

## World Trade Center Workers Twice as Likely to Have Asthma Rates continued to rise for several years after the attacks, study shows

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TUESDAY, Nov. 3 (HealthDay News) -- World Trade Center rescue and cleanup workers have asthma rates twice that of the general population, a new study shows.

In 2005, about 8 percent of workers and volunteers who had spent time at Ground Zero reported having an asthma attack during the previous year, compared to about 4 percent of the general population. The rate of asthma attacks among World Trade Center workers had been less than 1 percent in 2000.

Reports of problems with asthma continued to rise for several years after the attacks. Less than 3 percent of World Trade Center workers reported ever having been diagnosed with asthma attacks pre-9/11, while 16 percent reported in 2005 through 2007 that they had asthma attacks at some point.

"Twice as many World Trade Center responders are suffering from asthma when compared to those their age from the general population," said senior study author Dr. Paul Enright, a research professor of medicine at the University of Arizona.

The study was to be presented Tuesday at the American College of Chest Physicians' annual meeting in San Diego.

Researchers followed about 20,000 responders who received an initial medical exam between July 2002 and December 2007 at a World Trade Center Medical Monitoring and Treatment Program clinic.

Participants were asked if they had experienced an asthma attack in the last year, and whether they had ever been diagnosed with asthma.

The average amount of time spent at World Trade Center sites was about 80 days. About 86 percent of the law enforcement, construction and other rescue, recovery and debris removal workers in the study were men, 59 percent were white and their mean age was 43.

Previous research has found that new asthma diagnoses peaked soon after 9/11 and then fell to closer to normal in the ensuing years. A study in the August issue of the *Journal of the American Medical Association* found that most new asthma diagnoses --- that is, people who were asthma-free prior to the attacks -- occurred in the 16 months after the attacks, said Lorna Thorpe, deputy commissioner of epidemiology for the New York City Health Department and senior author of that study.

This study is different in that it measures not new diagnoses, but actual asthma attacks.

One drawback to the new study is that the group of patients who were followed wasn't static. Because people can drop in and out of the monitoring program, those who came for their initial evaluation years after the attacks may have been more likely to be among those whose health wasn't improving.

"The question is, are the people who stay in and keep being seen the sicker ones while the healthier ones drop out? If so, that may explain the reason for the rise in asthma over time," Thorpe said.

Furthermore, she added, it would be interesting to know the mental state of those who continue to experiencing asthma attacks. Coughing and wheezing due to asthma could bring back memories of the horror, triggering emotional stress that in turn could make asthma attacks worse.

"The physical health conditions and the mental health conditions are highly overlapping," Thorpe said.

Dr. Norman H. Edelman, chief medical officer for the American Lung Association, said it was important to continue to follow responders and their asthma rates.

Typically, asthma comes on quickly after the lungs are exposed to the toxic pollutants or caustic dust that resulted from the blasts, then declines as the lungs heal.

"Ordinarily, when people get exposed to toxic stuff, you get an immediate reaction. We don't expect a delayed effect," Edelman said. "We saw 9/11 responders who got sick pretty quickly. Some got better. Some did not. What we haven't seen are people who present with asthma two or three years later related to 9/11."

Diseases of the spongy part of the lungs, such as mesothelioma from asbestos exposure, may take years or decades to develop. But asthma is a disease of the airways, which is typically apparent right away.

Researchers said there was no evidence that asthma rates continued to rise after 2005.

"However, the majority of those who developed asthma during or after their World Trade Center exposures have continued to have asthma attacks many years later," Enright said. "Their asthma did not spontaneously resolve within a few months after their WTC exposure ceased."

**More information**

The [American Lung Association](#) has more on asthma.

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