

Important Facts About Work-Related Asthma

Asthma is one of the most common and costly chronic health conditions in the nation. It affects over 38 million Americans at some point in life and associated costs are estimated to be over \$30 billion annually [1].

- In 2010, an estimated 15 million working-age (18 to 64 years old) adults in the U.S. had asthma [2].
- Overall 9% of ever-employed adults in the U.S. with asthma have been told by a health professional that their asthma is work-related. Florida has the highest proportion with 14.1% [3].
- In Florida, between 2007 and 2010, the proportion of adults that believed their current asthma was caused or made worse by work ranged from 45% to 59% [4].
- Work-related asthma can often be prevented.

WHAT IS WORK-RELATED ASTHMA?

Asthma is a lung disease that is caused by swelling and tightening of the lung airways due to inflammation. An asthma attack can be triggered by airway infections, allergens, chemical irritants and pollutants. Asthma that is caused or made worse by triggers in the work environment is called work-related asthma.

Work-related asthma falls into two categories:

1. Work-aggravated/Work-exacerbated asthma: Persons with a preexisting history of asthma that is significantly worsened by workplace exposures.
2. New-onset asthma
 - a. Reactive airways dysfunction syndrome: Asthma that occurs within a few hours of high-concentration exposure to an irritant at work.
 - b. Occupational asthma: Asthma resulting from exposure to sensitizers in the workplace. Can take from two weeks to 20 years to develop.

For more information, please contact the Florida Department of Health, Division of Disease Control & Health Protection, Bureau of Epidemiology, Occupational Health and Safety Program at 850-245-4401, <http://www.floridahealth.gov/healthy-environments/occupational-health/index.html>



[1] P. Garbe and C. A. Crawford, "2011 Behavioral Risk Factor Surveillance System Asthma Call-Back Survey History and Analysis Guidance," Atlanta, 2013.

[2] Moorman JE, Akinbami LJ, Bailey CM, et al. National Surveillance of Asthma: United States, 2001–2010. National Center for Health Statistics. *Vital Health Stat.* 2012;3.

[3] G. E. Knoeller, J. M. Mazurek and J. E. Moorman, "Work-Related Asthma — 38 States and District of Columbia, 2006–2009," Centers for Disease Control and Prevention, Atlanta, 2012.

[4] Behavioral Risk Factor Surveillance System Asthma Call-Back Survey



Symptoms • Triggers • Occupations

WHAT ARE THE SYMPTOMS OF WORK-RELATED ASTHMA?

(In severe cases, these symptoms can be disabling.)

- Wheezing
- Chest tightness
- Shortness of breath
- Coughing
- Eye irritation
- Nasal congestion/runny nose

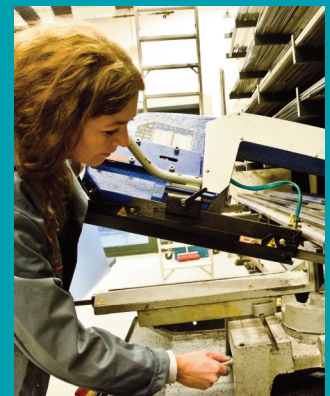
WHAT TRIGGERS WORK-RELATED ASTHMA?

There are more than 400 substances found in workplaces that can trigger a person's asthma. Common work-related asthma-triggering agents include the following:

- Chemicals in paints, cleaning products, foams, and other products
- Metal working fluids
- Animals and insects
- Wood, grain, flour, and latex dust
- Molds

WORKERS IN MANY DIFFERENT OCCUPATIONS ARE AT RISK FOR DEVELOPING WORK-RELATED ASTHMA:

- Bakers and pastry makers
- Detergent manufacturers
- Drug manufacturers
- Farmworkers/Animal handlers
- Nurses
- Spray painters
- Welders
- Chemical workers
- Food processing workers
- Grain elevator workers
- Laboratory workers
- Metal workers
- Millers
- Plastics workers
- Woodworkers



Diagnosis

HOW DO I KNOW IF I HAVE WORK-RELATED ASTHMA?

If you think your asthma may be related to work, ask yourself the following questions:

- Are there things at work that make my asthma get worse or start an attack?
- Does my asthma start or get worse soon after I start work, or as a result of certain activities at work?
- Does my asthma get worse when I go back to work after being away from work on weekends or vacations?

If you answered "yes" to any of these questions, something at work may be causing your breathing problems.

HOW IS WORK-RELATED ASTHMA DIAGNOSED?

An asthma diagnosis needs to be confirmed by tests that may include a lung (pulmonary) function test or a specific lung irritant test. It is important that you visit your doctor to get a proper asthma diagnosis.

Prevention

CAN WORK-RELATED ASTHMA BE PREVENTED? **Yes!**

What employers can do:

- Eliminate or replace the agent or agents that can trigger asthma in the workplace.
- Substitute a less hazardous agent if elimination is not possible.
- Reduce or monitor the level of work exposure to agents that trigger asthma.
- Apply administrative controls such as policies, procedures, safe work practices, and job rotation.
- Improve the work environment and reassign the affected person to a low-exposure area.
- Train employees on safe working and housekeeping methods.
- Provide safety data sheet (SDS) that lists health hazards and safe handling and control steps.

What employees can do:

- Avoid areas of high irritant exposure.
- Follow work safety practices.
- Use personal protective equipment (PPE).
- Report any problems with equipment or ventilation systems.
- Participate in health and safety programs in the workplace.
- Attend training courses.
- Participate in routine medical screening for the initial symptoms and signs of asthma.

LINKS TO ADDITIONAL INFORMATION ON WORK-RELATED ASTHMA

• Asthma Management

Provides the latest information on asthma to health professionals to help improve their quality of care by gathering, analyzing, and sharing information on asthma. The National Heart, Lung, and Blood Institute sets standards for best-practice asthma management. <http://www.nhlbi.nih.gov/guidelines/asthma/>

• Work-Related Asthma Case Definitions Surveillance Information

The link directs you to an article titled, "Surveillance of Work-related Asthma in Selected U.S. States Using Surveillance Guidelines for State Health Departments." <http://www.cdc.gov/mmwr/pdf/ss/ss4803.pdf>

• Occupational Asthmagens from the Association of Occupational and Environmental Clinics

The Association of Occupational and Environmental Clinics maintains a list of substances that have been reported as asthmagens by experts in occupational asthma. <http://www.aoec.org/tools.htm>

• Table of Agents and Substances That Cause Occupational Asthma

400 agents and substances that cause occupational asthma. Information is provided on the disease symptoms, a diagnostic methodology, occupations associated with the substance, and list of key referenced papers with direct links to the "Medline" abstract, if available. <http://www.asmanet.com/asmapro/agents.htm>

• American Lung Association

Provides general information on occupational lung diseases. <http://www.lung.org/>

