



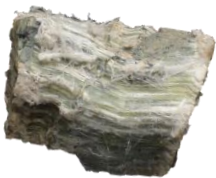
about ASBESTOS

What is Asbestos?

Asbestos is the name given to a group of six different fibrous minerals that occur naturally in the environment. These fibers are:

- Too small to be seen with the naked eye
- Do not dissolve in water or evaporate
- Resistant to heat, fire, and chemical or biological degradation
- Still present in many commercial products, including insulation, brake linings, and roofing shingles

There are 2 general types of asbestos:



Chrysotile (fibrous serpentine) asbestos has long, flexible fibers. This type of asbestos is most commonly used in commercial products.



Amphibole (brittle rod or needle shape) is less common in commercial products. Amphibole fibers tend to stay in the lungs longer and are more likely increase the occurrence of disease such as mesothelioma.

? Why is Asbestos a Problem?

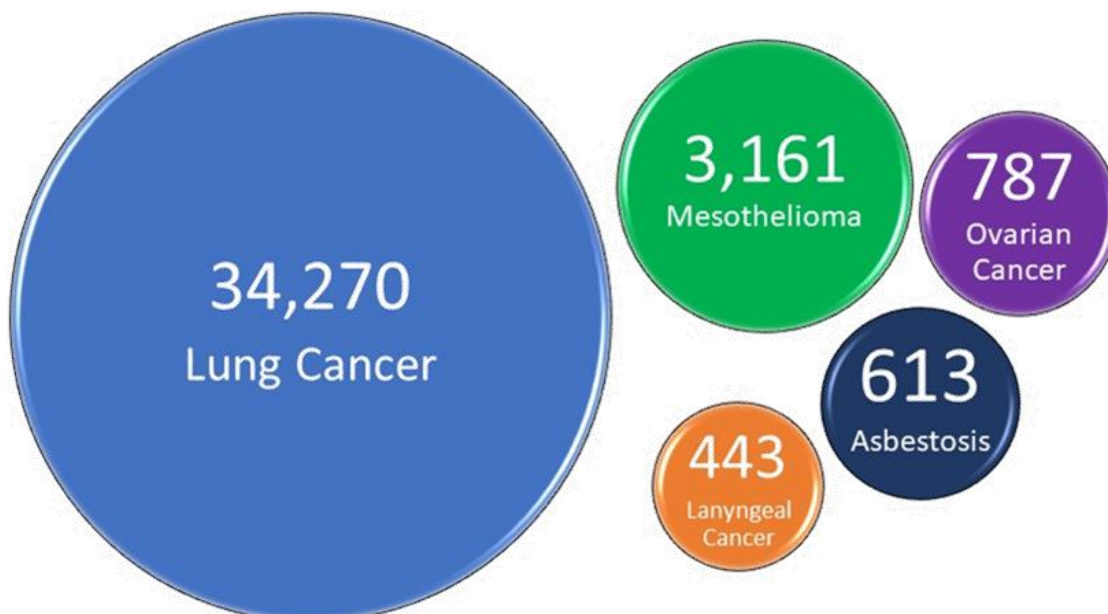
If rocks, soil or building products containing asbestos are disturbed and fibers become airborne, individuals can breathe them – in some cases, without knowing it. Since the fibers are so small, they can travel deep into a person's lungs, where they may lodge in the lung tissue and remain there for a lifetime. **Airborne asbestos fibers that are inhaled and trapped in the lungs pose a serious health threat.**

Asbestos exposure is not a problem if solid asbestos is left alone and not disturbed.

When asbestos is disturbed, it can break down into microscopic fibers that may become airborne.

Deaths in the U.S. Caused by Occupational Exposure to Asbestos

Source: International Journal of Environmental Research & Public Health, 2016





What are Some Types of Asbestos-Related Diseases?

Non-Cancerous Asbestosis

- scarring of the lungs
- typically caused by very high exposure levels over a prolonged period of time
- seen in work-related asbestos exposure
- smoking increases the risk
- late stage symptoms include progressive shortness of breath, persistent cough, and chest pain

Pleural Changes or Pleural Plaques

- thickening and hardening of the pleura (the lining that covers the lungs and chest cavity)
- most people will not have symptoms
- some may have decreased lung function
- some develop persistent shortness of breath with exercise or even at rest if they have significantly decreased lung function

Lung Cancer

- cigarette smoking combined with asbestos exposure greatly increases the likelihood of lung cancer
- symptoms can vary
- late stage symptoms can include chronic cough, chest pain, unexplained weight loss, and coughing up blood

Mesothelioma

- a rare cancer mostly associated with asbestos exposure
- occurs in the covering of the lungs and sometimes the lining of the abdominal cavity
- late stage symptoms include chest pain, persistent shortness of breath, unexplained weight loss, coughing up blood



What requirements exist for building renovation & demolition projects when dealing with asbestos?

Asbestos is still legal in the United States.

It's present in many U.S. buildings & homes in the form of insulation, tiling, roofing, cement, siding and other materials.

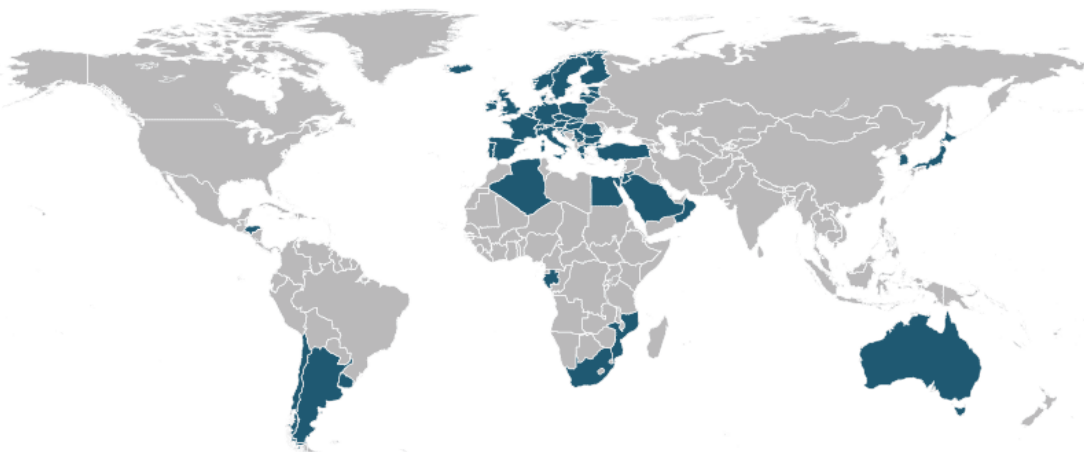
In fact, most homes built before 1978 contain some asbestos containing building materials (ACBM).

The greatest potential for exposure to asbestos fibers now occurs when ACBMs are disturbed during either building renovations or other demolition. Federal regulations require that a “thorough inspection” be conducted for the presence of ACBM prior to any demolition or renovation of any “facility,” except single family homes.

Asbestos inspection must be conducted by a person accredited by the U.S. Environmental Protection Agency as qualified to identify ACBMs.

55 Nations Have Banned Asbestos

Source: EWG Action Fund, 2018





What Federal Regulations exist related to Asbestos?

Although asbestos is still legal in the United States, it is heavily regulated.

Federal laws exist to restrict the use of asbestos, including:

- Toxic Substances Control Act (TCSA)
- Clean Air Act
- Asbestos Hazard Emergency Response Act (AHERA)
- Safe Drinking Water Act
- James Zadroga 9/11 Health & Compensation Act
- Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)

The following federal agencies have responsibilities for implementing federal rules:

- Environmental Protection Agency (EPA)
- Occupational Safety & Health Administration (OSHA)
- Mine Safety & Health Administration (MSHA)
- Consumer Product Safety Commission (CPSC)



Federal regulatory definitions:

Facility

- any institutional, commercial, public, industrial or residential structure, installation or building (including any structure, installation or building containing condominiums, or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units);
- any ship; or
- any active or inactive waste disposal site.

Renovation

- altering a facility or one or more facility components in any way, including the stripping or removal of Regulated Asbestos Containing Materials (RACM) from a facility component.

Demolition

- wrecking or removing any load-supporting structural member of a facility together with any related handling operations or the intentional burning (i.e. practice burns) of any facility.

NOTES:

- Any building, structure or installation that contains a loft used as a dwelling is not considered residential.
- Any structure, installation, or building that was previously subject to the Asbestos NESHAP is not excluded, regardless of its current use or function.
- Any interior renovation or remodel not affecting load-supporting structural members or a roof replacement.



How can Kynoch Environmental Management help?

1

Strong Team of Accredited Experts

EPA Accredited & licensed Asbestos Inspectors and Management Planners, our team is Knowledgeable about EPA AHERA, EPA NESHAP and OSHA regulations for asbestos testing, abatement design and abatement monitoring.

2

Decades of Experience

Extensive experience in support of compliance with federal AHERA and National Emission Standards for Hazardous Air Pollutants (NESHAP) & OSHA regulations.

3

Recognized Leadership

Since 1984, J. Brent Kynoch has provided asbestos consulting for historic restorations, hospital renovations, and AHERA school abatement projects. He speaks frequently to gatherings of industry experts.

4

Dependable, Responsive Team

Experience in asbestos testing and management for federal agencies, U.S. Department of Defense, as well as architecture and engineering firms

5

Strong Partnerships with Independent, Leading Practice Labs

- NVLAP-accredited for Polarized Light Microscopy
 - AIHA-accredited lab for Phase Contrast Microscopy NVLAP-accredited lab for Transmission Electron Microscopy
-

6

Concise, Accurate Reports

All laboratory analytical results are carefully reviewed and reported in a straightforward format.



More about Kynoch Environmental Management services:

With each project, KEM gains knowledge, allowing us to deliver more reliable, comprehensive, and sophisticated services.

KEM Operations & Maintenance (O&M) Program

- suited to each project
- emergency response plans
- periodic re-inspections
- air monitoring

KEM Abatement Program & Awareness Training

When abatement is necessary, KEM will provide:

- technical specifications
- abatement drawings
- detailed cost estimates
- full CADD capabilities
- Supervisory support for the solicitation of bids from qualified contractors
- Assistance with contracting procedure
- On-site abatement management, including air monitoring and approval of the contractor's submittals.

KEM Quality Control Protocols

Our strict quality control procedure assures that the projects are completed with the highest quality.

- Photographic documentation
- Written documentation

Free AHERA Analysis for schools

- review of current asbestos management plans
- improvement recommendations
- formal report



Contact us:

KYNOCH
ENVIRONMENTAL MANAGEMENT
www.kynoch.com

info@kynoch.com

301-961-1653

Washington DC Metro Office:
6935 Wisconsin Avenue
Suite 306
Chevy Chase, MD 20815