

# Basics of Bird Flu: Avian Influenza

Division of Animal Sciences

Avian influenza, or bird flu, is an infectious respiratory disease that affects a variety of birds. The various strains of virus that cause bird flu are generally categorized as high or low pathogenicity according to their ability to produce disease. The highly pathogenic strain H5N1 that is spreading in some parts of the world may also affect people.

## Where is bird flu found?

The current outbreak of bird flu started in China in the 1990s and has spread to many areas of the world. In the most recent outbreak, there have been no cases of the H5N1 strain in North or South America (Figure 1).

## What animals can get this flu?

Chickens and turkeys are most severely affected by bird flu and generally will die if infected. Waterfowl may survive the disease but then are able to spread the virus. Other animals may also get the flu.

## How does it spread?

Bird contact and manure are the most common ways by which bird flu spreads. Wild birds that migrate can spread the disease when they come into contact with domestic birds. Domestic birds can spread the disease through contact with other birds at live markets and shows, for example. Humans can also spread the disease.

## What do birds that have the flu look like?

In general, infected birds appear sick. They may have diarrhea and a cough. Chickens and turkeys will die quickly from the disease. Ducks and geese may recover but then remain carriers and spread the disease.

### Author

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## How do I know for sure if a bird has the flu?

Only a laboratory can correctly identify the flu. As of April 2008, H5N1 has not been found in the United States, and the situation is being monitored.

## Is there any treatment for bird flu?

No. Infected birds must be destroyed by authorities to prevent further spread of the disease. A vaccine may prevent the disease.

## If I keep birds, what should I do to protect them?

Until the bird flu reaches the United States, no specific precautions need to be taken. Generally, one should keep backyard flocks from contact with wild birds. Taking birds to live markets or shows carries some risk of your birds contracting a disease. Further instructions will be issued if the H5N1 strain is found in the United States.

## How do I protect myself and my family if H5N1 reaches the U.S.?

If the virus reaches the United States, the most general advice will be avoid wild birds completely, watch any backyard birds for signs of disease, and keep children away from all birds. Health authorities will provide more specific instructions.

## What should I do if I must be around birds?

Whenever working with birds, wash your hands frequently with soap, and take the same precautions as for other types of flu. If H5N1 reaches the United States, more precautions will be needed.

## How would I know if I have this flu?

There is no chance of contracting the bird flu in the United States unless the highly pathogenic H5N1 strain is found in this country. If you are traveling to

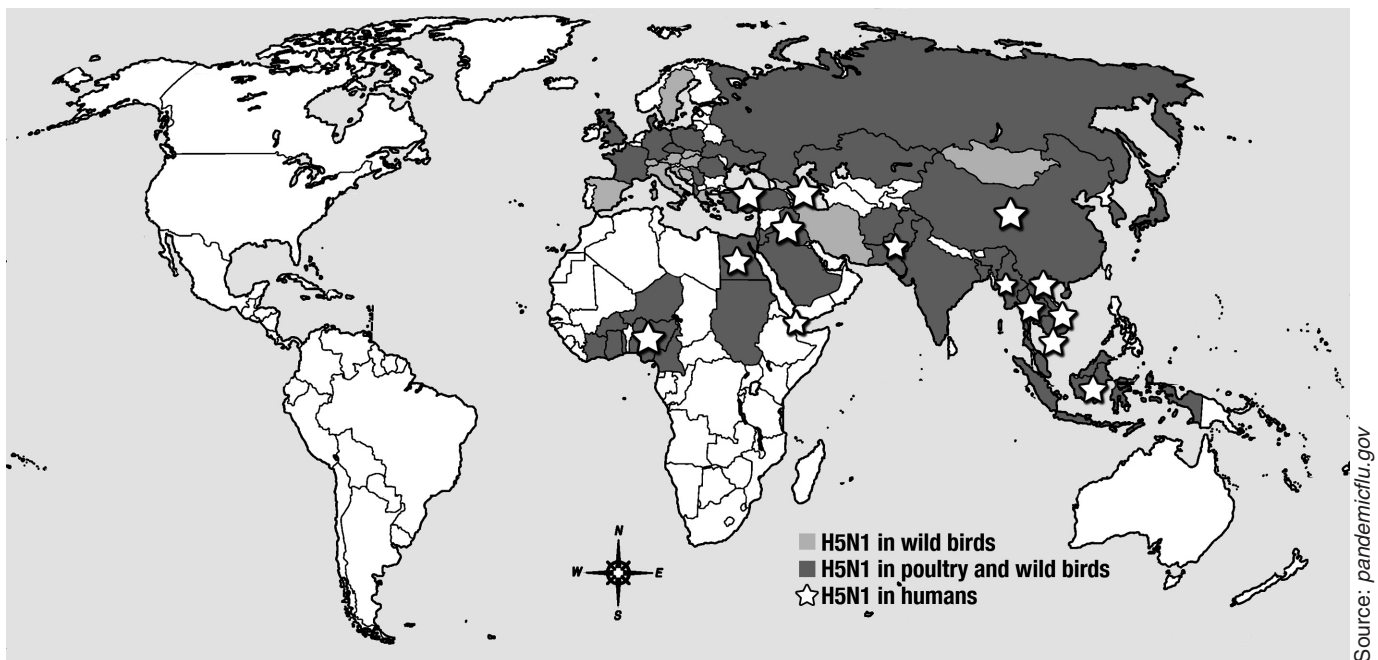


Figure 1. The World Health Organization has confirmed 382 human cases of H5N1 bird flu in 14 countries since 2003 (as of May 2008).

a country where the virus exists, avoid handling birds and stay away from live animal markets. In people that have contracted the bird flu virus, the first symptom is a fever above 101 degrees F. Other flu symptoms include cough, sore throat and muscle aches starting 2 to 4 days after exposure. Seek a doctor's advice if you have a fever and believe you have been exposed.

### Can I eat poultry and eggs?

Consumption of poultry and eggs does not lead to flu infection, because the virus is easily killed by cooking temperatures. Always use safe food-handling techniques. Cook eggs until yolks are firm. Only in-shell pasteurized eggs may be used safely without cooking. Cook poultry until there is no pink in the meat and it falls easily from the bone. Utensils and surfaces used to prepare poultry should be washed immediately with soap and water.

### How will we know if the H5N1 bird flu is in the U.S.?

In the United States, migratory wild birds are closely monitored for early detection of the H5N1

virus. Any outbreak will be immediately contained and the public will be made aware of the situation.

### Why can't we just vaccinate the birds for this?

Vaccination can be used in some cases to prevent bird flu. However, because of the large number of subtypes of the virus and its frequent mutation, vaccinating birds is not very useful for controlling the disease.

### Is there a vaccine available for people?

Human vaccines are under development but are not available at the time of this writing.

### What are the risks to people?

Reported transmission of bird flu from birds to people has occurred only rarely and only after close contact such as handling of infected birds. The real danger to public health comes from potential changes in the bird flu virus enabling it to spread from human to human.