



Occupational Asthma

Occupational asthma is a form of asthma that is caused by the body's response to the presence of a substance in the workplace. This response is called sensitization and develops after repeated exposures to certain dusts, fumes or vapors. During sensitization, your body mistakenly identifies a substance as something harmful. Your immune system will then start making allergy-causing antibodies in response to what it thinks is harming you. The next time you are exposed to the substance, these new antibodies recognize it and signal your immune system to release chemicals that cause a reaction.

What are the symptoms of occupational asthma?

Sensitization may not show any symptoms of disease, or it may be associated with skin rashes, hay fever-like symptoms or combinations of symptoms. Symptoms usually occur while the worker is exposed to a particular substance at work and include:

- Wheezing
- A tight feeling in the chest
- Coughing
- Shortness of breath

How long does asthma take to develop?

There is no fixed period of time in which asthma can develop. It may develop from a few weeks to many years after the initial exposure. However, three basic patterns for having an asthma episode have been established for sensitized workers:

- **Immediate** - episode usually develops within minutes of exposure and is at its worst after about 20 minutes. With treatment, recovery is about 2 hours.
- **Late** - episode can occur in different forms; usually starts a few hours after exposure and is at its worst after 4 to 8 hours. With treatment, recovery happens within 24 hours of exposure. However, the episode can start 1 hour after exposure with a 3 to 4 hour recovery. Some many cases of late asthma episodes start at night and continue to happen at the same time every night for a few nights following a single exposure.

- **Dual or combined** - when both immediate and late types of asthma episodes occur.

Who is at risk of getting occupational asthma?

Workers can develop occupational asthma from a variety of occupations and exposures. Many of these substances are common and would not generally be considered hazardous. People are at risk of developing occupational asthma if they work as:

- Hairstylists
- Animal handlers, veterinarians and farmers
- Bakers and millers
- Janitors and cleaning staff
- Health care professionals, hospital staff and pharmaceutical workers
- Printers
- Sea food processing workers
- Cigarette factory workers

How can occupational asthma be controlled?

Although there are medicines that can control asthma symptoms, it is important to stop the exposure. If exposure to the problem-causing agent is not stopped, you will need continuous treatment and breathing problems will continue.

Dust masks and respirators can help control exposure in the workplace, but these devices only work if they fit correctly and are well-maintained. To prevent further exposure, you might consider changing your job. If a job change is not possible, try relocating to another work area with limited or no exposure to the substance.

How can we prevent occupational asthma?

The best way to prevent occupational asthma is to replace dangerous substances with less harmful ones. When this is not possible, exposure should be reduced by using improved ventilation and enclosing harmful processes so they do not release as many harmful substances into the air that workers breathe.