

# What Are the Signs of Avian Influenza?



Swelling of the tissue around the eyes and purple discoloration of the comb and wattles

# What Is Avian Influenza?

Avian influenza (AI), or “bird flu,” is a respiratory disease of birds caused by influenza A viruses (IAV). IAV can infect domestic poultry (such as chickens, turkeys, ducks, and geese) and are found naturally in wild birds (such as ducks, gulls, and shorebirds).



Allowing flocks to come in contact with wild birds could put them at risk for infectious diseases like HPAI.

IAV are classified based on a combination of two groups of proteins: the hemagglutinin or “H” proteins, of which there are 16 (H1–H16), and neuraminidase or “N” proteins, of which there are 9 (N1–N9). These viruses are further categorized by their pathogenicity—the ability of a particular virus strain to produce disease in young chickens infected intravenously. There are two types of pathogenicity: low and high.

Low pathogenic avian influenza (LPAI) occurs naturally in wild birds and can spread to domestic birds. In most cases, it causes little or no clinical signs of infection. LPAI viruses are common in the United States and around the world.

Highly pathogenic avian influenza (HPAI) is extremely infectious, often fatal to domestic poultry, and can spread rapidly from flock to flock. If HPAI is found in the United States, we must eradicate it to protect our country’s flocks and to keep trade flowing.



Fencing your bird area can help keep your flock safe from predators and from contact with other birds that could spread disease.

# How Does Bird Flu Spread?

AI spreads quickly by direct, bird-to-bird contact. It can also spread indirectly, such as when birds come in contact with contaminated surfaces or materials. Migratory waterfowl (including wild ducks and geese); smuggled poultry and poultry products; and the movement of poultry, poultry equipment, and people are potential sources for introducing the disease to domestic birds. IAV can be moved in manure; on egg flats, crates, or other farming materials and equipment; and even by people who may have inadvertently picked the viruses up on their clothing, shoes, or hands.



Avoid sharing equipment, tools, or poultry supplies with neighbors or other bird owners. If you must, first clean and then disinfect these items before bringing them home.

# Learn More



United States Department of Agriculture

Veterinary Services, a program within USDA’s Animal and Plant Health Inspection Service (APHIS), works closely with States and the poultry industry to keep AI from becoming established in the U.S. poultry population. For more information on these efforts—and how to protect your birds—visit [www.aphis.usda.gov/animal-health/aiupdates](http://www.aphis.usda.gov/animal-health/aiupdates).

You can also contact us directly at:

Veterinary Services  
USDA Animal and Plant Health Inspection Service  
4700 River Road, Unit 46  
Riverdale, MD 20737-1231  
Telephone: (301) 851-3437

# Protect Your Birds From Avian Influenza

Animal and Plant Health Inspection Service  
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Early detection is vital to preventing the spread of HPAI. Here’s what to look for:



Complete paralysis

- Sudden death without any prior symptoms of illness
- Lack of energy and appetite
- A drop in egg production or soft-shelled, misshapen eggs
- Swelling of the eyelids, comb, wattles, and shanks
- Purple discoloration of the wattles, comb, and legs
- Gasping for air (difficulty breathing)
- Nasal discharge, sneezing
- Twisting of the head and neck (torticollis)
- Stumbling or falling down
- Diarrhea

## Always Report Sick Birds

If you see these signs, take action right away!

Contact your agricultural extension office/agent, local veterinarian, local animal health diagnostic laboratory, or the State veterinarian, or call USDA toll free at **1-866-536-7593**.

# BIOSECURITY Is Key to Protecting Your Flock

Anyone who owns or works with captive poultry—whether on a commercial or hobby/backyard farm—should take proper steps to keep AI from entering the premises. The best way to protect your birds is to continually follow comprehensive and consistent biosecurity practices. Even if you are already familiar with biosecurity, it is always good to double-check your practices. You are the best protection your birds have!

## Commercial Producers

Complete the self-assessment of biosecurity practices available at [www.uspoultry.org/animal\\_husbandry/assessment.cfm](http://www.uspoultry.org/animal_husbandry/assessment.cfm). The U.S. Department of Agriculture (USDA) partnered with States and industry to develop this assessment as an aid for all commercial poultry owners in understanding and putting in place enhanced biosecurity measures. You can also contact your industry organization for additional resources.

To protect your birds, follow the biosecurity steps below. More information is at [www.aphis.usda.gov/animalhealth/defendtheflock](http://www.aphis.usda.gov/animalhealth/defendtheflock).



### Premises

- Implement a site-specific biosecurity plan and share it with all employees.
- Post signs at all entrances warning non-essential personnel to stay out of the farm and its buildings.
- Lock outside entrances to poultry houses during nonbusiness hours.
- Keep wild birds and rodents out of your poultry houses by avoiding structural features that may attract them (such as roof-top vents and overhead wires) and by plugging and patching any exterior holes.
- Secure feed bins and water to prevent wildlife contamination.

### Personnel

- Provide biosecurity training for new employees as soon as they start work and for all personnel yearly. Keep up-to-date records of completed training.
- Insist that employees not own or have contact with other birds—including pet birds, chickens, ducks, geese, waterfowl, exotic birds, quail, partridges, or pheasants.

### Equipment

- Provide footbaths, onsite footwear, or foot covers outside all external entrances and require people to use them. Clean footwear to remove dirt and other materials before using a footbath, and change footbaths at least once a day.
- Provide hand-washing or hand-sanitizing stations at all entrances and require people to use them.
- Clean and then disinfect all equipment and tools (including carts, loaders, and ramps) before use, and avoid exposing them to wild birds.
- Allow only clean, sanitized, and disinfected plastic egg flats or new disposable egg flats on egg-laying premises.

### Vehicles

- Clean and disinfect all vehicles that have traveled to a location where other birds are present, including feed stores or rendering facilities, before they enter the premises.
- Prohibit drivers from entering poultry houses or egg-processing areas if they stop at more than one farm on any given day.
- Require manure trucks to be washed with detergent and disinfected before arriving at the next farm.

## Backyard Poultry Owners

Follow the six simple biosecurity steps. Make them part of your daily routine to protect your flock. More information is available at <http://healthybirds.aphis.usda.gov>.

### 1 Keep Your Distance

- Restrict access to your property and your birds. If visitors have birds of their own, do not let them enter your bird area or have access to your birds at all.
- Do not let your birds have contact with wild birds or migratory waterfowl because they can carry germs and diseases.

### 2 Keep It Clean

- Wash your hands thoroughly before and after working with your birds.
- Wear clean clothes and clean and then disinfect your shoes before and after working with your birds.
- Clean and then disinfect equipment, including cages and tools, that comes in contact with your birds or their droppings. Be sure to remove manure and other organic debris before disinfecting equipment.
- Properly dispose of dead birds.

### 3 Don't Haul Disease Home

- Buy birds from reputable sources so you know you're getting healthy birds.
- Keep new birds separate from the rest of your flock for at least 30 days.
- If your birds have been to a fair or exhibition, keep them separated from the rest of your flock for 2 weeks after the event.

### 4 Don't Borrow Disease From Your Neighbors

- Avoid sharing birds, lawn and garden equipment, tools, or poultry supplies with your neighbors or other bird owners. If you do bring these items home, clean and then disinfect them before they reach your property.

### 5 Know the Warning Signs

- Early detection can help prevent the spread of disease. While it may be hard to tell if your bird has AI, when you check your birds frequently, you may be able to tell if something is wrong. See the next section for signs of illness and photos.

### 6 Report Sick Birds

- Don't wait. If your birds are sick or dying, call your agricultural extension office/agent, local veterinarian, local animal health diagnostic laboratory, or the State veterinarian. Or, call USDA toll free at **1-866-536-7593**, and we'll put you in touch with a local contact.

