

Facts About Rock and Soil in Lake County Containing Asbestos

What you need to know if serpentine soil or rock containing asbestos is located on your property



Clarkia also known as "Farewell to Spring"

Information from the
Naturally Occurring Asbestos
in Serpentine Soils Education Program

A Joint Project of:
**Lake County Air Quality
Management District**
and
**University of California
Cooperative Extension
of Lake County**

What Is Serpentine?

Serpentine is a common term used for a specific type of rock that forms when rocks and sediment are heated and compressed under the earth's crust. It often contains white streaks of minerals known as *asbestos*. **Asbestos fibers are a known human health risk.** The most common form of asbestos fiber found in Lake County is *chrysotile*. If rock or soil containing asbestos is located on your property or was used to construct your driveway or walkways, there is a risk of asbestos exposure where you live.

How to Recognize Serpentine Landscapes

Serpentine is California's State rock and forms distinctive grasslands and chaparral areas throughout Lake County. Serpentine rock is a distinctive shiny greenish-gray color. Plants growing in soils derived from serpentine rock often have a stunted or "bonsai" appearance. Plant growth may also be sparse due to the lack of vital nutrients.

What are the Health Concerns?

People may inhale or swallow dust containing asbestos fibers. The fibers can cause cancer and other diseases by remaining in the lungs or traveling to the lining of the lungs or abdominal cavity. It may be 20 or more years before disease caused by asbestos develops. Smokers have an increased risk of lung cancer when exposed to asbestos.

No "Safe" Level of Exposure to Asbestos Has Been Established

Any exposure to asbestos fibers involves some risk of disease. Health risk depends upon how often and to what degree one is exposed to asbestos fibers. No one knows how many fibers are needed to cause lung cancer or other diseases. Heavy and frequent occupational exposures are more likely to cause disease than non-occupational.

How are People Exposed to Asbestos Fibers?

Asbestos fibers are tiny and, once disturbed, may settle on the soil surface or become airborne. Natural erosion and routine activity can expose or release dust that contains asbestos fibers.

- Disturbing dry soils can create dust containing asbestos fibers.
- Storm water runoff can concentrate fibers; which may become airborne when dried.
- Asbestos fibers are exposed to the surface of the soil by wind, rain, and natural land movement.

Children Have a Higher Health Risk

- They spend more time playing outdoors.
- They have a faster breathing rate.
- Exposure at a young age may lead to disease earlier in life.

How Can You Reduce Your Exposure to Asbestos Dust?

Avoid the following activities when serpentine soil is dry and dusty:

- Rototilling, digging, grading, or plowing
- Using leaf blowers
- Driving on unpaved roads or driveways
- Riding horses or moving livestock

To Control Dust Around Your Home, Always

- Pre-soak dry ground thoroughly before disturbing the soil.
- Use water to clean sidewalks and driveways.
- Avoid using or cover unpaved surfaces.

Landscaping Can Reduce Exposure of Asbestos Fibers

- To reduce natural erosion and dust, cover gardens and yards with serpentine-tolerant plants and a 3- to 6-inch layer of organic mulch or asbestos-free soil.
- Water plants often in the first few years or until plants are well established.

How Fibers May Enter the Home

- Asbestos fibers can be tracked onto the home on shoes. Remove and clean shoes before entering house.
- Fibers can settle on clothing. Wash exposed clothing separately.
- Asbestos fibers can be transferred to family members by pets.

If Asbestos Fibers May Have Been Brought into the Home

Take care when:

- Sweeping, vacuuming
- Dry cloth dusting, feather dusting

Replace with:

- Damp cloth dusting, wet mopping
- Washable area rugs
- HEPA filter vacuum

Living with Serpentine Soils

Serpentine soils are an important natural resource of Lake County. They support a wide range of unique and rare plant and animal life. Taking simple and common sense precautions will ensure that residents and soils can safely exist together. Serpentine soils or rock should be left undisturbed and stabilized to reduce exposing or releasing fibers into the environment. As long as fibers remain bound in rock or soil, they pose very little health threat.

Information compiled by:

Julie Frazell, Program Representative; Rachel Elkins, County Director/Farm Advisor; University of California Cooperative Extension, Lake County, California.

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For more information on asbestos-containing soils and landscapes, send in this form or visit:

**University Of California
Cooperative Extension
Asbestos Serpentine Soils
Education Program**

883 Lakeport Blvd.

Lakeport, CA 95453

PH: 707/263-6838

Fax: 707/263-3963

E-mail: celake@ucdavis.edu

Web-site: <http://celake.ucdavis.edu>

Please mail the following additional information to:

Name: _____

Address: _____

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Zip Code: _____

Phone: _____

Health risk related to asbestos

How to landscape and stabilize serpentine soils

Serpentine tolerant plant list

Soil testing for serpentine soils and asbestos

Indoor testing for asbestos

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