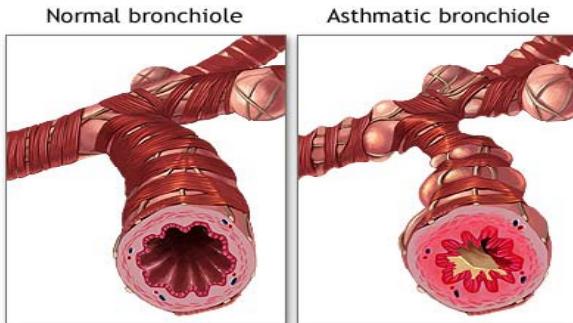


# Asthma Quick Facts

## What is asthma?

Asthma is a chronic condition that obstructs airflow, but the obstruction is reversible. It involves difficulty in breathing due to:

- Inflammation (swelling)
- Mucus in the airways
- Tightening of muscles around the airways



## How common is asthma?

- About 8% of Utah adults, aged 18 and older, currently have asthma (Source: Utah BRFSS, 2004)
  - » Males - 7.3%
  - » Females - 8.7%

## Asthma signs and symptoms

- Coughing
- Wheezing, a whistling sound when breathing
- Shortness of breath
- Chest tightness
- Sneezing and runny nose
- Itchy and inflamed eyes

Symptoms may be mild, moderate, or severe in intensity, or even life-threatening. Symptoms are more commonly experienced at night.

## Asthma triggers

A trigger is something that can cause an individual to have an asthma attack. Some examples include:

- Allergens (pollens, animals, dust, mold)
- Irritants (cold air, chemicals and sprays, tobacco smoke)
- Exercise
- Upper respiratory diseases

**A trigger is something that can cause an individual to have an asthma attack.**

## What increases an individual's chance for developing asthma?

Individual characteristics:

- Genetic makeup
- Age
- Sex
- Race

Medical conditions:

- Low birth weight
- Obesity
- Respiratory infections as a child
- Allergies

**Smoking and exposure to second-hand smoke increase the risk of developing asthma.**

# Asthma Quick Facts

## How is asthma treated?

Asthma cannot be cured, but it can be controlled by avoiding triggers and using medications to control symptoms.

Generally there are two types of medications:

- **Controller or long-term**
- **Rescue, quick-relief or short-term**

Both types of medications are important in helping control asthma. Each type is used for different purposes.

## Controller medications

These medications are taken daily. More common controller medications include:

- Salmeterol (e.g., Serevent)
- Fluticasone (e.g., Flovent)
- Cromolyn (e.g., Intal)
- Montelukast (e.g., Singulair)

Controller medications (long-term) treat the airway swelling or inflammation, the main problem of asthma. These medications reduce the swelling, prevent excess mucus from developing and help prevent the muscles from contracting around the airways. They also help make the airways less “twitchy” or irritated.

*Controller medications are taken at least once daily and prevent asthma attacks from happening long term. They should be taken until stopped by your doctor.*



## Rescue medications

More common rescue medications include:

- Albuterol (e.g., Proventil)
- Pirbuterol (e.g., Maxair)
- Ipratropium bromide and albuterol (e.g., Combivent)

Rescue medications work quickly and relax the muscles around the airways making it easier to breathe. These medications give temporary relief and their effects can last up to 4 hours. Rescue medications don't treat the swelling or mucus in the airways and when they wear off, the muscle tightening can return.

**It is important to seek medical care if you have asthma.**

## Poorly controlled asthma can lead to:

- Urgent care and emergency room visits
- Hospitalizations
- Sick days
- Activity limitations
- Lower quality of life

## What YOU can do if you have asthma

- Identify and minimize contact with asthma triggers
- Understand and take medications as prescribed
- Recognize early signs that asthma is getting worse
- Know what to do if asthma is getting worse

# Work-Related Asthma

## What is work-related asthma?

Work-related asthma is asthma that is caused by, or is made worse by, exposures or triggers in the workplace. Over 250 workplace agents are associated with work-related asthma. See Table 1 for common examples.

**Table 1:**  
**Work-related Asthma Triggers**

Type of Substance	Examples
Air pollutants	tobacco smoke, diesel exhaust, aerosol agents, dusts, gases and vapors
Dusts (organic/inorganic)	wood, rock, coal, protein dusts, silica, asbestos, latex
Fumes and vapors	chemicals, cleaning materials, welding, solvents, isocyanates, anhydride from heating and cooling metals quickly
Molds	all varieties
Pollens	trees, flowers, weeds
Gases	formaldehyde, ammonia, chlorine, sulfur dioxide, ozone, nitrogen oxides
Mists	paints, lacquers, varnishes, hair spray, pesticides, cleaning products, acids, etc

## When is asthma work-related?

### Do symptoms:

- Occur only at work or occur regularly after the work shift?
- Improve on week-ends or vacations?
- Increase over the course of the work week?
- Improve after a change in the work environment?

Work-related asthma may not appear for weeks or months following exposure, as it takes time for the body to become sensitive to the substance(s) causing asthma. Once asthma has developed, symptoms may occur at lower levels of exposure to the substance(s).

## How common is work-related asthma?

- Up to 20% of all asthma adult cases may be work-related asthma
- Of those diagnosed with work-related asthma:
  - » 20 – 27% are those with pre-existing asthma who experience aggravated asthma attacks due to workplace exposures
  - » Up to 80% are new asthma cases due to workplace exposures

## How can work-related asthma be prevented?

- Use engineering controls to reduce exposure by:
  - » Modifying work processes and installing enclosures
  - » Automating work procedures
  - » Installing local exhaust ventilation systems
- Use individual preventative measures by:
  - » Minimizing exposures to known asthma triggers
  - » Using appropriate respiratory equipment

# Work-Related Asthma

Treatment of work-related asthma is not different than “ordinary” asthma.

## How is work-related asthma treated?

Asthma cannot be cured, but it can be controlled by using medications to control symptoms and prevent asthma attacks, or by avoiding and/or minimizing exposure to triggers. Generally there are two types of medications:

- **Controller or long-term**
- **Rescue also called Quick-relief**

Both types of medications are important in helping keep asthma under control. Each type is used for different purposes.

## Steps to take if workplace exposures are affecting your lungs

### *I. Gather information about:*

- Symptoms you are experiencing
- When these symptoms began
- How often you have these symptoms
- Time of day or week that symptoms are worse
- Times that you feel better (e.g., when not working)
- Why you feel symptoms are related to work
- List of substances or materials that you are exposed to at work (see Material Safety Data Sheets (MSDSs) available at your workplace)
- List of previous jobs, hobbies, and smoking habits that may have or be affecting your lungs

### *2. Share the above information with your doctor.*

## Work-related asthma resources

- American Lung Association  
[www.lungusa.org](http://www.lungusa.org)
- Asthma and Allergy Foundation of America  
[www.aafa.org](http://www.aafa.org)
- Asthma Program, Utah Department of Health  
[www.health.utah.gov/asthma](http://www.health.utah.gov/asthma)
- American Academy of Family Physicians – Patient Education  
<http://familydoctor.org>
- Canadian Centre for Occupational Health and Safety  
[www.ccohs.ca/oshanswers/diseases/asthma.html](http://www.ccohs.ca/oshanswers/diseases/asthma.html)
- National Heart Lung & Blood Institute  
[www.nhlbi.nih.gov/health](http://www.nhlbi.nih.gov/health)
- Occupational Safety and Health Association  
[www.osha.gov/SLTC/occupationalasthma/](http://www.osha.gov/SLTC/occupationalasthma/)

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Henneberger, P.K., et al., Work-related exacerbation of asthma. Int J Occup Environ Health, 2002. 8(4): p. 291-6.

Lombardo, L.J. & Balmes JR. (2000) Occupational asthma: A review. Environmental Health Perspectives Supplements Volume 108 (S4), August, 2000

Occupational Respiratory Disease: Your workplace and your lungs, [www.familydoctor.org](http://www.familydoctor.org)

Utah Department of Health, Asthma Program, [www.health.utah.gov/asthma](http://www.health.utah.gov/asthma)

