The *BSO Plus Safety Topic* is a review designed from the BSO Plus agenda. This safety topic is your way to stay current on the safety information over the 3 years, so please ensure you submit the completed test to your employer for record retention.

ASBESTOS

What is it?

Asbestos is the generic name that refers to six types of fibrous minerals that occur naturally in the environment. Its ability to separate into thin, strong particles makes it highly suitable for use as a non-combustible, non-conducting, and chemically resistant material. Unfortunately, its very nature of being virtually indestructible is what makes it such a hazard to humans.

Magnified asbestos fibres

Where is it used?

Although asbestos is now banned for use in most Canadian products, up until the mid-1970's it was still used in over 3000 different uses and applications. Products or materials that consists of 0.5% or more asbestos by dry weight are often referred to as "asbestos-containing material", or ACM. An ACM is categorized as either "friable" or "non-friable" to describe how easily asbestos fibres may become airborne when disturbed.

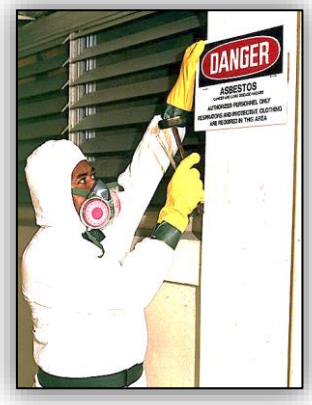
Friable asbestos can be crumbled, crushed, or pulverized by hand pressure and easily released into the environment.

Examples: sprayed fireproofing and thermal insulation on pipes.

Non-friable asbestos fibres are locked or bound into the material itself but may still be released through cutting or sanding activities.

Examples: vinyl floor tiles and drywall joint compound.

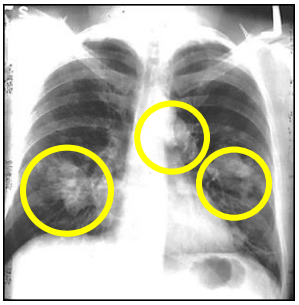
Some products that may contain asbestos are:



- **Building products**: Vinyl floor tiles and wall coverings; cement; shingles; asphalt floor tiles
- **Industrial products**: Welding blankets/screens; fire dampers; emergency generators; cooling towers
- **Insulation**: Electrical wiring insulation; thermal proofing for pipes and boilers
- **Automotive products**: Thermal insulation and exhaust manifolds; brake linings; clutch pads
- **Fire-resistant textiles**: Protective gear for firefighters; protective cloths and blankets; oven mitts

What are the potential health risks?

The prolonged inhalation of asbestos fibres has been directly linked to the following diseases:



Lung x-ray of asbestosis

- **Asbestosis**: A chronic lung disease caused by permanent scarring of the lungs. The scarring reduces the healthy breathing area of the lungs, forcing the lungs to work harder to take in oxygen and ultimately leading to difficulty in breathing.
- **Lung Cancer**: Inhalation of asbestos fibres has been linked to an increased risk for lung cancer in workers exposed to asbestos.
- **Mesothelioma**: This is a fairly rare but aggressive form of cancer that affects the lining of the heart, the chest, or the abdominal cavity. It is usually fatal.

Exposure to asbestos does not automatically mean a person will become sick. According to Health Canada, the risk of developing any illness or disease from exposure to asbestos depends on the level and duration of the exposure; the age of the person at the time of exposure; whether or not the person smokes or has smoked tobacco products; and the type and size of the asbestos fibres. Asbestos has a latency period of 5 to 30 years or more, meaning that it may be many years between the first exposure to asbestos and the first symptoms of illness.

Identification and control measures:

All Ontario workplaces where ACM is known to be present must have Asbestos Management programs. These track and identify the known locations of asbestos in accordance with Regulation 490/09 and, if applicable, Regulation 278/05 under the Occupational Health and Safety Act. In the field, all known ACM will be clearly identified through at least one of the following:

- Signs
- Stickers
- Tags
- Coloured metal banding around the pipes

Each work site may have different methods for identifying asbestos. When entering a new work site, find out which colours that site uses to identify asbestos and ACM. In the Chemical Valley, non-asbestos materials are generally identified with blue banding or tags, while red banding or tags indicate that the material contains asbestos.

If you think you may have disturbed and/or been exposed to asbestos, take the following action:

- Stop all work immediately
- If possible, do not leave the area so as not to contaminate other workers or work areas
- Notify your supervisor and area personnel
- Follow site specific procedures

If you are not sure whether or not something contains asbestos, assume it does and contact your supervisor. DO NOT disturb it.