

Dermal Decontamination

Wildland firefighters are exposed to smoke, ash, soot, dust, engine exhaust, and many other toxic chemicals during normal fire operations. These hazards can affect short-term performance and long-term health. While inhalation hazards have long been recognized, growing research shows that harmful substances can also be absorbed through the skin, contributing to greater cumulative occupational exposure. Incorporating dermal decontamination practices into daily operations can help reduce these exposures and support your long-term health and safety.

What Do We Know About Skin Hazards?

Working in the wildland fire environment exposes you to carcinogens that can enter your body through inhalation, ingestion or skin contact. Last summer, the Department of the Interior and the Department of Agriculture evaluated skin exposure to polycyclic aromatic hydrocarbons, a known group of carcinogenic chemicals, and found that wildland firefighters are exposed to contaminants during common tasks. Specifically, benzo(a)pyrene, the most toxic polycyclic aromatic hydrocarbon, was found in over half of the dermal wipes collected.

Previous external research reported that better skin hygiene practices – such as washing during breaks, showering between shifts, and changing into clean clothes – reduces the exposure of wildland fire personnel to polycyclic aromatic hydrocarbons.

How Can We Mitigate and Reduce These Exposures?

Post Operational Shift (est. 30-45 minutes)

- Wash or wipe your hands, neck and face before eating meals.
- Shower when possible or use moist wipes on exposed skin after a shift if showering is not possible.
- Sleep clean by showering or using wipes before entering sleeping areas or a sleeping bag.
- Wash clothing as often as possible.
- Isolate dirty gear to prevent cross-contamination.
- Carry 2-3 sets of clean, flame-resistant clothing. Change out or clean items when they become heavily soiled.

At End of Assignment or After Period of Extended Work (est. 90 minutes)

- Launder all contaminated clothing.
- Wash fireline packs according to manufacturer recommendations.
- Clean high-touch surfaces in vehicles with a cleaning solution or wipes.
- Replace vehicle air filters when they become visibly dirty.

Paid Time For Decontamination

Decontamination practices are an approved, paid activity that should be completed during the workday. You should use a commonsense approach to decontamination when you have been exposed to ash, soot, dust or chemicals. Operational tempo and logistical challenges may prevent daily decontamination, but you should make every effort to minimize prolonged exposure.

Submit Feedback

The Federal Wildland Firefighter Health and Wellbeing Program will be soliciting feedback throughout the summer on the implementation of these practices and other guidance on how to reduce exposure to occupational hazards. Information on how to access this survey will be shared through newsletters and on wildfire incidents.