



Missouri State Public Health Laboratory

Avian Influenza Information

Updated 6/2024

Instructions for the collection and submission of Avian Influenza A (H5N1) or Avian Influenza A (H7N9) specimens for testing at the Missouri State Public Health Laboratory:

The Missouri Department of Health State Public Health Laboratory (MSPHL) provides laboratory testing services for individuals suspected of infection with highly pathogenic avian influenza (H5N1) and avian influenza A (H7N9).

For general information on avian influenza, please refer to the CDC's "Information on Avian Influenza" website at: <http://www.cdc.gov/flu/avian/professional/han020302.htm>.

IMPORTANT: Consultation with the Bureau of Communicable Disease Control and Prevention (BCDCP) is required **prior** to specimen collection or submission. You may contact BCDCP at 573-751-6113 during business hours or 800-392-0272 (24/7).

After contacting BCDCP (see above) and receiving testing approval, the samples should be collected in the manner outlined below and placed in an appropriate biosafety shipping container. Collection and shipping materials are provided by the Missouri State Public Health Laboratory and are available upon request once approval for testing has been granted.

SPECIMEN COLLECTION

Detection of avian influenza is more likely when specimens are collected within the first 3 days of symptom onset. To maximize the potential for H5N1 or H7N9 virus detection, multiple specimens from different sites should be collected from the same patient and submitted for testing.

Recently, conjunctivitis has been associated with H5N1 human infection and the Centers for Disease Control and Prevention (CDC) strongly recommends that conjunctival swabs be collected **in addition to** respiratory swabs from all suspect individuals presenting with conjunctivitis and relevant exposure. **Conjunctival swabs should be collected using a nasopharyngeal swab (NP swab) in viral transport media (VTM).**

Once testing approval has been obtained from BCDCP, collect specimens as soon as possible after illness onset using the following criteria:

PROMOTING HEALTH AND SAFETY

The Missouri Department of Health and Senior Services' vision is optimal health and safety for all Missourians, in all communities, for life.

<p style="text-align: center;">For patients presenting with Conjunctivitis (regardless of respiratory symptoms), please <u>only</u> collect the following specimens:</p>	<p style="text-align: center;">Patients presenting with <u>only</u> respiratory symptoms should have <u>both</u> of the following specimens collected:</p>
<p>1. Nasopharyngeal swab (REQUIRED)</p> <ul style="list-style-type: none"> • Use only sterile Dacron, Nylon or flocked swabs with plastic shafts. • After collection, break off the end of each swab and place in individual, screw-capped vial of viral transport media (VTM) • Information on the specimen container must match the information on the test request form. Label each specimen container with the following: <ul style="list-style-type: none"> ○ Patient name ○ Specimen Type ○ Date of Birth ○ Collection Date • Refrigerate samples immediately after collection <p>2. Conjunctival swab (REQUIRED)</p> <ul style="list-style-type: none"> • Use the <u>exact</u> same swab type as nasopharyngeal swab (see above). • Collect Conjunctival swab: <ul style="list-style-type: none"> ○ Gently evert lower eyelid to expose conjunctival membrane ○ Rub swab gently across the conjunctival membrane, being careful to avoid the cornea ○ Immediately place swab into its own, individual screw-capped vial VTM ○ Break off the end of the swab and close container • Break off the end of the swab and place in individual, screw-capped vial of VTM • Information on the specimen container must match the information on the test request form. Label each specimen container with the following: <ul style="list-style-type: none"> ○ Patient name ○ Specimen Type ○ Date of Birth ○ Collection Date • Refrigerate samples immediately after collection 	<p>1. Nasopharyngeal swab (REQUIRED)</p> <ul style="list-style-type: none"> • Use only sterile Dacron, Nylon or flocked swabs with plastic shafts. • After collection, break off the end of each swab and place in individual, screw-capped vial of viral transport media (VTM) • Information on the specimen container must match the information on the test request form. Label each specimen container with the following: <ul style="list-style-type: none"> ○ Patient name ○ Specimen Type ○ Date of Birth ○ Collection Date • Refrigerate samples immediately after collection <p>2. Combined Oropharyngeal/Nasal swab (REQUIRED)</p> <ul style="list-style-type: none"> • Use only sterile Dacron, Nylon, or flocked swabs with plastic shafts. • Collect oropharyngeal swab by swabbing the posterior pharynx and tonsillar areas, avoiding the tongue. • Collect a nasal swab, being sure to swab both nostrils • Immediately place both swabs into the same screw-capped vial of viral transport media, breaking off the end of each swab to ensure proper closure of the specimen vial. • Information on the specimen container must match the information on the test request form. Label each specimen container with the following: <ul style="list-style-type: none"> ○ Patient name ○ Specimen Type ○ Date of Birth ○ Collection Date • Refrigerate samples immediately after collection

TEMPORARY STORAGE OF SPECIMENS

Specimens should be shipped to the Missouri State Public Health Laboratory as soon as possible.

- Store the specimen at refrigerator temperature (2-8°C) pending shipment and ship on frozen freezer packs.
- If specimens will not be received by the MSPHL within 72 hours of collection, they should be stored at -70°C and shipped on dry ice. Once a specimen has been frozen, it must remain frozen until it is tested at the MSPHL.

SPECIMEN SUBMISSION

- Complete a MSPHL Test Request Form (TRF) for each specimen using one of the following options:
 - Electronic submission using Lab Web Portal
 - Contact us for registration information
 - Manual (paper) Test Request Form
 - Available online at <https://health.mo.gov/lab/pdf/Virology.pdf>
- The TRF should include the following information at a MINIMUM:
 - In the “MOLECULAR (PCR)” section of the TRF, select the “Other (Specify)” box and write in “Avian Influenza” in the available text field
 - Select the specimen type in the “Specimen Information” section
 - Collection date
 - Patient first and last name
 - Patient DOB
 - Submitting facility name and contact information
 - Date of symptom onset
 - **Although not required, any additional patient demographic information that is available is helpful**
- Specimens should be shipped to the MSPHL within 72 hours of collection on freezer packs. If this is not possible, the specimen should be frozen and shipped to the MSPHL on dry ice. Specimens received beyond 72 hours of collection that are not frozen will be considered unsatisfactory for testing.

SHIPPING INSTRUCTIONS

The MSPHL will provide all shipping materials and cover shipping costs. Please contact the MSPHL to have collection kits sent to your facility.

****Please only use these collection kits for Avian Influenza specimens****

Specimens may be sent to the MSPHL via the MSPHL Courier System. If utilizing the MSPHL Courier, samples should be sent out **no later than** the Friday courier pickup each week.

[GIS map of courier drop off locations Monday-Friday](#)

[List of courier drop-off locations by county Monday-Friday](#)

[Sunday Courier Locations](#)

If you do not have access to the MSPHL Courier, samples may be sent via FedEx. If utilizing FedEx for sample submission, ensure they are sent by priority shipping for receipt within 24 hours and that they will not arrive in Jefferson City on Saturday, Sunday, or a holiday.

DO NOT SHIP CLINICAL SPECIMENS VIA UPS

Please send all specimens to this address:

Missouri State Public Health Laboratory

ATTN: Molecular Unit

101 North Chestnut Street

Jefferson City, MO 65102

Phone# 573-751-3334, Option 2

HAVE QUESTIONS OR NEED ASSISTANCE?

Melissa Markham

Laboratory Supervisor, Molecular Unit

Missouri State Public Health Laboratory

Missouri Department of Health and Senior Services

Melissa.Markham@health.mo.gov

Joshua Featherston

Unit Chief, Molecular Unit

Missouri State Public Health Laboratory

Missouri Department of Health and Senior Services

Joshua.Featherston@health.mo.gov