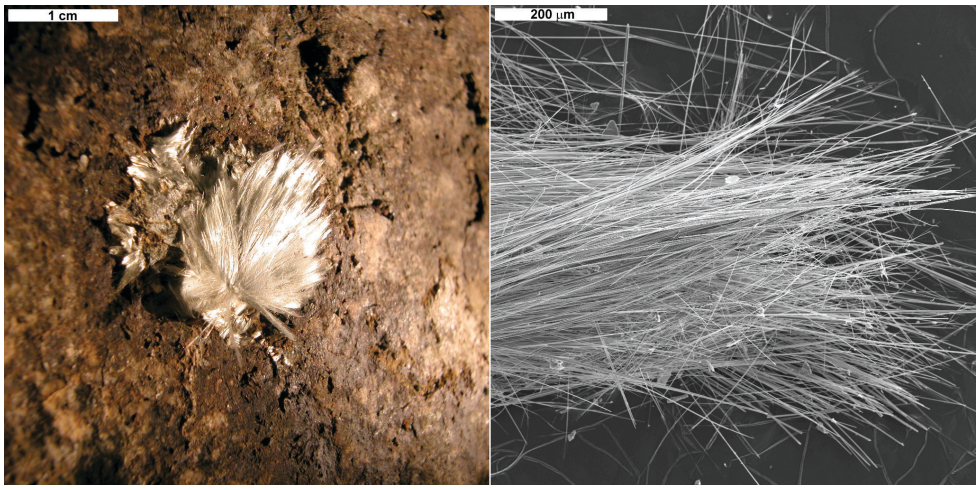
Naturally Occurring Asbestos in Alaska

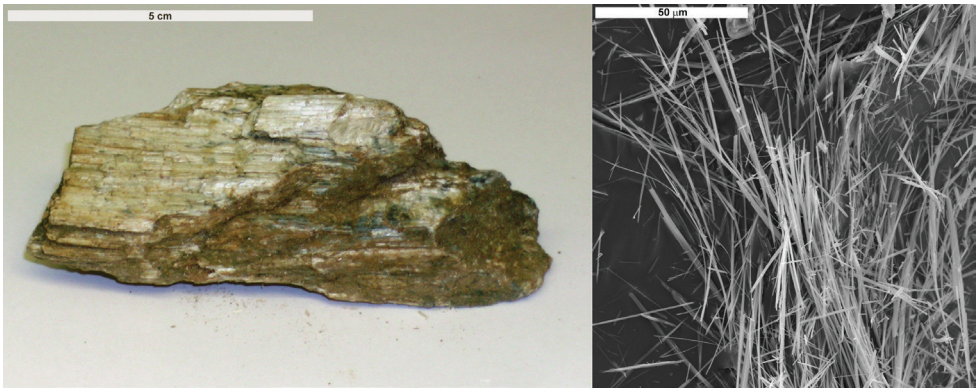
Alaska Division of Geological & Geophysical Surveys

Asbestos is a generic term for minerals that occur naturally in rock and soil and form long, flexible, needle-like fibers. Asbestos has been mined and used for more than 1,000 years for its excellent heat-resistant properties, although, due to health concerns, many countries have now banned or restricted its use in products. Asbestos is found in some rocks, sediments, and gravels in Alaska, but there are no active asbestos mines in the state.

Disturbing these fibrous minerals through geological processes like weathering and erosion, or human activity (construction projects, travel on unpaved roads) can release tiny asbestos fibers as dust particles into the air, creating an environmental health concern.



Asbestiform winchite/richterite protruding from rock surface (top left) collected near Lake Albion, Colorado, and scanning electron micrographs of the fibers at increasing magnification. Photo: U.S. Geological Survey.



Asbestiform tremolite, seen in hand sample (left) and scanning electron micrograph (right). Photo: U.S. Geological Survey.

Potential Health Risks

If naturally occurring asbestos is not disturbed and fibers are not released into the air, then it is not a health risk.

Exposure to airborne asbestos increases your risk of developing lung diseases such as asbestosis (scarring of the lung), lung cancer, and malignant mesothelioma and other cancers. Once you breathe in the needle-like abestos fibers, which are resistant to heat, chemical, and biological breakdown, they could stay in your lungs for a lifetime.

Being exposed to asbestos, however, does not always mean you will develop health problems. Important risk factors include length, frequency, and amount of exposure; time since beginning of exposure; what size and type of asbestos you were exposed to; and whether or not you smoke cigarettes or have other lung conditions.

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Do you live in an area of Alaska that may have naturally occurring asbestos?

View these maps to find out

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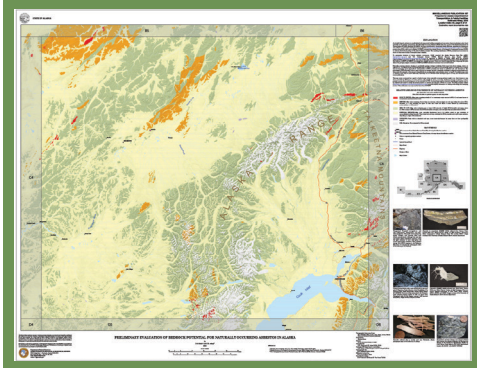

Map showing the potential for naturally occurring asbestos northwest of Anchorage.

Asbestos is only harmful if it is released into the air and inhaled. Even if you live in a region with natural asbestos deposits, there are many ways to reduce your exposure.

Mapping Asbestos in Alaska

You can find out if you live in an area of Alaska that *may* have naturally occurring asbestos (NOA). The Alaska Division of Geological & Geophysical Surveys evaluated rocks in the state for their potential to contain NOA. A series of maps of rocks types and their potential to contain asbestos are available for all Alaska communities here: doi.org/10.14509/29447. These maps are considered a starting point for future, in-depth investigations, if warranted.

Asbestos Regulation

Six NOA minerals (chrysotile, amosite, crocidolite, fibrous tremolite, fibrous anthophyllite, and fibrous actinolite) are regulated through testing and the use of construction materials in Alaska Department of Transportation & Public Facilities (DOT&PF) statutes (www.dot.state.ak.us/stwddes/desmaterials/noa.shtml).

Other unregulated asbestiform minerals are known to occur in Alaska and may have similar health concerns as the regulated asbestos minerals (doi.org/10.14509/29447 - data table of known asbestos occurrences).

Reduce Your Exposure to Asbestos

If you live in an area with natural asbestos deposits, you can do things to breathe in less asbestos.

- **Leave vegetation, soil, and rock in place and undisturbed**
- **Cover or cap asbestos-bearing material**
- **Use entryway doormats to reduce tracking in soil**
- **Wet material prior to and during activity, such as watering your garden before planting**
- **Close windows and doors on windy days**
- **Mop, use a damp cloth on pets' fur and feet, and wipe down surfaces with a wet rag**

Additional Resources

More information can be found from the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency, as well as the U.S. Geological Survey. www.co.mendocino.ca.us/aqmd/pdf_files/fs012-01.pdf