

What is an avian influenza A (H5N1) virus?

Influenza A (H5N1) virus – also called "H5N1 virus" – is an influenza A virus subtype that occurs mainly in birds. It was first isolated from birds (terns) in South Africa in 1961. Like all bird flu viruses, H5N1 virus circulates among birds worldwide, is very contagious among birds, and can be deadly to birds.

How does bird flu spread?

Infected birds shed flu virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with excretions from infected birds or surfaces that are contaminated with excretions. It is believed that most cases of bird flu infection in humans have resulted from contact with infected poultry or contaminated surfaces. The spread of avian influenza viruses from one ill person to another has been reported very rarely, and transmission has not been observed to continue beyond one person.

What is the risk to humans from bird flu?

The risk from bird flu is generally low to most people because the viruses occur mainly among birds and do not usually infect humans. However, during an outbreak of bird flu among poultry (domesticated chickens, ducks, turkeys), there is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with excretions from infected birds. In such situations, people should avoid contact with infected birds or contaminated surfaces, and should be careful when handling and cooking poultry.





In rare instances, limited human-to-human spread of H5N1 virus has occurred, and transmission has not been observed to continue beyond one person.

What is the risk to humans from the H5N1 virus in Asia and Europe?

The H5N1 virus does not usually infect humans. However, in 1997, the first case of spread from a bird to a human was seen during an outbreak of bird flu in poultry in Hong Kong. The virus caused severe respiratory illness in 18 people, 6 of whom died. Since that time, there have been other cases of H5N1 infection among humans. Recent human cases of H5N1 infection that have occurred in Cambodia, Thailand, and Vietnam have coincided with large H5N1 outbreaks in poultry. The World Health Organization (WHO) also has reported human cases in Indonesia. Most of these cases have occurred from contact with infected poultry or contaminated surfaces; however, it is thought that a few cases of human-to-human spread of H5N1 might have occurred.





Can H5N1 become a pandemic?

So far, spread of H5N1 virus from person to person has been rare and has not continued beyond one person. However, because all influenza viruses have the ability to change, scientists are concerned that the 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 the H5N1 virus were able to infect people and 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 very closely and are preparing for the possibility that the virus may begin to spread more easily and widely from person to person.

How is infection with H5N1 virus in humans treated? The H5N1 virus currently infecting birds in Asia that has caused human illness is resistant to amantadine and rimantadine, two antiviral medications commonly used for influenza. Two other antiviral medications, oseltamavir (Tamiflu) and zanamavir (Relenza), would probably work to treat flu caused by the H5N1 virus, but additional studies still need to be done to prove their effectiveness.





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 seen in Asia and Europe. However, vaccine development efforts are taking place. Research studies to test a vaccine to protect humans against H5N1 virus began in April 2005, and a series of clinical trials is under way.

What is the risk to people in the United States from the H5N1 bird flu outbreak in Asia and Europe?

The current risk to Americans from the H5N1 bird flu outbreak in Asia is low. The strain of H5N1 virus found in Asia and Europe has not been found in the United States. There have been no human cases of H5N1 flu in the United States. It is possible that travelers returning from affected countries in Asia could be infected if they were exposed to the virus. Since February 2004, medical and public health personnel have been watching closely to find any such cases.





Avian influenza outbreaks have recently occurred in North America. What is the risk to humans from these outbreaks?

Avian influenza has been diagnosed in domestic poultry in five states in the United States and in British Columbia (Canada) in 2004. The H5N1 subtype of AI occurring in Asia has not occurred in North America; however several other subtypes of AI have caused the outbreaks in North America. All of the North American outbreaks of AI have been contained, and no human infections occurred during these outbreaks.

For further information, contact the Oklahoma City-County Health Department (405) 425-4437

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