What is monkeypox?

Monkeypox is a rare infection that is part of the orthopoxvirus family, which has some genetic similarities to smallpox. In 1970, the first human case of monkeypox was recorded.

What experts are saying about monkeypox

Prior to May 2022, monkeypox infections occurring in people living in countries outside of Africa were associated with travel to places with circulating virus or with exposure to infected animals. Now, though, the World Health Organization (WHO) has reported cases in counties that do not have endemic monkeypox.

The monkeypox outbreak has continued to grow in countries where the virus is not normally found. This has put health officials at the Centers for Disease Control and Prevention (CDC) and across the globe on alert.

On June 14, the CDC issued a Health Alert Network Health Update to alert clinicians to clinical presentations of monkeypox seen so far in the United States and to provide updated and expanded case definitions intended to encourage testing for monkeypox among persons presenting for care. On June 28, CDC activated its Emergency Operations Center to support the agency’s monkeypox response.

What are the symptoms of monkeypox?

Monkeypox typically begins with a flu-like illness and swelling of the lymph nodes and progresses to include a widespread rash on the face and body. However, in recent cases, patients have developed localized rashes without having flu-like symptoms first.

Although the characteristic firm, deep-seated, well-circumscribed and sometimes umbilicated rash has been observed, the rash has often begun in mucosal areas such as genital, perianal or oral mucosa. In some patients, the lesions have been scattered or localized to a specific body site rather than diffuse and have not involved the face or extremities.
The clinical presentation of monkeypox may be similar to some sexually transmitted infections, such as syphilis, herpes, lymphogranuloma venereum or other etiologies of proctitis. The rash will go through different stages before it heals completely, but the illness typically lasts two to four weeks.

Learn more from the CDC about how to recognize monkeypox.

How does monkeypox spread?

Anyone can get monkeypox, so it is important to understand how the virus spreads. The CDC notes that monkeypox spreads in different ways. First, the monkeypox virus can spread from person to person through:

- Direct contact with the infectious rash, scabs or body fluids.
- Respiratory secretions during prolonged face-to-face contact or during intimate physical contact such as kissing, cuddling or sex.
- Touching items such as clothing or linens that previously came in contact with the infectious rash or body fluids.

Monkeypox can spread at the onset of symptoms until the rash is fully healed and a fresh layer of skin has formed. This is typically two to four weeks, the CDC says. People who do not have monkeypox symptoms cannot spread the virus to others.

Pregnant people can also spread the virus to the fetus through the placenta. And it is possible for people to get monkeypox from infected animals by being scratched or bitten as well as by preparing or eating meat or using products from the infected animal.

What measures can be taken to prevent monkeypox infection?

The CDC shares prevention steps for individuals to follow to avoid getting monkeypox. Those include:

- Avoid close, skin to skin contact with a monkeypox rash.
- Do not handle or touch bedding, towels or clothing of a person with monkeypox.
- Wash your hands frequently with soap and water or use an alcohol-based hand sanitizer, especially after contact with a person who is sick.

For patients with monkeypox, it is important to isolate at home and remain in a separate room or area from other family members and pets when possible.

Health professionals should use standard and recommended isolation precautions when caring for patients with suspected or confirmed monkeypox infection.
Are there vaccines available for monkeypox?

There are two vaccines licensed by the Food and Drug Administration that are available for preventing monkeypox infection. Those vaccines are JYNNEOS—also known as Imvamune or Imvanex—and ACAM2000.

In the U.S., there is a limited supply of JYNNEOS. More is expected in the coming weeks and months. There is an ample supply of ACAM2000, but this vaccine should not be used in people with certain health conditions, including a weakened immune system, skin conditions such as dermatitis or eczema, or during pregnancy.

Learn more from the CDC about considerations for monkeypox vaccination.

How do I access testing for monkeypox?

While testing was initially only available through public health labs, the CDC has shipped tests to the five major commercial laboratories. LabCorp, Quest Diagnostics, Aegis Science, Mayo Clinic Labs and Sonic Healthcare will begin offering testing soon. Testing is currently available through the following labs:

- Laboratory Response Network (LRN) laboratories. To initiate testing through LRN laboratories, please contact your public health department.
- Labcorp is now offering monkeypox testing at its largest facility in the United States. Health professionals can order the orthopoxvirus test from Labcorp just as they normally would order other tests.
- Mayo Clinic Laboratories can now test for monkeypox. Mayo Clinic Laboratories will offer testing at Mayo Clinic’s Division of Clinical Microbiology laboratories in Rochester, Minnesota and can accept specimens from anywhere in the country.

What treatments are available for monkeypox?

There are no treatments specifically for monkeypox. But since monkeypox and smallpox viruses are genetically similar, antiviral drugs and vaccines developed to protect against smallpox may be used to prevent and treat monkeypox virus infections. For example, antivirals such as tecovirimat may be recommended for patients who are more likely to get severely ill.

The CDC offers physicians and other health professionals interim clinical guidance for the treatment of monkeypox.
Explore other resources on monkeypox

While the AMA, CDC, WHO and other health officials continue to monitor the situation, some key resources on monkeypox include:

- JAMA Medical News & Perspectives article, “Global Monkeypox Outbreaks Spur Drug Research for the neglected Disease.”
- JAMA Viewpoint, “Monkeypox in 2022—What Clinicians Need to Know.”
- JAMA Medical News & Perspectives article, “What to Know About Monkeypox.”
- CDC frequently asked questions for clinicians.
- A situation summary from the CDC on the “U.S. Monkeypox Outbreak 2022.”
- WHO monkeypox questions and answers page.
- CDC’s frequently asked questions about monkeypox.
- JAMA Patient Page, “What is Monkeypox?”
- AMA resource: Physician frequently asked questions about monkeypox.
- AMA news article, “What doctors wish patients knew about monkeypox.”

Reviewed by: Andrea Garcia, JD, MPH, director of Science, Medicine and Public Health at the AMA.

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