

Patient information from BMJ

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Mpox (monkeypox)

Mpox is a rare disease caused by a virus called the monkeypox virus. Mpox was previously known as monkeypox, but the name has been updated. Previously, it was not usually seen outside of West and Central Africa.

But travellers to these areas sometimes become infected, and cases of mpox have been found in a number of countries outside Africa in 2022 to 2023.

Mpox usually goes away by itself after a few weeks, but it can be dangerous in some people, especially children, pregnant women, and those with weakened immune systems. If you think you have symptoms of mpox, avoid contact with others, and talk to a doctor urgently.

What is mpox?

The monkeypox virus was mainly found in **West and Central Africa**, but cases of mpox have now been reported in many countries around the world. Humans can catch it from animals that carry the virus, and it can also pass from person to person.

There are two variants of the monkeypox virus (known as clades): the clade I virus, and the clade II virus. The clade II virus causes a less severe disease than the clade I virus.

Mpox was rarely found outside of Africa. But in May of 2022 a number of people were found to have the infection in many countries around the world, including the UK, Europe, and the US.

Mpox is usually what doctors call **self-limiting**. This means that after a while it goes away by itself, just like a cold or flu. After you have had mpox you are likely to be immune and can't get it again.

But mpox can sometimes cause serious illness, especially in children, pregnant women, and those with weakened immune systems. Some people may need to be admitted to hospital for treatment.

Mpox can cause death, but this is rare, especially from the clade II virus, and in areas with good health care. The clade II virus is the cause of cases outside of Africa.

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There is a **vaccine** (based on a virus called vaccinia) that offers a great deal of protection against mpox. It was developed mainly to protect people against **smallpox**, which has now been wiped out. But the two viruses are similar, so the vaccinia vaccine works against both.

The vaccine is usually given to people who are thought to have a strong chance of becoming infected. This includes:

- health workers
- groups of people who are at high risk of getting mpox
- close contacts of people who are infected.

How does it spread?

Mpox mainly spreads through direct contact with the skin rash or blisters of an infected person. But it can also spread by:

- droplets breathed out through the nose and mouth, and
- contact with objects that have come into contact with the virus, such as clothes, bedding, towels, and surfaces.

The virus can also be passed from pregnant mothers to their babies in the womb.

Mpox does not spread easily from person to person. To become infected, you usually need to have close contact with an infected person for some time. A brief, passing contact is not likely to cause infection.

So far, most of the people infected in the **2022 to 2023 outbreak** are men who identify as **gay, bisexual, or men who have sex with men**. We're not sure why this is. But these groups are being advised to be alert for any unusual rashes, especially on their genitals.

Mpox is not usually thought of as a sexually transmitted infection (STI), and it's still not clear what role, if any, sexual bodily fluids play in infection.

Mpox has an **incubation period** of about one to two weeks. This means that you can have the virus for up to two weeks before you have symptoms, and without knowing that you have it.

What are the symptoms?

The most common symptoms of mpox include:

- a rash of blisters on the body and/or face
- fever or chills
- headache
- backache
- general aches and pains

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- sore throat
- nausea or vomiting
- cough
- general weakness, and
- swollen glands.

Less common symptoms include:

- diarrhoea
- delirium (confusion and feeling unsteady), and
- seizures.

Usually, the **rash** starts with flat areas on the skin that then become bumps filled with liquid, which then turns to pus after a few days. After about two weeks the bumps become scabs and start to drop off.

The rash can be itchy and painful, but it's important **not to scratch or burst** the bumps, as this can spread the virus and lead to scarring.

In **the 2022 to 2023 outbreak**, the monkeypox rash seems to be slightly different from previous outbreaks. The features of the rash in this outbreak include:

- fewer blisters (doctors often call them **lesions**) than usual. Some people only have one or two, and some people may have no visible blisters/lesions
- blisters/lesions appearing at different times during the illness. Blisters usually appear at about the same time
- blisters/lesions in the genital area and around the anus, which do not spread any further. Blisters/lesions may be painful and cause swelling in these areas
- severe pain in the rectal and anal areas, and
- blisters/lesions appearing earlier than usual in the course of the illness.

Blisters can sometimes happen in the mouth. This can be painful, and it can make it hard to eat and drink normally. If this happens to you, talk to your doctor about how they can help. It's important to get enough nutrition and to stay hydrated when recovering from mpox.

If you see a doctor with symptoms of monkeypox they will take a sample of liquid from one of the lumps on your rash and test it for the virus.

If it's possible that you caught the infection while travelling or staying in an area where malaria is common, you should also be tested for malaria.

What treatments are available?

Mpox usually clears up by itself after a few weeks. This means that many people with mpox don't need any special treatment, and don't need to be treated in hospital.

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But people with mpox need to **be isolated** while they have symptoms, so that the virus doesn't spread. This means that you should stay away from people and from **pets** until you no longer have symptoms. This will probably take three or four weeks.

If you have been in contact with someone who has been infected, you should also isolate and get tested. If you do not have symptoms, there is no need to isolate for 21 days. However, your doctor may want to monitor you for symptoms. They may also advise you to avoid sexual or intimate contact with other people and not to travel.

Treatment in hospital

Most people with monkeypox recover at home in a few weeks. But about 10 in every 100 people need to be treated in hospital. This often happens when people become **dehydrated** from fever or vomiting and need to have fluids given into a vein.

Some people also need treatment for **sepsis**. Sepsis happens when the body's immune system overreacts to an infection and attacks the body's tissues instead of protecting them. If you have sepsis you will be given **antibiotics** into a vein.

Sepsis is a medical emergency and can cause death if not treated in time. The signs of sepsis to look out for are:

- confusion
- shortness of breath
- fast heart rate
- fever, or feeling very cold, and
- clammy or sweaty skin.

Some people may require treatment in hospital for severe pain and swelling, trouble swallowing, constipation, not being able to urinate, blisters/lesions in the eye, skin infections, or other complications including heart and nerve problems.

Medicines

In most people the body's immune system fights off the virus by itself, and medicines aren't needed.

Antiviral medicines are sometimes given to people with severe symptoms or people who are at high risk of developing severe symptoms.

Medicines for specific symptoms

If you have a headache or other **painful symptoms**, you can take **paracetamol** or **ibuprofen**. If you are being treated in hospital, you might be given stronger pain relief drugs, such as opioids.

If you have painful blisters in your mouth, your doctor might recommend an **antiseptic mouthwash** or **local anaesthetic** cream. Your doctor might also recommend local

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anaesthetic cream or suppositories for **painful blisters** in the genital area or around the anus.

Stool softeners may be recommended to help with constipation.

Antihistamines, which are usually used to treat allergies, are sometimes used to help with **itching**.

If you have severe **nausea or vomiting**, you might be given drugs called anti-emetics, which can help settle your stomach.

If needed, you might also be given medicines to help with **heartburn** or **stomach ache**.

What to expect in the future

Mpox is unpleasant but it's usually not serious, and most people recover within a few weeks. But the effects can affect some people for a long time.

For example, the rash can cause **scarring and discoloured** skin in some people. This can sometimes be permanent. This can be upsetting, and some people need counselling and support. Your doctor might be able to help arrange this.

Some people with severe dehydration can have kidney damage after recovering from mpox. If this happens, you might need to have treatment.

In people who are severely affected, mpox can sometimes affect the eyes and cause blindness. If you are being treated in hospital and show signs of mpox affecting your eyes, you may be given **antiviral eye drops** to help prevent this.

Persistent symptoms can occur in some people after the skin rash has cleared up. This could include anal or genital issues, fatigue, pain, or loss of fitness.

The **vaccinia vaccine** can also cause problems in some people. One problem with older vaccines is called progressive vaccinia. If this happens to you, you will need treatment with antiviral medicines. Some vaccinia vaccines may also cause heart and nervous system adverse effects.

Mpox can sometimes cause death. But this is rare, especially in countries with good healthcare facilities.

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