



The Training Brief

Quick Reference mini-training Topics Asbestos Exposure

The purpose of this training topic is to understand Asbestos Exposure in the fire service.

Discussion

Fact: Firefighters have 2.29 times more likely to develop mesothelioma due to exposure.

Firefighters have a 9 percent higher risk of being diagnosed with cancer and a 14 percent higher risk of dying from cancer than the general U.S. population, according to research by the CDC/National Institute for Occupational Health and Safety (NIOSH).

Key Points: The risks of asbestos exposure don't stop at the fire scene. Firefighters may transport microscopic fibers back to the fire station on their clothes, vehicles, and equipment, putting other firefighters at risk of secondhand exposure.

Action: Take the steps to protect yourself:

- Wear your SCBA and be on air from the start of the fire through overhaul.
- Launder all PE per NFPA 1851 recommendations.
- Don't wear or transport contaminated PPE to avoid cross contamination.
- Shower within the hour.
- Perform a preliminary exposure reduction onscene.
- Use wet wipes after a fire on exposed areas of skin.
- Do annual medical exams.

Make the necessary changes

Firefighters face uniquely extreme asbestos exposure risks, and as a result, they suffer an elevated rate of asbestos-related diseases such as mesothelioma and lung cancer.

Dirty gear is no longer a badge of honor, it is a badge of cancer.

Asbestos was used widely for decades to make construction materials and protect workers from fires until approximately 1970. When older buildings made with asbestos are damaged by fire, they can release large amounts of asbestos fibers and put firefighters at risk of exposure.

When these buildings burn, weakened asbestos-containing materials can release intense concentrations of toxic mineral fibers into the air.

When asbestos is disturbed, it releases dust fibers more than 100 times thinner than a human hair.

These microscopic mineral fibers cannot be seen, smelled or tasted. Because they do not chemically react with anything in the body, they cause no immediate symptoms when someone inhales or swallows them.

However, because asbestos fibers never dissolve inside the body, they can become permanently lodged in organs and tissues, causing benign and malignant illnesses to develop many years later.

Conditions related from Asbestos exposure:

- **Asbestosis:**
 - *When asbestos collects in the soft tissue of the lungs, scar tissue may build as the immune system tries to expel the fibers. The buildup of scar tissue gradually stiffens the lungs, making it harder to breathe as the asbestosis progresses.*
- **Lung Cancer:**
 - *Lung cancer is usually caused by smoking tobacco products, but each year, many thousands of cases also trace back to asbestos exposure. Asbestos-related lung cancer kills more Americans than any other asbestos-related illness.*
- **Mesothelioma:**
 - *Mesothelioma is a rare and aggressive form of cancer caused by asbestos exposure. Most cases affect the pleural lining, endangering the lungs, heart and chest wall, but a large fraction of cases develop in the peritoneal lining of the abdomen, potentially spreading into the organs of the gut.*

Source: <https://www.asbestos.com/occupations/firefighters/>