

Elevated leukemia incidence is found in World Trade Center rescue and recovery workers

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Responders who worked at the World Trade Center site after the attacks on September 11, 2001, have an increased overall cancer incidence compared to the general population, particularly in thyroid cancer, prostate cancer, and, for the first time ever reported, leukemia, according to a Mount Sinai study published in *JNCI Cancer Spectrum* in January.

Following the attacks on the World Trade Center, 50,000 workers were involved in rescue and recovery, with many of them caught directly in the dust cloud from the collapsing towers. From then until cleanup of the site ended in June 2002, workers were potentially exposed to an array of toxins later shown to cause [adverse health effects](#), including cancer.

This study examined [cancer incidence](#) in responders including law enforcement, construction, and telecommunications workers, and found an increased overall cancer incidence, with the greatest elevation in [thyroid cancer](#). It is the first to show an increase in leukemia, which is known to occur after exposure to occupational carcinogens, including benzene fuel and other sources that existed at the World Trade Center site, in some cases at low levels of exposure and with a latency of several years from exposure.

Researchers also found that neither the length of time that first responders and recovery workers worked on the World Trade Center

site, nor the intensity of their exposure, had any bearing on the development of the elevated cancers. However, some [risk factors](#)—such as responders' age on September 11, their gender, and whether they were smokers at the time—were associated with increased [cancer risk](#), underlining the need for continued surveillance of World Trade Center rescue and recovery workers.

"This study showed increased incidence of several cancer types compared to previously conducted studies with shorter follow-up periods," said Susan Teitelbaum, Ph.D., Professor of Environmental Medicine and Public Health at the Icahn School of Medicine at Mount Sinai and one of the lead authors. "Because of the long latency period of many types of cancer, it is possible that increased rates of other cancers, as well as World Trade Center exposure health issues, may emerge after longer periods of study."

Researchers studied post-September 11 cancer incidence among 28,729 rescue and recovery workers via cancer registry data from New York, New Jersey, Connecticut, Pennsylvania, Florida, and North Carolina from 2002 through 2013. Although the incidence of certain cancers, such as lung, was not elevated in this study's findings, researchers believe that may be due to the long time periods over which these cancers develop.

Provided by The Mount Sinai Hospital

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