
Monkeypox Frequently Asked Questions

1. What is Monkeypox?

Monkeypox is caused by infection with monkeypox virus, a member of the genus *Orthopoxvirus* in the family *Poxviridae*. The *Orthopoxvirus* genus also includes variola virus (the cause of smallpox) and vaccinia virus (used in the smallpox vaccine).

2. Where does Monkeypox occur?

Monkeypox was first discovered in 1958 in Denmark when two outbreaks of a pox-like disease occurred in colonies of monkeys kept for research, hence the name 'monkeypox.' The first human case of monkeypox was recorded in 1970 in the Democratic Republic of Congo. Monkeypox is endemic in central and western Africa. The only time monkeypox infections in humans were documented outside of Africa was in 2003 when it occurred in the United States, and was associated with the exotic pet trade.

3. How is Monkeypox transmitted?

Monkeypox virus can be transmitted to a person upon contact with the virus from an animal, human, or materials contaminated with the virus. Entry of the virus is through broken skin, respiratory tract, or the mucous membranes (eyes, nose, or mouth). The monkeypox virus may be spread from handling infected bush meat, an animal bite or scratch, body fluids, contaminated objects, or close contact with an infected person. In Africa, monkeypox infection has been found in many animal species: rope squirrels, tree squirrels, Gambian rats, striped mice, dormice and primates. Certain species of rodents are suspected of being the main disease carrier (reservoir host) of monkeypox, although this has not been proven yet.

4. What are the signs and symptoms of Monkeypox?

The incubation period (time from infection to symptoms) for monkeypox is on average 7–14 days but can range from 5–21 days. In humans, the symptoms of monkeypox are similar to but milder than the symptoms of smallpox. Initial symptoms include fever, headache, muscle aches, backache, chills and exhaustion (prodromal period). The main difference between symptoms of smallpox and monkeypox is that monkeypox causes lymph nodes to swell (lymphadenopathy) while smallpox does not. Lymph nodes may swell in the neck, armpits or groin and may occur on both sides of the body or just one. Following the prodromal phase

(within 1-3 days), lesions will develop in the mouth and on the body. The lesions progresses through several stages before scabbing over and resolving.

5. When is Monkeypox infected person contagious?

A person is contagious from the onset of the rash/lesions through the scab stage. Once all scabs have fallen off, a person is no longer contagious.

6. How is Monkeypox diagnosed and what type of specimens are required?

The NICD currently offers PCR testing and electron microscopy for the investigation of acute suspected monkeypox cases. Monkeypox has two disease phases and different specimens can be collected in each phase. During the **prodromal phase** specimens to be collected include tonsillar tissue swab, nasopharyngeal swab, acute serum and whole blood. Specimens to be collected during the rash/lesion phase includes lesion biopsy, fluid, scab or crust, acute serum and whole blood. More than one lesion should be sampled, preferably from different locations on the body and/or from different looking lesions. Below are some instructions on how to collect specimens.

Nasopharyngeal or tonsillar tissue collection:

- Swab the nasopharynx or posterior tonsillar tissue with a sterile dry swab.
- Break off end of applicator into a plastic screw cap container or place entire swab in a sterile container.

DO NOT ADD ANY VIRAL TRANSPORT MEDIA.

Lesion biopsy collection:

- Sanitize lesion with an alcohol wipe, allow to dry.
- Use appropriate sterile technique and skin sanitation.
- Biopsy lesions with 3.5 or 4 mm biopsy punch (2.5 mm for pediatrics).
- Place biopsy specimen in a plastic screw cap container. **DO NOT ADD ANY VIRAL TRANSPORT MEDIA**

Lesion fluid collection:

- Sanitize lesion with an alcohol wipe, allow to dry.
- Use a disposable scalpel (or a sterile 26 Gauge needle) to open, and remove, the top of the vesicle or pustule (do not send the scalpel or needle). Retain lesion roof for testing.
- Scrape the base of the vesicle or pustule with a sterile swab.
- Break off end of applicator into a plastic screw cap container or place entire swab in a sterile container.

DO NOT ADD ANY VIRAL TRANSPORT MEDIA.

Scab or crust collection:

- Sanitize skin with an alcohol wipe, allow to dry.
- Use a sterile needle to pick or dislodge scabs.
- Place scabs into a plastic screw cap container. DO NOT ADD ANY VIRAL TRANSPORT MEDIA

Serum and whole blood collection:

- For serum collection, collect blood in 1x SST tube
- Whole blood collected in 1x EDTA tube

7. How is Monkeypox treated?

Treatment is supportive, as with most viral infections. There are no specific treatments or vaccines available for monkeypox disease. Outbreaks can be controlled through infection prevention measures and contact tracing. Vaccination against smallpox has been proven to be 85% effective in preventing monkeypox in the past, however the vaccine is no longer available to the general public after it was discontinued following global smallpox eradication. Prior smallpox vaccination will likely result in a milder disease course.

8. How can Monkeypox be prevented?

Monkeypox can be prevented by avoid contact with animals that are sick or that have been found dead in areas where monkeypox occurs. Avoid contact with any materials, such as bedding, that has been in contact with a sick animal. Isolation and infection and prevention measures must be taken with suspected/confirmed patients. Practice good hand hygiene after contact with infected animals or humans. For example, washing your hands with soap and water or using an alcohol-based hand sanitizer.

9. Where can I find out more information**For Healthcare Workers:**

- **Medical/clinical and laboratory related queries:**
 - Contact the NICD Hotline +27 82 883 9920 (for use by healthcare professionals only)

Guidelines and other useful resources are available on the NICD website: www.nicd.ac.za

Centers for Disease Control and Prevention, Atlanta, United States of America.

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

World Health Organization. <http://www.who.int/mediacentre/factsheets/fs161/en/>