



**Asthma and lower respiratory symptoms in New York State employees
who responded to the World Trade Center disaster**

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Introduction

To determine if New York State (NYS) World Trade Center (WTC) responders were more likely than controls to report a diagnosis of asthma or any lower respiratory symptom.

Methods

Participants included a group of NYS employees who responded to the WTC disaster (n=578) and a group of similar NYS employees who did not respond (n=702). Participants were mailed self-administered questionnaires that collected information regarding respiratory symptoms, asthma diagnoses, psychological symptoms and potential confounders. Data were analyzed using logistic regression models.

Findings

Few participants experienced new-onset asthma post-September 11. WTC exposure was associated with lower respiratory symptoms. When exposure was characterized using an exposure assessment method, participants with exposure scores at or below the mean had a 2-fold risk of most lower respiratory symptoms, compared with controls. Those with scores above the mean had a three to four-fold increased risk. For scores above the mean, the magnitude of effect was consistently higher for smoke exposure.

Conclusions

We observed an increased risk of lower respiratory symptoms among NYS employees who responded to the WTC disaster when compared with employees who did not respond. Participants with higher exposures had a greater risk of experiencing lower respiratory symptoms. Results also suggest that exposure to smoke on and around the debris pile may have had a greater lower respiratory impact than exposure to resuspended dust, in some responders.

If you have any questions or would like more information about this study, please contact:

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