

## Monkeypox

### Epidemiology of the disease

Monkeypox is a viral zoonotic disease with incidental human infections that usually occur sporadically in forested parts of Central and West Africa. The monkeypox virus belongs to the orthopoxvirus family and can be transmitted by **contact** and **droplet** exposure via exhaled large droplets. The incubation period is usually from 6 to 13 days but can range from 5 to 21 days. The disease is often self-limiting with symptoms usually resolving spontaneously within 14 to 21 days. Symptoms can be mild or severe, and lesions can be very itchy or painful. The animal reservoir remains unknown, although is likely to be among rodents. Contact with live and dead animals through hunting and consumption of wild game or bush meat are known risk factors.

There are two clades of monkeypox virus, the West African clade and Congo Basin (Central African) clade. Although the West African clade of monkeypox virus infection sometimes leads to severe illness in some individuals, disease is usually self-limiting. The case fatality ratio for the West African clade has been documented to be around 1%, whereas for the Congo Basin clade, it may be as high as 10%. Children are also at higher risk, and monkeypox during pregnancy may lead to complications, congenital monkeypox or stillbirth.

Milder cases may go undetected and represent a risk of person-to-person transmission. There is likely to be little immunity to the infection in those travelling and exposed as endemic disease is geographically limited to parts of West and Central Africa. While a vaccine has been approved for prevention of monkeypox (JYNNEOS), and traditional smallpox vaccine also provides protection, these vaccines are not widely available and populations worldwide under the age of 40 or 50 years no longer benefit from the protection afforded by prior smallpox vaccination programs.

An outbreak occurred in Nigeria from 2017 to 2019, with cases still being reported in 2021. In addition to Nigeria, outbreaks have also been reported in nine other countries in central and western Africa since 1970. Sporadic outbreaks among humans have occurred in other countries such as Cameroon or the Central African Republic.

### Outbreak at a glance

Since 13 May 2022, and as of 2 June 2022, 780 laboratory confirmed cases of monkeypox have been reported to or identified by WHO from 27 Member States across four WHO regions that are not endemic for monkeypox virus. Most reported cases so far have been presented through sexual health or other health services in primary or secondary health care facilities and have involved mainly, but not exclusively, men who have sex with men (MSM).

While the West African clade of the virus has been identified from samples of cases so far, most confirmed cases with travel history reported travel to countries in Europe and North America, rather than West or Central Africa where the monkeypox virus is endemic. The confirmation of monkeypox in persons who have not travelled to an endemic area is atypical, and even one case of monkeypox in a non-endemic country is considered an outbreak. While most cases are not associated with travel from endemic areas, Member States are also reporting small numbers of cases in travelers from Nigeria, as has been observed before.

The sudden and unexpected appearance of monkeypox simultaneously in several non-endemic countries suggests that there might have been undetected transmission for some unknown duration of time followed by recent amplifier events.

WHO assesses the risk at the global level as moderate considering this is the first time that many monkeypox cases and clusters are reported concurrently in non-endemic and endemic countries in widely disparate WHO geographical areas.



Source: WHO monkeypox outbreak tool kit

### Key facts

- ✓ **Monkeypox is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae.**
- ✓ **Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa and is occasionally exported to other regions.**
- ✓ **Monkeypox typically presents clinically with fever, rash and swollen lymph nodes.**
- ✓ **Monkeypox virus is mostly transmitted to people from wild animals such as rodents and primates, but human-to-human transmission also occurs.**
- ✓ **Monkeypox virus is transmitted from one person to another by contact with lesions, body fluids, respiratory droplets and contaminated materials such as bedding.**
- ✓ **Typically, up to a tenth of persons ill with monkeypox may die, with most deaths occurring in younger age groups.**
- ✓ **The clinical presentation of monkeypox resembles that of smallpox, a related orthopoxvirus infection which was declared eradicated worldwide in 1980.**
- ✓ **Vaccinia vaccine used during the smallpox eradication program was also protective against monkeypox. A new third generation vaccinia vaccine has now been approved for prevention of smallpox and monkeypox.**
- ✓ **Treatment of monkeypox patients is supportive dependent on the symptoms.**
- ✓ **Antiviral agents are being developed. Data is still not available on the effectiveness of Cidofovir and Brincidofovir in treating human cases of monkeypox. However, both have proven activity against poxviruses in in vitro and animal studies.**
- ✓ **Studies using a variety of animal species have shown that Tecovirimat is effective in treating disease caused by orthopoxviruses. Clinical trials in people showed the drug was safe and had only minor side effects.**



Source: Nigeria Centre for Disease Control