AMERICAN LUNG ASSOCIATION®

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The risk of lung cancer from inhaling asbestos fibers is also greater if you smoke.

WHAT IS IT?

Asbestos is a mineral fiber. It can be positively identified only with a special type of microscope. There are several types of asbestos fibers. In the past, asbestos was added to a variety of products to strengthen them and to provide heat insulation and fire resistance.

WHAT ARE ITS HEALTH EFFECTS?

From studies of people who were exposed to asbestos in mines, factories and shipyards, we know that breathing high levels of asbestos fibers can lead to an increased risk of:

- lung cancer;
- mesothelioma, a cancer of the lining of the chest and the abdominal cavity; and
- asbestosis, in which the lungs become scarred with fibrous tissue.

The principal forms of asbestos include chrysotile, crocidolite, amosite, tremolite, actinolite, and anthophyllite. All but chrysotile are classified as amphiboles, which tend to have a thin, needle-like appearance. Chrysotile breaks into curly fibers. There is evidence that amphibole asbestos fibers are more potent for causing mesothelioma than chrysotile fibers.

Although most studies deal with occupational exposures, a growing number of studies have linked disease to environmental asbestos exposures. For instance, there are reports of markedly elevated mesothelioma rates in populations living in areas in Greece, Turkey and New Caledonia with substantial quantities of tremolite asbestos in the soil, particularly among individuals who used tremolite asbestos to whitewash their homes. In Libby, Montana, asbestos-related diseases have occurred not only in miners, but among their family members and other non-workers exposed through environmental sources of asbestos. Asbestos deposits, including both chrysotile and amphibole asbestos, are located in many parts of the United States and are commonly associated with serpentine, talc or vermiculite. Environmental exposures can occur when these formations are disturbed, thus releasing fibers into the air.

The risk of lung cancer and mesothelioma increases with the number of fibers inhaled. The risk of lung cancer from inhaling asbestos fibers is also greater if you smoke. While most asbestos-associated cancers are related to the intensity and duration of exposure, reports in medical journals have linked some mesotheliomas to short exposure periods, on the order of months. People who get asbestosis have

usually been exposed to high levels of asbestos for a long time. The symptoms of these diseases do not usually appear until about 20 to 30 years after the first exposure to asbestos.

Most people exposed to small amounts of asbestos, as we all are in our daily lives, do not develop these health problems. However, if disturbed, asbestos material may release asbestos fibers, which can be inhaled into the lungs. The fibers can remain there for a long time, increasing the risk of disease.

IS IT A PROBLEM IN YOUR HOUSE?

Asbestos is rarely used alone, and it is generally safe when combined with other materials with strong bonding agents. As long as the material remains bonded so that fibers are not released, it poses no health risk. But occasionally asbestos fibers become loose and airborne, most often when contained in soft, easily crumbled materials.

Most products made today do not contain asbestos. Those few products made which still contain asbestos that could be inhaled are required to be labeled as such. However, until the 1970s, many types of building products and insulation materials used in homes contained asbestos. Common products that might have contained asbestos in the past, and conditions which may release fibers, include:

- STEAM PIPES, BOILERS, and FURNACE DUCTS insulated with an asbestos blanket or asbestos paper tape. These materials may release asbestos fibers if damaged, repaired, or removed improperly.
- RESILIENT FLOOR TILES (vinyl asbestos, asphalt, and rubber), the backing on VINYL SHEET FLOORING, and ADHESIVES used for installing floor tile. Sanding tiles can release fibers. So may scraping or sanding the backing of sheet flooring during removal.
- CEMENT SHEET, MILLBOARD, and PAPER used as insulation around furnaces and wood-burning stoves. Repairing or removing appliances may release asbestos fibers. So may cutting, tearing, sanding, drilling, or sawing insulation.
- DOOR GASKETS in furnaces, wood stoves, and coal stoves. Worn seals can release asbestos fibers during use.
- SOUNDPROOFING OR DECORATIVE MATERIAL sprayed on walls and ceilings. Loose, crumbly, or water-damaged material may release fibers. So will sanding, drilling, or scraping the material.
- PATCHING AND JOINT COMPOUNDS for walls and ceilings, and TEXTURED PAINTS. Sanding, scraping, or drilling these surfaces may release asbestos.
- ASBESTOS CEMENT ROOFING, SHINGELS, and SIDING. These products are not likely to release asbestos fibers unless sawed, drilled or cut.
- ARTIFICIAL ASHES AND EMBERS sold for use in gas-fired fireplaces. Also, other older household products such as FIREPROOF GLOVES, STOVE-TOP PADS, IRONING BOARD COVERS, and certain HAIRDRYERS.
- AUTOMOBILE BRAKE PADS AND LININGS, CLUTCH FACINGS, and GASKETS.

Asbestos may also occur naturally. Ultramafic or serpentine rock material often contains asbestos. This type of rock is found in many parts of California, and is

especially abundant in the costal regions. Asbestos may be found in dust from unpaved roads or driveways surfaced with ultramafic or serpentine rock.

PROTECTING YOURSELF AND YOUR FAMILY

You may have asbestos-containing substances in your home or office, especially those built before 1978. If the material is in good condition, LEAVE IT ALONE! To be certain, however, you may want to have the materials inspected, and, if necessary, repaired or removed.

Repair usually involves either sealing or covering asbestos material. Sealing (or encapsulation) involves coating materials so that asbestos is sealed in. This process is only effective for undamaged asbestos-containing substances.
If materials are soft or crumbly or otherwise damaged, sealing is not appropriate. Covering involves placing something over or around the material that contains asbestos to prevent release of fibers.

Asbestos removal is an expensive and hazardous process and should be a last resort. Situations where removal may be required include remodeling, major structural changes, and if the asbestos material is damaged and can not be otherwise repaired.

Any action to minimize dust generation from naturally occurring asbestos sources will generally help reduce exposure. If you are unsure whether the rock on your property is ultramafic a registered geologist can be contacted to evaluate it.

Removal is complex, and should be done only by a contractor with special training. Improper removal may increase the health risks to those exposed!

If you think that you may have been exposed to any amount of loose asbestos in any degree, no matter how long ago, see your doctor. Don't smoke! It increases your chances of being affected by asbestos.