



This fact sheet was written by the **Agency for Toxic Substances and Disease Registry (ATSDR)**, a federal public health agency. ATSDR's mission is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposure and disease related to toxic substances.

Asbestos

Limiting Environmental Exposure to Asbestos in Areas with Naturally Occurring Asbestos

Who should read this fact sheet

Read this fact sheet if you or someone you know currently lives, works, attends school, or plays in areas with asbestos in the soils, or has done so in the past.

Purpose of this fact sheet

This fact sheet answers the following questions:

- What is asbestos?
- How could asbestos exposure make you sick?
- What can you do to reduce your exposure to asbestos?
- Where can you get more information?

What is asbestos?

Asbestos defined

Asbestos is the name given to a group of six different fibrous minerals that occur naturally in the environment. Asbestos fibers are too small to be seen by the naked eye. They do not dissolve in water or evaporate. They are resistant to heat, fire, and chemical or biological degradation.

Naturally occurring asbestos refers to those fibrous minerals that are found in the rocks or soil in an area and released into the air by one of the following methods:

- Routine human activities
- Weathering processes

If naturally occurring asbestos is not disturbed and fibers are not released into the air, then it is not a health risk. Asbestos is used in many commercial products, including insulation, brake linings, and roofing shingles.

Classes of asbestos

The two general classes of asbestos are chrysotile (fibrous serpentine) and amphibole. Chrysotile asbestos has long, flexible fibers. This type of asbestos is most commonly used in commercial products. Amphibole fibers are brittle, have a rod or needle shape, and are less common in commercial products. Although exposure to both types of asbestos increases the likelihood of developing asbestos-related illness, amphibole fibers tend to stay in the lungs longer. They also are thought to increase the likelihood of illness, especially mesothelioma, to a greater extent than chrysotile asbestos.

Where asbestos is found in your environment

Asbestos is commonly found in ultramafic rock, including serpentine rock, and near fault zones. The amount of asbestos typically present in these rocks ranges from less than 1% up to about 25%, and sometimes more. Asbestos can be released from ultramafic and serpentine rock if the rock is broken or crushed.

In California, ultramafic rock, including serpentine rock, is found in the Sierra foothills, the Klamath Mountains, and the coast ranges. This type of rock is present in at least 44 of California's 58 counties. Not all ultramafic rock contains asbestos; it only has the potential to contain asbestos. Environmental testing can determine if a rock contains asbestos.

How you might be exposed to asbestos

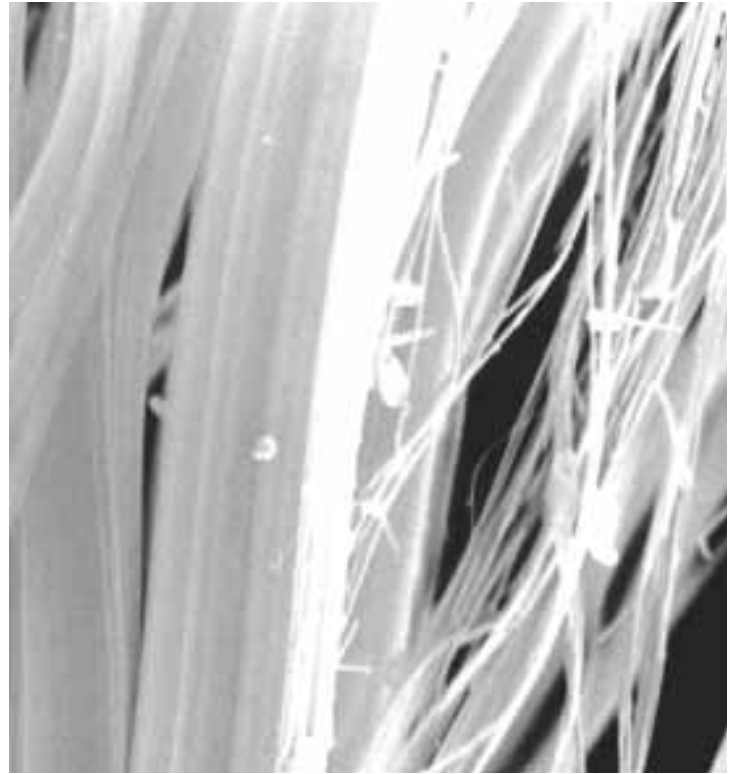
You might be exposed to asbestos through routine activities that crush asbestos-containing rock or stir up dust in soils that contain asbestos fibers. The following are some examples of these activities:

- Working in your yard or garden
- Digging or shoveling dirt
- Riding bicycles on unpaved surfaces
- Riding off-road vehicles such as four wheelers and dirt bikes
- Running and hiking on unpaved surfaces
- Driving over unpaved surfaces

How could asbestos exposure make you sick?

Important!

Being exposed to asbestos does not mean you will develop health problems. Many things need to be considered when evaluating whether you are at risk for health problems from asbestos exposure. A doctor can help you determine whether you are at risk for health problems from asbestos exposure.



Magnification of Asbestos Fibers

Asbestos exposure and health

Asbestos is made up of fibers that are so small that you cannot see them. If asbestos fibers are in the air you breathe, you might get asbestos fibers in your lungs. Breathing in the fibers is the primary way that people are exposed to asbestos.

Asbestos fibers may remain in the lungs for a lifetime. In some cases, the fibers might damage the lungs or the membranes that cover the lungs, leading to illness and even death. Most people don't show any signs or symptoms of asbestos-related disease until 10 to 20 years or more after they were exposed.

For more information about asbestos-related disease, refer to ATSDR's fact sheet titled:

"Asbestos and Health: Frequently Asked Questions"

What can you do to reduce your exposure to asbestos?

Take steps right now

Limit exposure by taking the following steps if you live in an area where naturally occurring asbestos has been disturbed and is likely to become airborne:

- Walk, run, hike, and bike only on paved trails.
- Play only in outdoor areas with a ground covering such as wood chips, mulch, sand, pea gravel, grass, asphalt, shredded rubber, or rubber mats.
- Pave over unpaved walkways, driveways, or roadways that may have asbestos-containing rock or soil
- Cover asbestos-containing rock or soil in gardens and yards with asbestos-free soil or landscape covering.
- Pre-wet garden areas before digging or shoveling soil. Keep pets from carrying dust or dirt on their fur or feet into the home.
- Remove shoes before entering your home to prevent tracking in dirt.
- Use doormats to lower the amount of soil that is tracked into the home.
- Keep windows and doors closed on windy days and during nearby construction.
- Drive slowly over unpaved roads.
- Use a wet rag instead of a dry rag or duster to dust.
- Use a wet mop on non-carpeted floors.
- Use washable area rugs on your floors and wash rugs regularly.
- Vacuum your carpet often using a vacuum with a high efficiency HEPA filter.

Where can you get more information?

Stay informed

If you want more information about how to limit environmental exposure to asbestos, or if you have specific questions, contact ATSDR:

Toll free call:

800-CDC-INFO (800-232-4636)

TTY 888-232-6348

Online:

<http://www.atsdr.cdc.gov/contacts.html>

Some of the information in this fact sheet comes from the brochure Asbestos-Containing Rock and Soil—What California Homeowners and Renters Need to Know, California Air Resources Board, 2002. Accessed online at <http://www.arb.ca.gov/cap/pamphlets/asbestosbrochure.pdf> on April 26, 2005.



Department of Health and Human Services



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