

**Agency for Toxic Substances and Disease Registry
Case Studies in Environmental Medicine (CSEM)**

Asbestos Toxicity

Information and Instructions for Patients

What Is Asbestos? Asbestos is a mineral found in nature. Until recently, asbestos was mined in the US. Over time, it has been released into the environment during its many, widespread uses such as in building materials and brake linings.

Beginning in the 1970s, the health effects of asbestos were recognized and its industrial uses began to decline. During the period of its widespread use, people who worked with asbestos often breathed asbestos fibers into their lungs. Today, asbestos is not often used in industry, but it is still found in many older homes, buildings, and automobile parts.

How am I Exposed? Asbestos-containing materials, such as insulation or building materials, that are damaged, loose, or disturbed can release asbestos fibers into the air. People who perform home renovations on older homes containing asbestos-laden materials can be exposed. Construction workers involved in demolitions and work in older buildings can also be exposed.

Also, some areas of the United States have asbestos-bearing rocks that are close to the surface. These rocks can sometimes be disturbed during construction and other activities such as gardening, causing asbestos fibers to be released into the air.

Regardless of the source when released, asbestos fibers can become lodged in your lungs if you breathe them in, which can sometimes lead to disease.

Will I Get Sick? If you have been exposed to enough asbestos, you might or might not get sick. The diseases most commonly associated with asbestos exposure involve the lungs.

In general, your risk of developing asbestos-related lung disease increases with the more fibers you breathe in and the period of time you are exposed as well as the total number of times you are exposed. Asbestos fibers cannot be washed out or surgically removed from your lungs. If you do get sick, your symptoms will typically appear 15 to 40 years after you were first exposed.

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Asbestos-Associated Illnesses Asbestos usually affects the respiratory system, although it can affect other parts of the body as well.

| Illness | Description | Symptoms |
|--|--|---|
| Parenchymal asbestosis | A chronic lung disease caused by the scarring or thickening of lung tissue. It occurs in people with high exposures such as those who have worked with asbestos for a living. | Usually: Breathlessness that gets increasingly worse. Sometimes: Cough and chest tightness or pain |
| Asbestos-related pleural abnormalities | Scarring affecting the lining of the lungs. This scarring does not usually cause people to be ill. These changes in the lung lining can occur with low-level non-work related exposures. | Usually: None. Rare: Difficulty breathing. |
| Lung Cancer | Asbestos exposure can cause the same four types of lung cancer caused by smoking and other factors. | Usually: None (until late stage). Sometimes: Cough, wheezing, and difficulty breathing. |
| Mesothelioma | A rarely occurring cancer very specific to asbestos exposure. Mesotheliomas occur on the lining of the lungs or the lining of the abdomen. | Usually: None (until late stage). Sometimes: Cough, chest pain, and difficulty breathing. |

What can I do? If you have been exposed to asbestos, you should:

- See your physician and follow his advice.
 - Quit smoking and avoid second-hand smoke. The combination of smoking and asbestos exposure can increase your risk for asbestos-associated lung cancer greatly. Stopping smoking will protect your health.
 - Avoid being outside when the air pollution levels are high. Breathing in irritants (such as dusts and fumes) can cause or worsen asbestos-associated breathing problems.
 - Stay healthy and avoid respiratory infections by maintaining good hygiene and avoiding people with colds. Respiratory infections can be very serious for people with asbestos-associated diseases.
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When to Call Your Doctor Call your doctor if you develop any of the following symptoms:

- Fever,
- Increased coughing, wheezing, difficulty breathing,
- Chest pain,
- Thickening, foul odor, or color changes in mucus,
- Stuffy nose, sneezing, or sore throat,
- Increased fatigue or weakness,
- Weight gain or loss of more than 6 pounds within a week,
- Swollen ankles or feet.

Follow up Instructions Your doctor has checked the items below that require your attention.

Please make an appointment to:

- Have a chest X-ray
 - Undergo pulmonary function tests (simple breathing tests)
 - See a pulmonologist (lung specialist)
 - Discuss appropriate breathing therapies with your physician
 - Begin chest percussion
 - Have flu and pneumococcal shots
 - See another specialist: _____
 - Have other tests: _____
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