



What Maine People Need to Know About Avian Influenza (“Bird Flu”)



- ▶ **Avian flu** occurs naturally among birds. Although bird flu viruses do not usually infect humans, occasionally some strains can.
- ▶ **Pandemic flu** is flu that causes a global outbreak of serious illness that spreads easily from person to person. Currently there is no pandemic flu.

Being prepared for emergencies is a responsibility we all share. Being prepared can ease the fears and reduce the impact of diseases and disasters. Although no one knows exactly when the next human pandemic flu outbreak will occur, there are basic preparation measures people can take, including practicing good hygiene and putting together a home emergency kit. Being prepared for emergencies is simply common sense.

- ▶ **Hygiene:** Practice basic hygiene strategies such as frequent hand washing, covering coughs and sneezes with sleeves or tissue, and staying home when ill. These strategies will help stop the spread of harmful germs.
- ▶ **Home Emergency Kit:** Make sure you have at least three to five days of food and basic emergency supplies, as well as water, rehydration fluids, and fever-reducing medications. This kit will prepare a family for many types of emergencies, including possible home isolation and care for flu.

Sources:

Avian Influenza (Bird Flu). U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, <http://www.cdc.gov/flu/avian/index.htm>, retrieved 3/29/06.

Pandemic Influenza Information. Maine Health and Human Services, Maine Center for Disease Control and Prevention, http://www.maine.gov/dhhs/boh/pandemic_flu_info.htm, retrieved 3/29/06.

Are You Ready: An In-Depth Guide to Citizen Preparedness. Federal Emergency Management Agency (Jessup, MD, 2004).



What is avian influenza?

Avian influenza (AI) or “bird flu” is a contagious viral infection found worldwide. It is caused by a Type A influenza virus. AI can affect common farmed bird species (chickens, turkeys, quail, pheasants,

guinea fowl, and domestic waterfowl), pet birds, and wild birds. Any bird can contract AI, and many wild

bird species, especially waterfowl, carry it without showing signs of disease.

Most AI viruses in birds cause few symptoms. There are many subtypes of AI viruses, which can be classified as low pathogenicity (“low-path”) or high pathogenicity (“high-path”) viruses. Low-path AI causes only mild illness, if any. High-path AI causes severe illness and death among infected birds. Some low-path AI viruses are capable of changing into high-path viruses.

The virus of greatest concern at present is an H5N1 subtype of high-path virus. H5N1 has killed a large number of wild waterfowl and domestic poultry in Asia and Africa, and has now spread to Europe as well. The H5N1 strain of AI causes severe disease in domesticated and wild fowl. This virus is of particular concern because some people have contracted H5N1 from birds, and many of them have died. H5N1 avian influenza has not yet spread to North America.



How is avian influenza spread?

In infected birds, AI virus is shed in nasal secretions, saliva, and feces. Birds become infected when they have direct contact with secretions and feces of infected birds, or with

contaminated surfaces or infected food and water supplies. Airborne respiratory secretions can infect birds in poorly ventilated barns.

AI can spread in domestic bird populations through contact with infected poultry or poultry products, as well as through poor biosecurity, such as contaminated footwear and clothing, or infected litter and manure. Waterfowl and other wild birds can contaminate areas where they land and feed during migrations.

Backyard poultry keepers can keep their birds healthy by protecting them from contact with free-

flying birds and their feces, and following good sanitation practices. More information for backyard flock owners is available in UMaine Extension's fact sheet, "What Small Flock Owners in Maine Need to Know About Avian Influenza ('Bird Flu')," available at www.umext.maine.edu.

Can people get avian influenza?

AI viruses may infect humans, although it is rare. So far, people have only contracted AI after prolonged contact with heavily contaminated environments. The risk for human-to-human transmission of avian influenza is limited. Of the many strains of avian influenza A viruses, only four are known to cause human infections: H5N1, H7N3, H7N7, and H9N2. However, due to the potential for cross-species infection, the University of Maine recommends that people working in contact with potentially infected avian species wear protective clothing including face masks/respirators, protective eye wear, latex gloves, and boots.

Can household pets get avian influenza?

Recent research has shown that some mammalian species may be infected with AI virus. These include marine mammals (seals and whales), swine, farmed mink, and pet ferrets. While there have been recent reports of avian influenza infection in domestic cats and dogs in Thailand, the World Health Organization reports that is unlikely that this presents a risk to human health.



What type of monitoring and preparation is happening in Maine?

Maine's statewide Pandemic Influenza Response Plan can be found at www.mainepublichealth.gov. State agencies such as Maine Health and Human Services, the Maine Department of Agriculture, the Maine Emergency Management Agency (MEMA), and Maine Emergency Medical Services (Maine EMS) are working to increase active surveillance of avian flu, expand the state's pandemic response plan, and facilitate preparedness efforts.

The Maine Department of Agriculture actively tests domestic birds such as poultry flocks for bird flu strains, including H5N1. At this writing no H5N1 has been detected. Additionally, every flu season the Bureau of Health/Maine CDC tests a variety of samples of influenza virus from infected people as part of CDC and WHO worldwide influenza surveillance. Again, no H5N1 has been detected in the U.S.

Source: Maine Health and Human Services, Maine CDC, Pandemic Influenza Information: http://www.maine.gov/dhhs/boh/pandemic_flu_info.htm

Pigs are the only domesticated mammals with significance to human health since they can get both human and avian strains of influenza. This could result in the mutation of an avian strain to one that is capable of human-to-human transmission.

Is it safe to eat poultry products?

Avian influenza is not transmitted through properly cooked food. If poultry products are cooked to safe temperatures, the virus will be destroyed. Cook poultry and egg products to at least 165°F (or 74°C)—in all parts of the food—to ensure that the food is safe to eat. There have been no reports of people contracting the virus after eating properly cooked poultry, even poultry that had previously contained the AI virus. However, refrigeration and freezing do NOT kill the virus.

Follow safe food handling practices to reduce the risk of contamination from bacteria and viruses when preparing food. Keep cooked food products and vegetables separate from raw meat and poultry. Wash your hands with warm, soapy water after handling raw poultry. Wash surfaces and utensils that come in contact with raw eggs and poultry in hot, soapy water. Cook poultry and egg products thoroughly, monitoring poultry with a meat thermometer to ensure proper cooking temperature.

Poultry infected with AI usually stop laying eggs, so infected eggs are rare. To limit your risk, don't eat raw or partially cooked eggs or products containing raw eggs, including raw batter, eggnog, homemade salad dressings, meringues, tiramisu, and some homemade ice creams. Commercial salad dressings, eggnogs, and ice creams are safe to eat because they are made with pasteurized eggs. Use pasteurized eggs in recipes calling for raw eggs.

The U.S. government has taken considerable steps to ensure a safe food supply. Nearly all eggs and poultry products consumed in the U.S. are produced in the U.S, and most poultry raised for eating live in covered, enclosed buildings, where they can't easily be infected by wild birds. The Food and Drug Administration has published "Questions and Answers on Avian Influenza ('Bird Flu') and Food Safety," available at www.cfsan.fda.gov/~dms/avfluqa.html.

What can travelers do to avoid transporting avian influenza back into the U.S.?

While traveling internationally, avoid direct contact with live birds. For example, avoid live-bird markets, slaughter facilities, poultry farms, and wild bird populations. This is especially important while traveling in countries with a history of high-path AI outbreaks. At the time of this writing, these include Austria, Cambodia, China, Indonesia, Italy, Germany, Greece, Nigeria, Thailand, Turkey, Viet Nam, Israel, Holland, Sweden, Denmark, Jordan, Afghanistan, and France. The World Organization for Animal Health Web site at http://www.oie.int/eng/en_index.htm has a frequently updated list of countries affected by AI.

Declare all animal products to customs upon entry into the U.S. Do not bring poultry products back to the U.S. from AI-infected countries.

Avian influenza virus can survive on clothing, footwear, in nasal passages, on skin, and in the hair. Practice good personal hygiene to prevent contamination. Stay away from farms and direct contact with birds for two weeks after returning to the U.S.

Online Resources:

State of Maine

- ▶ <http://www.maine.gov/agriculture/ahi/diseases/avianflu.html>
Maine Dept. of Agriculture, Food, and Rural Resources fact sheet on avian influenza.
- ▶ <http://mainegov-images.informe.org/agriculture/ahi/diseases/MaineavianFAQ.pdf>
Maine Frequently Asked Questions on Avian and Pandemic Influenza, Maine Centers for Disease Control (2005).

University of Minnesota

- ▶ <http://www.cvm.umn.edu/ai/>
Avian Influenza, College of Veterinary Medicine.

U.S. Government

- ▶ http://www.aphis.usda.gov/vs/birdbiosecurity/Biosecurity_for_the_Birds, USDA Animal and Plant Health Inspection Service (Web site for backyard flock owners).



- ▶ <http://www.pandemicflu.gov>
One-stop access to U.S. Government avian and pandemic flu information. Managed by the Department of Health and Human Services.
- ▶ <http://www.cdc.gov/flu/avian/gen-info/facts.htm>
Key Facts about Avian Influenza (Bird Flu) and Avian Influenza A (H5N1) Virus, Centers for Disease Control and Prevention (2006).
- ▶ http://fsrio.nal.usda.gov/document_reslist.php?product_id=204
Avian Influenza Pathogens and Contaminants, United States Department of Agriculture (2006).

World Health Organization

- ▶ http://www.oie.int/eng/AVIAN_INFLUENZA/home.htm
Avian Influenza, World Organization for Animal Health (2006).
- ▶ http://www.who.int/mediacentre/factsheets/avian_influenza/en/
Avian influenza ("bird flu"), World Health Organization fact sheet (2006).
- ▶ http://www.who.int/csr/disease/avian_influenza/foodrisk2005_11_03/en/
"Food Safety Issues," Epidemic and Pandemic Alert and Response on Avian Influenza, World Health Organization (2005).

Media

- ▶ http://www.usatoday.com/news/health/birdflu_06/flash.htm
Understanding Avian Flu, USA Today (2006).
Good, easy-to-understand overview of avian influenza.

Need more information?

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