What is Avian Influenza/Bird Flu?

- **Avian Influenza = AI = Avian Flu (“Bird Flu”)**
- AI refers to the Avian Influenza Type A virus which causes infection in birds.
- Wild aquatic birds, known as waterfowl, are natural reservoirs of many types of AI and can carry and transmit these viruses without showing signs of disease.
- AI affects many avian species, including chickens, turkeys, game birds, ratites, waterfowl, and wild birds, but disease problems are usually seen in domesticated poultry. AI is an extremely rare disease in pet and exotic birds.
- It is uncommon for Avian Flu to infect humans.

Are all Avian Flu viruses the same?

- No, all Avian Influenza viruses are not created equal. There are many different types of AI. The H and N listed in the type represents different surface proteins found on each virus. There are 16 different Hs and nine separate Ns allowing for many different combinations of the virus such as H5N1, H1N1, and H7N2.
- H5 and H7 are the two types that affect poultry.
- There are also many different subtypes within each virus strain for example, one H5N1 might be different from another H5N1.
- Pathogenicity refers to the ability to cause disease. In this case, disease in domestic poultry. Low Pathogenic AI (LPAI) causes little to no signs of disease and very little mortality (death). Highly Pathogenic AI (HPAI) causes acute disease symptoms in birds: severe respiratory signs and high mortality.
- Low pathogenic strains can sometimes change from low to highly pathogenic and affect larger numbers of birds.
- The deadliest strain is called the Asian Strain, also known as “Asian Bird Flu” and is caused by a HPAI H5N1 avian strain virus.

**Is there presence of AI currently in the United States?**

- Yes, waterfowl regularly carry the LPAI strain. There are also occasional cases of LPAI with mild signs in domestic poultry.
- The last significant HPAI outbreak in United States poultry was in 2015.
- The United States does not have the Asian strain of AI. We do not import poultry products from countries affected by the strain.

**How does AI spread in birds?**

- Infected birds can spread the virus through their saliva, nasal secretions, and feces. Birds become infected when they come into contact with the virus either through direct contact or by material that contains the virus.
- Transmission of the virus by contaminated coops, feed, water, equipment, vehicles, boots, rodents, etc., can increase the spread without directly involving birds.
- The virus can be killed with disinfectants, heat and drying, but if protected by organic material (manure, feathers, egg debris, etc.), it can survive for weeks.
What are the signs of AI in birds?

- Disease signs are variable ranging from no clinical signs of disease to severe disease and death.
- LPAI signs include slight ocular or nasal discharge, depression, and decrease in egg production.
- HPAI signs include all of the above signs, plus swelling of the face and head, tissue necrosis (skin sloughing), sudden death, and high mortality.

What should I do if I have sick birds or a large mortality in my flock?

- An occasional dead bird found is not an unusual occurrence in either wild or domesticated flocks.
- Florida Department of Agriculture and Consumer Services (FDACS), Division of Animal Industry, investigates unusual poultry illness or death to help owners and veterinarians determine the cause of illness or death.
- Contact the FDACS office at (850) 410-0900 to report large or unusual poultry mortality.
- Contact the Florida Fish and Wildlife Conservation Commission (FWC) to report wild bird mortality at MyFWC.com/bird.
- This disease can mimic other poultry diseases, so a proper laboratory diagnosis is crucial.
How do I protect my flock from AI?

• Practice Biosecurity/Disease Prevention Management:
  • People: Avoid visiting other poultry farms, bird shows, and markets. If you have visited other premises with poultry, it is recommended that you shower and change clothing and footwear before working with birds. People should wear protective clothing and footwear when visiting any premises.
  • Equipment: Do not loan or borrow equipment or vehicles from other farms. If you do, wash and disinfect all equipment before and after use. Wash and disinfect your vehicle/trailers/crates (including tires and undercarriage) after leaving a poultry farm, show or market. This should be completed before you reenter your facility. Keep your bird houses, pens, equipment, and work areas clean and sanitary.
  • Birds: Keep a closed flock. Do not bring new birds from poultry shows and markets directly into the flock. Separate new birds away from the flock for four weeks to determine if they show any signs of disease. Keep your birds separate from wild birds and lakes or ponds that may be used by wild waterfowl. Take sick or dead birds to a diagnostic laboratory to determine the cause of illness.
• Rodents and Wild Birds: Keep rodents and wild birds away from your poultry building and pens. Use rodent bait stations, keep the grass cut, pick up garbage piles, and don’t allow wild birds to nest near your poultry.

**Can poultry be vaccinated for AI?**

- At this time, vaccinating poultry for AI is not an option, and will only be considered during an outbreak to control the spread of the disease.
- Vaccination is not routinely used since it could interfere with surveillance testing and both infected and vaccinated birds would both test positive for AI.
- Vaccination does not prevent the birds from being infected or spreading the virus, but it can help reduce clinical disease and death loss.
- The best protection against AI is practicing biosecurity measures.
What precautions should be taken if I travel internationally?

- The big concern is accidentally introducing a foreign animal disease through contaminated clothing, hides, feathers, food products, etc., back to your animals.
- If you have contact with foreign livestock or poultry, restrict any contact with livestock or birds after returning home for at least five days.
- Thoroughly clean all travel clothing, shoes, and equipment after returning home.

What kind of poultry surveillance is being done now?

- AI has been a concern to the poultry industry long before the HPAI H5N1 strain appeared in the United States in 2015. Monitoring in the United States for AI is routine and will continue.
- In Florida, FDACS tests both commercial and backyard poultry. Necropsies are performed on all poultry submissions to the laboratory.
- Surveillance is performed at small animal sales, live bird markets, and fairs and exhibitions.
- A USDA AI program is in place to sample commercial broiler, turkey, and egg layer flocks.
What happens to an AI infected flock?

- The State Veterinarian will quarantine the farm to stop movement of birds, eggs, and equipment. No poultry or poultry products will be allowed to leave the premises.
- Mandatory biosecurity measures are implemented for people and animals. Buildings and equipment will be disinfected and the litter heated/composted to kill the virus.
- Surveillance testing of surrounding poultry premises will be conducted to determine the spread of disease. Once the premises has been tested and found to be free of the virus, repopulation of birds will be allowed with permission from the State Veterinarian.

Does Florida have a plan to handle an AI outbreak?

- Yes, Florida has a State Response and Containment Plan for Avian Influenza.
- In any influenza epidemic or pandemic affecting humans, the Florida Department of Health has a plan to respond to a human pandemic.

Why do we worry about H5N1?

- Historically, pandemics have occurred involving influenza viruses that have caused large losses of life worldwide. At this time, the AI virus, as it currently exists, does not spread easily from person to person.
- The bird virus would have to mutate, or change, in order to easily infect and spread from human to human. FDACS and the Florida Department of Health (DOH) will monitor the virus’ path.
What precautions should be taken while hunting or having contact with waterfowl?

- Hunters should take precautions when handling waterfowl: wear proper personal protective equipment such as gloves to minimize exposure to the AI virus or other diseases.
- Never eat, drink, or smoke when handling birds.
- Basic hygiene (handwashing after handling wild animals or carcasses) is always recommended, along with proper food preparation and thorough cooking.
- Launder clothes each day after handling birds.
- Monitor health for flu-like signs for a week after handling birds.
- For further guidance, please visit: myfwc.com/bird.

Can people contract AI?

- Yes, but no deaths have been attributed to the American strain of AI that is normally found in waterfowl in the United States.
• Deaths from the Asian strain have been reported in Asia and Europe, but not in the United States since the Asian strain has not been reported here. Those affected with the Asian strain had very close contact with the infected birds or had eaten raw/undercooked infected poultry. Humans are still considered to be resistant to this current bird virus.

Can you get AI from consuming poultry or eggs?
• AI is not considered a foodborne illness in the United States. Any HPAI infected poultry would be destroyed before it entered the food chain.
• There is no danger of acquiring AI from properly cooked poultry or poultry products. Cooking poultry to an internal temperature of 165 degrees F ensures safety.
Will H5N1 come to the United States or Florida?

- Several routes of infection are possible, including legal and illegal movement of infected birds or poultry products, infected migratory waterfowl, or an intentional introduction via agroterrorism.
- The United States bans all birds from countries affected by HPAI and there is increased surveillance in United States poultry and wild waterfowl.
- Even if United States migratory fowl gets the H5N1 strain, it is still a low risk to commercial poultry, since these birds are sheltered and kept separated from wild birds.
- Backyard flock owners should take precautionary measures to keep their birds separated from wild birds to further decrease the possibility of contracting AI.
- Strict biosecurity is the best way for all poultry growers (commercial and backyard) to protect their flocks from all diseases, including AI.
- People working with infected flocks must wear protective equipment as a safety precaution.
- FDACS and the USDA are prepared to respond with early detection, rapid diagnostic procedures, and experience in aggressive management of disease at breaks.
Know the signs of reportable and foreign animal diseases. Report any unusual signs or symptoms immediately to the:

**State Veterinarian’s Office**

**Telephone:** (850) 410-0900  
**Toll Free:** 1-877-815-0034  
**24 Hour Reporting:** 1-800-342-5869  
**Email:** rad@FDACS.gov

Division of Animal Industry  
Florida Department of Agriculture and Consumer Services

[www.FDACS.gov/ai](http://www.FDACS.gov/ai)