



TEAMSTERS Safety & Health **FACTS**

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ASBESTOS IN BUILDINGS

About 20% of all public and commercial buildings in the U.S. contain some asbestos material, according to the Environmental Protection Agency. In about two-thirds of those buildings, at least some of the asbestos material is damaged. Almost half have "significantly damaged" asbestos.

Asbestos may be found in a variety of locations:

- ♦ Insulation on boilers and steam pipes;
- ♦ Fireproofing on structural steel and decking; and/or
- ♦ Sprayed or troweled on plaster material for acoustic, decorative, or other purposes on ceilings, walls, and other surfaces.

Asbestos that is tightly bound or sealed into the building material does not pose a health hazard. It is only when the asbestos material becomes "friable" – capable of becoming crumbled and releasing asbestos fibers into the air – that the danger of asbestos disease exists. This can happen when asbestos-containing material becomes damaged or deteriorated due to heat, water leaks, vibration, maintenance work, or renovation.

Another potential problem exists where asbestos fireproofing is exposed to air flow, when the air space between a ceiling and the floor above is used as part of the air conditioning system of a building. This air movement can pick up asbestos fibers and circulate them throughout the building.

Workers in many construction and maintenance trades, especially those who have done plastering, fireproofing, or pipe or duct insulation may have had heavy asbestos exposure. The asbestos exposure, and therefore the health risk, for people who work in asbestos-contaminated buildings is much higher.

Health Effects of Asbestos

Asbestos causes cancer. The most common asbestos-related cancer is lung cancer. Asbestos also causes cancer of the mouth and throat areas, larynx, esophagus, stomach, colon, rectum, and kidneys.

Asbestos is the only known cause of mesothelioma – cancer of the lining of the lungs or the lining of the abdomen.

Even a very small amount of asbestos exposure can lead to cancer. People who have worked with asbestos for only a few days and members of the families of asbestos-exposed workers have been known to contract asbestos-related cancer.

Asbestos-related cancers usually do not show up until 20, 30, or more years after the person is first exposed.

Asbestos causes a progressively crippling lung disease called asbestosis. This is not a cancer, but rather is caused by the scarring of the lung tissue by asbestos fibers. (This generally results only from very heavy exposures.)

How to Identify Asbestos

It is not possible to tell whether a building material contains asbestos simply by looking at it with the naked eye. Asbestos and asbestos-substitute material look very similar.

The only way to tell for certain whether material contains asbestos is to have a small sample examined under a microscope by a specially trained laboratory technician. This can easily be arranged and results can usually be reported with 24 hours if necessary.

Asbestos Removal

Once a potential asbestos hazard is identified in a building, the best, most permanent way to reduce or eliminate the hazard is to remove the asbestos. This must be done by specially trained and equipped workers, following rigorous asbestos removal and handling procedures. If not, the asbestos removal may cause **more** exposure to people who use that building, and very dangerous asbestos exposures to the people doing the work.

- The work area should be completely sealed off with plastic sheeting and tape.
- All heating/ventilation openings into the work area should be sealed off.
- The work area should be kept under negative pressure, so no asbestos-contaminated air can escape. This is done with exhaust units equipped with special high-efficiency "HEPA" filters.

- ♦ Air monitoring should be done outside the work area while the job is in progress, to make sure no asbestos fibers are escaping.
- ♦ Signs must be posted to warn unauthorized persons from entering the work area.
- ♦ Everyone who enters the work area must have a respirator and protective clothing to cover their entire body.
- ♦ Asbestos removal workers must leave their contaminated work clothes behind and shower before putting on their street clothes and leaving the work area.
- ♦ Asbestos material should be thoroughly wetted down before it is removed, and should be cleaned up and placed in sealed containers while still wet.
- ♦ All asbestos waste must be transported away from the work area in plastic bags or other sealed containers with warning labels.
- ♦ When removal is completed, the work area should receive a final cleaning with wet mops and special vacuum cleaners with high-efficiency "HEPA" filters.
- ♦ A final visual inspection followed by "aggressive" air monitoring, in which a deliberate effort is made to stir up any remaining dust, should be done when the job is completed, in order to make certain that no asbestos contamination remains.

Asbestos is often disturbed when workers enter crawl spaces or run electric, telephone, or computer cables between floors. Building renovation work can also release asbestos fibers into the air. These activities require essentially all of the same precautions that are followed in asbestos removal.

OSHA Standards

OSHA has two separate standards governing worker exposure to asbestos: one for general industry, and one for construction. The construction asbestos standard covers asbestos removal, demolition, and renovation work. These standards are designed primarily for people who work directly with asbestos, not for people who work in asbestos-contaminated buildings.