



## Asbestos

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Protect Your Family from Asbestos-Contaminated Vermiculite

http://epa.gov/asbestos/pubs/verm\_questions.html  
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# Protect Your Family from Asbestos-Contaminated Vermiculite

This fact sheet contains answers to some commonly asked questions about asbestos contamination in vermiculite and vermiculite products.

Click the following links for printer-friendly versions, in English and Spanish, of the EPA fact sheet "[Protect Your Family from Asbestos-Contaminated Vermiculite](#)" (PDF) (4 pp, 121K, [about PDF](#)) | [en español](#) (PDF) (5 pp, 126K, [about PDF](#)).

If you have vermiculite insulation from Libby in your home, you should be aware of steps you can take to protect yourself and your family from exposure to asbestos.

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### Why should I be concerned about asbestos-contaminated vermiculite insulation?

A mine near Libby, Montana, was the source of over 70 percent of all vermiculite sold in the U.S. from 1919 to 1990. There was also a deposit of asbestos at that mine, so the vermiculite from Libby was contaminated with asbestos. Vermiculite from Libby was used in the majority of vermiculite insulation in the U.S and was often sold under the brand name Zonolite. If you have vermiculite insulation in your home, you should assume this material may be contaminated with asbestos and be aware of steps you can take to protect yourself and your family from exposure to asbestos.

### What is vermiculite?

Vermiculite is a naturally-occurring mineral composed of shiny flakes, resembling mica. When heated to a high temperature, flakes of vermiculite expand as much as 8-30 times their original size. The expanded vermiculite is a light-weight, fire-resistant, and odorless material and has been used in numerous products, including insulation for attics and walls. Sizes of vermiculite products range from very fine particles to large (coarse) pieces nearly an inch long.

### How can I tell if my insulation is made from vermiculite?

Look at the photos on this website and then look at the insulation without disturbing it. Vermiculite insulation is a pebble-like, pour-in product and is usually gray-brown or silver-gold in color.

The following photographs show typical vermiculite insulation.



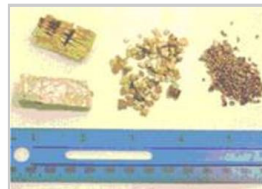
Typical vermiculite insulation; click to view larger version of image



Vermiculite insulation between attic joists; click to view larger version of image



Vermiculite insulation particle size relative to paper clip; click to view larger version of image



Different sizes of vermiculite particles; click to view larger version of image



Typical vermiculite insulation; click to view larger version of image

### How can I tell if my vermiculite insulation contains asbestos?

You should assume that vermiculite insulation is from Libby and treat the material as if it contained asbestos by not disturbing it or by using a trained professional if it needs to be removed. Since the Libby mine was estimated to be the source of over 70 percent of all vermiculite sold in the U.S. from 1919 to 1990 and vermiculite from Libby was contaminated with asbestos, further testing is not necessary to take the appropriate precautions. While you can hire a trained professional to test your attic for asbestos, this may be expensive and, depending on the methods used, might give you erroneous results. We do not recommend that you open your walls to check for vermiculite.

### **Is my family at risk of exposure to asbestos if we have vermiculite insulation?**

Asbestos causes cancer and other diseases. There is no known safe level of asbestos exposure. Asbestos fibers must be airborne to cause a health risk through inhalation, so the first step is not to disturb the material, which would release more fibers into the air. If you remove or disturb the insulation, it is probable that you may inhale some asbestos fibers - the degree of health risk depends on how much and how often this occurred. If you do not go into your attic, handle, or disturb the insulation, it is likely that you will not be exposed to asbestos fibers from vermiculite insulation.

Also, you need to consider if any disturbance of the insulation - possibly by a contractor doing work in you attic - may result in the fibers being deposited into other areas of your house where an exposure might be possible.

### **Will I become ill if I or my family removed or handled insulation that contained asbestos?**

It is not possible to say whether your exposure may result in disease. Exposure to asbestos increases your risk of developing lung diseases including asbestosis, lung cancer, or mesothelioma, and disease may not occur until decades after exposure. The risk of disease increases as the level, duration, and frequency of exposure increases. That risk is made worse by smoking.

If you are concerned about possible exposure, talk to your doctor and consider consulting a physician who specializes in lung diseases, also known as a pulmonologist. For more information on asbestos-related diseases see the [Agency for Toxic Substances & Disease Registry Web site](#).

### **What should I do if I have vermiculite insulation?**

**YOU SHOULD ASSUME THE VERMICULITE CONTAINS ASBESTOS AND DO NOT DISTURB IT!** Any disturbance could potentially release asbestos fibers into the air. If you absolutely have to go in your attic and it contains vermiculite insulation, you should limit the number of trips you make and shorten the length of those trips in order to help limit your potential exposure.

We recommend that you:

- Leave vermiculite insulation undisturbed in your attic or in your walls.
- Do not store boxes or other items in your attic if it contains vermiculite insulation.
- Do not allow children to play in an attic with vermiculite insulation.
- Do not attempt to remove the insulation yourself.
- Hire a professional asbestos contractor if you plan to remodel or conduct renovations that would disturb the vermiculite in your attic or walls to make sure the material is safely handled and/or removed.

### **What if I occasionally need to go into my attic -- how can I reduce my exposure?**

We recommend that you make every effort not to disturb vermiculite insulation in your attic or walls. If you occasionally need to go into your attic, you should:

- Make every effort to stay on the floored part of your attic and do not disturb the insulation. For asbestos to present a problem for the homeowner, it must be disturbed so that microscopic fibers are released into the air.
- Wear protective equipment. **Common dust masks do not protect you against asbestos fibers.** You should at least wear an OSHA-approved respirator and appropriate protective clothing and eye protection as indicated in OSHA workplace standards. For information on OSHA-approved personal protection, visit OSHA's Web site at [www.osha.gov/SLTC/asbestos/](http://www.osha.gov/SLTC/asbestos/).
- Consider storing boxes or other materials elsewhere in your home.
- If you must perform activities that may disturb the vermiculite insulation such as moving boxes (or other materials), do so as gently as possible to minimize the disturbance.
- Leave the attic immediately after the disturbance.
- Do not track vermiculite insulation or associated dust into the living spaces of your home.
- If you need work done in your attic or in your home's walls that will disturb vermiculite insulation, such as the installation of cable or utility lines, hire trained and certified asbestos professionals who can safely do the work.

### **Will the insulation contaminate the rest of my house?**

It is possible that vermiculite insulation can sift through cracks in the ceiling, around light fixtures, or around ceiling fans. You can prevent this by sealing the cracks and holes that insulation could pass through. In addition, some air ventilation systems may disturb the insulation. If you think that fibers are getting into your living space, then you should contact an accredited asbestos inspector to help determine if you are at risk for exposure to asbestos.

### **Where can I get information on removal of the insulation?**

Removing the insulation yourself could potentially spread harmful asbestos fibers throughout your home, putting you and your family at risk. We recommend using a trained and certified asbestos professional to conduct asbestos removal work using a "negative pressure enclosure" technique. This technique prevents asbestos fibers from escaping the attic into the rest of the house.

Certified asbestos contractors are required to ensure they properly remove the asbestos without causing additional contamination. To find the name of a local asbestos removal contractor in your state, [check with your state environmental agency asbestos contact](#), who can confirm that a company's credentials are current.

**What if I was exposed to asbestos-containing vermiculite as a contractor or through other activities that may have disturbed vermiculite?**

The majority of people who contract asbestos disease were exposed through working with asbestos materials in their workplace. If you are concerned that you may have been exposed to asbestos, you may want to consult a physician who specializes in lung disease. For more information and to obtain a fact sheet concerning occupational exposure to asbestos, contact the National Institute for Occupational Safety and Health (NIOSH) at: 1-800-35-NIOSH, or the [NIOSH Web site](#).

**Where can I get more information?**

To learn more about vermiculite and asbestos, visit EPA's Web site [www.epa.gov/asbestos](http://www.epa.gov/asbestos), or contact the following sources:

*General Information*

- EPA's Toxic Substances Control Act (TSCA) Assistance Information Service: Asbestos Line: 1-800-471-7127
- EPA Asbestos Ombudsman: 1-800-368-5888
- [EPA's asbestos home page](#)

*Health Information*

- [Agency for Toxic Substances and Disease Registry \(ATSDR\)](#)

*Worker Safety*

- [Occupational Safety and Health Administration \(OSHA\)](#)
- [National Institute for Occupational Safety and Health \(NIOSH\)](#)

*Consumer Products*

- [Consumer Product Safety Commission \(CPSC\)](#)

*Mineralogy*

- [United States Geological Survey \(USGS\)](#)