

# Asthma rates double for WTC first responders

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The *American Journal of Industrial Medicine* recently published a study showing that World Trade Center (WTC) responders suffer from asthma at more than twice the rate of the general U.S. population as a result of their exposure to the toxic dust from the collapse of the WTC towers in 2001. Preliminary study results were previously presented in CHEST in 2009.

Past studies have documented high rates of [asthma symptoms](#) among WTC responders. However, a comparison of these increased rates of [asthma](#) among responders to the general population has never been done before. “This is the first study to directly quantify the magnitude of asthma among WTC responders,” said Hyun Kim, MD, epidemiologist and assistant professor of population health at the North Shore-LIJ Health System and the Hofstra North Shore-LIJ School of [Medicine](#), and first author of the study, published online on November 8. “This epidemic of asthma among WTC responders started right after the 9/11 disaster and we are still observing elevated rates of asthma in this population. It is critical to keep monitoring responders’ health and provide proper treatment,” Dr. Kim said.

The study population consisted of a prospective cohort of 20,834 responders who received medical screenings from July 2002 to December 2007 at the WTC Medical Monitoring and Treatment Program. Researchers compared the results with the US National Health Survey Interviews adult sample data for the years 2000, and 2002 to 2007. World Trade Center-related data were collected by researchers at

the Data and Coordination Center at the Mount Sinai School of Medicine.

Eighty-six percent of WTC responders in this study population were men and the average duration of work at the WTC sites was 80 days. Forty-two percent of study participants were uniformed and other law enforcement and protective service workers. Other occupations of responders consisted of construction workers, installation, maintenance and repair workers, along with transportation and material moving workers, who were essential to service restoration and/or debris removal and clean-up efforts.

When looking at asthma symptoms and attacks that have occurred in the past 12 months, researchers found that 6.3 percent of WTC responders reported asthma symptoms or attacks, while only 3.7 percent of the U.S. general population reported asthma symptoms or attacks. The asthma rates remained stable among the general population during the entire period, but there were large increases in 12-month asthma rates among WTC responders from 2000 to 2005. When comparing asthma rates of WTC responders in 2000 (one year before 9/11) to 2005, the 12-month asthma rate increased by 40 times. Furthermore, when comparing 2002 (one year after 9/11) to 2005, the 12-month asthma rate doubled among WTC responders.

“This study is the first to compare rates of disease among WTC responders to the U.S. general population,” says Jacqueline Moline, MD, vice president and chair of the Department of Population Health at North Shore-LIJ Health System and the Hofstra North Shore-LIJ School of Medicine, and director of the Queens WTC Clinical Center of Excellence at Long Island Jewish Medical Center/Queens College, “and the results show that WTC responders have higher rates of asthma than the general population. This reinforces the fact that continued surveillance is critical to avoid permanent lung damage and other

irreversible illnesses among the WTC responder population.”

**More information:** *American Journal of Industrial Medicine:*  
[onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291097-0274](https://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291097-0274)

Provided by North Shore-Long Island Jewish (LIJ) Health System

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