



EUROPEAN ACADEMY OF  
DERMATOLOGY AND VENEREOLOGY

# Information Leaflet for Patients

**MONKEYPOX:  
WHAT YOU  
SHOULD KNOW**

# WHAT YOU SHOULD KNOW ABOUT MONKEYPOX

## History

Monkey Pox was first discovered in 1958, in a colony of monkeys kept for research (therefore the name).

The first human case was recorded in DRC in 1970.

The reservoir of the virus is not completely known - probably rodents or small monkeys.

## Etiology

Monkey Pox is caused by the monkey poxvirus, a DNA virus member of the ortho-pox virus genus (poxviridae family). The virus causing smallpox (eradicated in 1980) also belongs to this group.

Monkey pox virus causes a milder form of disease compared to smallpox.

There are two monkey pox strains known: one circulating in central Africa (mainly DRC), and one in West Africa (mainly Nigeria). In the recent years there have been intermittent outbreaks with both strains in those countries.

Being vaccinated against smallpox can give a protection up to 85% against monkey pox. Only people > 40-45 years may be vaccinated, as vaccination was stopped after smallpox eradication 1980.

## Transmission and incubation period

**Animal-to-human transmission:** by bite or scratch and bush meat.

**Human-to-human transmission:** primarily through large respiratory droplets (prolonged face-to-face contact is required).

Infections can also occur by direct contact with body fluids or lesions, and indirect contact with contaminated materials such as bedding.

**Incubation period** is normally **7-14 days** (minimum 5 - maximum 21 days)

## Clinical signs and symptoms

The illness begins with:

- Fever
- Headache
- Muscle aches
- Backache
- Swollen lymph nodes (very typical up to 87%)
- Chills
- Exhaustion

Within 1 to 3 days (sometimes longer) after the appearance of fever, the patient develops a maculopapular rash, often beginning in the face, then spreading to other parts of the body.

Lesions are typically painful.

Lesions progress through the following stages: macules > papules > vesicles > pustules > scabs. All lesions are present in simultaneous stages (unlike chickenpox).

By the end of the second week the pustules are crusted and start to scab. The scabs will take about a week to fall off. When they fall off, the patient is no longer infectious.

The illness lasts about 2–4 weeks. African outbreaks of monkey-pox have been shown a case fatality rate of 1-10%. The West-African strain (current outbreak) has a lower case-fatality rate of about 1%.

Monkeypox might be more dangerous for small children, pregnant women, and severely immunocompromised patients.

## Treatment

Currently supportive.

No specific treatments are available for monkeypox infection, but monkeypox outbreaks can be controlled. So far there is no approved vaccine against monkeypox available in Europe; but Imvanex®, a vaccine, developed by the Danish company Bavarian Nordic, is already approved in the United States, and has been ordered by various European countries, e.g., Germany.

Treatment with antiviral drugs like Brincidofovir, Cidofovir and Tecovirimat may be helpful, specific Immunoglobulins are available.

## Prevention

Prevention measures for monkeypox include hand and respiratory hygiene, and safe food practices.

## Current Outbreak Data

As of May 23rd, 2022: 145 cases identified in Europe and the USA.

Most reported cases have no proved travel links to an endemic area.

## Monkeypox outbreak news

Based on currently available information, cases belonging to the current outbreaks have mainly (but not exclusively) been identified amongst men who have sex with men (MSM). Everybody can get monkeypox infection through close contact. To date, all cases outside Africa, confirmed by PCR-Test, have been identified as the milder West African strain.

## Case Definition

Unexplained rash PLUS one or more classical symptom(s) of monkeypox infection PLUS one of the following:

- Epidemiological link to a confirmed or probable monkeypox infection within the last 21 days.
- Travel to West or Central Africa 21 days before onset of symptoms.
- Bisexual or gay person, who has sex with men (GBMSM).
- Acute illness with fever (>38.5 °C), intense headaches, myalgia, arthralgia, back pain, lymphadenopathy.

## Diagnosis

Any person meeting the definition for a suspected case should be offered testing. The decision to test should be based on clinical and epidemiological factors, linked to an assessment of the likelihood of infection.

Differential diagnoses with similar-

appearing skin lesions at the different stages of development include Infection with herpes simplex virus, varicella zoster virus, HPV (e.g., Molluscum contagiosum), enteroviruses, measles morbillivirus, parapox viruses (causing Orf and related conditions), Treponema pallidum

(syphilis), bacteria (impetigo), scabies mites and adverse drug reactions.

## Safety Procedures

**Isolate immediately and use appropriate PPE:** FFP3 mask, visor, fluid repellent, long sleeve gown, gloves.

Use of adequate standard operating procedures (SOPs) must be ensured, and laboratory personnel must be trained for appropriate personal protective equipment (PPE), specimen collection, storage, packaging, and transport. All specimens collected for laboratory investigations should be regarded as potentially infectious and handled with caution.

**Specimen to be collected** The recommended specimen type for laboratory confirmation of monkeypox is skin lesion material, including swabs of lesion surface and/or exudate, roofs from more than one lesion, or lesion crusts. Swab the lesion vigorously, to ensure adequate viral DNA is collected. Dry swabs and swabs placed in viral transport media (VTM) can be used. Antibody detection from plasma or serum should not be used alone for diagnosis of monkeypox.

**Notification to the local authorities/health authorities** and close cooperation with the cooperating submission laboratories is recommended! Be alert to current developments in the media and official announcements by national and European authorities and health organizations!

## Tropical Dermatology Task Force

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