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New York City Department of Health (NYCDOH)

Air Quality: Dust and Particulate Matter Fact Sheet

Purpose of this fact sheet:

The air quality in lower Manhattan has been impacted from smoke, fire, and dust created by the collapse of the World Trade Center (WTC) and daily routine clean-up activities. This fact sheet will provide recommendations to protect against air pollution, reduce exposure and help people make more informed health decisions.

What type of health complaints have been received?

Health complaints from lower Manhattan have been primarily irritant and respiratory in nature (such as coughing, burning throat, irritated eyes, wheezing, difficulty in breathing and shortness of breath). In addition, other complaints regarding odor have been received. Individuals who have questions about the health complaints received, may call the New York City Department of Health (NYCDOH) hotline number at (212) 213-1844, 7 days a week from 8:00 a.m. - 10:00 p.m.

How can dust and particles in the air affect my health?

Inhaling dust and particles can cause eye, nose, and throat (ENT) irritation, fatigue, shortness of breath, wheezing, difficulty taking a full breath, painful breathing or persistent cough. Individuals, including those who have not been previously diagnosed with respiratory or heart disease, should contact a physician. Be aware that onset of symptoms can appear as much as 24 to 48 hours after exposure.

What exposures from the WTC collapse may be causing these health complaints?

The collapse of the WTC resulted in large amounts of dust, smoke and particles in the air. Airborne compounds known to cause acute health effects include particulate matter (such as total suspended particulate (TSP), PM_{10} and $PM_{2.5}$), fiberglass and inhalable dusts (cement and gypsum)). Other compounds that may be present and may result in chronic health issues include respirable silica and asbestos. Many of these compounds were present in the construction materials of the WTC.

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What is Particulate Matter?

Particulate Matter are particles found in the air we breathe. Some can easily be seen and some can only be seen by a microscope. It is important to note that all of these particles can be inhaled and may cause health effects.

What recommendations should I follow to protect my health?

1. People with respiratory (e.g., asthma) or heart disease, the elderly, and young children should avoid prolonged exposure to dust and suspended particulates. If your home is contaminated with dust or suspended particulates as a result of the WTC collapse, you should consider relocating until the dust and suspended particulates have been removed.
2. People having symptoms (shortness of breath, wheezing, difficulty taking a full breath, painful breathing or persistent cough), including those who have not been previously diagnosed with respiratory or heart disease, should contact a physician. Be aware that onset of symptoms can appear as much as 24 to 48 hours after exposure.
3. Keep windows closed during hazy days or if dust is on the streets or entrances and/or smoke is in the air.
4. In dusty areas, minimize dust entering the home by leaving shoes outside or implementing a foot washing station for people and pets prior to entering.
5. Thoroughly wet dusty and sooty areas prior to clean-up. This will reduce the amount of PM becoming airborne. Wear the appropriate respiratory protection during clean-up activities.
6. Wash plants prior to moving them indoors that were on balconies, outdoor window sills, and roofs.
7. Replace or clean dirty air filters and set the air conditioner to re-circulate if indoor air is relatively dust-free.
8. A regular vacuum cleaner will clean dusty areas, furniture, and carpeting but some of the dust (esp. smaller particles) may re-suspend. Alternatively, using a High Efficiency Particulate Arresting (HEPA) vacuum without a beater bar is a very effective method to clean and minimize resuspension of dust.
9. Clean roof-top and building air conditioning systems before use and assess duct work for signs of contamination.

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For additional information to protect against air pollution emanating from the World Trade Center area please visit the American Lung Association of New York website at <http://www.lungusa.org/newyork/>; or visit the New York City Department of Health (NYCHOH) web site at: <http://www.nyc.gov/html/doh/home.html>.

The New York City Department of Health (NYCDOH) developed this fact sheet in collaboration with the New York State Department of Health (NYSDOH), New York State Department of Environmental Conservation (NYSDEC), Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) Environmental Assessment Group.

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