

CANCER HAS CAUSED 63% OF CAREER FIREFIGHTER LINE-OF-DUTY DEATHS SINCE 2002. HEART DISEASE CAUSED 19% OF THE LINE-OF-DUTY DEATHS.

– IAFF data 1.1.2002 to 12.31.2017

Firefighter cancer fact check

Although cancer is the leading cause of firefighter line-of-duty deaths, firefighters are not “68 percent more likely to develop cancer than the general population.”

Accurate data is crucial when quantifying occupational cancer’s toll on—and threat to—firefighters and their families. Recently, a number of well-intended journalists, legislators, manufacturers, and others have cited **inaccurate firefighter cancer statistics**, including **the following erroneous examples**:

- ❑ “...the risk of cancer in firefighters is 250% greater than in people not in our line of work.”
- ❑ “In all, researchers found that more than two-thirds of firefighters—68 percent—develop cancer, compared to about 22 percent for the general population...”
- ❑ “Firefighters...have a 68% higher risk of being diagnosed with cancer than the general population.”
- ❑ “Research is showing 68% of firefighters will come down with cancer on average.”
- ❑ “...More than two-thirds of firefighters are diagnosed with...cancer.”
- ❑ “...63% of all firefighters will get cancer.”
- ❑ “...[Researchers] found that firefighters are twice as likely to be diagnosed with cancer...”
- ❑ “...[F]irefighters are 50 percent more likely to be diagnosed with cancer than the...U.S. population.”
- ❑ “A firefighter has a 29% higher risk of contracting cancer than the rest of our population.”

The proliferation of inaccurate statistics concerns **Robert D. Daniels, PhD, CHP**. In 2010, Daniels led the largest cancer study of U.S. firefighters to date for the National Institute for Occupational Safety and Health (NIOSH). **“Some sources cite our study as reporting a two-fold excess of cancer among firefighters, then go on to say that two-thirds of firefighters are diagnosed with cancer,” Daniels said. “Neither statement is correct.”**

Here are the facts: Firefighters have a 9 percent higher risk of being *diagnosed with* cancer and a 14 percent higher risk of *dying from* cancer than the general U.S. population, according to the NIOSH study results. The cancers mostly responsible for this higher risk were respiratory (lung, mesothelioma), GI (oral cavity, esophageal, large intestine), and kidney.

It’s important to note that firefighters’ risks are significantly higher for some specific types of cancer. The NIOSH researchers did report a two-fold excess of malignant mesothelioma, a very rare cancer. Put another way, firefighters have a 100 percent increased risk (100 percent = double = 2 times) of getting mesothelioma. Firefighters have a

129 percent increased risk of *dying* from mesothelioma. (The earlier LeMasters meta-analysis also reported a two-fold excess for testicular cancer.)

Firefighters have a 62 percent higher risk of getting esophageal cancer, and they have a 39 percent increased risk of *dying* from esophageal cancer, according to the NIOSH research.

Here’s an overview with some specific additional risks for firefighters noted:

- ❑ testicular cancer - 2.02 times the risk (again: 100% = double = 2 times)
- ❑ mesothelioma - 2.0 times greater risk;
- ❑ multiple myeloma -1.53 times greater risk;
- ❑ non-Hodgkin’s lymphoma - 1.51 times greater risk;
- ❑ skin cancer - 1.39 times greater risk;
- ❑ malignant melanoma - 1.31 times greater risk;
- ❑ brain cancer -1.31 times greater risk;
- ❑ prostate cancer - 1.28 times greater risk;
- ❑ colon cancer -1.21 times great risk; and
- ❑ leukemia - 1.14 times greater risk.

Note that some fire departments are addressing occupational-cancer rates that are higher than national averages. FCSN instructors cite insurer statistics for Miami-Dade Fire Rescue: 32 percent (nearly one-third) of MDR’s active members were diagnosed with cancer or receiving cancer treatment between 2008-2010.

Bottom line: Firefighters *do* have higher cancer risks than the general population, and their risks are *significantly* higher for some specific types of cancer.

We encourage journalists, legislators, and others who address occupational cancer to contact the nonprofit Firefighter Cancer Support Network at PIO@fcsn.net for accurate information and vital context about cancer in the fire service.

In the meantime, if you see inaccurate claims, please politely share these correct statistics and suggest a revision. — *Timothy Elliott [revised 4.18]*

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