

# Survey finds elevated rates of new asthma among WTC rescue and recovery workers

27 August 2007

Findings released today by the Health Department shed new light on the health effects of exposure to dust and debris among workers who responded to the World Trade Center disaster on September 11, 2001. The data, drawn from the World Trade Center Health Registry, show that 3.6% of the 25,000 rescue and recovery workers enrolled in the Registry report developing asthma after working at the site. That rate is 12 times what would be normally expected for the adult population during such a time period. The paper was published today in the journal *Environmental Health Perspectives* and is available online at [www.ehponline.org](http://www.ehponline.org).

The rescue and recovery workers are a subset of the 71,000 people enrolled in the registry. The survey, conducted in 2003 and 2004, found that arriving soon after the buildings collapsed, or working on the WTC pile over a long period, increased the workers' risk of developing asthma. Workers who arrived on September 11, 2001, and worked more than 90 days reported the highest rate of new asthma (7%).

Though respirator use increased as the clean-up progressed, many workers did not wear respiratory protection at the outset. Certain respirators can reduce exposure to hazardous dust when used correctly, but the survey could not distinguish among different types of masks or respirators, nor could it gauge correct usage. Workers who wore them on September 11th and September 12th reported newly-diagnosed asthma at lower rates (4.0% and 2.9%, respectively) than those who did not (6.3% and 4.5%). The longer the period of not wearing masks or respirators, the greater the risk, the survey found. Workers who went months without respiratory protection reported two to three times more asthma incidence than those who wore respirators from the outset. Though respirators were shown to be protective, all worker groups, including those who reported wearing masks, had elevated levels of newly reported asthma.

"The dust from the World Trade Center collapse appears to have had significant respiratory health effects at least for people who worked at the site," said Dr. Thomas R. Frieden, New York City Health Commissioner. "These findings reflect the critical importance of getting appropriate respiratory protection to all workers as quickly as possible during a disaster, and making every effort to make sure workers wear them at all times. The events of 9/11 were unprecedented, and with the urgency of rescue operations and the difficulty of prolonged physical exertion with most types of respirators, there are no easy answers, even in retrospect."

Rescue and recovery workers were a diverse group that included firefighters, police officers, construction workers and volunteers, among others. The study found no significant differences among people of different occupations, but workers' locations did affect their risk. Those who were caught in the dust cloud or worked on the debris pile reported asthma at higher rates (4.9% and 4.5% respectively), presumably because they inhaled more dust.

Asthma can be controlled with the right care and medications. Inhaled corticosteroids are a very effective treatment for people with frequent symptoms. By learning what triggers asthma and developing a plan to manage it, people can stay healthy for work, school, and other activities. The Health Department has collaborated with clinicians from WTC Centers of Excellence to develop and distribute treatment guidelines for WTC-related respiratory condition. The guidelines are available at <http://home2.nyc.gov/html/doh/downloads/pdf/chi/chi25-7.pdf>.

Source: New York City Health Department

APA citation: Survey finds elevated rates of new asthma among WTC rescue and recovery workers (2007, August 27) retrieved 17 October 2021 from <https://medicalxpress.com/news/2007-08-survey-elevated-asthma-wtc-recovery.html>

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