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| **Asbestos** |
| **DEFINITION:**  Asbestos is a group of naturally occurring minerals which was widely used in building materials and other products (WHO, Date unknown). All types of asbestos cause lung cancer, mesothelioma, cancer of the larynx and ovary, and asbestosis (fibrosis of the lungs) (World Health Organization date unknown).  **REFERENCE**:  World Health Organization (Date unknown). International Programme on Chemical Safety: Asbestos Available at <https://www.who.int/ipcs/assessment/public_health/asbestos/en/>. Accessed 18 November 2019. |
| **ANNOTATIONS:**  **Synonym(s):** Not relevant  **Additional scientific description:**  Asbestos has current or historical commercial use due to its extraordinary tensile strength, poor heat conduction, and relative resistance to chemical attack. For these reasons, asbestos is used for insulation in buildings and as an ingredient in a number of products, such as roofing shingles, water supply lines, and fire blankets, as well as clutches and brake linings, gaskets, and pads for automobiles (World Health Organization date unknown).  The main forms of asbestos are chrysotile (white asbestos) and crocidolite (blue asbestos). Other forms include amosite, anthophylite, tremolite and actinolite (World Health Organization date unknown).  All forms of asbestos are carcinogenic to humans. Exposure to asbestos, including chrysotile, causes cancer of the lung, larynx, and ovaries, and also mesothelioma (a cancer of the pleural and peritoneal linings). Asbestos exposure is also responsible for other diseases such as asbestosis (fibrosis of the lungs), and plaques, thickening and effusion in the pleura (World Health Organization date unknown).  **Metrics and numeric limits:**  Currently, according to the World Health Organisation (WHO), about 125 million people in the world are exposed to asbestos at the workplace. In 2004, asbestos-related lung cancer, mesothelioma and asbestosis from occupational exposures resulted in 107,000 deaths and 1,523,000 Disability Adjusted Life Years (DALYs) (World Health Organization date unknown). In addition, nearly 400 deaths have been attributed to non-occupational exposure to asbestos. The burden of asbestos-related diseases is still rising, even in countries that banned the use of asbestos in the early 1990s. Because of the long latency periods attached to the diseases in question, stopping the use of asbestos now will result in a decrease in the number of asbestos-related deaths only after a number of decades (World Health Organization 2014).   * Asbestos is a proven human carcinogen (International Agency for Research on Cancer (IARC) Group 1). No safe level can be proposed for asbestos because a threshold is not known to exist. Exposure should therefore be kept as low as possible (International Agency for Research on Cancer 1998). * Air quality guidelines for Europe, 2000, (p38) shows estimates for asbestos and its health risk factors.     **Key relevant UN convention/multilateral treaty:**   * International Labour Organization C162. Asbestos Convention, 1986 (No. 162) * Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989).  International Health Regulations (2005) **Examples of drivers, outcomes and control measures of the hazard:**  In many disaster-prone areas, asbestos cement is widely used as a building material and when the material corrodes due to aging or is damaged it releases harmful asbestos fibres. Fires in buildings can release large amounts of dust and fibres from asbestos and fibreglass insulation (World Health Organization 2018).  The World Health Organization (WHO), in collaboration with the International Labour Organization and other intergovernmental organizations and civil society, works with countries towards elimination of asbestos-related diseases by:   * recognizing that the most efficient way to eliminate asbestos-related diseases is to stop the use of all types of asbestos; * providing information about solutions for replacing asbestos with safer substitutes and developing economic and technological mechanisms to stimulate its replacement; * taking measures to prevent exposure to asbestos in place and during asbestos removal (abatement); * improving early diagnosis, treatment, and rehabilitation services for asbestos-related diseases; * establishing registries of people with past and/or current exposures to asbestos and organizing medical surveillance of exposed workers; and * providing information on the hazards associated with asbestos-containing materials and products, and by raising awareness that waste containing asbestos should be treated as hazardous waste (World Health Organization date unknown).   Cost-effective interventions for prevention of occupational lung diseases from exposure to asbestos are among the policy options for implementing the "Global Action Plan for the Prevention and Control of Noncommunicable Diseases" (2013-2020), as endorsed by the Sixty-sixth World Health Assembly in resolution WHA66.10 in 2013 (World Health Organization 2013).  **REFERENCES:**   * Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989). At the time of writing, there were 187 parties to the Basel Convention. Official website: [www.basel.int/](http://www.basel.int/). Accessed 18 November 2019. * International Agency for Research on Cancer (1987). Asbestos (Actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite) (Group 1). Summaries & Evaluations Supplement 7:106. Last updated 1998. Available at [www.inchem.org/documents/iarc/suppl7/asbestos.html](http://www.inchem.org/documents/iarc/suppl7/asbestos.html). 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| **Coordination Agency or Organisation:**  World Health Organization / International Programme on Chemical Safety (IPCS) |
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