

Naturally occurring asbestos (NOA) are fibrous minerals found in certain rocks or soil as a result of natural geological processes. They have been reported in 35 U.S. states, including Pennsylvania. In our state, NOA is found in some geological formations, including ultramafic and serpentine rock, and can also be in rock that is deep in the ground or near the surface. NOA does not refer to commercially processed, asbestos-containing material, like insulation, or asbestos mining and processing operations. Natural weathering and routine human activities may disturb NOA-bearing rock or soil and release asbestos fibers into the air, which pose a greater risk for human exposure through breathing it in. If NOA is not disturbed and fibers are not released into the air, then it does not pose a health risk.

## HOW CAN SOMEONE BE EXPOSED TO NOA?

Environmental exposure to NOA can occur in communities near geological formations that contain NOA. However, the risk for exposure is dependent on climate, weather patterns and activity, and type of regional geology. One might be exposed to NOA through activities that can crush NOA-containing rock or disturb soils that contain NOA fibers, releasing fibers into the air. These activities can include working in a yard/garden or digging/shoveling, and riding bicycles, driving vehicles, or running on unpaved surfaces.



## WHAT ARE HEALTH RISKS OF NOA EXPOSURE?

Health risks associated with NOA exposure (not asbestos used commercially) are not yet fully understood. Recent studies and investigations by the U.S. Environmental Protection Agency and the U.S. Agency for Toxic Substances and Disease Registry are increasing our understanding of potential health risks associated with NOA, but we know all forms of asbestos are carcinogenic and may cause adverse health effects, including asbestos-related disease (like asbestosis, pleural changes and plaques, lung cancer, and mesothelioma).

## ASBESTOS-RELATED DISEASES: SIGN, SYMPTOMS, AND TESTING

Most people don't show any signs or symptoms of asbestos-related disease for 10 to 20 years or more after exposure, and symptoms can be similar to those of other health problems. When evaluating a person's risk for asbestos-related disease, you will need to consider how long and how frequently the person was exposed; how long it has been since their exposure started; how much they were exposed to; if they smoke cigarettes (cigarette smoking along with NOA exposure increases risk of asbestos-related disease); the size and type of asbestos they were exposed to; and other pre-existing lung conditions.

- If asbestos-related disease is still suspected after reviewing medical history and performing a physical exam, the following tests may be useful for diagnosis: chest X-ray, pulmonary function test, computerized tomography scan of the chest, bronchoalveolar lavage, or lung biopsy.
- Taking X-rays of children's lungs to look for asbestos-related disease is not currently recommended because changes to the lungs usually take years to develop. In addition, X-ray radiation may pose a higher risk for children.

## HOW CAN SOMEONE REDUCE THEIR EXPOSURE TO NOA?

If someone lives in an area where NOA has been disturbed and is likely to become airborne, they can limit exposure by taking the following steps:

- Walk, run, hike, and bike only on paved trails.
- Play only in outdoor areas with a ground covering such as wood chips, mulch, or sand.
- Drive slowly over unpaved roads.
- Pave over unpaved walkways, driveways, or roads that may have NOA-containing rock or soil.
- Cover NOA-containing rock or soil in gardens and yards with asbestos-free soil or landscape covering, and pre-wet garden areas before digging in soil.
- Keep windows and doors closed on windy days.
- Use doormats and remove shoes before entering your home and keep pets from carrying dust or dirt on their fur or feet inside.
- Use a wet mop on non-carpeted floors and a wet rag instead of a duster to dust.
- Wash rugs regularly and vacuum carpet often using a vacuum with a high efficiency HEPA filter.

**If you have any questions, contact us at [env.health.concern@pa.gov](mailto:env.health.concern@pa.gov).**