



Highly Pathogenic Avian Influenza (HPAI) Disease Q&A July 26, 2022

Overview: Highly pathogenic avian influenza (HPAI) H5N1 is spreading in domestic poultry and wild birds throughout the U.S. and has been confirmed in California. As a result, San Diego Humane Society is planning biosecurity procedures that will be implemented to provide the most compassionate care to animals in need while mitigating the spread of disease.

HPAI H5N1 is primarily a disease of poultry (chickens, turkeys) and may cause significant mortality in backyard and commercial flocks. In wild birds, infection may cause mild to severe disease, and depends in part on the species infected.

What is avian influenza?

Avian influenza is an infectious disease of birds caused by type A influenza viruses. These viruses naturally circulate among waterfowl and other waterbirds. Viruses are classified based on two surface proteins, Hemagglutinin (H) and Neuraminidase (N), which combine to form different subtypes (e.g., H5N1, H5N2, H7N3). Different subtypes, and strains within a subtype, vary in their ability to cause disease in birds. Avian influenza viruses are categorized as highly pathogenic (HP) or low pathogenic (LP) based on their ability to cause disease in domestic poultry. Historically, viruses of H5 and H7 subtypes have been more likely to become highly pathogenic.

What are the clinical signs for avian influenza?

Clinical signs of HPAI can vary. In general, signs develop within 3-21 days after exposure and include:

- Sudden death and increased mortality in a flock
- Neurological signs (tremors of head and neck, inability to stand, paralysis)
- Low appetite, lethargy and diarrhea
- Difficulty breathing, sneezing, nasal discharge and coughing
- Swelling of the head, eyelids, neck and hocks
- Purple discoloration of legs

Does avian influenza cause disease in wild birds?

Yes, wild birds can be affected by avian influenza. Wild bird species at highest risk of infection with HPAI viruses include waterfowl (swans, geese, diving ducks), waterbirds (gulls, terns, cranes, herons, shorebirds) and birds that prey or scavenge on these species such as eagles, hawks, falcons, corvids and vultures. Signs of infection in wild birds is variable and may include sudden death, or neurological signs such as swimming in circles, head tilting, tremors, weakness, lack of coordination and respiratory distress. Wild game birds (turkeys, grouse, quails) may also be susceptible to infection with signs similar to those found in domestic poultry, such as swelling of the head, diarrhea, weakness, respiratory distress and lack of appetite. It is important to note that these signs are not exclusively specific to avian influenza, and can also be caused by other illnesses or trauma.

Does avian influenza cause disease in domestic birds?

Yes, domestic birds can be affected by avian influenza A viruses. Domesticated birds (chickens, turkeys, ducks, etc.) may become infected through direct contact with infected waterfowl or other infected poultry, or through contact with surfaces that have been contaminated with the viruses.



When avian influenza A(H5) or A(H7) virus outbreaks occur in poultry, depopulation (or culling) of infected flocks is usually carried out. In addition, surveillance of flocks that are nearby or linked to the infected flock(s), as well as quarantining exposed flocks and culling if disease is detected, are the preferred methods of controlling and eradicating the disease.

How does avian influenza spread?

The virus is shed in bodily fluids such as respiratory droplets, saliva and feces. Transmission may occur directly from bird to bird, or indirectly through people, animals or objects contaminated with virus particles (e.g., dogs, rodents, insects, feathers, feed, water, clothing, footwear, vehicles).

What other animals can be affected?

H5N1 strains have occasionally been reported to infect some mammal species, including: pigs, cats, dogs, foxes, martens, civets, tigers and humans. Red foxes have been noted to be particularly susceptible. Some strains of H5N1 can cause severe respiratory disease in people, most commonly in children or older adults. However, according to the Center for Disease Control, the risk to the general public's health from the current H5N1 viruses is low. For protective actions for human health, see the [CDC website](#).

What can you do to prevent disease spread?

Feeding and providing water to wild birds is discouraged especially if backyard poultry or other captive birds are present on the premises (e.g., chickens, turkeys, peafowl, ducks, geese, pigeons, doves). Providing food and water to wild birds encourages birds of different species to come into closer and more prolonged contact with one another than they would when feeding on natural food items. Increased concentration of wild birds at feeders and bird baths may lead to local contamination of the environment with fecal material, which may contribute to the spread of disease. Wild birds should be excluded from entering enclosures for domestic and pet birds, and food and water should not be shared between wild birds and domestic or pet birds. If recreating outdoors in areas with large concentrations of waterfowl and other waterbirds, please take care to wash clothing, and disinfect footwear and equipment, before traveling to other areas or interacting with domestic or pet birds. Footwear and equipment may be washed with soap and water, then disinfected in household bleach diluted 1:10 with water for at least 10 minutes.

Where can you report sick and dead birds?

Sick and dead poultry may be reported to the CDFA hotline at 866-922-2473. The public may report dead wild birds using the California Department of Fish and Wildlife's (CDFW) [mortality reporting form](#). Do not handle sick or dead wildlife. If it is necessary to do so, it is recommended to wear impermeable gloves and use an inverted plastic bag, shovel or other implement. Afterward, wash hands thoroughly with soap and water, and change clothes before having contact with domestic or pet birds. If you find live orphaned or injured wild birds, please contact San Diego Humane Society at 619-299-7012 for advice.

What does the HPAI outbreak mean for SDHS?

After consulting with numerous government agencies, the only way for us to remain open without spreading the virus to other animals is to limit susceptible species from entering our buildings. This includes both domestic and wild birds. Our goal is to help as many animals as possible, and in this case, that means not allowing certain species to enter our care. Strict biosecurity is imperative.



How does our intake process for wild birds change?

We are advising people to reneest and reunite youngsters with their parents to prevent uninjured orphans from coming into our care. If an animal is showing signs of illness or injury, we do not want them to suffer and we will perform humane euthanasia at arrival.

If a patient is on the **Susceptible Species List** below, Project Wildlife intake staff must follow our new guidelines for HPAI patients:

Ducks:

- Blue-winged teal
- Common goldeneye
- Mallard
- Wood duck
- Hooded merganser
- Ruddy duck
- Redhead duck
- Ring-necked duck
- American green-winged teal
- Lesser scaup
- American black duck
- Gadwall
- American wigeon
- Northern shoveler
- Northern pintail

Geese:

- Canada goose
- Snow goose
- Ross's goose
- Greater white-fronted goose

Swans:

- Mute swan
- Tundra swan
- Trumpeter swan

Waterbirds:

- Brown pelican
- American white pelican
- Double Crested Cormorant
- Neotropic Cormorant

Shore/Marsh birds:

- Ring-billed gull
- Herring gull
- Laughing gull
- Great black backed gull
- Great blue heron
- Sanderling

Corvids

- Raven
- Crow (American, Fish)
- Blue jay (in Canada...)
- Black-billed Magpie

Loons:

- Common loon

Gamebirds:

- Pheasant
- Turkey

Passerines:

- Dark-eyed juncos
- Common grackle

Raptors:

- Bald eagle
- Black vulture
- Turkey vulture
- Red-tailed hawk
- Cooper's hawk
- Red-shouldered hawk



- Sandhill crane
- Caspian tern
- Common tern
- Great horned owl
- Snowy owl
- Peregrine falcon
- Sharp-shinned hawk
- Northern harrier

What are the new guidelines for intake of wild birds?

- We will limit intake of wildlife at our campuses in Escondido and Oceanside. **Exceptions include mammals and songbirds** (sparrows, finches, mockingbirds, pigeons, doves, etc.). Those species are still permitted to be dropped off by our Humane Officers at either the Oceanside or Escondido campuses.
All birds on the susceptible species list should only go to the Pilar & Chuck Bahde Wildlife Center and Ramona Wildlife Center. This includes waterfowl (ducks, geese, mergansers), all gulls, all raptors (hawks, owls, osprey, falcons, etc.), all corvids (crows, ravens, jays) and all gamebirds (turkeys, pheasants).
- **If an appropriate species identification cannot be made, err on the side caution and bring the animal to the Bahde Wildlife Center or Ramona Wildlife Center.**
- Guests should bring animals directly to the Pilar & Chuck Bahde Wildlife Center at our San Diego Campus or our Ramona Wildlife Center.
- The after-hours/overnight drop off room at the Bahde Wildlife Center is closed indefinitely.
- All tours of the Ramona Wildlife Center and Pilar & Chuck Bahde Wildlife Center have been cancelled until further notice.
- Project Wildlife will not take in any patients from outside San Diego County.
- Birds who are young and healthy, and showing no signs of injury or illness, will be considered for reunification and release back to the wild. We encourage the public to leave healthy youngsters alone rather than bring them to San Diego Humane Society.
- Injured, ill or orphaned birds susceptible to HPAI may be humanely euthanized on intake and sent for testing. This will depend on their symptoms and the current status of HPAI locally.
- To protect our Project Wildlife ambassador birds, we have removed them from our campuses and placed them temporarily in approved staff homes.
- We are focused on getting our companion birds out of shelter care as soon as possible to protect them from infection.

What additional precautions will be in place at SDHS's Project Wildlife locations?

- Footbaths with disinfectant will be placed at all doors for entering and exiting a room.
- Greeters will meet all clients outside the building (consistent with current protocol).
- An additional table for HPAI susceptible species will be set up and available with signage.
- There is hand sanitizer on the table. Clients should sanitize hands after setting the box down and before touching anything else (door handles, admit forms, etc.).
- Staff must wear appropriate PPE to handle all incoming birds on the susceptible species list: clean disposable gloves, coveralls and a KN95 mask.
- Any birds who appear ill with possible HPAI signs will be euthanized and submitted for testing with CDFW.
- Staff and volunteers who have chickens, waterfowl, or other pet birds at home cannot handle birds at SDHS.



How does our intake process for domestic birds change?

If at all possible, healthy indoor birds should not come into shelters at all but be rehomed, with no other birds and no outdoor exposure. If they do need to come in, they will be kept away from other birds until a foster home can be found or placed directly into foster care (without other birds or outdoor exposure).

What are other local wildlife organizations doing in response to HPAI?

Once HPAI is documented to be within 200 miles of San Diego County, Sea World will be protecting their avian collection by no longer be taking in injured sea birds. As a result, the Project Wildlife team will likely see an increase in the number of birds being brought to us. The San Diego Zoo is also protecting their avian collection by removing birds from display habitats.

Where can people learn more about HPAI?

Official updates about avian flu can be found through the following websites:

- National Wildlife Health Center: [Distribution of HPAI in North America, 2021/2022](#)
- USDA Animal and Plant Health Inspection Service: [2022 Detections of HPAI](#)

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