

Firefighters Face Increased Mortality Rates for Several Cancers

American Cancer Society researchers stress continued efforts are needed to increase firefighter access to cancer screening, early detection, and prevention

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It's estimated that more than 15 million firefighters protect the inhabitants of 60 countries worldwide. Though the hazardous exposures encountered by firefighters vary, potential exposures include several known or suspected carcinogens. After more than thirty years of follow-up, a new study led by the [American Cancer Society](#) (ACS) has found that firefighters are at an increased risk of mortality from skin, kidney, and other types of cancer. This research follows a 2022 review by the International Agency for Research on Cancer (IARC) that found sufficient evidence that occupation as a firefighter causes mesothelioma and bladder cancer, but limited or inadequate evidence for causation for all other cancer types. The ACS study was published today in the International Journal of Epidemiology.

"Our findings support the growing body of research linking firefighter exposures to cancer risk," said [Dr. Lauren Teras](#), senior scientific director, epidemiology research at the American Cancer Society and lead author of the study. "The associations with skin, kidney, prostate, and colorectal cancer notably help to fill gaps for cancers that were considered to have limited or inadequate evidence in the previous IARC review."

For this study, scientists compared the risk of death among more than 470,000 firefighters with that of other employed male participants in the ACS Cancer Prevention Study-II. Data was obtained from surveys taken by cancer-free individuals in 1982 who were followed to identify deaths from cancer for 36 years until 2018. Occupations were categorized according to 1980 Census Bureau groups, and cancer deaths according to the International Classification of Disease.

Results showed that being a firefighter increased the mortality risk for most cancers, but the risk was strongest for skin and kidney cancers. For skin cancer, the mortality rate for firefighters was 58% higher than non-firefighters. For kidney cancer, the rate of death from the disease was 40% higher. Suggestive increases in prostate and colorectal cancer mortality were only observed with more years working as a firefighter. The association with lung cancer was only apparent after three decades of follow-up.

Because cancers often take many years to develop, the authors note this research highlights the

advantages of studies like the ACS Cancer Prevention Study-II that follow participants for decades and can account for other factors like smoking and socioeconomic status. The higher risk of dying from lung cancer was only clear after studying participants for 30 years. The study also calls attention to the importance of proper personal protective equipment for the skin, as the rates of fatal skin cancers were higher among firefighters in this study population.

“Although this isn’t favorable news, this study shines a spotlight on the long-term risks firefighters face beyond the immediate dangers of fighting a fire. Continued efforts to safeguard the health of firefighters by increasing access to cancer screening, early detection, and prevention are paramount,” Teras added. “This population plays a crucial role in our communities as first responders and protectors of life and property.”

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