Asbestos: National Cancer Institute

Asbestos is the name given to a group of minerals that occur naturally in the environment as bundles of fibers that can be separated into thin, durable threads. These fibers are resistant to heat, fire, and chemicals and do not conduct electricity. For these reasons, asbestos has been used widely in many industries. Chemically, asbestos minerals are silicate compounds, meaning they contain atoms of silicon and oxygen in their molecular structure.

Asbestos has been mined and used commercially in North America since the late 1800s. Its use increased greatly during World War II (3, 4). Since then, asbestos has been used in many industries. For example, the building and construction industries have used it for strengthening cement and plastics as well as for insulation, roofing, fireproofing, and sound absorption. The shipbuilding industry has used asbestos to insulate boilers, steam pipes, and hot water pipes. The automotive industry uses asbestos in vehicle brake shoes and clutch pads. Asbestos has also been used in ceiling and floor tiles; paints, coatings, and adhesives; and plastics.

People may be exposed to asbestos in their workplace, their communities, or their homes. If products containing asbestos are disturbed, tiny asbestos fibers are released into the air. When asbestos fibers are breathed in, they may get trapped in the lungs and remain there for a long time. Over time, these fibers can accumulate and cause scarring and [inflammation](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=CDR0000044042&version=Patient&language=English), which can affect breathing and lead to serious health problems .

Asbestos has been classified as a known human carcinogen (a substance that causes cancer) by the U.S. Department of Health and Human Services, the EPA, and the International Agency for Research on Cancer. Studies have shown that exposure to asbestos may increase the risk of lung cancer and mesothelioma (a relatively rare cancer of the thin [membranes](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=CDR0000046294&version=Patient&language=English) that line the chest and [abdomen](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=CDR0000045070&version=Patient&language=English)).

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| --- | --- | --- |
| Description of Asbestos | Use of Asbestos | Health Effects of Asbestos |
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Unit 9 Pollution Study Guide (Unit began on March 27th)

Point Source Water Pollution

Non point source water pollution

Drinking water quality

Fracking

Groundwater Pollution

B.P. Oil Spill

Acid deposition

Eutrophication

Carbon Monoxide (CO)

Sulfur Dioxide (SO2)

Nitrous Oxide (NO2)

VOCs

Industrial (Grey) Smog

Ozone (O3)

Photochemical (brown) Smog

Indoor Air Pollution

Radon Gas

Formaldehyde