

# Research: Women Firefighters and Health Risks

In a study published in the *Journal of Occupational and Environmental Medicine*, researchers at Sylvester Comprehensive Cancer Center interviewed women firefighters to better understand their attitudes towards their on-the-job health risks. The researchers found the firefighters are concerned about cancer, particularly breast cancer, hazardous chemicals, shift work, fertility, and pregnancy. These findings could help guide public health policy and future research.

“Women represent around 8% of all firefighters in the U.S., and they face their own unique health concerns,” said associate professor of public health sciences, Alberto Caban-Martinez, D.O., Ph.D., M.P.H., senior author on the paper. “In addition to traditional women’s health concerns, such as pregnancy and breastfeeding, women firefighters also face hazardous materials exposures, sleep disruptions, and possibly a greater chance of getting cancer.”



Women firefighters are at high risk for injury and death on the job, as well as facing anxiety, depression, and fertility and pregnancy concerns.

## Some research has indicated women

# **firefighters in Florida are at higher risk for Hodgkin's disease and cervical and thyroid cancers.**

National data shows they may also be at risk for bladder cancer. Still, few studies have investigated these concerns and how the firefighters feel about them.

“Female firefighters are often under-represented in most research examining occupational impacts on health,” said Erin Kobetz, Ph.D., M.P.H., Vice Provost for Research and Scholarship at the University of Miami and associate director for Population Sciences and Cancer Disparity at Sylvester. “This work helps fill that gap and identifies opportunities for future intervention.”

To better understand the issues they face, the research team conducted six focus groups, with a total of 49 firefighters, to learn more about women firefighters' attitudes about their health risks. The women were particularly focused on the wide array of burning materials they encountered on calls.

“Because they are routinely exposed to hazardous chemicals and other unknown materials, cancer was the number one concern,” said Natasha Schaefer Solle, Ph.D., RN, assistant director of Behavioral and Community-Based Research Shared Resource, and first author on the paper. “They were also worried about sleep issues and stress, which they believe could have long-term health consequences.”

The participants' comments drive home the dangers they face: “There were houses, there were buildings, all these establishments that had God knows what in them. Hardware stores, everything's burnt, everything's still off gassing, things are still burning,” said one.

The hazards continue even at the station, as firefighters often use powerful cleaning products to disinfect after medical calls. In addition, the participants were concerned about the flame retardants and other chemicals in protective gear that may also increase cancer risk.

“Women firefighters face incredible workplace risks, but have historically been understudied,” Dr. Solle said. “We hope these findings will improve understanding of their risks and lead to better mechanisms to remediate these issues.”

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Written by Josh Baxt, contributor to Inventum.

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