

# Asbestos

**Asbestos**, or in Czech **osinek**, is a crystalline form of magnesium silicate ( $\text{MgSiO}_3$ ). It was formerly used extensively in fire partitions of various buildings (including residential). It is still used in the manufacture of fireproof firefighting suits.

## Health damage

 For more information see *Asbestos-related diseases*.

Asbestos consists of very fine fibrous crystals that look like cotton wool. These are released when working with asbestos in the form of aerosol. The most dangerous are fragments the size of **5 to 0.5  $\mu\text{m}$** . Long-term inhalation of these crystals leads to so-called asbestosis, severe lung parenchymal impairment. Crystals the size of **1 to 0.5  $\mu\text{m}$**  reach the most peripheral parts of the lung. This leads to mechanical irritation and cell damage that reaches up to carcinogenic effect. The tumor that arises stems from pleural epithelia and is referred to as mesothelioma. Its occurrence with long-term (even several decades!) inhalation of asbestos fragments **increases up to a thousand times!**

## Prevention

The best way to prevent asbestosis is to use appropriate respiratory equipment and full body protective suits. In recent decades, the use of asbestos has been discouraged, despite its good thermoresistant properties.

Similar effects are attributed to **fine wood dust**.

## Links

### Related articles

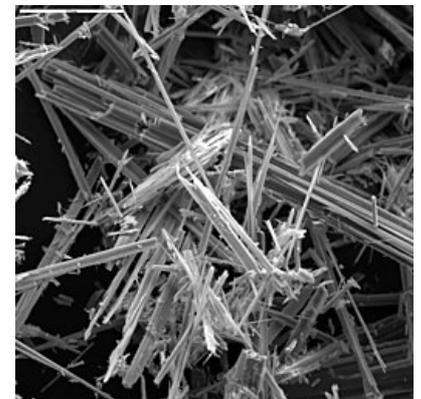
- Asbestos-related diseases

### External links

- Sdružení Arnika, Toxické látky a odpady – azbest (<https://arnika.org/azbest>)



Asbestos fibres



Antophyllite - one of the forms of asbestos, SEM