

Avian Influenza (Bird flu)

Avian influenza or “bird flu” is an infection found in birds that is caused by the influenza A virus. The virus can be passed from birds to people, although infection in people is considered rare. There are many different types of bird flu, and some cause disease while others do not. In recent years, the term bird flu has often been used to describe the H5N1, H5N2, H5N6, H5N8, H5N10, and H7N9 avian influenza viruses.

Transmission

Birds shed the avian influenza virus in their saliva, mucous, and droppings. Birds with avian influenza have been documented in every part of the world. People may become infected through:

- **Animal to Person** through direct contact with infected birds, especially domestic birds; however, this rarely occurs.
- **Environment to Person** when they are exposed to areas or surfaces contaminated with bird feces or respiratory secretions, such as on farms or in live bird markets.

In general, people cannot spread avian influenza to other people and person-to-person spread is extremely rare.

- Very limited person-to-person spread has been documented in family caregivers with close contact with infected individuals. However, most people who care for someone with avian influenza do not contract the disease.

It is not known how long a person is able to spread avian influenza, and this timeframe will likely vary depending on the type of virus. Because there are many different types of avian influenza viruses, and the viruses can change over time, being infected with one type of avian influenza may not offer adequate protection from other virus strains.

Symptoms

Most avian influenza viruses do not cause illness in people. However, people infected with avian influenza viruses may have a variety of symptoms depending on the type of avian influenza virus they have including:

- **Mild eye infections**
- **Fever**
- **Chills**
- **Headache**
- **Cough**
- **Body aches**

In severe cases, symptoms may lead to death due to pneumonia and other respiratory complications.

The time it takes for a person to develop symptoms after exposure is dependent on the type of influenza virus. Generally, symptoms appear within 10 days of exposure but may be longer.

Diagnosis

Diagnosis begins with the appearance of classic signs and symptoms of seasonal influenza that may include fever, cough, sore throat, congestion, and body aches, along with appropriate exposure. An exposure can include a recent history of travel to a country or area where avian influenza transmission has been identified, and/or evidence of bird exposure, especially exposure to sick birds or their droppings. A laboratory test (available at NDHHS Laboratory Services) is required to confirm this diagnosis, as commercial influenza test kits currently on the market are not designed to identify avian influenza viruses.

Treatment

Antibiotics are not effective against avian influenza. Treatment with an antiviral drug is recommended for cases and their close contacts. These drugs work best when given within 48 hours after the first symptoms appear. In certain situations, people with exposure to avian influenza may receive antivirals as a preventative treatment. For more information about the treatment of avian influenza, contact your healthcare provider or visit https://www.cdc.gov/bird-flu/prevention/?CDC_AAref_Val=https://www.cdc.gov/flu/avianflu/prevention.htm.

Prevention

The best way to prevent the spread of avian influenza is to **reduce your exposure to sick and dying birds**.

- View wildlife from a distance and do not touch dead or sick birds.
- If you notice sick or dying birds, report it to local wildlife or public health officials or veterinarians.
- If you are traveling to another country, avoid bird markets and bird farms.
- Avoid contact with sick patients who have suspected or confirmed avian influenza.
- If you have contact with wild birds or domestic poultry, wash your hands with soap and water before resuming normal activities.

Exclusion Guidance

People should be excluded from child care, school, work, or other activities if they have avian influenza.

Additional information is available by calling the North Dakota Department of Health and Human Services at 800-472-2180. For additional information about the disease in birds, call the Department of Agriculture, Animal Health Division at 701-328-2654 or visit <https://www.ndda.nd.gov/divisions/animal-health/diseases/avian-influenza-north-dakota>.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health and Human Services.

Resources:

1. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021- Report of the Committee on Infectious Diseases. 31st ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases] [pages 447-457].
2. Centers for Disease Control and Prevention. (2022, October 31). *CDC – avian influenza*. Centers for Disease Control and Prevention. Retrieved May 12, 2023, from <https://www.cdc.gov/flu/avianflu>
3. World Health Organization. (2023). *WHO- outbreaks and emergencies- surveillance- avian influenza*. World Health Organization. Retrieved May 12, 2023, from <https://www.who.int/westernpacific/emergencies/surveillance/avian-influenza>

 **Possible Bioterrorism Agents (CDC classified A, B or C Agent)**

08/23/24

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