



INDOOR AIR QUALITY

# Stalking Friable Asbestos in the Home

John L. Merrill

## Asbestos Exposure and Your Health

Even exposure to low levels of airborne asbestos can increase chances of lung cancer and a rare cancer known as mesothelioma, which affects the lining of the chest and abdomen. Asbestos-related lung cancer usually appears after age 45 and is more likely to occur if the victim also smokes.

Asbestos inhaled at age 15 poses the same risk of lung cancer as asbestos inhaled at age 40. This is not the case for mesothelioma: the earlier the exposure, the greater the lifetime risk of this type of cancer.

The U.S. Environmental Protection Agency (EPA) reports that even exposure to small amounts of asbestos fibers increase the risk of cancer. Any exposure should be avoided.

Asbestos products only pose hazards when they release fibers into the air. Products most likely to release asbestos fibers are called "friable" (pronounced fry-able). Friable products are asbestos-containing materials that can be crumbled, pulverized or reduced to powder by hand pressure.

The EPA does not consider asbestos products friable if the material is protected by a covering and if the covering is intact. The asbestos in pipe insulation is not considered friable for this reason.

Many products that contain asbestos can produce friable asbestos if they are drilled, sanded, sawed or abraded in other ways. Vinyl asbestos floor tile is an example. Most asbestos products found in the home are not hazardous unless they are damaged (see Table 1 for examples).

## Handling Asbestos Problems

There are two ways to deal with hazardous asbestos materials in your home — remove or cover them.

**Removal** The process of removing asbestos can be hazardous. Special techniques and equipment are needed to minimize the risks. Without precautions, you will expose yourself as well as other household members to

air-borne asbestos. Asbestos fibers are lightweight, so they can stay suspended in the air for many hours. You should consider removal only if encapsulation is not practical. Hire qualified contractors that have been state licensed or EPA certified if removal is necessary.

**Encapsulation** Covering asbestos-containing materials is the preferred way to deal with hazardous asbestos in your home. This method is less hazardous than removal because the asbestos-containing material is encased in such a way that asbestos fibers cannot be released. Pipe insulation is an example. Most pipe insulation that contains asbestos has a cloth covering that encapsulates the asbestos. The asbestos poses a hazard only when this covering is damaged. If the protective covering is damaged, it can be repaired with an adhesive-backed tape. Seal the tape gently because the pressure may force fibers into the air.

If you have questions about whether you have an asbestos problem in your home, ask the county or municipal health department to arrange to have a sample tested. If local help is not available, send a small sample to the Occupational Health Laboratory (address below). All layers of the material should be represented in the sample. (To minimize health risks, disturb the material as little as possible.) A 35mm film canister can provide a convenient package for the material. Fill the canister half full.

Send the sample to:

Occupational Health Laboratory  
979 Jonathan Drive  
Madison, WI 53713  
Telephone: (608) 263-6550

There is a \$17.50 fee for each test. Checks should be made out to the Occupational Health Lab, or you will be billed.

Table 1: Common Products That May Contain Asbestos\*

| Product   | % Asbestos | Extent of Hazard   | Dates of Use |
|---|------------|--|--------------|
| Surface applied insulation. May have been troweled or sprayed on and have cement-like or fibrous appearance. Not common in homes.           | 1 - 95%    | Great, if degraded by mechanical damage or in the path of air flow from ventilation equipment. | 1935-1970    |
| Pipe and furnace insulation. May look like chalk, brick, mud or corrugated cardboard. Usually wrapped in canvas or other covering material. | 15-60%     | Great if damaged.  | 1926-1971    |
| Some resilient flooring, including some sheet vinyl.  | 21 - 33%   | Some if cut, worn or sanded.   | 1950-Present |
| Shingles, roof tile, siding and other thin concrete-like extrusions.  | 12 - 50%   | Slight release used in exterior applications   | 1930-Present |
| Asphalt adhesives, such as tile cement and roofing compounds.   | 5 - 25%    | Slight   | 1920-Present |
| Heat-producing appliances, heat shields in products such as toasters. Asbestos is banned from use in hair dryers.                           | 80 -90%    | Slight if heat shield is intact.   | Unknown      |

\*There is no easy way to tell visually if a product contains asbestos. Some products that do not contain asbestos look like others that do. The products listed above are likely to contain asbestos, but do not always.

**Source**

"Guidance for Controlling Friable Asbestos-Containing Materials in Buildings," EPA 560/5-83-002, March 1983.

**WEX** University of Wisconsin-Extension, Cooperative Extension, in cooperation with the U.S. Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and provides equal opportunities in employment and programming including Title IX requirements.

*Produced by the Department of Agricultural Journalism, University of Wisconsin-Madison.*

**B3443      Stalking Friable Asbestos in the Home**

This publication is available from your Wisconsin county Extension office or from:  
 Agricultural Bulletin, Rm. 245  
 30 N. Murray St.  
 Madison, WI 53715  
 (608) 262-3346

Editors, before publicizing, contact Agricultural Bulletin to determine availability.

*John Merrill is a professor, Department of Environment, Textiles and Design, University of Wisconsin-Madison and extension housing specialist, University of Wisconsin-Extension.*

*Editor: Paola Scommegna  
 Associate Editor: Shauna Coon*