

To: Natural Resource/Conservation Managers  
From: Leslie Dierauf, Director, USGS National Wildlife Health Center  
Title: Interim Guidelines for the Protection of Persons Handling Wild Birds With Reference to Highly Pathogenic Avian Influenza H5N1  
Date: August 23, 2005

*These Guidelines have been developed in consultation with the U.S. Centers for Disease Control and Prevention and are advisory in nature and are intended to provide guidance for the protection of persons working with or hunting wild birds with specific reference to highly pathogenic avian influenza (HPAI) H5N1. The guidance reflects information available as of August 2005 and may be updated as more information becomes available.*

### **H5N1 Avian Influenza**

Bird flu, or avian influenza (AI), is a virus found in wild birds, especially waterfowl and shorebirds. The virus is only found in a small number of birds in the wild, and infection typically causes few, if any, symptoms. The virus is shed in fecal droppings, saliva and nasal discharges. Since 2003, a particularly virulent strain of AI virus has emerged in Asia—the highly pathogenic avian influenza (HPAI) H5N1 virus. HPAI H5N1 virus probably originated from domestic poultry in that region and is of critical concern because: 1) it poses a threat to domestic poultry, especially chickens; 2) it has caused illness in 112 persons, including the deaths of at least 57 people as of August 2005; and 3) the emergence of H5N1 in humans poses a potential global pandemic influenza threat. Most human H5N1 cases are thought to have acquired H5N1 virus infection through direct handling of infected poultry, consumption of uncooked poultry products, or contact with virus-contaminated surfaces/materials. Limited person-to-person transmission of H5N1 viruses has also been documented.

There are an increasing number of reports that HPAI H5N1 is infecting and causing death in wild birds, including some species of migratory birds. Events associated with the current strain of H5N1 avian influenza virus circulating in Asia, its apparent movement to new geographical areas, and the associated mortality within various species of wild birds have created concerns and questions about the possible movement of H5N1 virus into North America via migratory birds. HPAI H5N1 has not been detected in North America at the present time.

These Guidelines provide general advice about practices and precautions people should exercise to mitigate the risk of HPAI H5N1 viral infection based on the level of exposure to wild birds. Because situations can change quickly, we have included recommendations for handling wild birds suspected or known to be infected with HPAI H5N1. It is important to check with your respective public health, animal health, and natural resource agencies for up-to-date information on HPAI H5N1. At this time, there is no known case where AI has been passed from wild birds to humans, but direct transmission from wild birds to humans can not be ruled out.

Even apparently healthy wild birds can be infected with microorganisms other than HPAI, some of which are presently more important human health concerns in North America than HPAI H5N1.

### **Recommendations:**

The **General Public** should, as a general rule, observe wildlife, including wild birds, from a distance. This protects you from possible exposure to pathogens and minimizes disturbance to the animal.

- Avoid touching wildlife. If there is contact with wildlife do not rub eyes, eat, drink, or smoke before thoroughly washing hands with soap and water.
- Do not pick up diseased or dead wildlife. Contact your state, tribal or federal natural resource agency if a sick or dead animal is found.

**Hunters** should follow **routine precautions** when handling game.

- Do not handle or eat sick game.
- Wear rubber or disposable latex gloves while handling and cleaning game and thoroughly wash hands and all knives, equipment and surfaces that come in contact with game.
- Do not eat, drink, or smoke while handling animals.
- All game should be thoroughly cooked (well done or 160° F). Additional information can be found at: [www.who.int/entity/foodsafety/fs\\_management/No\\_02\\_Avianinfluenza\\_Dec04\\_en.pdf](http://www.who.int/entity/foodsafety/fs_management/No_02_Avianinfluenza_Dec04_en.pdf).

**People handling apparently healthy wild birds:**

Work in well-ventilated areas if working indoors, and when working outdoors work upwind of animals, to the extent practical, to decrease the risk of inhaling aerosols such as dust, feathers, or dander.

- When possible, wear rubber or latex gloves that can be disinfected or disposed of and protective eyewear or a face shield while handling animals.
- Wash hands with soap and water often and disinfect work surfaces and equipment between sites.
- Do not eat, drink, or smoke while handling animals.

**People handling sick or dead birds or working in areas where HPAI H5N1 is suspected:**

- Follow the recommendations above and at a minimum wear protective clothing, including coveralls, rubber boots, latex or rubber gloves that can be disinfected or disposed.
- Minimize exposure to mucosal membranes by wearing protective eyewear (goggles) and at least an N95 or higher particulate respirator. A fitted respirator is recommended by CDC.
- Decontaminate and properly dispose of potentially infectious material including carcasses. For additional information see USGS Field Guide to Wildlife Diseases: [http://www.nwhc.usgs.gov/pub\\_metadata/field\\_manual/chapter\\_4.pdf](http://www.nwhc.usgs.gov/pub_metadata/field_manual/chapter_4.pdf)
- Do not eat, drink, or smoke while handling animals.
- The influenza virus is sensitive to many common disinfectants such as detergents, 10% household bleach, alcohol and other commercial disinfectants. The virus is much more difficult to inactivate if it is encrusted in organic material such as feces or soil.

**People working with wild birds in areas where HPAI H5N1 has been detected** should consult with a health care provider and follow the latest guidelines from CDC and the WHO for protection of persons involved in avian influenza disease control: [http://www.who.int/entity/csr/disease/avian\\_influenza/guidelines/Avian%20Influenza.pdf](http://www.who.int/entity/csr/disease/avian_influenza/guidelines/Avian%20Influenza.pdf)

<http://www.cdc.gov/flu/avian/professional/protect-guid.htm>

- Get the current influenza vaccination. Vaccination will not prevent H5N1 infection, but will minimize co-infections with other influenza viruses in circulation in humans.
- Take an influenza antiviral drug daily for the entire time you are in direct contact with infected birds or a contaminated environment. Consult CDC recommendations.
- Educate workers on the basics of infection control, including how to put on and use, remove, disinfect, and dispose of personal protective equipment (PPE) and clothing.
- Wash hands frequently and disinfect exposed surfaces and field equipment between work sites.
- Do not eat, drink, or smoke while handling animals.
- Wear coveralls, gloves, shoe covers, or boots that can be disinfected or disposed, gloves, fitted respirator (N95 or higher) and protective eyewear (goggles).
- Educate workers to watch for clinical signs of influenza infection and monitor workers for one week from last exposure to infected birds.
- Contact your healthcare provider if you develop fever, flu-like symptoms or conjunctivitis (eye inflammation). Inform them that you have been potentially exposed to HPAI and follow their instructions.

Additional information about HPAI H5N1 can be found at the following Web links:

USGS Field Guide to Wildlife Diseases: [http://www.nwhc.usgs.gov/pub\\_metadata/field\\_manual/chapter\\_22.pdf](http://www.nwhc.usgs.gov/pub_metadata/field_manual/chapter_22.pdf)

USGS National Wildlife Health Center: [http://www.nwhc.usgs.gov/research/avian\\_influenza/avian\\_influenza.html](http://www.nwhc.usgs.gov/research/avian_influenza/avian_influenza.html)

Centers for Disease Control and Prevention: <http://www.cdc.gov/flu/avian/index.htm>