Asbestos – The Hazards and Health Effects



What's at Stake?

Asbestos refers to six naturally occurring fibrous minerals that are resistant to heat, fire, and electricity.

Chrysotile asbestos is the most common and widely used type of asbestos and estimates show about 90-95% of all asbestos that remains in buildings in the U.S. and Canada is of this variety.

Since the 1950's, the harmful effects of breathing in asbestos fibers has been known. From its initial mining, through production and installation phases, to when it is disturbed during rebuilding or maintenance work, workers are at risk when inhaling asbestos fibers.

What's the Danger?

Asbestos is made up of microscopic fibers that can easily become airborne and inhaled as dust. Because of their shape, the asbestos particles cling to tissues of the lungs and other areas of the respiratory system.

Over time, these tiny fibers can cause inflammation, causing a number of health problems, including mesothelioma, a form of lung cancer. It is the most common and serious asbestos related illness and often lays dormant for many years before aggressively impacting breathing function and spreading to other areas of the body. It is hard to detect and usually untreatable by the time it is diagnosed.

Shipyard workers, individuals who worked in asbestos mines, auto mechanics and construction workers, such as pipefitters and plumbers, and workers involved in building demo, have a high risk of exposure to asbestos.

Hazards include:

- Asbestos in building floors, walls, roof, insulation, pipes, boilers, fireproofing materials.
- Roads lined with asbestos cement sheeting and piping products.
- Asbestos in motor vehicle brake parts, clutch facings, transmission parts, brake pads and linings.

How to Protect Yourself

4 easy ways to keep yourself safe while working near asbestos

1. **Think asbestos**

- Has the site been checked for asbestos?
- Know the materials you are working with – is there a chance they might contain asbestos e.g.
  - Roof panels, soundproof panels, heat resistant materials?
- Stop work if you think there might be asbestos present in the material you are working with and report it to the site manager.

2. **Levels of protection**

- You're at a low risk of asbestos exposure if you are working alongside but not disturbing asbestos sheets or products. In this case,
  - No protection is needed but you should be made aware that asbestos is present.
  - Your employer should have an exposure minimization plan in place.
- You're at a moderate risk of exposure if you're using power tools to cut asbestos product or removing asbestos products that risk breaking. In these situations:
  - PPE and a respirator are needed, with dust extraction measures at the site.
  - Warning signs must be posted around the area to warn of exposure risk.
  - Protective polythene sheeting should be put down.
  - Wet methods of sweeping, mopping, or vacuuming dust must be used.
  - All asbestos containing material must be disposed of dust per regulatory requirements.
- Asbestos abatement workers have a high level of exposure risk and additional levels of protection and training are required.

3. **Clothing and handling considerations are important because asbestos fibers can leave the site on clothing and footwear and be breathed in by family or the public.**

- Protective clothing must include the head and feet, such as lace-free footwear or boot covers.
- A coverall designed to prevent asbestos fibers from getting in with a snug fit to the neck, wrists and ankles should be used.
- PPE should be disposable if possible.
- If not:
  - PPE should ONLY be removed on site.
  - Washing must only be done in laundries specifically set up for handling asbestos-contaminated clothing.

4. **Breathe clean air.**

- DO NOT USE single use, or disposable respirators during work with asbestos.
- Air purifying masks that filter asbestos fibers out of the air may be suitable in some cases. Remember to change and dispose of filters per manufacturer's instructions.
- In many cases a full-face air supplying respirator is required to provide maximum protection.

Final Word

Exposure to asbestos fibers is highly dangerous to people working with it and those living and working around sites of asbestos production. Stringent rules are in place to reduce worker exposure, but it is vital you look out for yourself. Know the risks of your work and how to protect yourself.