

Protecting Poultry Workers from Avian Influenza (Bird Flu)

WARNING!

During an outbreak of avian influenza (bird flu), poultry workers* may become seriously ill or die after contact with infected poultry or contaminated materials.

All poultry workers and all owners and operators of poultry operations should take the following steps to protect themselves from avian influenza.

Take the following steps BEFORE an outbreak of avian influenza:

1. Make sure that an avian influenza response plan has been developed to complement regional, State, and industry plans.
 - Use the CDC guidance presented in the full Alert to develop a response plan.
 - Select a response plan manager.
 - Coordinate your avian influenza response plan with appropriate State animal and public health agencies.
 - Make sure that workers are aware of the avian influenza response plan and their responsibilities.
2. Follow biosecurity practices to keep avian influenza and other diseases out of your poultry flock:

- Keep your poultry flock isolated from outside environments.
- Prevent flocks from contacting wild birds and water sources that might be contaminated by wild birds.
- Allow only essential workers and vehicles to enter the farm and poultry houses.
- Provide clean protective clothing, equipment, and disinfection facilities for workers.
- Thoroughly clean and disinfect equipment and vehicles entering and leaving the farm. Include tires and undercarriage.
- Do not borrow equipment or vehicles from other farms and do not lend yours.
- Avoid visiting other poultry farms.
- If you do visit another farm or a live-bird market, change footwear and clothing before contacting your own flock again.

*Poultry workers include all workers who may contact poultry or materials or environments contaminated by poultry.

- Do not bring birds from slaughter channels (especially live-bird markets) back to the farm.
3. Know the signs of avian influenza in poultry.
 - Be aware of the signs of avian influenza infection with the highly pathogenic H5N1 virus in poultry:
 - Sudden death without clinical signs or symptoms
 - Lack of coordination
 - Lack of energy and appetite
 - Soft-shelled or misshapen eggs
 - Decreased egg production
 - Purple discoloration of the wattles, combs, and legs
 - Swelling of the head, eyelids, combs, wattles, and hocks
 - Diarrhea
 - Nasal discharge
 - Coughing and sneezing
 4. Report sick or dying birds immediately!
 - Immediately report any sick or dying birds in your poultry flock to the proper authorities:
 - Call the U.S. Department of Agriculture (USDA) toll free at 1-866-536-7593.
 - Or contact your State veterinarian or local extension agent.
 5. Know the possible signs and symptoms of avian influenza in humans infected with the highly pathogenic H5N1 virus:
 - Fever
 - Cough
 - Shortness of breath
 - Sore throat
 - Muscle aches
 - Conjunctivitis (redness, swelling, and pain in the eyes and eyelids)
 - Diarrhea
 6. Consider getting the current season's flu shot.
 7. Train workers in all guidance and recommendations presented in this Alert.
- Take the following steps DURING an outbreak of avian influenza:**
1. Follow the avian influenza response plan.
 2. Ask your doctor about taking antiviral medication.
 3. Wear personal protective clothing.
 - Wear the following personal protective clothing if you may be exposed to an avian influenza virus:
 - Outer garments (aprons or coveralls)
 - Gloves

(Over)

NIOSH ALERT

- Foot protection (boots or boot covers)
 - Head protection (head cover or hair cover)
 - Choose disposable, impermeable, lightweight protective clothing.
 - Wear disposable, lightweight, waterproof gloves (8- to 12-mil nitrile or vinyl, for example) or heavy-duty, 18-mil rubber gloves that are reusable after disinfection.
 - Use disposable boot covers or boots that can be reused after disinfection.
 - Use disposable head covers or hair covers.
4. Wear eye protection.
- When working with poultry, wear unvented or indirectly vented safety goggles, a respirator with a full facepiece, or a powered, air-purifying respirator (PAPR) with a loose-fitting hood or helmet and face shield.
 - Remove eye protection carefully to prevent contaminated equipment from contacting eyes, nose, or mouth.
5. Wear respirators.
- Wear a NIOSH-approved, air-purifying respirator with a particulate filter whenever you are working in poultry barns or may be exposed to infected poultry or virus-contaminated materials or environments.
 - Use a particulate filter that is rated N-95 or better.
6. Follow a written respiratory protection program. To make sure that respirators protect workers adequately from avian influenza, do the following:
- Designate a qualified person to oversee the program and answer workers' questions.
 - Provide workers with respirator training and fit-testing to assure a safe and comfortable seal for the respirator facepiece.
 - Include all workers who may be at risk of exposure to avian influenza virus.
7. Protect yourself when removing personal protective clothing or equipment.
- With your respirator, goggles, and gloves on, remove all personal protective clothing.
 - Place disposable clothing in a secure container[†] for disposal.
 - Place reusable clothing in labeled or color-coded bags or containers[‡] for cleaning and disinfection.
 - Remove gloves and discard them in a secure container.
 - Thoroughly wash hands with soap and water.
 - If no hand-washing facilities are available, use waterless soaps or alcohol-based sanitizers provided by your employer.

[†]NIOSH recommends the use of secure containers such as those described in the *Code of Federal Regulations* [29 CFR 1910.1030(d)(4)(iii)(B)]. Such containers should therefore be (1) closable, (2) constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping, (3) labeled or color-coded, and (4) closed before removal.

[‡]NIOSH recommends the use of labeled or color-coded bags such as those described in the *Code of Federal Regulations* [29 CFR 1910.1030(d)(4)(iv)(A)(2)].

- Be careful about using waterless soaps or alcohol-based sanitizers too often, as they can be very harsh to the skin.
 - Next, carefully remove your goggles and then your respirator.
 - Thoroughly wash hands again with soap and water.
 - If no hand-washing facilities are available, use waterless soaps or alcohol-based sanitizers provided by your employer.
8. Use good hand hygiene (proper use of gloves, hand-washing, and waterless hand sanitizers) and the decontamination procedures outlined here to prevent infection, avoid taking viruses home, and keep them from spreading to other farms.
9. Shower at the end of the work shift and leave all contaminated clothing and equipment at work.
 - Shower at the worksite or at a nearby decontamination station.
 - Never wear contaminated clothing or equipment outside the work area.
10. Participate in health surveillance and monitoring programs.
 - Make sure a surveillance program has been established to identify symptomatic workers for 10 days after exposure to infected birds or virus-contaminated materials or environments.
 - Seek immediate medical care for workers who develop any of the following symptoms within 10 days of exposure to infected or exposed birds or to virus-contaminated materials or environments:
 - Fever
 - Cough
 - Shortness of breath
 - Sore throat
 - Muscle aches
 - Conjunctivitis (eye infections)
 - Diarrhea
 - Tell the health care provider about the possible avian influenza exposure before the ill person arrives.
 - Promptly report suspected human cases to supervisors and to local health authorities.

For additional information, see ***NIOSH Alert: Protecting Poultry Workers from Avian Influenza (Bird Flu)*** [DHHS (NIOSH) Publication No. 2008–128 (supersedes 2008–113)]. To request single copies of the Alert, contact NIOSH at

1-800-CDC-INFO (1-800-232-4636)

TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov

or visit the NIOSH Web site at

www.cdc.gov/niosh

For a monthly update on news at NIOSH, subscribe to *NIOSH eNews* by visiting **www.cdc.gov/niosh/eNews**

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

