

Facts about Asbestos & Schools

July 2008

What is asbestos?

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite).

Where is asbestos found?

Asbestos is found naturally in the environment. Because asbestos fibers are heat-resistant, strong and flexible, asbestos has long been mined for use in manufacturing many different products. Today, asbestos is mostly used in making building materials like roof shingles, ceiling and floor tiles, paper products, asbestos cement products, automobile clutch, brake, and transmission parts, heat-resistant fabrics, packaging, gaskets, and coatings. Some vermiculite or talc products may also contain asbestos.

How is a person exposed to asbestos?

We are all exposed to low levels of asbestos in the air we breathe. These levels range from 0.00001 to 0.0001 fibers per milliliter of air. Cities and industrial areas generally have higher levels of asbestos in the air. People who work in industries that make asbestos products, who work in asbestos mining, or who work with asbestos products, may be exposed to high levels of asbestos. People living near these industries may also be exposed to high levels of asbestos in air.

How do asbestos fibers get into the air or water?

Asbestos fibers may be released into the air when asbestos-containing material is disturbed during demolition work, building or home maintenance, repair, remodeling or when a product containing asbestos is used. In general, a person is exposed only when the asbestos-containing material is disturbed in a way to release particles and fibers into the air. Drinking water may also contain asbestos from natural sources or from asbestos-containing cement pipes.

How can asbestos affect health?

Asbestos mainly affects the lungs and the membrane that surrounds the lungs. Breathing high levels of asbestos fibers for a long time can cause scar-like tissue in the lungs and in the pleural membrane (lining) that surrounds the lungs. This is called asbestosis and is usually found in workers exposed to asbestos—and not in the general public. People with asbestosis have trouble breathing, often a cough and, in severe cases, enlargement of the heart. This is a serious disease that can eventually lead to disability and death. Breathing lower levels of asbestos may cause changes (plaques) to the pleural membranes. Pleural plaques can occur in workers and sometimes in people living in areas with high levels of asbestos in the environment. Effects on breathing from pleural plaques alone are not usually serious. Greater exposure can lead to a thickening of the pleural membrane, and that may restrict breathing.

Is there asbestos in my child's school?

It is very possible that there is asbestos in your child's school. Asbestos can be found in various places within schools. Asbestos that can easily be broken up by hand pressure (friable asbestos) is a problem. These fibers can most easily be released into the air and breathed into the lungs. Asbestos-containing boiler wrap, pipe wrap insulation, ceiling tiles, and wallboard are areas of most concern.

Is it dangerous to have asbestos-containing material in schools?

Undamaged asbestos that is properly managed in place is not a health risk. However, it is important that authorities designated by the school regularly inspect asbestos-containing materials to make sure they stay intact. Asbestos can be a hazard to students, teachers, staff and workers when it is disturbed and becomes airborne and breathable. It is a longstanding policy of the Environmental Protection Agency (EPA) that undamaged asbestos is best left undisturbed and managed in place. Removing asbestos can sometimes create a greater health risk than leaving it undisturbed.

If my children have been in a building with asbestos, do they need to see a physician? If I worked in a building with asbestos, do I need to see a physician?

Asbestos is not a health risk if it is managed properly. However, if you think you may have been exposed to asbestos fibers in the air, you should consult with your doctor or a specialist in lung disorders or occupational exposures.

Is there a medical test to show if I've been exposed to asbestos?

Low levels of asbestos fibers can be measured in urine, feces, mucus, or lung washings of the general public. Higher than average levels of asbestos fibers in tissue can confirm exposure, but will not tell if you will experience any health effects. A complete medical history, physical exam and diagnostic tests are needed to evaluate asbestos-related disease. Chest x-rays are the best screening tool to identify lung changes resulting from asbestos exposure. Lung function tests and CAT scans also aid diagnosis of asbestos-related disease.

How likely is asbestos to cause cancer?

The U.S. Department of Health and Human Services, the World Health Organization, and the Environmental Protection Agency have determined that asbestos is a human carcinogen. It is known that breathing asbestos can increase the risk of cancer in people. There are two types of cancer caused by exposure to asbestos: lung cancer and mesothelioma. Cancer from asbestos does not develop immediately, but shows up after a number of years. Studies of workers also suggest that breathing asbestos can increase chances of getting cancer in other parts of the body (stomach, intestines, esophagus, pancreas, and kidneys), but this is less certain.

Cigarette smoke and asbestos together greatly increase a person's chances of getting lung cancer. This means if you have been exposed to asbestos, you should stop smoking. This may be the most important action that you can take to improve your health and decrease your risk of cancer.

Is the school district required to do anything about asbestos in schools?

Yes. AHERA, or the Asbestos Hazard Emergency Response Act, was passed by Congress in 1986. AHERA requires public school districts and non-profit private schools to inspect their schools for asbestos-containing building material and prepare management plans that recommend the best way to reduce the hazard from any asbestos that may be present. The choices are: repairing damaged asbestos-containing material, spraying it with sealants, enclosing it, removing it, or keeping it in good condition so that it does not release fibers. The plans must be developed by accredited management planners and approved by the State. The school authority must notify parent, teacher and employer organizations of the plans, and then the plans must be implemented. The school district must also perform periodic surveillance of asbestos-containing material every six months in its schools. AHERA also requires accreditation of abatement designers, contractor supervisors and workers, building inspectors, and school management plan writers.

References Agency for Toxic Substances and Disease Registry (ATSDR)
Environmental Protection Agency (EPA)