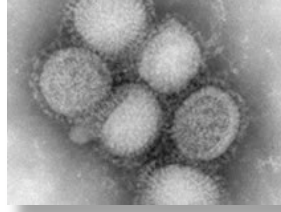


What You Need to Know About the H1N1 Virus



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Note: Much of the information in this document is based on material available from the Centers for Disease Control. This article is written for student informational purposes only. It is not intended to render medical device, advise treatment or substitute for consultation and examination by a licensed Doctor of Medicine. Always ask questions regarding your health and inform your health care provider before considering any treatment or inoculation.

What is the H1N1 Virus?

A virus is a submicroscopic particle that can cause disease. Everyone is familiar with the common cold virus that causes a runny nose, sore throat and cough. The viruses that cause influenza however can result in much more severe symptoms that can include high fever, delirium, seizures and death. This past year, a new virus was discovered in Mexico, which caused an epidemic that led to hundreds of deaths. This new virus has been called the “swine flu” because many of its genes resemble those found in influenza viruses that normally occur in pigs (swine) in North America. Scientists categorize influenza viruses by the protein markers they carry on their surface. Two primary structural proteins studied are Hemagglutinin (H) and Neuraminidase (N), which play a role in the attachment of the virus to a human cell, and allowing its genetic material to enter (infection).

Is the H1N1 virus contagious?

Influenza viruses are easily spread from person to person through coughing, sneezing, or by touching objects such as door handles and utensils that are shared by others. Studies have shown that the virus can survive on objects for 2 to 8 hours after being deposited.

The method of transmission of the virus is either by breathing in the viral particles through the nose and mouth, or by infecting oneself through rubbing the eyes, handling things that are then placed in the mouth, or by placing a finger in your nose. Avoiding crowds and sick people as well as washing your hands well with soap

and water before you handle food and after you handle objects, can help reduce your risk.

How do you know if you are coming down with the flu?

The early signs of influenza may resemble the common cold. However the typical scratchy throat, stuffy nose, watery eyes, body aches, sick, weak, or tired feeling, are usually accompanied by much more severe symptoms that include, vomiting or diarrhea, headache, cough, chills, or fever.

If I get the flu, will I recover?

Most people who develop the flu recover without treatment. Some people get a much more severe form that may require hospitalization. In the most severe cases, death from infection has occurred.

What is the best way to prevent the spread of infection?

If you feel like you are developing a viral illness, the best way to prevent the spread to others is by staying home in isolation until at least 24 hours after the fever has passed. The most infective period is usually shortly after symptoms have begun (day 1) until days 5-7.

How many people will get sick?

In the U.S., more than 200,000 people are hospitalized from flu related illnesses each year. This includes 20,000 children younger than the age of 5. An H1N1 virus is believed to be the cause of the 1918-19 worldwide pandemic in which more than a third of the world's population, or 500 million people were infected. The disease caused a startling 50,000,000 deaths.

Who is most at risk?

It appears that about a third of adults over the age of 64 may already have antibodies against the virus and are not at risk for severe complications. Young adults and children do not fare as well, however, as none have antibodies against H1N1.

According to the CDC, emergency warning signs to look for are:

- Fast breathing or difficulty breathing
- Bluish or gray skin color
- Not drinking enough fluids
- Severe or persistent vomiting
- Not waking up or not interacting with others
- A child that does not want to be held
- Pain or pressure in the chest or abdomen

Sudden dizziness

Confusion

Flu-like symptoms improve but then return with fever and worsening of the cough

Are there medications to treat a H1N1 infection?

Yes. The CDC recommends the use of Tamiflu (oseltamivir) or Relenza (zanamivir). Both drugs are potent antiviral medications available only by prescription, that fight the flu by keeping flu viruses from reproducing in your body. The drugs are not designed to prevent the illness.

What kills the virus?

Heating to the point of boiling, or applying chemical germicides such as chlorine, hydrogen peroxide, detergents (soap), iodophors (iodine-based antiseptics), and alcohols to a surface for a long enough period of time will kill the virus. That is why adequate hand washing with soap can be very effective.

What About Vaccinations?

As part of its job protecting the health of Americans, the Centers for Disease Control (<http://www.cdc.gov>) routinely monitors the emergence of infectious agents such as bacteria and viruses to control the spread of disease in the United States. According to the CDC, a novel H1N1 vaccine is being developed that may prevent contracting this unique strain of influenza virus and the potentially severe complications it can cause. This vaccine is not intended to replace the seasonal flu shot that most people receive in the fall. It is designed specifically to provide protection from the H1N1 virus and it is not intended for everyone, only those at greatest risk.

People who are encouraged to be vaccinated include:

- Everyone from age 6-24 years of age, and that includes most college students
- Pregnant women because they are at higher risk of complications and can potentially provide protection to their infants who cannot be vaccinated
- Household contacts and caregivers for children younger than 6 months of age because younger infants are at higher risk of influenza-related complications
- Healthcare and emergency medical services personnel because infections among healthcare workers can be a potential source of infection for others
- People aged 25 through 64 years who have health conditions, such as diabetes, heart disease, asthma and kidney disease, are at higher risk of medical complications from influenza

A final note

I encourage everyone to be vigilant about this new and unpredictable viral foe. This season, take extra precautions to cover your nose and mouth with a disposable tissue, deposit the tissue in a waste basket or toilet and be sure to wash your hands frequently. Consider getting a vaccination against this flu and don't forget your annual seasonal flu shot as well.

*Photo Courtesy CDC