

## What should employers and supervisors do?

Employers and supervisors should reduce workers' exposure to western red cedar dust by

- Identifying areas in the workplace that contain elevated levels of western red cedar dust.
- Implementing recommended dust control and ventilation measures, including:
  - Enclosing the operation or relocating the equipment to ensure that fewer workers are exposed
  - Isolating workers from the source of red cedar dust (for example, separate ventilation system supplying clean fresh air for workers in a sawmill control room)
  - Installing a dust-collecting system and local exhaust ventilation to remove dust at the source
  - Using wet methods rather than dry sweeping, or vacuuming rather than air blowing, to reduce the amount of dust released into the air (for example, at saws or milling equipment)
- Informing workers of the potential health hazards and instructing them on the use of dust control measures
- Maintaining all equipment, especially the exhaust ventilation and dust control systems, in good working order
- Relying on respirators to control worker exposure only when no other practical or feasible means are available to eliminate or control the dust. Workers required to wear respirators need to be fit-tested to ensure a good seal with the face. Workers must be clean shaven where the respirator seals with the face.
- Ensuring that workers wear coveralls and carefully remove and launder them to prevent exposure and to prevent workers from carrying dust from the work area

## What should workers do?

- Follow the employer's procedures on dust control.
- Ensure that dust control/local exhaust ventilation systems are working properly. Do not alter them without prior consent from the employer. Report any equipment that is not in good working order, and take steps to get it repaired or replaced.
- Take care of respiratory protective equipment. Change respiratory filters when necessary or at intervals recommended by the manufacturer. Periodically check the facial seal of the respirator. Store the respirator so that the inside surfaces do not become contaminated with wood dust (for example, place in a sealed plastic bag and in an area that is not exposed to contaminants).
- Keep enclosed areas enclosed, by keeping the doors shut.
- Keep the work area clean.
- Maintain personal hygiene. Wear protective clothing such as coveralls. Remove the protective clothing during the meal break. It's a good idea to take a shower after work and put on a fresh set of clothing to go home.
- Report any health problems, including symptoms of western red cedar asthma, to the first aid attendant, supervisor, or employer. See a doctor as soon as possible.

## For more information

Contact your workplace health and safety representative, family physician, or WorkSafeBC. The WorkSafeBC Prevention Information Line can answer your questions about workplace health and safety, worker and employer responsibilities, and reporting a workplace accident or incident. The Prevention Information Line accepts anonymous calls.

Phone 604 276-3100 in the Lower Mainland, or call 1 888 621-7233 (621-SAFE) toll-free in British Columbia.

To report after-hours and weekend accidents and emergencies, call 604 273-7711 in the Lower Mainland, or call 1 866 922-4357 (WCB-HELP) toll-free in British Columbia.

# Western Red Cedar Asthma



## Introduction

Exposure to western red cedar dust at work may result in a variety of health problems for some workers, including irritation of the skin, eyes, nose, and throat. Some susceptible individuals may also develop allergies to the dust. This may include skin allergies and allergies of the eyes, nose, and throat with symptoms such as watery itchy eyes and nose, tickle in the throat, and sneezing. Some workers may also develop asthma from exposure to western red cedar dust, an allergic reaction that involves the lungs.

This pamphlet answers the following questions related to western red cedar asthma:

- What is asthma?
- What is western red cedar asthma?
- Who is likely to develop western red cedar asthma?
- When do symptoms of western red cedar asthma appear?
- What should workers do if they develop symptoms of asthma?
- How is western red cedar asthma treated?
- How can western red cedar asthma be prevented?
- What should employers and supervisors do?
- What should workers do?

## What is asthma?

Air moves in and out of the lungs through air passages or tubes that connect to the mouth and nose. Asthma occurs when these air passages in the lungs narrow. They narrow because the muscles around them spasm and constrict, which decreases the diameter of the air passages. They also narrow because of inflammation that develops on the inside of the air passages. This inflammation causes thick sticky mucus, water, cells, and other material to block the air passages.

The inflammation in the air passages and the spasm of the muscles around the air passages in people with asthma can be caused by many things. Common triggers of asthma include exercise or exertion, cold temperatures, dust, smoke, pollen, and stress. Some individuals with allergies to cats, dogs, ragweed, mold, etc. can have asthma episodes caused directly by their allergies.

People can also develop allergies to substances in the workplace. In some of these people, the allergies can affect the lungs and cause asthma. These people then have occupational asthma. Their asthma is triggered by the specific substance they are allergic to in the workplace.

## What is western red cedar asthma?

This type of asthma is caused by exposure to the dust of western red cedar. The dust contains plicatic acid, which causes an asthmatic reaction in people who are allergic to the acid.

## Who is likely to develop western red cedar asthma?

Asthma brought on by exposure to western red cedar dust may affect people who breathe the dust in their workplace. Sawmill workers, shingle and shake mill workers, carpenters, construction workers, and cabinet makers are sometimes affected. It may also occur in people—such as wood carvers—who work with red cedar as a hobby.

It is not possible to predict who may become allergic to western red cedar dust and therefore at risk of developing western red cedar asthma. People who had childhood asthma or people with allergies are not necessarily more likely to develop western red cedar asthma.

## When do symptoms of western red cedar asthma appear?

Western red cedar may develop within weeks of ongoing exposure, or it may take years to develop. Once the asthma has started, it may take less and less exposure to cedar dust to cause symptoms.

Those who have developed western red cedar asthma can have symptoms occur immediately after dust exposure or the symptoms may be delayed and occur several hours after exposure began. For example, symptoms may begin at home, long after the work shift has ended.

At first, asthma symptoms occur with work exposure and improve away from work (for example, on weekends and holidays). If exposure continues, symptoms tend to worsen and persist even away from work.

## What should workers do if they develop symptoms of asthma?

A worker with symptoms of asthma should keep a record of those symptoms and see a physician as soon as possible. The doctor should be told about the worker's symptoms and the worker's occupation. If the doctor suspects asthma caused by western red cedar dust—or some other agent causing asthmatic symptoms—the worker may be referred to a specialist. Special medical tests may help confirm that western red cedar dust (specifically the plicatic acid in the dust) is responsible for the asthma.

## How is western red cedar asthma treated?

Western red cedar asthma is treated like all asthma: with a number of inhaled medications or pills, depending on the severity of the symptoms and the doctor's evaluation.

The most important part of the treatment is to avoid further exposure to western red cedar dust. If the correct diagnosis is made early and exposure ends shortly after onset of asthma

symptoms, there is a good chance that the asthma will improve substantially and in some cases disappear.

If exposure persists, there is a good chance that the asthma will worsen. Symptoms may become permanent even if exposure is eventually stopped.

## How can western red cedar asthma be prevented?

The occurrence of asthma caused by western red cedar can be prevented or reduced by eliminating or reducing worker exposure to this material. The employer is responsible for reducing exposure to workers to a level that is as low as reasonably achievable.

Engineering controls, such as good local exhaust ventilation and adequate dust control in the workplace, are key control measures for preventing workers from developing red cedar asthma. Exposure will be reduced by keeping all areas of the workplace as clean and free of cedar dust as possible. A suitable respirator, such as a properly fitted N95 particulate respirator, can be used to reduce exposure but only when western red cedar dust cannot be adequately controlled by other measures.

Workers who have been diagnosed as sensitive to the dust can be relocated to other jobs where there is no exposure to the dust.

Note: Respirators are inadequate for protection once a worker has developed asthma, since respirators are not 100% efficient, and sensitized individuals can respond to minute quantities of dust. Repeated exposure of asthmatics to western red cedar dust can result in ongoing disease, which can worsen over time, become less responsive to treatment, and cause permanent symptoms.