

## **Monkeypox**

Monkeypox is a rare disease similar to smallpox caused by the monkeypox virus. It causes flu-like symptoms such as fever and chills, and a rash that can take weeks to clear. There's no proven treatment for monkeypox, but it usually goes away on its own.

### **OVERVIEW**

#### **What is monkeypox?**

Monkeypox is a rare disease caused by the monkeypox virus. It's found mostly in areas of Africa but has been seen in other areas of the world. It leads to rash and flu-like symptoms. Like the better known virus that causes [smallpox](#), it is a member of the family called orthopoxvirus.

Monkeypox was discovered in 1958 when two outbreaks of a pox-like disease occurred in groups of monkeys being used for research. It's spread mainly through human contact with infected rodents, but can sometimes be spread through skin-to-skin contact with an infected person. There are two known types (clades) of monkeypox virus — one that originated in Central Africa and one that originated in West Africa. The current world outbreak (2022) is caused by the less severe West African clade.

#### **How common is monkeypox?**

Monkeypox is rare. But the number of cases is increasing in Africa, as well as in regions that haven't seen these infections before.

#### **Where else is monkeypox found?**

For decades, Monkeypox was mostly been seen in Africa. However, it's occasionally found in other countries, including the United States. In the spring of 2003, the first outbreak of monkeypox outside of Africa occurred in the United States. A shipment of infected animals from Ghana was imported into Texas. The infected rodents spread the virus to pet prairie dogs, which then infected 47 people in the Midwest.

As international travel becomes more common, viruses that were once fairly confined to certain locations can more easily spread around the world. In the summer of 2021, a case of monkeypox was found in a U.S. resident who had traveled from Nigeria to the United States. Then, 2022 brought outbreaks to regions outside of Africa, including Europe, the Americas and Australia.

#### **Who does monkeypox affect?**

Anyone can get monkeypox. In Africa, most cases are among children under 15 years old. Outside of Africa, the disease appears to be more common in men who have sex with men, but there are numerous cases in people who don't fall into that category.

## Signs and Symptoms



Monkeypox causes pus-filled blisters that crust over and fall off. (Image courtesy of the U.S. Centers for Disease Control and Prevention.)

### What are the signs and symptoms of monkeypox?

After exposure, it may be several days to a few weeks before you develop symptoms. Early signs of monkeypox include flu-like symptoms like:

- [Fever](#).
- [Chills](#).
- [Headache](#).
- [Muscle aches](#).
- [Fatigue](#).
- [Swollen lymph nodes](#).

After a few days, a rash often develops. The rash starts as flat, red bumps, which can be painful. Those bumps turn into [blisters](#), which fill with pus. Eventually, the blisters crust over and fall off — **the whole process can last two to four weeks**. You can also get sores in your mouth, vagina or anus.

Not everyone with monkeypox develops all of the symptoms. In fact, in the current (2022) outbreak, many cases aren't following the usual pattern of symptoms. This atypical presentation includes only a few lesions, no swollen lymph nodes, less fever and other signs of illness. You can have it and not know it. But even if you don't show many signs of infection, you can still spread it to others through prolonged close contact.

## **How monkeypox spreads?**

Monkeypox is spread when you come into contact with an animal or a person infected with the virus. Animal-to-person transmission occurs through broken skin, like from bites or scratches, or through direct contact with an infected animal's blood, bodily fluids or pox lesions (sores).

Monkeypox can spread from person to person. Person-to-person spread (transmission) occurs when you come in contact with the sores, scabs, respiratory droplets or oral fluids of an infected person usually through close, intimate situations like cuddling, kissing or sex. Research is ongoing, but researchers aren't sure if the virus is transmitted through semen or vaginal fluids.

You can also get monkeypox by coming into contact with recently contaminated materials like clothing, bedding and other linens used by an infected person or animal.

## **Diagnosis and Test**

### **How is monkeypox diagnosed?**

Because monkeypox is rare, your healthcare provider may first suspect other rash illnesses, such as [measles](#) or [chickenpox](#). But swollen lymph nodes usually distinguish monkeypox from other poxes.

To diagnose monkeypox, your healthcare provider takes a tissue sample from an open sore (lesion). Then they send it to a lab for polymerase chain reaction (PCR) testing (genetic fingerprinting). You may also need to give a blood sample to check for the monkeypox virus or antibodies your immune system makes to it.

## **Management and Treatment**

### **Is monkeypox curable?**

Monkeypox is usually a self-limited disease with symptoms lasting from two to four weeks. Most people with monkeypox get better on their own without treatment. Following diagnosis, your healthcare provider will monitor your condition and try to relieve your symptoms, prevent dehydration and give you antibiotics to treat secondary bacterial infections if they develop.

There's currently not an approved antiviral treatment for monkeypox. Antiviral drugs may help, but they haven't been studied as a treatment for monkeypox. Several investigational antivirals with activity against monkeypox are available, but only as part of a research study.

## **Prevention**

### **How do you prevent monkeypox virus?**

A smallpox vaccine provides protection against monkeypox, but its use is currently limited to clinical trials. Prevention depends on decreasing human contact with infected animals and limiting person-to-person spread.

The best way to help prevent spread the monkeypox virus is to:

- Avoid contact with infected animals (especially sick or dead animals).
- Avoid contact with bedding and other materials contaminated with the virus.
- Thoroughly cook all foods that contain animal meat or parts.

- [Wash your hands](#) frequently with soap and water.
- Avoid contact with people who may be infected with the virus.
- Practice safe sex, including the use of condoms and dental dams.
- Wear a mask that covers your mouth and nose when around others.
- Clean and disinfect frequently touched surfaces.
- Use personal protective equipment (PPE) when caring for people infected with the virus.

## Outlook / Prognosis

### How long does monkeypox last?

Monkeypox normally takes about two to four weeks to run its course. If you are exposed to monkeypox, your provider will monitor you until the rash resolves.

### Is monkeypox fatal?

The less severe West African clade is causing the current world outbreak (2022). No one has died from this outbreak to date. But, monkeypox can lead to other problems (complications) like [pneumonia](#) and infections in your brain ([encephalitis](#)) or eyes, which can be fatal.

## Living with Monkeypox

### How do I take care of myself?

If you have monkeypox symptoms, there are over-the-counter medications that can help you feel better, including:

- **Pain relievers and fever reducers.** Medicines like ibuprofen (Advil®, Motrin®) and acetaminophen (Tylenol®) can help you feel better.
- **Oatmeal baths.** Soaking in a warm bath with colloidal oatmeal can relieve the dry, itchy feeling that comes with skin rashes.
- **Isolate yourself if you're infected.** Avoid contact with others until all your lesions have scabbed.
- **Cover single or local lesions.** Use gauze or bandages to limit spread to others and the environment.
- **Take good care.** It's important to stay home and rest when you're sick, wear a mask around others and drink plenty of fluids.
- **Avoid contact with pets (especially rodents).**

### When should I see my healthcare provider?

Call your healthcare provider if you:

- Feel sick with fever, aches or swollen lymph nodes.
- Have a new rash or sores.
- Have been in close contact with an infected person.

## **When should I go to the ER?**

Seek medical care if you develop the following symptoms:

- Trouble breathing.
- New or worsening chest pain.
- Stiff neck.
- Are confused or can't think clearly.
- Difficulty speaking or moving.
- Loss of consciousness.
- Seizures.

## **Frequently Asked Questions**

### **What is the difference?**

#### **Monkeypox vs. chickenpox**

Although they both cause skin rashes, monkeypox and chickenpox are caused by different viruses. Monkeypox is an orthopoxvirus, while chickenpox is a herpes virus. Both viruses can be spread through skin-to-skin or prolonged face-to-face contact, but chickenpox is very contagious and spreads more easily than monkeypox. People with monkeypox are more likely to have swollen lymph nodes than people with chickenpox.

The rashes act differently too. While the chickenpox rash can appear in waves, monkeypox sores develop at the same time. Chickenpox symptoms — including the rash — tend to get better within two weeks, while it takes two to four weeks for monkeypox to resolve.

#### **Monkeypox vs. smallpox**

Smallpox and monkeypox are both part of the orthopoxvirus family, so they're caused by similar but distinct viruses. Thanks to effective vaccines, smallpox was eradicated (is no longer a circulating disease) by 1980. Smallpox was very contagious and spread more easily than monkeypox. Monkeypox symptoms are similar to but milder than smallpox symptoms.

### **Summary and take home points:**

Monkeypox spreads by direct close physical contact with infected people or surfaces.

Does not seem to be airborne like covid.

Symptoms can range from fever and flu like symptoms, a generalized painful pustular vesicular rash may be present as well.

Affected individuals usually have swollen lymph nodes.

Symptoms can last 2-4 weeks.

There is no cure for monkeypox at this time. Although a vaccine can prevent you from contracting a severe case of the disease. (Supplies are limited).

If infected with monkeypox, contact isolation will be implemented. This would mean isolating at home and staying away from others. This could be difficult with this disease because it can take up to four weeks for this to resolve, therefore prioritize prevention!

Avoid high risk situations including overcrowded human to human environment's, reduced the number of sexual partners and avoid riskier activities such as anonymous sex and sex parties. Practice good hygiene, like frequent hand washing, wiping down surfaces and washing clothing and linens frequently.