Missouri State Public Health Laboratory

MONKEYPOX TESTING INFORMATION

Updated 7/27/2022

INSTRUCTIONS FOR THE COLLECTION AND SUBMISSION OF SPECIMENS FOR MONKEYPOX TESTING TO THE MISSOURI STATE PUBLIC HEALTH LABORATORY:

Please contact the Missouri Department of Health and Senior Services’ (DHSS) Bureau of Communicable Disease Control and Prevention (BCDCP) at 573-751-6113 during business hours (or 800-392-0272 after hours) for consultation to determine if specimens should be collected.

I. Specimen Collection and Handling

Note: Only personnel wearing appropriate barrier protection (gloves, goggles or faceshield, gown, and face mask) should be involved in specimen collection for suspected cases of monkeypox.

After contacting BCDCP (see above) for approval to send in specimens for testing, 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 after approval for testing has been granted. See the following web site for more information on collection, packaging, and transportation of monkeypox specimens:

https://www.cdc.gov/poxvirus/monkeypox

Refrigerate (2–8°C) or freeze (-20°C or lower) specimens within an hour after collection. Store refrigerated specimens for up to 7 days and frozen specimens for up to 60 days. Refrigerated specimens should be sent within 7 days of collection; frozen specimens should be shipped within 60 days of collection on dry ice.

Note: Each patient’s lesions specimens must be packaged separately from other patient specimens to avoid Cross-contamination.
A. Choose One of the Following Sample Types for Specimen Collection:

1. Lesion Swab in Viral Transport Media (VTM)
   - Use only sterile Nylon, Polyester, or Dacron swabs with a plastic or aluminum shaft. Do not use other types of swabs
   - If skin atop the vesicle is intact, it may be necessary to gently lance and lift the lesion roof using a clean disposable scalpel, lancet, or plastic scraper.
   - Two swabs should be collected from multiple (a minimum of two) lesions, for a total of four swabs (two swabs per lesion).
   - Swab or brush each lesion vigorously with two separate sterile dry swabs
     - Visually confirm lesion material or fluid is on the swab
   - Break off the end of each swab and place in individual, screw-capped vial of VTM (UTM or MTM cannot be used)
   - Information on the specimen container must match the information on the test request form. Label each specimen container with the following:
     - Patient Name
     - Date of Birth
     - Collection Date
     - Lesion Location (e.g. right foot, abdomen, left thigh)
   - Refrigerate (2–8°C) or freeze (-20°C or lower) specimens within an hour of collection

2. Dry Lesion Swabs
   - Use only sterile Nylon, Polyester, or Dacron swabs with a plastic or aluminum shaft. Do not use other types of swabs
   - If skin atop the vesicle is intact, it may be necessary to gently lance and lift the lesion roof using a clean disposable scalpel, lancet, or plastic scraper.
   - Two swabs should be collected from multiple (a minimum of two) lesions, for a total of four swabs (two swabs per lesion).
   - Swab or brush each lesion vigorously with two separate sterile dry swabs
     - Visually confirm lesion material or fluid is on the swab
   - Break off the end of each swab and place in individual, screw-capped sterile tube (e.g. 15 mL conical tube or sterile urine cup) with an O-ring. If a tube with an O-ring is not available, please wrap the cap with Parafilm.
     - DO NOT ADD ANY VIRAL OR UNIVERSAL TRANSPORT MEDIA.
   - Information on the specimen container must match the information on the test request form. Label each specimen container with the following:
     - Patient Name
     - Date of Birth
     - Collection Date
     - Lesion Location (e.g. right foot, abdomen, left thigh)
   - Refrigerate (2–8°C) or freeze (-20°C or lower) specimens within an hour of collection
3. Lesion Crusts
   - Sanitize skin with alcohol wipe and allow to completely dry.
   - Open and remove the top of the lesion using a sterile scalpel or 26-gauge needle
   - Place the vesicle or pustule skin “roof” in a dry, sterile 1.5-2 mL screw-cap plastic vial with O-ring
   - Cap vial to maintain relative sterility and keep vial in as cool an environment as reasonable possible to preserve virus viability

II. SHIPPING INSTRUCTIONS
The Missouri State Public Health Laboratory (MSPHL) will supply a monkeypox collection kit which is suitable for the collection and transportation of monkeypox dry swab specimens. Specimens should be refrigerated (4°C) and shipped on cold packs (not wet ice). Samples that cannot be shipped immediately should be frozen at -20°C and then shipped on dry ice.

All specimens should be submitted with a completed Test Request Form to the MSPHL, along with a completed Poxvirus Human Specimen Submission Form. This will ensure proper documentation in the event that the specimen is forwarded to the Centers for Disease Control for confirmatory testing. Both forms can be downloaded on the MSPHL rash website: https://health.mo.gov/lab/rash.php

If mailers from the SPHL are not used, specimens should be packaged and shipped in a container suitable for the transportation of etiologic agents.

All shipments must comply with current DOT/IATA shipping regulations. The MSPHL provides courier services for the transportation of specimens to the laboratory. If the state courier is not used, specimens should be sent by priority shipping for receipt within 24 hours. The MSPHL shipping address is:

Missouri Dept. of Health and Senior Services
Missouri State Public Health Laboratory
Attention: Molecular Unit
101 N. Chestnut Street
Jefferson City, MO 65101