

Identify, Isolate and Inform:

What You Need to Know About Recent Cases of Monkeypox in the United States

Monkeypox is a zoonotic disease in the orthopoxvirus genus first isolated from macaques in 1958. The virus does not have an identified natural reservoir species, but evidence suggests rodents are the most likely. Animal-to-human transmission results from contact with bodily fluids or mucosal lesions on infected animals.

Human-to-human transmission occurs primarily through direct contact with infected lesions or fluids or contact with contaminated materials like clothing or bedding. It also can be spread by respiratory droplets during prolonged face-to-face contact. Monkeypox has an average incubation period of 6 to 13 days, with a range of 5 to 21 days.

Although a disproportionate number of cases in the [recent monkeypox outbreak](#) have appeared among gay and bisexual men, anyone can be affected regardless of sexual orientation. While evidence to date in the current outbreak has not identified a new mechanism of infection unique to sexual transmission, it appears that monkeypox can be transmitted through prolonged physical contact, including intimate sexual contact.

IDSA urges clinicians to follow the “Identify, Isolate and Inform” strategy to help stop the spread of the virus.

IDENTIFY

Clinical symptoms of monkeypox include fever, myalgia, lymphadenopathy and rash. Lymphadenopathy is a feature that may distinguish monkeypox from smallpox. In nearly all patients, the rash usually appears 1 to 3 days after initial onset of fever and tends to be concentrated on the face and extremities, including hands and feet. In the most recent outbreak, many patients have been found to have lesions in the perineal and genital regions.

Of note, the skin eruptions are all at the same stage of development at a given time, unlike chickenpox (varicella virus), which has vesicular lesions that erupt at different stages. The monkeypox rash involves vesicles or pustules that are deep-seated, firm or hard, and well-circumscribed; the lesions may umbilicate or become confluent and progress over time to scabs.

People who have had close contact with an infected person are most at risk. Anyone can develop monkeypox. The infectious period begins when the rash and lesions are present on the body.

Case fatality for monkeypox ranges between 1% to 10%; it is higher in infections with the more virulent strain from Central Africa and lower with less virulent strains from West Africa (which are the strains identified in the current U.S. outbreak thus far).

CDC Case Definitions

Epidemiologic Criteria:

Within 21 days of illness onset:

- Reports having contact with a person or people with a similar appearing rash or who received a diagnosis of confirmed or probable monkeypox **OR**
- Had close or intimate in-person contact with individuals in a social network experiencing monkeypox activity, this includes men who have sex with men (MSM) who meet partners through an online website, app, or social event **OR**
- Traveled outside the US to a country with confirmed cases of monkeypox or where monkeypox is endemic **OR**
- Had contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals

Exclusion Criteria

An alternative diagnosis can fully explain the illness **OR**

An individual with symptoms consistent with monkeypox but who does not develop a rash within 5 days of illness onset **OR**

A case where specimens do not demonstrate the presence of orthopoxvirus or monkeypox virus or antibodies to orthopoxvirus

Possible Case: Meets one of the epidemiologic criteria AND has fever or new rash AND at least one other sign or symptom onset < 21 days after last exposure meeting epidemiologic criteria.

Probable Case: Meets one of the epidemiologic criteria AND has new rash with or without fever AND at least one other sign or symptom onset <21 days after last exposure meeting epidemiologic criteria AND demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4 to 56 days after rash onset.

Person Under Investigation: Persons under investigation are individuals who are suspected of having monkeypox based on clinical presentation and/or epidemiologic links reported as suspicious but have not been tested in a Laboratory Response Network laboratory. This includes cases that health departments have been consulted on because of clinician concern.

ISOLATE

Personal protective equipment for health care workers caring for a patient with suspected or confirmed monkeypox should include gown, gloves, eye protection (e.g., goggles or face shield) and a NIOSH-approved N95 face mask or higher-level respirator. Patients should be placed in a single-person room with a dedicated bathroom and should wear a well-fitting medical mask if transported outside their room. An airborne infection isolation room may be used if available but special air handling is not required. See [CDC: Infection Prevention and Control of Monkeypox in Healthcare Settings](#).

INFORM

CDC is urging health care providers in the U.S. to be alert for patients who have rash illnesses [consistent with monkeypox](#), regardless of whether they have travel or specific risk factors for monkeypox. Some patients have presented with only a few localized lesions in the genital area that may be mistaken for syphilis or another sexually transmitted infection.

Clinicians should contact their state health department or CDC (through the CDC Emergency Operations Center: 770-488-7100) as soon as monkeypox is suspected. All specimens should be sent through the state/territorial public health department, unless authorized to send directly to CDC. If monkeypox is confirmed, health departments can order medical countermeasures (antivirals and vaccine) from the Strategic National Stockpile upon receipt of a positive orthopoxvirus test.

- Tecovirimat (TPOXX) and cidofovir (Vistide) are two antivirals available for the treatment of orthopoxviruses (including monkeypox) in an outbreak under CDC Expanded Access Investigational New Drug Protocol status.
- Vaccines ACAM200 and JYNNEOS (also known as Imvamune or Imvanex) have been shown to be effective for post-exposure prophylaxis.

What Health Departments Can Do to Help Clinicians and the Public

Health departments can raise awareness of the current outbreak and remind health care providers that a suspected case should be reported to their local health department promptly. They can also help with medical countermeasures and assist clinicians in obtaining antiviral or vaccine therapy.

As noted above, health departments can order medical countermeasures from the Strategic National Stockpile upon receipt of a positive orthopoxvirus test. Vaccines ACAM200 and JYNNEOS (also known as Imvamune or Imvanex) have been shown to be effective for post-exposure prophylaxis.

- If monkeypox is suspected, health department personnel should consult their state health department or the CDC Emergency Operations Center (770-488-7100).

- Appropriately collected samples can be sent to CDC or an appropriate LRN laboratory for testing by PCR.
- LRN laboratories are able to provide orthopoxvirus testing on lesion specimens that clinicians obtain from suspected patients; confirmatory monkeypox virus-specific testing at CDC requires a dry lesion swab specimen.
- Guidelines for appropriate specimen collection are [available from CDC](#).

For More Information

More information about the ongoing outbreak investigation and guidelines for prevention and response are available from CDC:

<https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html>