

TIP No. 13-036-0622

Monkeypox Frequently Asked Questions for Clinicians

1. What is monkeypox and why is it a concern to the U.S.?

Monkeypox is a rare infectious zoonotic disease caused by the monkeypox virus, which is in the *Orthopoxvirus* genus that also includes the variola virus (which causes smallpox), vaccinia virus (used in the smallpox vaccine), and cowpox virus. It was first identified as a pox-like disease in monkeys kept for research, hence the name “monkeypox.” Known primarily for its characteristic rash of hard pustules that scab over, the average incubation period for symptom onset is 5–13 days. Case fatality for monkeypox is reported to range between 1% and 11%.

Monkeypox is most common in countries of Africa where it is endemic and observed in children as well as adults. It is not endemic to the U.S. or many other developed countries. However, there have been contained outbreaks over the years where small numbers of cases have occurred in countries that do not normally experience the disease. In the U.S., outbreak cases have been attributed to travel abroad (2021) and exposures to infected imported mammals (2003).

Source: <https://www.cdc.gov/poxvirus/monkeypox/outbreak/us-outbreaks.html>

Currently, the Centers for Disease Control and Prevention (CDC) tracks outbreak cases in several countries in Europe and Australia, as well as the U.S. The CDC issued a Health Advisory on 20 May 2022 after a monkeypox case was confirmed in Massachusetts.

Source: <https://emergency.cdc.gov/han/2022/han00466.asp>

It is not clear how people in the most recent outbreak were exposed to monkeypox, but early data suggest that gay, bisexual, and other men who have sex with men make up a high number of cases. Traveling to a country where monkeypox is endemic, like Nigeria, is also identified as a risk factor. However, anyone who has been in close contact with someone who has monkeypox is at risk.

The CDC advises all clinicians to be on the alert for this disease. The CDC held a Clinician Outreach and Communication Activity (COCA) call in May 2022. Clinicians are encouraged to view the “What Clinicians Need to Know about Monkeypox” slide deck at: https://emergency.cdc.gov/coca/calls/2022/callinfo_052422.asp.

2. Are there cases in the U.S. military?

The U.S. military identified one confirmed case and one potential case as of 10 June 2022. All Department of Defense providers should be alerted and follow the CDC’s guidance and report cases.

****NOTE TO MILITARY CLINICIANS****

Cases meeting the CDC monkeypox case definition must be reported in **Disease Reporting System internet (DRSi)** under the medical event "Any other unusual condition not listed."

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3. What should prompt clinical suspicion for monkeypox infection?

Clinicians should be alert to patients presenting with a new characteristic rash. Especially people reporting travel history to a country where monkeypox has been identified within a month before illness onset, people reporting contact with people who have a similar rash or have received a diagnosis of suspected or confirmed monkeypox, or men who report sexual contact with other men and who present with lesions in the genital/perianal area.

- The monkeypox rash involves vesicles or pustules that are deep-seated, firm or hard, and well-circumscribed. Lesions can occur on the palms and soles or be generalized affecting other areas; they may umbilicate or become confluent and progress over time to scabs. Presenting symptoms typically include fever, chills, the distinctive rash, or new lymphadenopathy; however, onset of perianal or genital lesions in the absence of fever has been reported in the recent cases.
- The rash associated with monkeypox can be confused with other rashes encountered in clinical practice including herpes, syphilis, and varicella. Patients co-infected with monkeypox virus and other infectious agents (e.g., varicella zoster, herpes, syphilis) have been reported. Clinicians should therefore have monkeypox on their differential diagnosis when presented with an associated sexually transmitted infection (STI) or STI-like rash, even if it is localized and not (yet) diffuse.

Source: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html>

4. What if I diagnose my patient with another infection (e.g., a sexually transmitted infection)? Can I assume that the patient does not have monkeypox?

The cases of monkeypox described in the current outbreak have some atypical features. The rash may start in the genital and perianal areas; the rash may not always disseminate to other parts of the body and typical prodromal symptoms may be mild or absent. These features of the newest monkeypox cases can easily be confused with STIs. It is important to comprehensively evaluate patients presenting with genital or perianal ulcers for STIs.

However, co-infections with monkeypox and STIs have been reported and the presence of an STI does not rule out monkeypox. Patients with a new characteristic rash or who meet one or more of the epidemiologic criteria, and if there is a high suspicion, should be tested for monkeypox.

5. What should I tell patients while their *orthopoxvirus* or monkeypox test result is pending?

Instruct patients with suspected monkeypox infection to isolate themselves and avoid close contact with other people and animals, including pets. Patients who do not require hospitalization, but who are potentially infectious to others, should be isolated at home.

6. What should I do if I suspect my patient has been exposed to monkeypox?

Clinicians should first consult their state health department or military treatment facility (MTF) public health department as soon as a monkeypox exposure is suspected. A risk assessment will need to be conducted to determine if post-exposure medication or vaccination is recommended. Unique circumstances (e.g., immunocompromised) can be factored into the risk determination, but these decisions should be made on a case-by-case basis.

Clinicians should advise the patient to isolate at home while diagnosis is being confirmed.

Patients who have been exposed to monkeypox, even if they do not have symptoms, may be eligible for post-exposure vaccination.

After exposure, the patient should be educated about the clinical presentations of monkeypox infection, and instructed to contact their physician if they exhibit any of these clinical signs and symptoms as soon as possible.

******FOR MILITARY SETTINGS******

Recommendations for unit-wide vaccinations are not anticipated; however, there may be case-by-case determinations where personnel in close quarters are deemed exposed.

7. What should I do if I suspect my patient has monkeypox?

Clinicians should first isolate their patient in a single-person room, if available, and immediately consult their state health department, local MTF public health department, or CDC through the Emergency Operations Center (770-488-7100) as soon as monkeypox is suspected. Prompt notification is important to facilitate testing and exposure risk assessments for close contacts. For the patient or close contacts, consider available medications and vaccinations.

******FOR MILITARY SETTINGS******

Immediately alert your local MTF public health department. This is required to ensure testing and exposure risk assessments for close contacts. For the patient or close contacts, consider available medications and vaccinations.

8. How should I counsel a patient with suspect or confirmed monkeypox on the expected course of illness?

Monkeypox disease is characterized by an incubation period, prodrome, and rash.

Incubation Period: Infection with monkeypox virus begins with an incubation period where the person does not have symptoms and may feel fine. The incubation period generally lasts

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5-13 days but can range 4-17 days. A person is **not contagious** during this period. Physicians are advised to monitor patients up to 21 days.

Prodrome: People with monkeypox infection may develop an early set of symptoms (prodrome). These symptoms may include fever, malaise, headache, sore throat, or cough, and (in many cases) swollen lymph nodes. Lymphadenopathy is a characteristic feature of monkeypox (not with smallpox); lymph nodes may swell in the neck (submandibular and cervical), armpits (axillary), or groin (inguinal) and can occur on both sides of the body or just one. A person **may be contagious** during this period. Instruct patients to isolate if they develop symptoms.

Rash: In some recent monkeypox cases, people have presented a rash without a recognized prodrome. Many of the recent cases have only had localized lesions and have not presented with diffuse rash often seen in figures. People with monkeypox infection develop lesions that typically progress from papules, macules, vesicles, pustules, and then scabs. A person is **contagious** until after **all** the scabs on the skin have fallen off and a fresh layer of intact skin has formed underneath. Decisions regarding discontinuation of isolation precautions at a healthcare facility and at home should be made in consultation with the local or state health department or local MTF public health department.

9. How is monkeypox transmitted?

Monkeypox is transmitted by symptomatic individuals through close contact with lesions, bodily fluids, or respiratory secretions and objects that have had contact with lesion crusts or bodily fluids (e.g., contaminated linens, bandages, dishes).

10. How long does my patient need to isolate?

For patients with monkeypox, isolation precautions should be continued until cleared by public health officials after all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed. This could take up to 2-4 weeks from the beginning of prodrome. Decisions regarding discontinuation of isolation precautions at a healthcare facility and at home should be made in consultation with the local or state health department or local MTF public health department.

11. When a patient is isolating in their home, what should they do?

Patients should isolate until all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.

People with monkeypox should adhere to these recommendations until cleared by public health:

1. Do not leave home except as required for emergencies or follow-up medical care.
2. Persons without an essential need to be in the home should not visit.
3. Avoid close contact with others.
4. Avoid close contact with pets in the home.
5. Abstain from all sexual activity.
6. Do not share items that could be contaminated by the lesions (e.g., bed linens, clothing, towels, wash cloths). Do not share drinking glasses or eating utensils.

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7. Routinely clean and disinfect commonly touched surfaces and items (e.g., counters, light switches) using an EPA registered disinfectant (e.g., List N or List Q) according to the manufacturer's instructions.
8. Wear a well-fitting mask or respirator when in close contact with others at home.
9. Avoid use of contact lenses to prevent inadvertent infection of the eye.
10. Avoid shaving areas of the body with lesions as this can spread the virus.

Bathroom usage:

1. If possible, use a separate bathroom if others live in the same household.
2. If there is not a separate bathroom in the home, the patient should clean and disinfect surfaces (e.g., counters, toilet seats, faucets) using an EPA-registered household cleaning product (List N or List Q) after using a shared space if the lesions are exposed (e.g., showering, toileting, changing bandages covering the lesions). Consider disposable glove use while cleaning if lesions are present on the hands.
3. Please refer to CDC's Home Infection Control page at:
<https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-home.html>.

Limit exposure to others:

1. Avoid contact with unaffected individuals until lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed.
2. Isolate in a room or area separate from other household members and pets when possible.

Limit use of spaces, items, and food that are shared with other household members:

1. Do not share dishes and other eating utensils. It is not necessary for the infected person to use separate utensils if properly washed. Wash soiled dishes and eating utensils in a dishwasher or by hand with warm water and soap.

Limit contamination within household:

1. Avoid direct contact with upholstered furniture and porous materials that cannot be laundered by placing coversheets, waterproof mattress covers, blankets, or tarps over these surfaces. Additional precautions such as steam cleaning can be considered if there is concern about contamination.

12. Are any people at increased risk for severe monkeypox disease?

Young children (<8 years of age), individuals who are pregnant or immunocompromised, and individuals with history of atopic dermatitis or eczema may be at an increased risk for severe outcomes from monkeypox disease. Living or traveling to endemic countries and male intimate contact with other men of unknown exposure history are also risk factors for acquiring the disease.

13. How can patients minimize risk of transmission to others?

Hand hygiene (e.g., use of an alcohol-based hand rub or hand washing with soap and water) should be performed by infected persons and household contacts after touching lesion material, clothing, linens, or environmental surfaces that may have had contact with lesion material.

Persons with monkeypox should wear a well-fitting mask or respirator, especially those who have respiratory symptoms (e.g., cough, shortness of breath, sore throat) or significant oral lesions, if close contact with others cannot be avoided (e.g., when obtaining medical care). Other household members should wear a well-fitting mask or respirator when in the presence of the person with monkeypox.

Changing bandages and handling of contaminated linens should be performed by the person with monkeypox while wearing disposable gloves. Hand hygiene should be performed immediately following removal of gloves.

As a last resort, if assistance is needed with these activities, a household member should avoid extensive contact and, at a minimum, wear disposable medical gloves and a well-fitting mask or respirator. Any clothing that contacts the lesions during dressing changes should be immediately laundered. Gloves should be disposed of after use and hand hygiene performed.

Cover skin lesions to the best extent possible (e.g., long sleeves, long pants). Gloves can be considered for covering lesions on the hands when not in isolation (e.g., emergencies, medical care).

Contain and dispose of contaminated waste (e.g., dressings, bandages, gloves).

14. How can patients help the public health response against the monkeypox outbreak?

Patients should seek prompt medical care as soon as they experience signs or symptoms associated with monkeypox or believe they were exposed to a monkeypox infection.

It is important that patients inform their physician and health department officials of other individuals who may have been exposed to monkeypox by the patient (i.e., contacts), so that the public health department can talk to them and, if needed, to seek medical care. Identifying potential contacts will help them receive the proper treatments and protect others in the community from being infected by monkeypox.

15. How should people who have monkeypox clean and disinfect their home?

The CDC provides general guidance on cleaning and disinfecting non-healthcare settings (e.g., homes, cars) where an individual with monkeypox has spent significant time.

Source: <https://www.cdc.gov/poxvirus/monkeypox/pdf/Monkeypox-Interim-Guidance-for-Household-Disinfection-508.pdf>

16. Should patients be concerned about their pets?

People with monkeypox should avoid contact with animals (specifically mammals), including pets.

1. If possible, friends or family members should care for healthy animals until the owner has fully recovered.
2. Keep any potentially infectious bandages, textiles (e.g., clothes, bedding) and other items away from pets, other domestic animals, and wildlife.
3. There is currently no evidence that animals, apart from mammals, can become infected and transmit monkeypox.

If you notice an animal that had contact with an infected person appearing sick (e.g., lethargy, lack of appetite, coughing, bloating, nasal or ocular secretions or crust, fever, pox lesions) contact the owner’s veterinarian, state public health veterinarian, or state animal health official.

17. Do patients need to wear condoms if they have recovered from a monkeypox infection?

Safe sex, barrier practices (i.e., wearing condoms) are recommended, but there is little data to support the length of time patients need to wear condoms. Some other countries are recommending a minimum of 8 weeks, but there is still much to learn about this virus in the context of transmission through sexual contact. As public health experts learn more about monkeypox transmission, this guidance will be updated.

18. What vaccines are available to prevent monkeypox?

JYNNEOS (also known as Imvamune or Imvanex) and ACAM2000 are the two currently licensed vaccines in the United States to prevent smallpox. These vaccines are available from the U.S. Strategic National Stockpile (SNS). JYNNEOS is also licensed specifically to prevent monkeypox. Both JYNNEOS and ACAM2000 can be used before and after exposure to monkeypox in an outbreak setting. Historically, those who receive pre-exposure vaccination include laboratorians and other personnel who work with monkeypox and other orthopoxviruses. Contraindication for vaccines due to side effects/ adverse effects should be considered. Clinicians are encouraged to view the “What Clinicians Need to Know about Monkeypox” slide deck at: https://emergency.cdc.gov/coca/calls/2022/callinfo_052422.asp

Persons exposed to monkeypox virus and who have not received the smallpox vaccine within the last 3 years, should consider getting vaccinated.

******FOR MILITARY SETTINGS******

Many Service members and Veterans have previously received a smallpox vaccine.

19. Can patients who are pregnant or breastfeeding be vaccinated?

Clinicians considering vaccinating patients who are pregnant or breastfeeding should consult public health authorities. As human data is lacking, healthcare providers should discuss the risk and benefits with the patient using shared decision making.

20. What medications can be given to treat monkeypox?

Currently there is no treatment specifically approved for monkeypox virus infections. Antivirals developed for use in patients with smallpox may prove beneficial. See clinical guidance CDC's Interim Clinical Guidance for the Treatment of Monkeypox for additional details at:

<https://www.cdc.gov/poxvirus/monkeypox/treatment.html>

Go to the CDC monkeypox website for additional information:

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/index.html>

FAQs adapted from CDC website: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/faq.html>
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