Firefighter Chemical Exposures

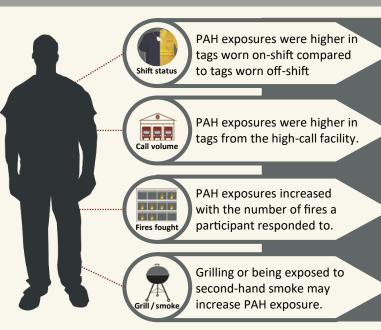


Oregon State University | Center for Fire, Rescue and EMS Health Research

Fires produce and release many environmental chemicals. Firefighters are first on the scene and may be exposed to potentially harmful chemicals. We looked at Polycyclic Aromatic Hydrocarbons (PAHs), which are found in fossil fuels (oil, diesel) and produced by burning wood, plants and tobacco. Some PAHs are known pollutants.

OFF - SHIFT ON - SHIFT OPERATIONAL CAPTAIN/CHIEF HIGH CALL LOW CALL

A total of 56 firefighters participated in this study. They wore personal passive samplers in the shape of a dog tag either on- or off-shift, at high- and low-call departments. Operational and command staff participated.



Each tag was analyzed for 63 different PAHs.

Exposure to PAHs

depended on several
variables, like shift status,
facility call volume and more.

Some PAHs were previously found with firefighters. We identified 18 new PAHs.

Questions? Contact us!

Kim A. Anderson, PhD

Food Safety & Environmental Stewardship kim.anderson@oregonstate.edu 541-737-8501 http://fses.oregonstate.edu

Walker S. Carlos Poston, PhD

Center for Fire, Rescue & EMS Health Research Center for Military & Veteran's Health Research carlosposton@hopehri.com 913-681-0317 | NDRI-USA, Inc.

Learn more about PAHs

PAHs: What are they and why do they matter?

https://youtu.be/fjgvmL61e5k

All About PAHs

https://superfund.oregonstate.edu/all-about-pahs



