



# Lung Diseases Linked to 9/11 Dust Exposure

The collapse of the World Trade Center (WTC) on September 11, 2001, created a massive dust cloud filled with harmful toxins, including fine particles, cement, and chemicals. Many rescue, recovery, and cleanup workers and nearby residents were exposed to this dust. A study by the WTC Health Registry showed that exposure to the WTC dust is linked to lung diseases such as chronic obstructive pulmonary disease (COPD) and asthma-COPD overlap (ACO).

### What Are COPD and ACO?



COPD blocks airflow to the lungs, making it difficult to breathe. Common symptoms include shortness of breath and frequent cough or wheezing.



ACO is a combination of COPD and asthma, where a person experiences symptoms of both diseases. Common symptoms include shortness of breath, cough (either dry or with phlegm), and extreme sensitivity to lung irritants (such as tobacco smoke, pollen, and dust).

### What Did We Learn?

A study of more than 17,000 WTC responders, including rescue, recovery, and cleanup workers, showed that those who arrived at the disaster site within the first 48 hours were at higher risk of developing COPD and ACO. These responders were exposed to intense levels of dust and toxins during this early period of the disaster.

# Risk factors for COPD and ACO among WTC responders:

Early arrival (within the first 48 hours) at the WTC site increased the risk of:

COPD by

ACO by

34%

55%







History of asthma and smoking further raised the risk.

# Symptoms reported among WTC responders:



Shortness of breath



Difficulty performing physical activities



Reduced lung function

# Why Does This Matter?

COPD and ACO can be life-changing and worsen over time if not treated early. Early diagnosis is very important for improving symptoms and quality of life. Since the study found these diseases in people who did not have other risks (such as people who do not smoke), we now know that exposure to airborne toxins in the environment (such as the WTC dust) is, by itself, enough to lead to chronic lung disease.

### What Should I Do?

If you worked at or near or lived near the WTC site on 9/11, it is important to:



 Be aware of symptoms such as shortness of breath and difficulty performing physical activities.



2. Get regular medical checkups. Let your health care provider know about your 9/11 exposure and if you have any of these symptoms.



3. Access the health resources you need. Programs such as the WTC Health Program offer support and monitoring for 9/11 survivors and responders.



To learn about other 9/11-related physical and mental health conditions, visit nyc.gov/911health/conditions.



Contact 988 for free, confidential crisis counseling, mental health and substance use support, and referrals to care. Call or text 988 or chat at nyc.gov/988. Text and chat services are available in English and Spanish, and counselors are available by phone 24/7 in more than 200 languages.



For questions about the WTC Health Registry, including how to enroll, email wtchr@health.nyc.gov.

de la Hoz RE, Shapiro M, Nolan A, et al. Association of World Trade Center (WTC) occupational exposure intensity with chronic obstructive pulmonary disease (COPD) and asthma COPD overlap (ACO). *Lung.* 2023;201(4):325-334. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC10763856/