

# Mpox Infection, Outbreak, and Vaccines: What You Need to Know

## What is Mpox?

**Mpox (formerly known as monkeypox) is a virus that can infect humans** and cause fever, rash, body pain, and swollen lymph glands. It is related to other pox viruses such as smallpox and cowpox. It was first noted to spread by animal-to-human transmission from bites or scratches from infected animals. For example, in 2003, there was an Mpox outbreak of 47 cases after contact with pet prairie dogs. Now it is recognized that human-to-human transmission is also possible.


Historically, most cases of Mpox have occurred in Africa, or in patients with travel links to Africa. However, in 2022 health agencies around the world, including in the United States, began noticing an increasing number of Mpox infections in patients with no links to countries where Mpox is typically found. As of May 1, 2024, there have been over 32,063 cases of Mpox and 58 deaths recorded in the United States, while globally the case count is over 98,000. In August 2024, the World Health Organization declared Mpox a global health emergency.

## How does Mpox spread?

Mpox can spread easily to people from contact with an infected animal or human. You could get infected with close contact such as touching, kissing, or sex. You can also get infected by handling contaminated objects.

For example, infection can spread with:

- Direct contact with rashes, scabs, or mucous membranes
- Contact with body fluids from a person or animal with Mpox, including saliva, blood, genital secretions, pus, and respiratory secretions
- Contact with objects, surfaces, towels, bedsheets, or clothing recently used by someone with Mpox

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## Who is most at risk for infection?

Anyone who has been in close contact with an infected person is at risk for developing Mpox. This includes family members, sexual partners, and healthcare workers. To date, most Mpox cases in the United States have occurred in men who have sex with men, but Mpox can infect people of any age, gender identity, or sexual orientation. People with multiple sexual partners are at higher risk of contracting Mpox.

## What are the symptoms of Mpox?

Symptoms of Mpox infections usually start within 3 weeks of exposure to the virus and last from 2-4 weeks. The first symptoms are typically fever, headache, swollen lymph glands, and body pains. Swollen lymph glands are a distinctive feature not often seen with other viral diseases that can cause rash, such as chickenpox or measles.

Within several days, patients develop a rash concentrated on the face, arms, and legs. The rash may include the palms, soles of the feet, oral membranes, genitals, and eyes. The rash may first look like pimples or blisters that can be painful or itchy. The rash goes through several stages before healing. It starts as flat red spots that progress into fluid- and pus-filled bumps before scabbing. Photos showing different stages of the rash can be found at [www.cdc.gov/poxvirus/mpox/symptoms/](http://www.cdc.gov/poxvirus/mpox/symptoms/).

Very rarely, Mpox can cause severe illness such as respiratory failure and even death. This tends to occur in patients with chronic diseases and impaired immune systems.

### How is Mpox diagnosed?

Mpox is diagnosed by testing for the virus in sores on the skin. Skin sores are swabbed, and the swab is sent to a laboratory to check for the virus. It may take several days to get the test result.

### How is Mpox treated?

There are no specific treatments approved to treat Mpox. Most people infected have mild disease that resolves on its own after 2 to 4 weeks. However, the antiviral drug tecovirimat (TPOXX), which was developed to treat smallpox, may also be effective at treating Mpox. It can be prescribed on an investigational basis to treat Mpox. This means that scientists are still collecting data about how effective it is at treating Mpox. The drug is considered for use in people who have severe disease, as indicated by involvement of the eyes, mouth, and genitals, and for immunocompromised patients, children, and pregnant women. The symptoms of Mpox can be treated with pain- and fever-relieving medications.

### Are there vaccines against Mpox?

There are several vaccines that have been authorized for use against Mpox. The most widely available vaccine is called JYNNEOS and is given in two doses administered 28 days apart. JYNNEOS is a live attenuated vaccine—it contains virus that stimulates the immune system but is not able to cause disease. Another available vaccine is called ACAM2000. It is also a live attenuated virus vaccine but is not recommended for pregnant women, infants, and those with certain chronic medical conditions. Your doctor can help you decide if you should get vaccinated and if so, which vaccine is best for you. Vaccines can be given pre-exposure in high-risk groups and post-exposure after known close contact with people with Mpox.

### How can Mpox be prevented?

An infected person can spread Mpox to others from the time symptoms start until the rash is fully healed. Isolation should continue until all skin lesions have resolved, scabs have fallen off, and a fresh layer of skin has formed, which may take up to 2-4 weeks.

The following actions can help prevent Mpox:

- Avoid skin-to-skin contact with people who have rashes or open sores concerning for Mpox.
- Avoid contact with objects and materials (bedsheets, towels, blankets) that a person with Mpox has used.
- A person who has Mpox does not need to be in the hospital and should isolate at home.
- Wash your hands or use alcohol-based hand gels often.
- See your doctor to discuss vaccination if you feel you are at risk for Mpox or have a recent known exposure to a person with Mpox.

Authors: Susan Pasnick, MD, Charles DeLa Cruz, MD, Graham Carlos, MD, Shazia Jamil, MD

Reviewers: Marianna Sockrider, MD, DrPH

### Action Steps

- Ask your healthcare provider if you should get an Mpox vaccine, particularly if you are at increased risk.
- Avoid contact with people who have Mpox. Take precautions to avoid contact with contaminated objects.
- If you suspect you have Mpox, contact your healthcare provider to arrange for testing. Take precautions to limit contact with others that could lead to spread of the infection.

### Other Resources

#### U.S. Centers for Disease Control and Prevention (CDC)

<https://www.cdc.gov/poxvirus/mpox/about/index.html>

#### World Health Organization (WHO)

[https://www.who.int/health-topics/monkeypox#tab=tab\\_1](https://www.who.int/health-topics/monkeypox#tab=tab_1)

#### U.S. National Institute of Allergy and Infectious Diseases (NIAID)

<https://www.niaid.nih.gov/diseases-conditions/mpox>

#### Reference:

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