



Monitoring Guidance for Individuals Exposed to Monkeypox Virus

Purpose

This document guides public health officials in monitoring the temperature and symptoms of individuals that have been exposed to a probable or confirmed case of monkeypox, until 21 days after the last potential exposure.

Introduction

Monkeypox is a rare disease caused by the monkeypox virus, which belongs to the same genus (*Orthopoxvirus*) and family (*Poxviridae*) as the causative agents of smallpox, vaccinia, cowpox, and others. The incubation period for monkeypox is usually 7 to 14 days but can range from 5 to 21 days. The typical presentation of monkeypox begins with a prodrome of fever ($\geq 100.4^{\circ}\text{F}$ or 38°C), headache, muscle aches, backache, lymphadenopathy, chills, and exhaustion. Within 1 to 3 days (sometimes longer) after the appearance of fever, a rash develops. Typically, the rash begins on the face and spreads to other body parts. Lesions progress through the following stages before falling off: enanthem, macules, papules, vesicles, pustules, and scabs. The illness typically lasts for 2 to 4 weeks. The virus has been shown to cause death in as many as 1 in 10 persons. Currently, there are two recognized clades of the virus: Central African (Congo Basin) and West African. The Central African clade has historically caused more severe disease, higher mortality, and is thought to be more transmissible person-to-person.

Until now, monkeypox has spread chiefly from animals to humans. Although the animal reservoir is unknown, evidence of monkeypox infection has been found in many animals, including rope squirrels, tree squirrels, Gambian poached rats, dormice, prairie dogs, monkeys, and others. Human-to-human transmission can also spread the virus. This transmission occurs primarily through direct contact with infectious sores, scabs, respiratory droplets, mucous secretions, or contact with contaminated materials such as bedding. In addition, monkeypox can spread through various types of close intimate contact between people, including sharing linens, wrestling, kissing, touching, hugging, or sex. It is unknown if monkeypox is spread directly through seminal or vaginal fluids. The patient is no longer considered infectious once scabs fall off and new skin appears.

Monitoring

Monitoring individuals that have been exposed to monkeypox for fever and symptoms helps ensure that a potentially exposed individual who becomes ill is identified as soon as possible after symptom onset so that they can be rapidly isolated and evaluated.

Notification Process

Three general mechanisms can trigger a monitoring notification: notification of an exposed traveler, transfer of a person under monitoring (PUM) from another state, or identification of an individual that was potentially exposed to monkeypox virus (e.g., exposed to a probable or confirmed case, infected animal, or other exposure). Notifications of contacts during travel or for transfer of a PUM between states may be communicated via the Centers for Disease Control and Prevention (CDC) secure targeted communication applications Epidemic Information Exchange (Epi-X) or the Division of Global Migration and Quarantine and Border Health Services (DGMQ QBHS) Synapse. Information received via either of these applications will be forwarded to the appropriate Public Health Region (PHR) from the Emerging and Acute Infectious Disease Unit (EAIDU) for dissemination to the pertinent Local Health Department (LHD).



If a case of monkeypox is identified in Texas, the LHD or PHR will immediately begin identifying those exposed to the virus and, as appropriate, implement monitoring for signs and symptoms. The LHD/PHR should immediately notify EAIDU by emailing the EAIDUMonitoring@dshs.texas.gov. EAIDU will provide this monitoring guidance, the Monkeypox Exposure Risk Assessment Form, the Monkeypox Symptom Monitoring Log, and the Monkeypox Daily Monitoring Log for each notification received.

Exposure Risk Assessment

The Exposure Risk Assessment Form is used to interview the exposed individual and assign the appropriate risk category. The form is a structured questionnaire that guides the interviewer through collecting a history of potential sources of exposure and should be completed as soon as possible upon identification. Although there is no difference in how PUMs are monitored, the identified level of risk will impact the level of recommended postexposure prophylaxis and any restrictions on movement or travel.

There are four exposure risk categories:

- High-risk
- Intermediate risk
- Low/Uncertain risk
- No risk

High-risk exposure characteristics include:

- Unprotected contact between a person's skin or mucous membranes and the skin, lesions, or body fluids from a patient or contaminated materials
- Being inside a patient's room or within 6 feet of a patient during any procedure(s) that may create aerosols (e.g., from oral secretions, skin lesions, or resuspension of dried exudates) without wearing an N95 or equivalent respirator (or higher) and eye protection
- Exposure that, at the discretion of public health authorities, was recategorized as high-risk because of unique circumstances

Examples of high-risk exposures can include, but are not limited to:

- Any sexual contact, cuddling, or wrestling
- Direct contact with shared items soiled by the patient (e.g., linens, furniture, or toys)
- Inadvertent splashes of patient saliva to the eyes or oral cavity
- Ungloved contact with a patient
- Intubation of a monkeypox patient when not wearing an N95 respirator and eye protection

Intermediate risk exposures characteristics include:

- Being within 6 feet for ≥ 3 hours of an unmasked patient without wearing, at minimum, a surgical mask
- Activities resulting in contact between sleeves and other parts of an individual's clothing and the patient's skin lesions, body fluids, or soiled linens or dressings while wearing gloves but not a gown
- Exposure that, at the discretion of public health authorities, was recategorized as intermediate risk because of unique circumstances

Examples of intermediate risk exposures can include, but are not limited to:

- Assisting with turning, bathing, or transferring a patient while wearing gloves but not a gown



- Sitting on a plane within 6 feet of a case for a flight \geq 3 hours without a mask

Low/Uncertain risk exposures characteristics include:

- Entering a patient's room without wearing eye protection on one or more occasions, regardless of duration of the exposure
- Wearing a gown, gloves, eye protection, and (at a minimum) a surgical mask, during all entries into the patient care area or room (except for during any aerosol-producing procedures that would result in a high-risk exposure, where an N95 or higher should have been worn)
- Being within 6 feet of an unmasked patient for $<$ 3 hours without wearing (at minimum) a surgical mask
- Exposure(s) that, at the discretion of public health authorities, was recategorized as low/uncertain risk because of unique circumstances

Examples of low/uncertain risk exposures can include, but are not limited to:

- Failure to wear at least a surgical mask during all patient encounters
- Sitting bedside with a patient without a mask for less than three hours
- Sitting on a plane within 6 feet of a case for a flight less than 3 hours without a mask

No risk exposures characteristics include:

- Exposure(s) that public health authorities deemed did not meet criteria for other risk categories

Monitoring Instructions

For **all contacts**:

- Contact the individual within 24 hours of identification or notification.
- Ensure the individual possesses a reliable thermometer that can be used to take the individual's temperature.
- Record the individual's temperature reading and any symptoms on the individual's Monkeypox Symptom Monitoring Log.
- Interview the individual using the Monkeypox Exposure Risk Assessment Form to identify potential exposures and assign the appropriate risk category.
 - Send the completed Monkeypox Exposure Risk Assessment Form to EAIDU by 10AM the following morning (including weekends).
 - EAIDU will review all Monkeypox Exposure Risk Assessment Forms and ensure that the resulting risk level is appropriate.
- Ensure HIPAA-approved platforms are used if conducting visual meetings for monitoring checks (visual monitoring is not required).

Any PUMs categorized as **high-risk and intermediate risk** will require active monitoring.

- Arrange for twice daily contact (texts, phone, in-person, or video phone call or conferencing- this does not need to be visual) for temperature and symptom checks at least 6 hours apart.
 - Record observations on the PUM's Monkeypox Symptom Monitoring Log.
 - Throughout the 21-day monitoring period, instruct the PUM to immediately contact their PHR/LHD if they develop a fever (\geq 100.4°F or 38°C) or any other monkeypox-compatible symptoms as detailed below.
- Send the Daily Monitoring Log to EAIDUMonitoring@dshs.texas.gov by 10AM the following morning, 7 days/week until the jurisdiction is no longer monitoring any travelers.



- Send the traveler's completed Monkeypox Symptom Monitoring Log to EAIDUMonitoring@dshs.texas.gov the day after the 21-day monitoring period is completed.

PUMs assigned to the **low/uncertain risk** category will require self-monitoring.

- Instruct the PUM to check their temperature with a thermometer twice daily (at least 6 hours apart) and self-monitor their symptoms for 21 days following their last exposure.
- Throughout the 21-day monitoring period, instruct the PUM to immediately contact their PHR/LHD if they develop a fever ($\geq 100.4^{\circ}\text{F}$ or 38°C) or any other monkeypox-compatible symptoms as detailed below.
- Record observations on the PUM's Monkeypox Symptom Monitoring Log on the day that the PUM was initially contacted.
- Arrange to make contact on the final day of monitoring and record the final day's observations on the PUM's Monkeypox Symptom Monitoring Log.
- Send the PUM's Monkeypox Symptom Monitoring Log to EAIDUMonitoring@dshs.texas.gov the day after monitoring is complete.

Further monitoring of **no risk** PUMs is not required.

For **healthcare worker (HCW)** PUMs:

- HCWs must be alert to the development of symptoms that suggest monkeypox infection while caring for a monkeypox patient, especially within the 21-day period after the last date of care for the patient.
- HCWs must notify their infection control and/or occupational health program and their LHD should monkeypox-compatible symptoms develop.
- If a HCW experiences a **high-risk** exposure, HCWs do not need to be excluded from work, but must undergo active monitoring for signs and symptoms as indicated above. Prior to reporting to work each day, HCWs should be interviewed regarding evidence of fever or rash. At the discretion of the LHD, this active monitoring may be conducted by the HCW's infection control practitioner or occupational health program and reported to the LHD.
- HCWs who have cared for or otherwise been in direct or indirect contact with monkeypox patients and are assigned to the **intermediate or low/uncertain risk** exposure category, may self-monitor for fever and symptoms. LHDs should record fever and symptom observations on the initial day of contact and the final day of monitoring as detailed above.

Monitoring Safety Precautions

Though direct active monitoring is not required for any risk level, public health personnel conducting in-person checks should observe basic precautions to protect themselves from exposure to a symptomatic individual. Whenever meeting a PUM in-person:

- Avoid physical contact with the individual.
 - Do not shake hands.
 - Do not handle anything from the individual. Ensure you bring your own pen/pencil and notepad/forms.
 - Do not handle the individual's thermometer. Have the individual hold the thermometer or have it placed on a table in a place you can read the temperature.
- Maintain at least 6 feet of distance from the individual.



Restrictions

Contacts who remain asymptomatic are permitted to continue routine daily activities, such as going to work or school. Contacts must not donate blood, cells, tissues, breast milk, semen, or organs during the 21-day monitoring period.

Movement for those in the **high-risk** category is restricted. PUMs in this category are permitted to perform routine activities (e.g., attend school, go to work, and go grocery shopping). However, PUMs in the high-risk category should avoid:

- Long-distance travel.
- Using public transportation (e.g., ridesharing, taxis, buses, rail, cruise ships, and commercial aircraft).
- Large congregate settings (e.g., public sporting events, malls, theaters, and concerts).
- Visits from family, friends, and others that are unnecessary.

If the PUM must relocate, they must notify the LHD/PHR before traveling. The LHD/PHR will:

- Notify EAIDU of pending plans.
- Ensure that appropriate transportation is arranged.

EAIDU will coordinate transfer with the receiving LHD/PHR, as appropriate. For out of state travelers, EAIDU will coordinate with the relocation state and notify the CDC's Division of Global Migration and Quarantine (DGMQ). Permanent relocations will be reassigned to the new jurisdiction.

For **high-risk** exposures, LHDs may consider requesting a Do Not Board order with DGMQ if there is reasonable belief that the PUM will not adhere to travel restrictions. The LHD should coordinate such requests with the PHR and EAIDU.

Generally, there are no movement restrictions for **intermediate risk** PUMs. If necessary, movement restrictions for PUMs classified in the intermediate risk category can be evaluated on a case-by-case basis.

There are no movement restrictions for PUMs assigned to the **low/uncertain and no risk** categories.

Although travel is not restricted for PUMs assigned to the intermediate and low/uncertain risk categories, all travel plans should be reported to the LHD. If necessary, EAIDU will notify the receiving jurisdiction of any temporary or permanent relocations. Permanent relocations will be reassigned to the new jurisdiction.

Development of Signs or Symptoms that are Monkeypox-compatible

PUMs should be actively monitoring themselves for development of fever or symptoms.

- If fever or rash develop, the PUM should immediately self-isolate and contact the LHD.
- If only chills or lymphadenopathy develop, the PUM should self-isolate for 24 hours.
 - If fever or rash develops during this period, notify the LHD immediately.
 - If rash or fever does not develop, the PUM should be evaluated by a clinician. If the clinician suspects monkeypox, he or she should immediately notify the LHD. The LHD should notify the PHR and EAIDU immediately if a PUM has developed any monkeypox-compatible symptoms and request that testing be approved.



Inability to Reach a PUM

For the initial contact of a PUM following notification, jurisdictions should try the additional steps below if unable to reach the traveler:

- Make at least 3 attempts to call the individual on both their primary and secondary telephone numbers (if available). Attempts should be made at different times of the day, with at least one attempt during the evening or weekend hours.
- Send a text and e-mail to the individual with instructions to contact you as soon as practical.
- Attempt to contact the individual's emergency contact(s), if available.
- If the individual cannot be reached by phone, text, or e-mail, an in-person visit can be made (if resources are available; this is not mandatory).
 - If an in-person visit is made and the individual is not present, a notice of your visit (with your contact information) and education materials should be left at the residence.
- If an individual remains uncontactable, notify EAIDU to discuss next steps.

If a PUM cannot be reached after making initial (successful) contact, follow the procedures below:

- If a day goes by without reaching a PUM:
 - Make at least 3 attempts to call the individual on both their primary and secondary telephone numbers (if available). Attempts should be made at different times of the day, with at least one attempt during the evening or weekend hours.
 - Send a text and email to the individual with instructions to contact you as soon as practical.
 - Attempt to contact the individual's emergency contact(s), if available.
 - For **high-risk** PUMs, visit the individual's residence in-person. Leave a notice of the visit if the individual is not present.
 - An in-person visit is not required for intermediate, low/uncertain, and no risk.
- After three successive days of failing to contact **high-risk and intermediate risk** PUMs, coordinate a welfare check with your jurisdiction's local law enforcement agency.
 - Ensure the law enforcement agency is notified of the nature of the welfare check (possible involvement with monkeypox) so that the proper safety precautions can be exercised.
 - Law enforcement officers should use the same personal protective measures as personnel conducting in-person checks: avoid making physical contact with the traveler and maintain at least 6 feet of distance from the individual.
- If a PUM remains uncontactable:
 - Maintain the scheduled monitoring calls to attempt to reach the PUM.
 - Contact EAIDU to discuss next steps.

Postexposure Prophylaxis Recommendations

Accurate determination of exposure risk is also critical in determining whether or not postexposure prophylaxis (PEP) is warranted. PEP includes vaccination with either the JYNNEOS or ACAM2000 vaccines. PEP is recommended to occur within the first 4 days of exposure to potentially prevent disease. Vaccination given between 4 to 14 days after exposure may not prevent disease but may reduce the severity of symptoms.

- PEP is recommended for all high-risk exposures. In these cases, the risk of exposure outweighs the risk of vaccination.



- PEP may be recommended for intermediate risk exposures. Decision to provide PEP will be made on a case-by-case basis.

Requests for PEP should be made through the EAIDU as soon as practical. Requests can be emailed to EAIDUMonitoring@dshs.texas.gov or called in to the EAIDU on-call phone. EAIDU will coordinate a consultation with the CDC, Region, LHD, and patient’s physician.

Table. Overview of Public Health Actions According to Risk Categorization

Exposure Category	Monitoring	Restrictions	Postexposure Prophylaxis Recommendation
High-risk	Active	Long-distance travel	Recommended
		Public transportation	
		Large congregate settings	
		Unnecessary visitors	
Intermediate risk	Active*	None	Case-by-case basis
Low/Uncertain risk	Self-monitoring	None	Not recommended
No risk	None	None	Not recommended

*HCWs categorized in the intermediate risk category can self-monitor for fever and symptoms