

examinetics

Occupational Health Pathfinder

Asbestos

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Overview

It is estimated that 1.3 million workers in the USA face significant exposure to asbestos within a number of industries. Asbestos is the commercial name for a collection of minerals whose fibers have many useful industrial properties – for example resistance to heat. The material has therefore seen widespread use in applications ranging from roofing through to automobile brake linings and clutches.

Asbestos fibers can break down into microscopic particles that find their way into the body through inhalation or by swallowing. It is known that ingestion of asbestos fibers can cause severe health issues including cancer of the lung, gastro-intestinal cancer and mesothelioma (cancer of the lining of the chest and abdominal cavity). Inhalation of asbestos fibers can also give rise to asbestosis, a condition in which the lung tissue becomes scarred thus making it difficult for oxygen to get into the blood. All of these conditions can take a long time to appear post-exposure to asbestos. In general, the greater the exposure to asbestos then the greater the risk of developing lung disease and that risk is made worse by smoking.

Regulations

Given the health risks, working with asbestos is regulated tightly. In order to be compliant with regulations, employers in the construction industry should be familiar with the Asbestos Standard as outlined in OSHA 3096. This Standard is too comprehensive to adequately summarize here as it defines strict exposure limits and requirements for exposure assessment, medical surveillance, record-keeping, “competent persons”, regulated areas, hazard communication and training. These requirements are explained on the OSHA website (www.osha.gov/SLTC/asbestos) which employers should be aware of. Also available from the OSHA website is downloadable software (“The Asbestos Advisor 2”) that is an interactive compliance assistance tool. The tool provides general guidance, individual project guidance, a glossary of terms, answers to frequently asked questions and detailed text of the relevant regulations. The US Environmental Protection Agency maintains a list of the laws and regulations pertaining to asbestos and provides a wealth of information from its website (www.epa.gov/asbestos).

In the workplace

Training is a significant requirement for anyone working with asbestos and the EPA website offers a comprehensive resource relating to types of training and accredited training providers. With the need for repeated medical assessments (including chest x-rays) when working with asbestos, many organizations find mobile health screening services a more efficient and less disruptive way of maintaining compliance for screening and data management.

KEY BRIEFING POINTS:

- 1.3 million workers in the USA face exposure to asbestos
- Asbestos is the commercial name for minerals whose fibers have useful properties
- Asbestos is found in buildings (due to its fire-resistant nature) and in automotive applications (eg brake linings)
- Microscopic particles of asbestos, when inhaled, can cause asbestosis – a condition in which lung tissue becomes scarred
- Asbestos can also cause lung cancer and mesothelioma, a form of cancer that attacks the lining of the chest and abdominal cavity
- Symptoms can take many years to develop
- The OSHA standard defines strict exposure limits, requirements for exposure assessment, medical surveillance and record-keeping, “competent persons”, regulated areas and training

FIND OUT MORE...

OSHA Website

www.osha.gov/SLTC/asbestos

US EPA

www.epa.gov/asbestos

Nat Inst for Occ Safety & Health

www.cdc.gov/niosh/topics/asbestos

American Lung Association

www.lungusa.org/site/pp.asp?c=dy_LUK900E&b=35368

Business Owner Briefing

“Self-Inspection checklist”

www.osha.gov/SLTC/asbestos/checklist.html

Medical Director Review

“Malignant mesothelioma: global incidence and relationship with asbestos” (Bianchi & Bianchi, 2007)
www.jniosh.go.jp/en/indu_hel/pdf/379_Bianchi.pdf

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