



Tips from Training



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SCBA Through Overhaul



There is a common misconception that because the fire is out, you are out of danger. Off-gassing of hazardous compounds and known carcinogens continues to occur even after the production of visible smoke has stopped. **One of the routes of greatest concern for exposure to carcinogens is through the lungs (inhalation) when Firefighters prematurely remove their SCBA, especially during overhaul.**

Concerns During Overhaul:

- Personnel should be cognizant that an exposure to products of combustion does not require visible smoke. Inhalation of airborne carcinogens and toxins at low doses, in the parts per million (ppm) range or microscopic amounts, can have a potential toxic effect.
- Concentrations of air contaminants during fire overhaul exceed occupational exposure limits. Without the use of a SCBA, fire fighters are overexposed to irritants, chemical asphyxiants and carcinogens. There are over 200 known chemicals found in smoke on the fireground. Therefore, a SCBA is strongly recommended during fire overhaul.
- Recommended exposure levels for carbon monoxide, benzene, formaldehyde, hydrogen cyanide and arsenic are exceeded during overhaul.
- There is also no correlation between CO (Carbon Monoxide) and HCN (Hydrogen Cyanide) air levels and cancer-causing toxicants found at a fireground, so the CO and HCN levels can drop but cancer-causing toxicants can remain airborne.

Using a SCBA should be standard when any amount of smoke or products of combustion are present at any fire. **If you smell smoke, you are being exposed.**

Submit a potential Training Tip via email to: TrainingTips@fdny.nyc.gov