

GENERAL INFORMATION (Q & A)

ABOUT PANDEMIC INFLUENZA

1. What is pandemic/avian flu? And how is it different from the regular flu?

Pandemic flu is virulent human flu that causes a global outbreak, or pandemic, of serious illness. Because there is little natural immunity, the disease can spread easily from person to person. Currently, there is no pandemic flu.

Avian (or bird) flu is caused by influenza viruses that occur naturally among wild birds. The H5N1 variant is deadly to domestic fowl and can be transmitted from birds to humans. There is no human immunity and no vaccine is available.

Seasonal (or common) flu is a respiratory illness that can be transmitted person to person. Most people have some immunity, and a vaccine is available.

2. What symptoms distinguish this flu from others, what do I look for in family members or self?

The symptoms are similar to ordinary influenza, but may be more severe; (e.g., sore throat, high fever, headaches, fatigue/weakness, general body aches, and dry cough). These symptoms may be followed by pneumonia and/or severe respiratory illness. Blood tests are necessary to confirm diagnosis of avian flu.

3. Will the seasonal flu shot protect me against pandemic flu?

No, it will not protect you against pandemic flu.

4. What is the lead time between possible exposure and actually getting the flu?

The current data from human cases is limited but indicates an incubation period of 2-8 days and possibly as long as 17 days.

5. How long does the flu last?

Varies depending on the patients' current health and when the antiviral medication was administered. It is recommended to start the antiviral early (the first 48 hours of symptoms).

6. When am I no longer contagious?

Human-to-human spread of the avian influenza has not been documented. In seasonal influenza, adults are considered infectious the day before onset of symptoms and up to five days after they develop symptoms (children can be infectious more than ten days).

7. Have any Americans been infected?

No, there have been no human cases of avian influenza identified in the United States and, to date, no Americans have been found to have been infected abroad. The current risk to Americans from the avian influenza outbreak in Asia, Europe, and Africa is low. Avian influenza is not currently found in the United States. Since February 2004, medical and public health personnel have been watching closely to find any such cases.

8. What are the implications of avian influenza to human health?

Two main risks for human health from avian influenza are 1) the risk of direct infection when the virus passes from the infected bird to humans, sometimes resulting in severe disease; and 2) the risk that the virus – if given enough opportunities – will change into a form that is highly infectious for humans and spread easily from person to person.

9. How is avian influenza in humans treated?

Studies done in laboratories suggest that the prescription medicines approved for human influenza viruses should work in treating avian influenza infection in humans. However, influenza viruses can become resistant to these drugs, so these medications may not always work. Additional studies are needed to determine the effectiveness of these medicines.

10. Why won't the annual flu vaccine protect people against pandemic influenza?

Influenza vaccines provide the best protection against viruses closely related to the vaccine strains. Currently annual influenza vaccines include influenza subtype H3N2 and H1N1 viruses. A vaccine made from these viruses would not provide protection from other influenza viruses (such as H5N1) that are not closely related to them.

Avian Influenza A (H5N1)

11. What is the avian influenza (H5N1) virus that has been reported in Africa, Asia, Europe, and the Near East?

Influenza A (H5N1) virus – also called “H5N1 virus” – is an influenza A virus subtype that occurs mainly in birds, is highly contagious among birds, and can be deadly to them.

Outbreaks of avian influenza H5N1 occurred among poultry in eight countries in Asia (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam) during late 2003 and early 2004. At that time, more than 100 million birds in the affected countries either died from the disease or were killed in order to try to control the outbreaks. By March 2004, the outbreak was reported to be under control.

Beginning in June 2004, however, new outbreaks of influenza H5N1 among poultry and wild birds were reported in Asia. Since that time, the virus has spread geographically. Reports of H5N1 infection in wild birds in Europe began in mid-2005. In early 2006, influenza A H5N1 infection in wild birds and poultry were reported in Africa and the Near East.

Human cases of influenza A (H5N1) infection have been reported in Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey, and Vietnam. For the most current information about avian influenza and cumulative case numbers, visit the World Health Organization Avian Influenza website.

12. Is there a vaccine to protect humans from H5N1 virus?

There currently is no commercially available vaccine to protect humans against the H5N1 virus that is being detected in Asia and Europe. However, vaccine development efforts are taking place. Research studies to test a vaccine that will protect humans against H5N1 virus began in April 2005, and a series of clinical trials is under way. For more information about the H5N1 vaccine development process, visit the National Institutes of Health website.

13. What does CDC recommend regarding H5N1 virus?

In February 2004, CDC provided U.S. public health departments with recommendations for enhanced surveillance (“detection”) of H5N1 influenza in the country. Follow-up messages, distributed via the Health Alert Network, were sent to the health departments on August 12, 2004, February 4, 2005, and June 7, 2006; all three notices reminded public health departments about recommendations for detecting (domestic surveillance), diagnosing, and preventing the spread of H5N1 virus. The notices also recommended measures for laboratory testing for H5N1 virus. To read these notices, visit Health Updates on Avian Influenza.

14. Does Center for Disease Control (CDC) recommend travel restrictions to areas with known H5N1 outbreaks?

CDC does not recommend any travel restrictions to affected countries at this time. However, CDC currently advises that travelers to countries with known outbreaks of H5N1 influenza avoid poultry farms, contact with animals in live food markets, and any surfaces that appear to be contaminated with feces from poultry or other animals. For more information, visit Travelers' Health.

15. What are the risks to humans from the current H5N1 outbreak?

H5N1 virus does not usually infect people, but more than 200 human cases have been reported. Most of these cases have occurred from direct or close contact with infected poultry or contaminated surfaces; however, a few cases of human-to-human spread of H5N1 virus have occurred.

So far, spread of H5N1 virus from person to person has been rare and has not continued beyond one person. Nonetheless, because all influenza viruses have the ability to change, scientists are concerned that H5N1 virus one day could be able to infect humans and spread easily from one person to another. Because these viruses do not commonly infect humans, there is little or no immune protection against them in the human population.

If H5N1 virus were to gain the capacity to spread easily from person to person, an influenza pandemic (worldwide outbreak of disease) could begin. No one can predict when a pandemic might occur. However, experts from around the world are watching the H5N1 situation in Asia and Europe very closely and are preparing for the possibility that the virus may begin to spread more easily from person to person.

16. How is infection with H5N1 virus in humans treated?

Most H5N1 viruses that have caused human illness and death appear to be resistant to amantadine and rimantadine, two antiviral medications commonly used for treatment of patients with influenza. Two other antiviral medications, oseltamivir and zanamavir, would probably work to treat influenza caused by H5N1 virus, but additional studies are needed to demonstrate their current and ongoing effectiveness.

17. What changes are needed for H5N1 or another avian influenza virus to cause a pandemic?

Three conditions must be met for a pandemic to start: 1) a new influenza virus subtype must emerge for which there is little or no human immunity; 2) it must infect humans and causes illness; and 3) it must spread easily and sustainably (continue without interruption) among humans. The H5N1 virus in Asia and Europe meets the first two conditions: it is a new virus for humans (H5N1 viruses have never circulated widely among people), and it has infected more than 190 humans, killing over half of them.

However, the third condition, the establishment of efficient and sustained human-to-human transmission of the virus, has not occurred. For this to take place, the H5N1 virus would need to improve its transmissibility among humans. This could occur either by “reassortment” or adaptive mutation.

Reassortment occurs when genetic material is exchanged between human and avian viruses during co-infection (infection with both viruses at the same time) of a human or another mammal. The result could be a fully transmissible pandemic virus that is, a virus that can spread easily and directly between humans. A more gradual process is adaptive mutation, where the capability of a virus to bind to human cells increases during infections of humans.

18. What is CDC doing to prepare for a possible H5N1 influenza pandemic?

CDC is taking part in a number of pandemic prevention and preparedness activities, including the following:

- Providing leadership to the National Pandemic Influenza Preparedness and Response Task Force, created in May 2005 by the Secretary of the U.S. Department of Health and Human Services.
- Working with the Association of Public Health Laboratories on training workshops for state laboratories on the use of special laboratory (molecular) techniques to identify H5 viruses.
- Working with the Council of State and Territorial Epidemiologists and others to help states with their pandemic planning efforts.
- Working with other agencies, such as the Department of Defense and the Veterans Administration, on antiviral stockpile issues.
- Working with the World Health Organization (WHO) to investigate influenza H5N1 among people (e.g., in Vietnam) and to provide help in laboratory diagnostics and training to local authorities.
- Performing laboratory testing of H5N1 viruses.
- Starting a \$5.5 million initiative to improve influenza surveillance in Asia.
- Holding or taking part in training sessions to improve local capacities to conduct detection for possible human cases of H5N1 and to detect influenza A H5 viruses by using laboratory techniques.
- Developing and distributing reagent kits to detect the currently circulating influenza A H5N1 viruses.
- CDC has developed and is distributing the first FDA approved test for the detection of the H5 viruses that first emerged in Asia in 2003.

CDC also is working closely with WHO and the National Institutes of Health on safety testing of vaccine candidates and development of additional vaccine virus seed candidates for influenza A (H5N1) and other subtypes of influenza A viruses.

Preparedness Check List:

One of the easiest ways you can prepare for emergencies is to keep some supplies readily available. Every kit is unique and can be tailored to meet the specific needs of your family, but below is a general list of supplies you may want to consider:

Examples of non-perishable (long-lasting) food:

- Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups
- Protein or fruit bars
- Dry cereal or granola
- Peanut butter or nuts
- Dried fruit
- Crackers
- Canned juices
- Bottled water
- Canned or jarred baby food and formula
- Pet food
- Other nonperishable (long lasting) foods

Examples of medical, health, and emergency supplies:

- Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
- Soap and water, or alcohol-based hand wash
- Medicines for fever, such as acetaminophen or ibuprofen
- Thermometer
- Anti-diarrhea medication
- Vitamins
- Fluids with electrolytes
- Cleansing agent/soap
- Flashlight
- Batteries
- Portable radio
- Manual can opener
- Garbage bags
- Tissue, toilet paper, diapers

To limit the spread of germs and prevent infection:

- Teach your children to wash their hands often with soap and water, do so yourself.
- Teach your children to cover coughs and sneezed with tissues, be sure to do so yourself.
- Teach your children to stay away from others as much as possible if they are sick.
- Stay home from work and school if you are sick.