Fire fighters are subjected to asbestos exposure on the job. Often fires fought in buildings built in mid-1990s and older have asbestos components. Fires that occur in buildings may create a toxic level of asbestos in the immediate area.

Although health risks increase with heavier exposure and longer exposure times, asbestos-related diseases have been documented with only brief exposures. It has been said that disease developing from asbestos exposure may be considered “when” not “if”. For most, signs of illness are latent and may not show up for decades. It is common among mesothelioma victims to have been exposed 30 – 50 years before being diagnosed.

Construction materials may contain asbestos. Such materials may include
- Attic insulation (vermiculite/Zonolite)
- Drywall
- Plumbing and electrical insulation
- Floor and ceiling tiles
- Roof shingles
- Joint compound
- Many other products.

Asbestos may be present in condemned or vacant buildings used for training opportunities when there is threat of fire.

In the initial phases of extinguishing a fire the burning asbestos may become damaged to the point where fibers are released into the air. Once exposed into the air, the microscopic needle-like fibers are easy to breathe in, where they become lodged in the mesothelium. The victim is not able to breathe or cough them out.

If the asbestos components were old or in poor condition before the fire, it is even more likely that the asbestos fibers will be disturbed and become airborne. Airborne asbestos fibers may linger in the air for hours, even days.

Consider that other people in the vicinity of the fire, such as police, EMS, bystanders and the residents of the home may also be at risk of exposure.

During the initial stages of fire attack, the risk of exposure is small because of the use of SCBA and bunker gear. The real danger occurs during overhaul and investigation phases. It is tempting to remove components of bunker gear and not use SCBA or respirators because it is less bulky or wearing a mask is uncomfortable or inconvenient. With pulling ceilings, opening walls and digging through debris the exposure risk increases.

As well as the airborne respiratory hazard, fibers released during fire, overhaul and investigation stages can settle on protective clothing and equipment. Cross contamination and secondary exposures may occur.

**General Principles**

- Identify and communicate asbestos hazard potential in any building built in mid-1990s or earlier.
If asbestos contamination is suspected, protection of responders and rescue of injured or trapped persons is priority. See Department Risk Statement.

Establish and respect the security of Hazard Control Zones. See Hazard Zones.

Continue to wear SCBA while searching for hotspots during overhaul. If ambient gas levels permit, investigators may wear minimum P100 respirators.

Wet down the areas/components/debris being overhauled or investigated to reduce asbestos fibers released into the air.

Venting and entry techniques which involve opening walls should always be performed while wearing protective equipment.

Do not handle dry dust at a fire. Only trained and certified abatement personnel should work to decontaminate areas that are suspected of containing asbestos.

Keep respirator cleaning supplies, replacement cartridges and replacement respirators easily accessible.

Wear appropriate protective clothing during all phases of operation, e.g. bunker gear for fire fighters; bunker gear or Tyvek suits for investigators.

Gross decon of all equipment, PPE and bunker gear at the scene, where practical. If at the fire station, wash as soon as practical. If equipment is dry, wear mask and make reasonable attempts to limit secondary airborne contamination. Wear a proper respirator.

Launder bunker gear, preferably while still wet. Include washing of gloves, helmets and helmet liners, boots, etc.

After a fire, shower and change into clean clothes before leaving the fire station in order to avoid bringing home asbestos dust. All duty wear should be laundered at the fire station to avoid taking any contamination home.

If conditions lead you to believe you may have been exposed to asbestos, immediately report the conditions to the Incident Commander or your supervisor and complete Incident Report documentation.

Reference:
- http://www.mesotheliomatreatmentcenters.org/asbestos/firefighters.html