Asbestos in the natural environment: how safe are we?

Exposure to asbestos has been a long-standing issue, threatening the health of both the environment and human population for centuries. Hundreds of millions of people are exposed to the toxin worldwide each year, despite its known health risks. One study from the International Journal of Environmental Research and Public Health estimates that roughly 250,000 people die as a result of asbestos exposure annually.

May was National Clean Air Month, reminding us about the importance of knowing what is in the air we breathe every day. In June, World Environment Day focused on the action that needs to be taken to #BeatAirPollution.

Asbestos is a naturally found mineral and doesn't pose a threat until broken or disturbed. Unfortunately, however, it was first mined and used thousands of years ago, making it common to come across in both the natural and built environment. Once released into the air, the toxin becomes extremely harmful for humans if ingested or inhaled.

The adverse health effects have been known for close to 100 years, but the toxin continued to be used in a variety of ways and the consequences have spread globally. The U.S. Bureau of Mines claimed to be aware of asbestos' negative impact as early as 1932, stating in a letter written to an asbestos manufacturer: "It is now known that asbestos dust is one of the most dangerous dusts to which man is exposed."

Swift Creek, which flows into the Sumas River in Everson, Washington, has been found to contain unsafe levels of asbestos. A series of studies done by the Environmental Protection Agency beginning in 2006 indicate existing asbestos in the creek and its surrounding riverbeds. Levels of asbestos vary along the creek, with some dried samples containing up to 43 per cent of the carcinogen.

According to the Environmental Protection Agency the presence of asbestos, along with nickel, manganese, cobalt, chromium and magnesium, are "in amounts toxic enough to prevent vegetation from growing on the slide material." The Environmental Protection Agency report states that "Swift Creek has no resident fish" and its flow into the Sumas River has been linked to issues regarding water quality.

Despite its effects on human and animal health, much remains to be done before the dangerous mineral is banned worldwide. “Many—but not all—types of asbestos have been banned or severely restricted in several countries for environmental or health reasons, and listed under the Rotterdam Convention, which requires prior informed consent when hazardous chemicals are traded internationally,” says Kei Ohno Woodall from the Secretariat of the Basel, Rotterdam and Stockholm Conventions.

In addition to it naturally occurring in the environment, extensive human use of asbestos has led to the discovery of this hazardous particle in both our air and water sources. Although the World Health Organization states that there is not enough substantial evidence to prove that ingesting asbestos through drinking water will lead to an illness down the line, it’s important to be aware of the constant threat of exposure.

Symptoms associated with exposure

Symptoms associated with asbestos exposure can take up to half a century to arise and the majority of related cases of these diseases develop as a result of occupational exposure, with nearly 125 million people facing exposure each year. People can also be exposed through the environment, consumer products or even within their own homes. Malignant mesothelioma is the most common illness, with both lung cancer and asbestosis trailing not far behind.

Low levels of exposure are less likely to lead to these serious illnesses and simply being aware of the threat could drastically reduce the risk of contact.

Mitigating personal exposure risks

If environmental asbestos is a concern in your area, it’s important to actively take precautions to prevent exposure, which could be as simple as educating yourself and having a foundational understanding of where this toxin could possibly be hidden.

For your safety and the safety of the ones you love, you can start by being aware of the ingredients in products and soils, wetting any ground that may contain asbestos before working in the garden or allowing children to play outdoors, opting to use paved trails over possible asbestos-containing soils and supporting asbestos regulation.

Source: https://www.unenvironment.org/news-and-stories/story/asbestos-natural-environment-how-safe-are-we