

POST-FIRE SUPPRESSION INTERVENTIONS TO REDUCE EXPOSURES



This factsheet was developed by the International Association of Fire Fighters and the Firefighter Cancer Support Network.

During post-fire suppression, there is no way to completely eliminate exposures that can lead to occupational diseases and cancers, but there are some techniques that can reduce your exposure to these toxic contaminants.

INTERVENTIONS:

- 1. Post-fire preliminary exposure reduction (PER)** – or wet decontamination of the gear – can reduce up to 85% of the contamination on the external shell of your PPE.¹
- 2. Using cleansing wipes** can reduce up to 54% of the contamination on the skin.¹
- 3. Shower as soon as possible** (the goal is to shower within an hour) to remove contaminants off you sooner rather than later.
- 4. Bag all tools and equipment** that were contaminated on the fire ground and transport them for cleaning in an external compartment (not in the passenger compartment of any apparatus).

Exposures are cumulative, which means they add up over your career. Minimize the impact of each exposure by performing all of the interventions mentioned above. When done together, these interventions can **reduce your total exposure to metabolized polycyclic aromatic hydrocarbons (PAHs) by 40%.**²

Sources:

1. Contamination of firefighter personal protective equipment and skin and the effectiveness of decontamination procedures Fent KW, Alexander B, Roberts J, Robertson S, Toennis C, Sammons D, Bertke S, Kerber S, Smith D, Horn G. Contamination of firefighter personal protective equipment and skin and the effectiveness of decontamination procedures. *J Occup Environ Hyg*. 2017 Oct;14(10):801-814. doi: 10.1080/15459624.2017.1334904. PMID: 28636458.
<https://pubmed.ncbi.nlm.nih.gov/28636458/>
2. Evaluation of Interventions to Reduce Firefighter Exposures. Burgess JL, Hoppe-Jones C, Griffin SC, Zhou JJ, Gulotta JJ, Wallentine DD, Moore PK, Valliere EA, Weller SR, Beitel SC, Flahr LM, Littau SR, Dearmon-Moore D, Zhai J, Jung AM, Garavito F, Snyder SA. Evaluation of Interventions to Reduce Firefighter Exposures. *J Occup Environ Med*. 2020 Apr;62(4):279-288. doi: 10.1097/JOM.0000000000001815. PMID: 31977921. https://journals.lww.com/joem/Fulltext/2020/04000/Evaluation_of_Interventions_to_Reduce_Firefighter.5.aspx