

Highly Pathogenic H5N1 Avian Influenza - April 2022

Avian Influenza

Avian Influenza (AI) is a disease caused by a virus that primarily infects domestic poultry and wild birds such as geese, ducks, and shore birds. Each year, there is a “bird flu” season, and some forms of the “bird flu” are worse than others. Wild birds, especially waterfowl, are a natural reservoir for mild strains of AI. Highly pathogenic avian influenza (HPAI) H5N1 is a strain known to kill both wild birds and commercial poultry.

In March 2022, HPAI H5N1 virus has been detected in Ontario in wild and commercial poultry. This same strain of the virus has also been found in many other jurisdictions across the world, including in other Canadian provinces and American states. Its spread has been primarily attributed to the migration of infected waterfowl.

The Province of Ontario is working with local, other provincial, federal, and international authorities to monitor and respond to cases of AI.

KEY FACTS ABOUT AVIAN INFLUENZA

- HPAI H5N1 is a strain of avian influenza virus currently affecting domestic poultry and wild waterfowl in several parts of the world. It causes high levels of mortality (death) in some birds, while other birds, such as some waterfowl and shorebirds, can be infected and not show any clinical signs.
- The HPAI H5N1 virus does not easily cross from birds to humans and the current strain has been listed as lower than normal concern for spread to people.
- AI is caused by different virus strains than those that cause seasonal influenza in humans.
- An AI outbreak does not imply that there will be a human outbreak or a pandemic.
- Most people that have been infected in other parts of the world had been in close contact with live or dead infected domestic poultry.
- The risk to the public of catching the HPAI H5N1 virus from domestic poultry or products is very low and there is no need to change food consumption habits or travel plans. More information on consuming poultry and eggs can be found [here](#).

- Very specific measures are in place to protect domestic poultry and a cross-jurisdictional working group has been established to further refine the plans already in place to treat AI outbreaks in our domestic poultry operations.

Common Questions about Avian Influenza

Q1. How is Avian Influenza transmitted from birds to humans?

The exact mode of transmission from birds to people is not known, but most human cases of avian flu have been traced to direct contact with infected poultry or their droppings. High risk activities include caring for diseased birds, dressing birds that died from the disease, consuming duck's blood or possibly undercooked poultry, and handling birds involved in cockfighting. The handling of dead birds is considered a lower risk activity and has not been implicated in transmission of HPAI H5N1 to date.

Q2. What is the difference between Avian Influenza and an influenza pandemic?

HPAI H5N1, or the "bird flu", is not the same as an influenza pandemic. An influenza pandemic is a large and severe world-wide epidemic of a human influenza virus.

Although there has been laboratory confirmed human cases of the HPAI H5N1 virus in the world, the virus does not have the attributes necessary for a pandemic. Specifically, the HPAI H5N1 virus does not transmit easily from birds to humans and there has been no sustained human-to-human transmission.

It is possible that the current HPAI H5N1 virus could mutate resulting in sustained human-to-human transmission, so it is important to take steps to prevent human infection from occurring.

Q3. How can I protect myself and what precautions should I take?

While the risk of human infection with avian influenza viruses remains low, individuals should be cautious when handling wild birds. As a general guideline, members of the public should avoid handling live or dead wild birds. If contact with wild birds is unavoidable, wear gloves or use a doubled plastic bag and avoid contact with blood, body fluids and feces. You should then wash your hands with soap and warm water.

While the annual human influenza vaccine does not protect against Avian Influenza, it will help prevent you from getting seasonal influenza, which could weaken your immune system or resistance to other infections.

Here are some general guidelines for avoiding seasonal human influenza:

- Get your flu shot every year

- Wash your hands with soap and warm running water thoroughly and often
- An alcohol-based sanitizer (60-90% alcohol) should only be used if no visible dirt is present on the hands
- Practice proper cough and sneeze etiquette
- Stay at home when you are sick

Q4. Is it safe to eat poultry or game meat?

- Follow safe food handling practices. The transmission of avian influenza viruses to people from eating uncooked or undercooked eggs or poultry is unlikely. However, proper safe food handling practices such as hand washing and keeping poultry and egg products separate from other food products to avoid cross contamination should be followed as a general practice.
- Thoroughly clean contaminated surfaces on tools and work surfaces with hot, soapy water and then disinfect the area using a household disinfectant.
- Always wash your hands for at least 20 seconds before handling food, and after handling raw meat, poultry, or eggs.

Follow these guidelines if you handle poultry or game bird meat:

- Cook pieces and cuts of game meat to an internal temperature of 71°C (160°F).
- Whole birds should be cooked to an internal temperature of 82°C (180°F)
- Do not feed uncooked or undercooked poultry or game bird meat to cats or dogs.

Q5. I work with birds. How can I protect myself?

For people with occupational exposure to live birds that are showing signs of respiratory or neurological disease, where splash or aerosols will be generated (e.g., using high pressure hoses or in ponds), or if you are working in an area where H5N1 has been diagnosed in wild birds or poultry, the following additional personal protective equipment (PPE) is recommended:

- Fit-tested and seal-checked respirators (e.g., N95 or equipment with equivalent protection)
- Eye protection (e.g., tight-fitting non-vented safety goggles)
- Wear heavy duty rubber gloves when handling birds that can pierce skin with beak or claws, otherwise it is essential to wear rubber gloves or disposable gloves (e.g., latex or nitrile) for cleaning and sanitation procedures
- Impervious disposable gown or coveralls
- Disposable protective shoe/boot covers or rubber or polyurethane boots

You should be properly trained in the proper fit-testing, wearing and use of respirators, safe removal of respirators, proper disposal of disposable respirators or cleaning and disinfection of reusable respirators, and medical contraindications to respirator use. In addition, it is imperative that you be trained in and follow procedures for the donning and doffing of PPE,

and its cleaning and sanitization or disposal. Hand hygiene must be performed before donning PPE, just prior to removing facial protection and after PPE has been completely doffed. Whenever possible, always work outdoors or in a well-ventilated area.

If you become ill after handling birds, see your health care practitioner. Be sure to mention that you have been in contact with wild birds.

Q6. Should I be concerned about traveling outside of Canada or in areas where there is Avian Influenza?

As an important measure before you travel outside of Ontario or Canada, visit Public Health Agency of Canada's web site [here](#) to determine if there are any active advisories for the region to which you are travelling.

While traveling there are some important precautions you should take to help safeguard your health, including:

- Avoid visits to poultry farms or bird markets,
- Do not eat undercooked eggs or poultry; and
- Practice proper hand hygiene. Bring along an alcohol-based hand sanitizer.

If you have a fever and respiratory illness within 10 days after returning from a region affected by avian influenza, contact your healthcare provider immediately.

Q7. What are the human symptoms for Avian Influenza?

Based on the studies of patients with the HPAI H5N1 virus, signs can range from very mild to severe. The most common signs include,

- Fever
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle and/or body aches
- Headaches
- Fatigue or tiredness
- Conjunctivitis (red eyes)
- Shortness of breath or difficulty breathing

Less commonly, diarrhea, nausea, vomiting or seizures can occur. Diarrhea is more common with avian influenza than with influenza due to human viruses.

It is important to tell your doctor if you have any of these signs and if you have been around birds in the past 10 days, and especially important if you have been around sick or dead birds and did not wear any personal protective equipment. Specific tests to detect avian influenza in

people are available. If you do not have access to a doctor, please call Telehealth Ontario at 1-866-797-0000

Q8. Who can be tested for Avian influenza?

In Ontario, people who are symptomatic and have had exposure to an infected bird or premise can be tested. More information on testing can be found on Public Health Ontario's [website](#).

Q9. Is there a vaccine for humans against Avian Influenza?

Vaccination for seasonal influenza is recommended. There is no vaccine for H5N1 indicated for use in Canada at this time.

Q10. How can I protect my backyard poultry?

The Ontario Ministry of Agriculture, Food and Rural Affairs has information on biosecurity principles for small flock owners. These recommendations can be found [here](#).

Q11. Who do I call to report if my backyard poultry are sick or dying?

If you suspect that your birds could have avian influenza, please call your veterinarian or the Canadian Food Inspection Agency at 226-217-8022, 8 am to 6 pm (EST), or email cfia.ontsurveillanceanddiagnostics-survetdiagnostiques.acia@inspection.gc.ca.

Q12. Is it safe to feed or observe backyard birds or wild waterfowl?

Generally people should observe wildlife, including birds, at a safe distance. As always, people should practice proper hand hygiene, especially when handling bird feeders or equipment. Bird feeders should be washed with soap and water frequently to reduce the chance of bacterial or viral contamination. Owners of small flocks and pet birds may want to consider removing wild bird feeders and bird baths to protect their birds from possible exposure to wild birds that may be infected with AI.

Q13. What should I do if I find a dead wild bird(s) in my backyard or in a park?

Please call Canadian Cooperative Wildlife Health Centre at 1 800-673-4781 to report the finding of sick or dead wild birds. If they determine that the sample is appropriate for testing, they will advise you as to how to safely collect and store the bird(s) and will provide you with a pre-paid shipping container for submission.

If the dead bird(s) is not being collected by authorities, then avoid handling the bird altogether, or dispose of the bird in the following manner:

- Use an implement such as a small shovel or large tongs, or by hand only if disposable plastic or rubber gloves are worn. Alternatively, the dead bird(s) may be placed in a puncture-resistant leak-proof plastic bag of appropriate size by inverting the bag over the hand, then grasping the carcass through the bag, and wrapping the bag around the bird without touching it.
- Bury the dead bird(s) several feet deep where they will not be disturbed.

- Alternatively, the dead bird(s) may be double-bagged and placed in garbage.
 - Note that some regions do not allow dead birds to be placed in the garbage. If you are unsure, contact your local municipality!
- Always dispose of dead bird(s) in a manner such that no one could handle it again.
- People handling birds (live or dead) should wash hands thoroughly with soap and water immediately afterward.

Q14. Is it considered safe to hunt, handle, and eat healthy game birds?

Yes, especially if the following precautions are observed:

- Do not handle or eat sick birds or birds that have died from unknown causes.
- Avoid direct contact with blood, feces, and respiratory secretions of all wild birds.
- Do not eat, drink, or smoke while cleaning game.
- Work outside whenever possible
- Wear a medical mask, preferably an N-95 or KN-95, when cleaning game.
- Wear dish gloves or latex gloves when handling or cleaning game. Wash gloves, hands, and clothing with soap and warm water immediately after you have finished. Thoroughly clean contaminated surfaces on tools and work surfaces with hot, soapy water and then disinfect the area using a household disinfectant. Immediately remove and wash clothing that may be contaminated with blood, feces or respiratory secretions.
- Cook pieces and cuts of game meat to an internal temperature of 71°C (160°F).
- Whole birds should be cooked to an internal temperature of 82°C (180°F).
- If you become ill while handling birds or shortly thereafter, see your doctor. Inform your doctor that you have been in contact with wild birds.

Avian Influenza Resource Links

- [World Health Organization \(WHO\)](#) – Human health information
- [World Organization for Animal Health \(OIE\)](#) – Animal health information
- Public Health Agency of Canada (PHAC)
 - [Information for the public, including travel advisories](#)
 - [Information for health care practitioners](#)
 - [Information for hunters and those handling wild birds](#)
- [Canadian Food Inspection Agency \(CFIA\)](#) – Domestic birds
- [Ontario Ministry of Food, Agriculture and Rural Affairs \(OMAFRA\)](#) – Domestic birds
- [Environment and Climate Change Canada \(ECCC\)](#) – Wild birds
- [Canadian Wildlife Health Cooperative \(CWHC\)](#) – Wild birds
- [US Centers for Disease Control and Prevention \(CDC\)](#)