

PREVENTING WRA

Both employers and workers have a role to play in prevention.

EMPLOYERS:

- Seek advice from occupational health professionals on how to recognize, evaluate, and control workplace hazards and their health effects.
- Try to eliminate the asthma causing agent/s: If elimination isn't possible, substitute with a less hazardous agent.
- When substitution is not possible enclose the work processes and install efficient ventilation systems.
- Ensure a current Safety Data Sheet for any hazardous product is readily available for workers.
- Inform workers about the health effects associated with exposure to agents in the workplace and provide instruction and training on safe work procedures.
- Assess and monitor the level of exposure to isocyanates and other hazardous agents in accordance with Ontario Ministry of Labour Occupational Exposure Limits (see Regulation 833).
- Provide workers with the correct type of personal protective equipment (PPE). Provide training and instruction on its use, storage and maintenance. PPE is the least effective way to control a worker's exposure to agents and should only be used as a last resort.

WORKERS:

- Participate in training about hazards in your workplace and apply what you learn to your job.
- Consult the Safety Data Sheet for information about ingredients, health hazards and safety precautions.
- Follow safe work practices; use the PPE provided.
- Report any problems with equipment or ventilation systems to your supervisor.
- Be aware of and report early signs of work-related asthma.

MORE INFORMATION ABOUT WORK-RELATED ASTHMA:

Occupational Health Clinics for Ontario Workers
ohcow.on.ca | 1-877-817-0336

Infrastructure Health and Safety Association
ihsa.ca | 1-800-263-5024

Workplace Safety and Insurance Board
wsib.on.ca | 1-800-387-0750

Ministry of Labour
labour.gov.on.ca | 1-877-202-0008

The Lung Association - Ontario
Lung Health Information Line
lungontario.ca | 1-888-344-LUNG (5864)

Additional Work-Related Asthma information
lungontario.ca/work-related-asthma

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Occupational Health Clinics for Ontario Workers Inc. Centres de santé des travailleurs (ses) de l'Ontario Inc.



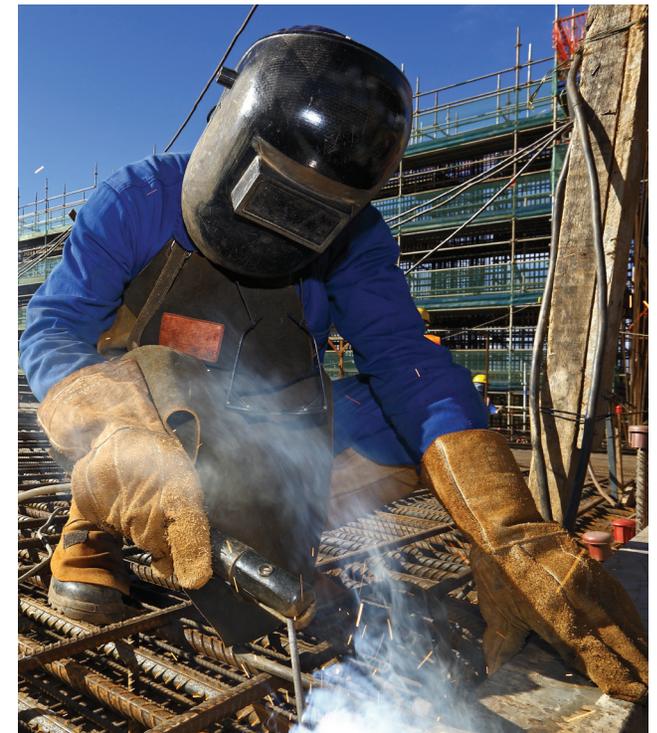
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Construction Industry



Work-Related Asthma
Facts for workers and employers

workrelatedasthma.ca

WORK-RELATED ASTHMA

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 caused or triggered by breathing in a substance in the workplace or by a condition in the work environment, it is called “work-related asthma” (WRA).

There are 2 types of work-related asthma:

1. OCCUPATIONAL ASTHMA (OA):

A worker’s asthma is caused by exposure to a sensitizing substance or an irritant in the workplace.

2. WORK-EXACERBATED ASTHMA (WEA):

Pre-existing asthma is worsened because of work exposure (e.g. dusts, smoke, fumes, cold temperatures).

HOW IS WRA DIAGNOSED

The diagnosis of work-related asthma requires special breathing tests, done at work and away from work.

- Inform your health-care provider about your symptoms, where you work, what your job is and what substances you use every day.
- Take this information to your health-care provider.
- Inform your supervisor, union, joint health and safety committee about your symptoms. Work with them to manage your exposure.

Occupational asthma may require a job change to eliminate exposure to the asthma-causing substances. For irritant-induced or work-exacerbated asthma, a return to work is possible once your asthma is controlled and exposures are reduced or removed.

WHAT CAUSES WORK-RELATED ASTHMA IN THE CONSTRUCTION SECTOR

Agents	Products/Applications
Isocyanates* Diisocyanates*	<ul style="list-style-type: none"> • Spray foam insulation • Certain paints, lacquers, varnishes • Certain glues and adhesives
Metal-working fluids (coolants and lubricants)	<ul style="list-style-type: none"> • Pipe threading • Drilling • Sawing • Stamping
Metal fumes	<ul style="list-style-type: none"> • Welding • High temperature cutting
Fungi, moulds and their toxins	<p>Material damaged by water including:</p> <ul style="list-style-type: none"> • Carpet • Drywall • Wood
Mineral Fibers	<ul style="list-style-type: none"> • Glass wool • Rock wool
PVC dust and fume	<ul style="list-style-type: none"> • Cutting, drilling, heating PVC pipes and materials
Wood dusts (e.g. Western Red Cedar, maple)	<ul style="list-style-type: none"> • Cutting • Sanding wood
Methyl methacrylate	<ul style="list-style-type: none"> • Adhesives
Chromium	<ul style="list-style-type: none"> • Cement dust • Welding fume
Anhydrides	<ul style="list-style-type: none"> • Epoxies
Colophony/Rosin	<ul style="list-style-type: none"> • Flux used in soldering

- Construction workers sometimes work in industrial plants and may be exposed to industrial process agents.
- Construction workers may perform work in close proximity to other trades who may work with agents that cause or aggravate asthma.

*ISOCYANATES, DIISOCYANATES

These are the main chemicals that cause occupational asthma in construction, automotive parts, foam and expanded plastic industries. These highly reactive chemicals are used to produce foam products and paints. The more commonly used isocyanates include:

- **TDI** - toluene diisocyanate
- **MDI** - methylene diphenyl diisocyanate
- **HDI** - hexamethylene diisocyanate

Workplaces in Ontario that use isocyanates must provide medical surveillance; this is a legal requirement.

HOW TO RECOGNIZE WRA

To help find out whether you may have work-related asthma, you can ask yourself the following questions:

1. Do I have symptoms of asthma (cough, chest tightness, wheeze and/or shortness of breath)? Yes No
2. Do my symptoms of asthma first start or become worse after the work day begins? Yes No
3. Do my symptoms get worse as the work day or work week goes on? Yes No
4. Do my symptoms decrease on holidays and/or when I am away from work? Yes No
5. Do I work with any asthma-causing agents listed in the table or any other known asthma-causing agent? Yes No
6. Was there an unusual exposure at work (such as a chemical spill) within 24 hours before symptoms started? Yes No
7. Do co-workers also have symptoms of asthma? Yes No

A “yes” answer to questions 1 or 2 implies the need to be assessed by a doctor or nurse practitioner.