

Avian Influenza Contact Tracing Guidance

Avian Influenza viruses are endemic in wild birds and rarely result in symptomatic illness in this population, which further allows the virus to spread. Avian Influenza viruses are designated as “highly pathogenic avian influenza” or “low pathogenic avian influenza” based on the degree of morbidity and mortality that results when domestic poultry-like chickens are infected. While rare, mammals can be infected with Avian Influenza viruses when they eat infected birds, poultry, or other animals and/or if they are exposed to environments contaminated with the virus. Human infections with Avian Influenza viruses are rare, but possible.

Since 2020, Avian Influenza A(H5N1) clade 2.3.4.4b has been the predominantly circulating Avian Influenza virus worldwide, responsible for an unprecedented number of deaths in wild birds and domestic poultry outbreaks. Wild birds are an important factor in the spread of A(H5N1) as migratory patterns are the basis for the wide geographic spread. The first known introduction of A(H5N1) to bird populations in the United States occurred in January 2022. Since then, there have been detections in wild birds, domestic poultry outbreaks, outbreaks in dairy cattle, and sporadic mammal and human infections. **This guidance will outline the steps local health departments (LHDs) will take to:**

1. Evaluate human exposure to sources of A(H5N1);
2. Ensure early detection of human infections; and
3. Prevent secondary spread.

About Influenza A(H5N1) Infections in People

Incubation Period 3-5 days with a range of 1-10 days

Contagious Period One day before symptom onset until symptoms completely resolve.

***Symptoms**

- Cough
- Sore Throat
- Fatigue
- Conjunctivitis (pink eye)
- Fever
- Feeling feverish
- Myalgia (muscle pain)
- Arthralgia (joint pain or stiffness)
- Difficulty breathing
- Shortness of breath
- Headache
- Seizures
- Vomiting
- Diarrhea
- Altered mental status
- Nausea

**Human infections with Avian Influenza range in severity from asymptomatic infections to severe disease resulting in death. Fever may not always be present.*

Public health surveillance for **Novel Influenza Viruses** is a routine component of comprehensive Influenza Surveillance Programs nationwide. Public health departments complete investigations of confirmed, probable, or symptomatic suspected novel influenza cases to understand the risk associated with these viruses and prevent further transmission. Novel influenza A viruses are of public health concern because of the potential impact on human health should they gain the ability to spread from person-to-person. Novel influenza A viruses capable of transmission between people are of extra concern because they pose a greater pandemic threat. Human infection with Novel Influenza A virus is a nationally notifiable condition. Healthcare providers should immediately notify LHDs if they suspect Novel Influenza Virus infection. During the case investigation, LHDs will interview the case using standard investigation forms to collect information needed to assess the severity of disease, risk factors, exposure sources, and to identify other potential cases.

Terms to Know

Active Monitoring	Health departments contact exposed persons directly about the development of any signs and symptoms of infection, either daily or on a modified schedule (i.e., day 0, 5, and 10).
Asymptomatic	A person who is infected with a disease but does not have symptoms.
Close Contact	People who have had close (within six feet) unprotected (without the use of respiratory and eye protection) exposure to a person who is a confirmed, probable, or symptomatic suspected case of human infection with HPAI A(H5N1) virus (e.g., in a household or healthcare facility).
Contact Tracing	The process of quickly identifying, assessing, and managing people who have had an exposure to an infectious disease to prevent additional transmission.
Incubation Period	The time it takes for an infection to develop after a person has been exposed to an infectious agent. The incubation period for Influenza A(H5N1) is estimated to be between 3-5 days but has been reported to be as long as 7-10 days.
Novel Influenza Virus	A human infection caused by an Influenza Type A virus is different from the seasonal Human Influenza Type A viruses (H3N2 and H1N1) that normally circulate in people. Novel influenza viruses include Influenza Type A viruses from a non-human origin, such as avian, swine, or other animal origins.
Post-exposure Prophylaxis	The use of influenza antiviral medication as soon as possible (within 48 hours) after exposure is recommended to prevent infection. Recommendations for post-exposure prophylaxis are based on each person's exposure history.
Relevant Exposure History	People with close (within six feet), prolonged, or unprotected (without the use of respiratory and eye protection) exposures to infected birds, cows, or other animals, to unpasteurized ("raw") milk, or to environments contaminated by infected birds, cows, or other animals, or by raw milk, litter, feces, or other materials known to be or suspected to be contaminated by Influenza A(H5N1).
Self-Monitoring	Exposed persons are provided with information on what symptoms to look for and who to contact if they develop any of those symptoms.
Symptomatic	A person who is showing symptoms of a disease.

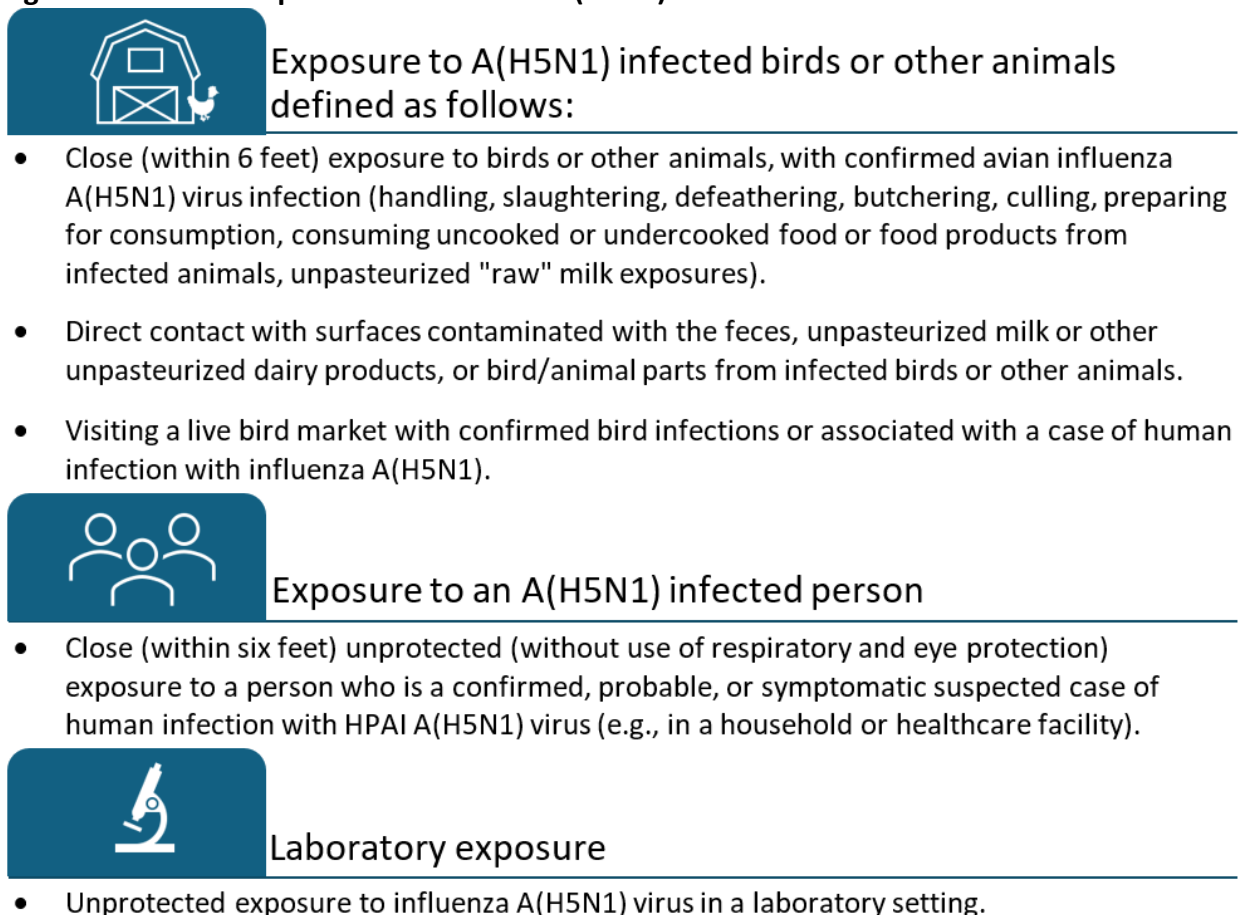
WHAT IS CONTACT TRACING?

Contact tracing is the process of identifying other potentially infected people by considering who the case had been around and the places the case had been during their infectious period. Contact tracing has been a successful surveillance strategy to stop outbreaks for diseases like COVID-19 and now Influenza A(H5N1). Once a person tests positive for a disease, the LHD will ask the case for a list of people they have been in close contact with and the places the case visited while they were contagious. The case's **close contacts** will be notified of their exposure by the health department, who will explain what precautions the contacts need to take and for how long. Monitoring is an essential function of LHDs during contact tracing. Contacts are typically monitored for one **incubation period** from the date of their last exposure. Monitoring determines whether additional public health action is needed based on whether the contact becomes ill or tests positive.

AVIAN INFLUENZA A(H5N1) CONTACT TRACING

During the Avian Influenza A(H5N1) response, contact tracing efforts will depend on the source of exposure. Identifying people with a **relevant exposure history** like being exposed to infected animals or virus-contaminated animal environments may involve working with partners in agriculture like the West Virginia Department of Agriculture (WVDA) or farmers. In comparison, LHDs investigating human infections with a Novel Influenza Virus will work directly with the case to identify close contacts during the case investigation.

Figure 1. Relevant Exposures to Influenza A(H5N1)



During the ten days following the contact's last exposure, the LHD will monitor the health of close contacts to determine whether they develop infection. Contacts with a known exposure that develop clinically compatible signs or symptoms of Influenza A(H5N1) should be tested for Novel Influenza A virus infection in partnership with the West Virginia Office of Laboratory Services (OLS) and the Centers for Disease Control and Prevention (CDC). LHDs should immediately notify the West Virginia Department of Health (WVDH) by calling the Epidemiologist On-Call at (304) 558-5358, ext. 2 when a person becomes ill during the monitoring period. The symptomatic contact should stay home and away from other people in the household until testing determines if they are infected with a Novel Influenza Virus.

Figure 2. Contact Tracing Summary

Receive notification of human exposure to an Influenza A(H5N1) source.

Develop a list of people with known exposure.

Interview contacts.

Monitor contacts for 10-days from the last known exposure.

Release contacts after 10-days if no symptoms develop.

Isolate, test, and treat contacts that develop symptoms.

Repeat as necessary for each new exposure.

DEVELOPING A LIST OF CONTACTS

The LHD should develop a list of exposed contacts in collaboration with agriculture partners if the exposure was to an infected animal, virus contaminated materials, or the environment of an infected animal. The contact list should include people who had relevant exposure beginning one day prior to the animal's symptom onset. The contact list should provide the name, contact information, and date of last exposure for each person.

If the exposure was to a confirmed, probable, or symptomatic suspected human case of Influenza A(H5N1), the LHD should work directly with the case to develop a contact list that includes the people the case had been in contact with beginning one day prior to the case's symptom onset. Here are the general steps to conduct a case interview:

1. Introduce yourself, state where you are calling from, and explain the purpose of the call.
2. Assess the case's overall health by reviewing the symptoms the case is experiencing and documenting their medical conditions.
3. Provide the case with education about when to seek emergency care.
4. Coordinate a plan to monitor the case's health and respond to changes in health status.
5. Review isolation procedures and provide resources if necessary.
6. Collect epidemiologic information for routes of exposure (e.g., travel history, animal exposure history, and recent attendance at events.)
7. Ask the case to share the name and contact information for anyone they had been in close contact with **beginning one day before their symptoms started.**

8. Prompt for questions and provide a way for the case to reach a LHD representative.

INTERVIEWING CONTACTS

Once a list of contacts has been established the local health department will reach out to each close contact to provide education, evaluate the health of the contact, and make recommendations. Here are the general steps to conduct a contact interview:

1. Introduce yourself, state where you are calling from, and explain the purpose of the call.
2. Confirm the contact's exposure details, including the source and date(s) of exposure. Determine whether the exposure was unprotected.
3. Assess the contact's overall health by reviewing if the contact is experiencing any symptoms that are clinically compatible with Influenza A(H5N1) infection.
4. Provide education, including:
 - a. Contacting the LHD if symptoms develop.
 - b. Stay home and away from others if experiencing symptoms.
 - c. When to seek medical care.
 - d. Discuss whether post-exposure prophylaxis would be recommended for them.
5. Coordinate a plan to monitor the contact's health and respond to changes in health status.
6. Prompt for questions and provide a way for the contact to reach a LHD representative.

LHD RESPONSIBILITIES FOR CONTACT MONITORING

Everyone exposed to Avian Influenza A(H5N1) virus infected birds, cattle, or other animals should be monitored for symptoms beginning on their first day of exposure and continuing until ten days have passed since their last known exposure. **Active monitoring** is recommended for anyone who has had unprotected (inconsistent or incorrectly used personal protective equipment (PPE)) exposures to Avian Influenza A(H5N1), virus-infected animals or their environments. Most exposed dairy farm workers fall into this category. Other groups of people that require active monitoring include people who had close unprotected contact with human cases of Influenza A(H5N1) Virus infection such as household contacts or co-workers. Healthcare providers who adhere to infection control recommendations may self-monitor for symptoms.

Self-monitoring is recommended for people who used the recommended PPE and did not have a breach in use. Fewer exposed workers fall into this category but often include responders to outbreaks on poultry farms. People self-monitoring will be provided education including symptoms to watch for, how long to monitor their health, and what to do if they develop symptoms. LHDs will not contact people who are eligible for self-monitoring beyond providing the needed education. If a person who is self-monitoring develops symptoms, the LHD will take additional steps to identify whether they are infected with A(H5N1) and prevent further spread.

Recommendations for Contacts with Exposure to Infected Animals or Contaminated Environments and Materials

The LHD should monitor contacts with a relevant exposure history if exposure continues (as in the case with dairy farm workers that have ongoing exposure) and for the 10-days following the last exposure. Decisions about whether active or self-monitoring is appropriate will be based on personal history of PPE. Education should be provided to the contact about the symptoms to watch for and how to notify the local health department if symptoms develop. Contacts with a relevant exposure history are not required to quarantine although contacts who develop symptoms compatible with Influenza A(H5N1) infection should

be instructed to remain at home, away from others until testing has determined if they are infected with Influenza A(H5N1). Influenza testing at OLS is recommended for any person with a relevant exposure history that develops illness compatible with human infection with Influenza A(H5N1). If the contact seeks medical care and tests positive for influenza during medical evaluation, specimens should be sent to OLS for further testing. The influenza antiviral medication Oseltamivir **post-exposure prophylaxis** (at treatment dosing frequency of twice daily for five days) is recommended for certain people with Influenza A(H5N1) virus exposure. Post-exposure prophylaxis decisions should be based on clinical judgment, with consideration for the type of exposure, duration of exposure, time since exposure, and known infection status of the birds or animals to which the person was exposed. Antiviral chemoprophylaxis is not routinely recommended for people who used proper PPE and experienced no breaches while working with infected or potentially infected birds or other animals or when decontaminating affected environments, including animal disposal.

Recommendations for Contacts of Confirmed, Probable, or Symptomatic Suspected Human Cases

The LHD should monitor contacts of confirmed, probable, or symptomatic suspected human cases of Influenza A(H5N1) for the ten-days following their last exposure. Healthcare providers who adhere to infection control recommendations may self-monitor for symptoms. Education should be provided to the contact about the symptoms to watch for and how to notify the LHD if symptoms develop. Influenza testing at OLS is recommended for anyone that develops symptoms after exposure to a confirmed, probable, or symptomatic suspected human case of Influenza A(H5N1). If the contact seeks medical care and tests positive for influenza during medical evaluation, specimens should be sent to the OLS for further testing. Oseltamivir treatment dosing is recommended as post-exposure prophylaxis (at treatment dosing frequency of twice daily for five days) for close contacts of a patient with probable or confirmed Influenza A(H5N1) infection.

Table 1. Summary of Recommendations for People with Influenza A(H5N1) Exposures

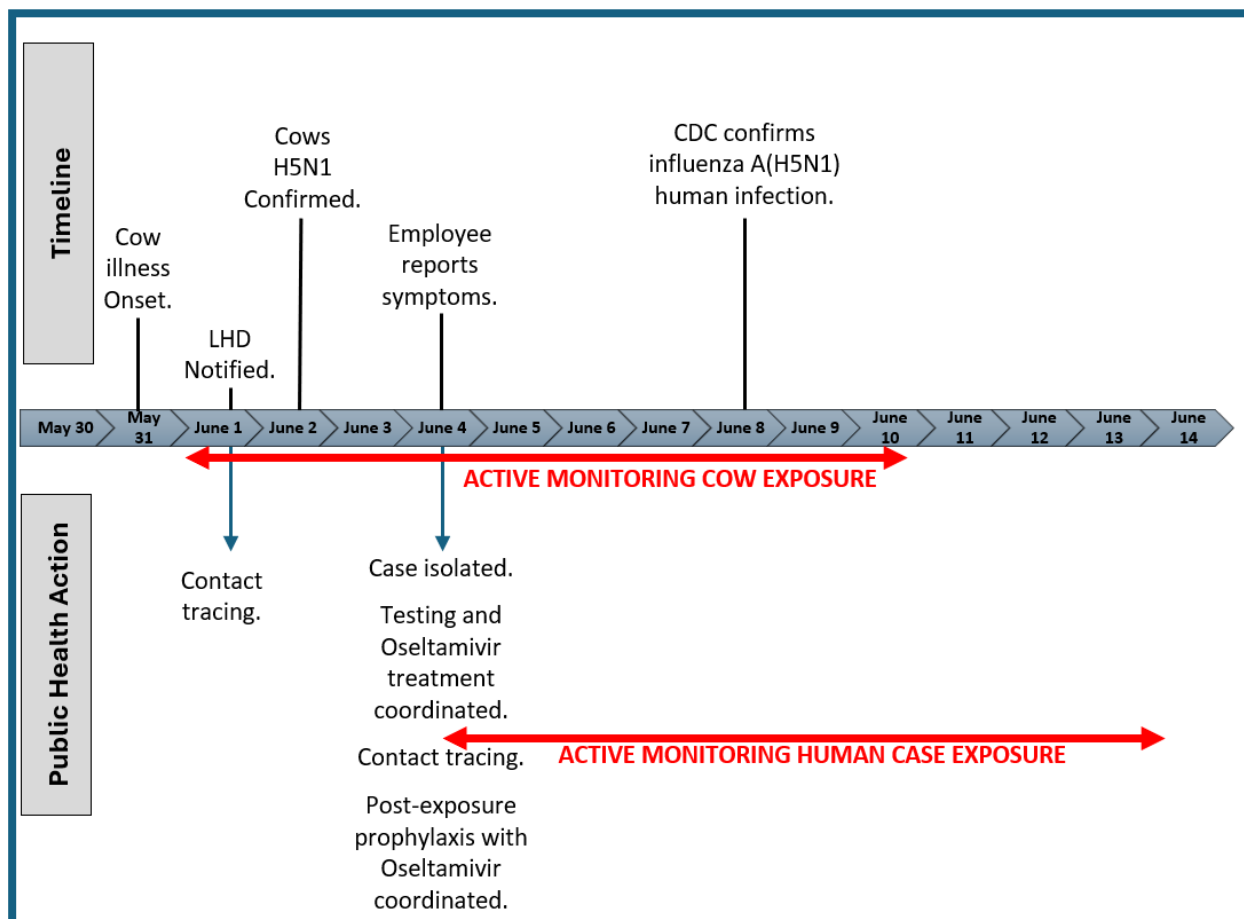
	Relevant Exposure History	Close Contact with a Case
Quarantine	No	No
Post-exposure Prophylaxis	Based on clinical judgment*	Yes
Monitoring	Yes	Yes
Influenza Testing	Symptomatic contacts**	Symptomatic contacts**

*Decisions should be based on clinical judgment, with consideration for the type of exposure, duration of exposure, time since exposure, and known infection status of the birds or animals to which the person was exposed. Antiviral chemoprophylaxis is not routinely recommended for people who used proper PPE and experienced no breaches while working with infected or potentially infected birds or other animals or when decontaminating affected environments, including animal disposal.

**Testing of asymptomatic persons for influenza A(H5N1) virus infection is not routinely recommended. As part of public health investigations, asymptomatic persons, such as close contacts of a confirmed case of influenza A(H5N1) virus infection, might be tested after consultation with CDC.

EXAMPLE CASE STUDY

On June 1, 2024, the LHD in Gilmer County, West Virginia, was notified that Influenza A(H5N1) had been detected in dairy cattle on a local dairy farm, Gilmer's Best Dairy. The farm first reported sick cows to the WVDA on May 31, 2024. The LHD requested that Gilmer's Best Dairy share a list of people who had been around the cows, in cow areas of the property, or who had exposure to "raw" unpasteurized milk. Gilmer's Best Dairy provided a list of 25 employees. After the LHD completed the contact interviews, it was determined that all exposed dairy farm workers would be actively monitored. On June 2, 2024, the sick cows tested positive for Influenza A(H5N1) at the National Veterinary Services Laboratory. During the monitoring period, on June 4, 2024, one employee reported conjunctivitis and a runny nose to the LHD representative. The LHD notified the Epidemiologist On-Call to coordinate testing at OLS and coordinated medical care including treatment with Oseltamivir. The LHD provided education to the symptomatic suspect case including to remain at home, away from others until testing determined if they were infected with Influenza A(H5N1) and to seek medical care if emergency warning signs develop. The LHD began contact tracing for the symptomatic suspected human case of Influenza A (H5N1). The case lives with their wife and has been around one other person at work. On June 6, 2024, the specimen tested Influenza A positive non-subtypable at OLS and was forwarded to CDC for further testing. On June 8, 2024, the CDC confirmed that the specimen tested positive for Influenza A(H5N1). The case's symptoms were resolved on June 10, 2024, and was released from isolation. All other contacts completed active monitoring, none developed illness, and they were released from monitoring when ten days passed from the last exposure.



RESOURCES

[Interim Recommendations for Prevention, Monitoring, and Public Health Investigations](#)

[Symptom Monitoring Among Persons Exposed to HPAI](#)

[Interim Guidance on the Use of Antiviral Medications for Treatment of Human Infections with Novel Influenza A Viruses Associated with Severe Human Disease](#)