

Directions:

1. Mark your confusion.
2. Show evidence of a close reading. Mark up the text with questions and/or comments.
3. Write a one-page reflection on your own sheet of paper.

A Legacy of Illnesses From 9/11

Source: Linda Zamosky, *Los Angeles Times* 9.5.11

Thousands of first responders, workers, volunteers and local residents involved in the rescue and cleanup of the World Trade Center site, along with workers at the Staten Island landfill where wreckage was taken, are left a decade later with a range of physical and psychological ailments.

Respiratory illnesses were among the earliest and most prominent health effects — including the most common one, known as the "World Trade Center cough." Today, doctors understand World Trade Center cough to be more than just a cough. Best characterized by asthma and/or bronchitis-like symptoms such as persistent coughing, wheezing and breathlessness, it also often includes acid reflux and nasal congestion. For many people, it has become a chronic respiratory illness that requires long-term treatment to manage.

The name of the disease was first coined by Dr. David Prezant, medical director of the New York City Fire Department, in a Sept. 12, 2002, study in the *New England Journal of Medicine*. In it, he and his colleagues reported that firefighters who had worked at the World Trade Center site within the first three days of Sept. 11 were most likely to display these symptoms, no doubt from massive exposure to a variety of toxic chemicals. Those who required at least four consecutive weeks of medical leave as a result of the sickness were diagnosed with World Trade Center cough.

One need not look much further than the contents of the dust left behind by the fallen buildings to understand why 90% of New York City firefighters working at the site in the 48 hours after the attack complained of cough symptoms: nearly 24,000 gallons of combusting jet fuel and the burning, pulverized buildings created a massive smoke plume and dust cloud that blanketed the region.

Cement, glass fibers, asbestos and a host of toxic chemicals from the collapsed buildings created a mix of environmental pollutants and carcinogens such as polycyclic aromatic hydrocarbons (PAHs), dioxins and volatile organic compounds. Fires continued to burn below and above ground for months, further exposing workers to noxious chemicals.

Much of the damage to people's airways and lungs has been attributed to the highly alkaline dust, says Dr. Joan Reibman, director of the New York City Health and Hospitals Corp.'s World Trade Center Environmental Health Center. "Early on, we understood that the dust had a very high pH," she says. "If you're inhaling it, that will cause an alkaline burn, which leads to inflammation of the airway." Later analyses found that 95% of the dust from the World Trade Center was composed of large particulate matter that made its way into the lungs of people at, or near, the site.

"Usually there are defense mechanisms that block you from breathing large particles," Reibman says, but the highly alkaline air likely damaged those defense mechanisms, allowing the particles to pass.

Though it's clear that first responders and cleanup workers — such as firefighters, police officers and construction workers — who faced massive toxic exposure were among the sickest, other groups have been heavily affected as well. In the years since the attack, respiratory illnesses have been widely reported in residents of Lower Manhattan, including children, as well as in people who work there.

A 2005 study of 2,812 residents living near the World Trade Center published in the journal *Environmental Health Perspectives* found that coughing, wheezing, chest tightness and shortness of breath were reported in three to six times greater numbers among people living within one mile of the World Trade Center site than among those who lived more than five miles away. Reibman says that more recent studies of patients who have sought treatment for Sept. 11-related respiratory illness suggest that years later, they still have a greater risk for abnormal lung function.

But it is hard to know what the real numbers are, experts say. Unlike firefighters — who receive care through the New York City Fire Department and whose health status before and after Sept. 11 has been well-documented — the health of residents and local workers hasn't been well-tracked.

That picture should improve somewhat through data from the New York City Department of Health and Mental Hygiene World Trade Center Health Registry, which enrolled more than 71,000 people between 2003 and 2004 to document illness seen in responders, residents and workers. But the registry wasn't started until several years after the attacks and all information is self-reported, which will make it impossible to say with certainty how many people suffered respiratory ailments, experts say.

In testimony before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Health in 2009, Reibman offered a best estimate at the time: 3,000 to 9,000 ill adult

community members. And though symptoms went away for some, many others with World Trade Center cough have a severe chronic illness caused by lasting damage to their airways that will require long-term treatment.

That treatment is virtually the same as for asthma, says Dr. Jacqueline Moline, clinical director of the Queens World Trade Center Clinical Center of Excellence at Long Island Jewish Medical Center, Queens College. Some sufferers may need lifelong use of inhaled corticosteroids and bronchodilators, and sometimes oral steroids.

But the asthma-like symptoms that are the hallmark of the World Trade Center cough are proving more challenging to treat than garden-variety asthma.

"These folks are on chronic medications but are using inhalers much more often," she says. "They need more and more treatments and types of medications. I don't think we have a total handle on what has happened and why these people are having such difficulty."

If the symptoms are difficult, so, for some, has been getting proper care. There are resources: A number of programs throughout New York and the tri-state area — paid for by a mix of federal, local and private funds — have been up and running to treat people with World Trade Center-related illnesses since soon after the disaster occurred.

Firefighter and emergency medical service workers involved in recovery efforts have access to the Fire Department of New York Responder Health Program. Rescue and recovery workers can seek care through a consortium of clinical centers of excellence led by the Mount Sinai Medical Center.

And New York City's Health and Hospitals Corp. World Trade Center Environmental Health Center has an existing survivor program to treat residents, workers, students and children who were in the area and have health problems from exposure.

But care costs money, and more of it is needed for the kind of long-term care that experts say these people require.

Help came along with the James Zadroga 9/11 Health and Compensation Act, which was signed into law in early January and took effect on July 1. The federal act is designed to cover medical services for an additional 25,000 responders and another 25,000 survivors: People who were exposed because they lived and worked in the community but were not part of rescue and recovery efforts.

The Zadroga Act provides \$1.5 billion through at least 2015 to fund treatment programs. An additional \$2.8 billion in compensation funds are available for people who suffered physical harm or death in the World Trade Center attacks.

In addition to programs in the New York metropolitan area, the Zadroga Act funds a national program that connects people around the country who have Sept. 11-related illnesses with healthcare services.

The Zadroga Act is a positive step forward, but not nearly enough for the long-term healthcare needs of those exposed to the toxic chemicals at the World Trade Center site, says John Feal, head of the FealGood Foundation, a Nesconset, N.Y.-based nonprofit organization dedicated to advocacy and public education about the health effects on Sept. 11 first responders.

Cancers were not included in the healthcare funding of the Zadroga Act because a recent report by the National Institute for Occupational Safety and Health stated there was insufficient evidence to include cancer as a Sept. 11-related illness. An updated report is anticipated this fall, and Feal expects that cancer will then make its way onto the list of qualifying illnesses.

"The \$1.5 billion on healthcare and \$2.8 billion for compensation is not enough for cancer," he says. "We're going to have to go back to Congress and ask for more money."

WN ideas:

- Consider other lasting effects of 9/11 (economy, security, foreign policy)
- Explain what you remember about that fateful day.
- Google "9/11 memorial" and share what you discover