in the workplace by speaking to the health and safety representative, an occupational health professional (e.g., nurse or doctor from your occupational health/employee health department) or the employer
- attend training courses provided on work-related asthma
- be aware of the early signs of work-related asthma
- follow safe work practices, policies and procedures, provided by the employer
- use the PPE provided
- report any problems with equipment, PPE or ventilation systems, and
- participate in all health and safety programs offered in the workplace.

What Should I do if I Have Trouble Breathing?

Act right away if you have symptoms of work-related asthma:

- make an appointment with your family doctor
- tell your doctor your symptoms, where you work, what your job is and what chemicals and materials you work with every day
- take this fact sheet to your doctor, and
- ask for help from a health care professional with expertise in work-related asthma (e.g., a respiratory doctor, an allergist or an occupational health doctor or nurse from your occupational health/employee health department, OSACH, OHCOW or an occupational lung disease clinic).

If your asthma started while you were working and seems worse at work, it is particularly important to have specialized tests arranged to determine whether you have occupational asthma.

If your doctor tells you that you have work-related asthma (i.e., either occupational asthma or work-aggravated asthma),

report to your supervisor right away. In addition, inform your occupational health/employee health department, JHSC representative, union representative or an injured worker group.

Anyone who has work-related asthma needs ongoing protection from asthma-causing agents or triggers at work, even if the asthma is controlled with medications. Steps can be taken to remove the worker from the exposure, such as changing the duties within the current job, or changing jobs within the workplace. In some cases, it may be necessary for the worker to leave the job, especially if he or she has occupational asthma.

Work-related asthma is a serious illness. Without treatment, it may cause permanent disability. Early recognition and treatment are very important to prevent this illness from getting worse.

For more information, contact:

- Occupational Health Clinics for Ontario Workers: www.ohcow.on.ca or 1-877-817-0336
- Ontario Safety Association for Community and Healthcare: www.osach.on.ca or 1-877-250-7444
- The Lung Association's Asthma Action Helpline: 1-800-668-7682
- The Lung Association: www.on.lung.ca or 1-888-566-5864
- The Asthma Society of Canada: www.asthma.ca or 1-866-787-4050
- Workplace Safety & Insurance Board: www.wsib.ca or 1-800-465-5606
- Ministry of Labour health and safety information: www.labour.gov.on.ca/english/hs/index.html or 1-800-268-8013
- Contact the Occupational Health Clinics for Ontario Workers or Ontario Safety Association for Community and Healthcare for the companion brochure, *Work-related Asthma and You: Preventing Work-related Asthma in Health Care Workers*, which accompanies this fact sheet.

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This brochure is provided for general information purposes only. For further information, consult a doctor or other health care professional. The information provided in this brochure has been developed by OSACH/OHCOW and does not necessarily reflect the policies or positions of the Government of Ontario.