



Orthopoxvirus

(Including Mpox and Smallpox)

What is an Orthopoxvirus

Orthopoxvirus is a group of viruses that cause a raised, bumpy rash. As a zoonotic disease, the virus can infect animals and humans. The only orthopoxviruses that can be shared from person-to-person are smallpox and mpox.

What are symptoms of an orthopoxvirus?

Orthopoxvirus presents with a raised, well defined bumpy rash. Initially, the rash starts out as flat then becomes raised and fluid filled over a few weeks before crusting over. The rash can be painful and itchy. The rash can be on different parts of your body (hands, especially palms, soles of feet, genitals and anus. Muscle aches and swollen lymph nodes are also present.

How does the orthopoxvirus spread?

The orthopoxvirus spreads through animal-to-person or person-to-person contact. You can become infected from infected animals through bites, scratches or direct contact with blood, body fluids or rash. If you have close contact with someone with the virus you can also get infected through:

- Coughing, sneezing, talking
- Fluid from sores
- Intimate contact, (kissing and sex)

What is Smallpox?

Smallpox has been eradicated worldwide since 1979. Smallpox is a variola virus, a species of orthopoxvirus.

Smallpox is transmitted by respiratory droplets through talking, coughing or sneezing or by contact with the rash.

If you contact with smallpox, you will become sick from 7-19 days, commonly 10-14 days later. After you start the initial symptoms, the lesions or rash will appear 2-4 days later.

Smallpox is shared to others from the first lesion until all the scabs have disappeared, usually about 3 weeks.

What is MPOX?

MPOX is a rare disease that is caused by infection with MPX virus. MPXV is related to the smallpox virus but typically causes a less serious disease including a rash or sores (pox), often with an earlier flu-like illness. Previously most cases of MPOX have occurred in individuals living in Central and West Africa, however, as of May 2022, cases have been found globally, including Canada.

Current, infections in Ontario, are spreading via close physical contact with an individual who is infectious with MPOX, and many (but not all) cases self-identify as men who have sex with men (MSM).

How is MPOX spread?

MPOX spreads in different ways. The virus can spread from person-to-person through:

- direct contact with the infectious rash, scabs, or body fluids
- respiratory secretions during prolonged, face-to-face contact, or during intimate physical contact, such as kissing, cuddling, or sex
- touching items (such as clothing, towels or linens) that previously touched the infectious rash or body fluids
- pregnant people can spread the virus to their fetus through the placenta

While this route of transmission has not been seen in Canada, direct contact with infected animals is also a way that the virus can spread.

MPOX can spread from the time symptoms start *until the rash has fully healed and a fresh layer of skin has formed. The illness typically lasts 2-4 weeks. People who do not have MPOX symptoms cannot spread the virus to others.* At this time, it is not known if MPOX can spread through semen or vaginal fluids.

What symptoms should I watch for?

Symptoms occur on average 6 to 13 days after contact with an individual infected with MPOX but can range from 5 to 21 days. Symptoms of MPOX can include:

- Early flu-like symptoms:
 - Fever, Chills
 - Headache and backache
 - Muscle aches and exhaustion
 - Swollen lymph nodes
 - Sore throat and cough
- After 1-3 days a rash or sores usually start on the face and spread elsewhere on the body including arms legs and trunk. Sometimes located on or near the genitals or anus, hands and feet. Sores will go through several stages before healing
- Sores may be inside the body, including the mouth, vagina, or anus
- Some people experience a rash or sore first, followed by other symptoms and some only experience a rash or sores.

How do I get tested for MPOX?

Individuals who have symptoms consistent with MPOX should be assessed by a health care provider. The assessment may include testing if:

- a high-risk exposure to a human case of MPOX
- a history of travel to a region that has reported confirmed cases of MPOX assessed by a health care

All individuals who are tested for MPOX must self-isolate until the infection is ruled out by laboratory testing. Those that test positive must isolate until no longer contagious (e.g., scabs are healing), and direction provided by the Simcoe Muskoka District Health Unit (SMDHU). You are recovered from MPOX when all the scabs have fallen off and new skin has formed underneath, typically 2-4 weeks. If you have been in close contact with a person infected with MPOX, abstain from any sexual contact

and monitor for signs and symptoms for 21 days from the day you may have been exposed. If you develop symptoms of MPOX, you should contact a health care provider to get advice on testing and/or medical care and tell them if you think you have had contact with a person with MPOX. Self-isolate at home if possible and avoid close contact with others until you receive information from the SMDHU

What is the treatment for MPOX?

For mild infections, most people will recover on their own within 2-4 weeks with supportive care including rest, fluids, and pain relievers. Supportive care for managing symptoms includes:

- Letting the rash dry or covering the rash with a moist dressing to protect the area, if needed.
- Avoiding touching any sores in the mouth or eyes. If needed, mouth rinse or eye drops can be used, but products containing cortisone should be avoided.

Tecovirimat (TPOxx®) has been approved by Health Canada to treat very sick patients in hospital with MPOX infection.

Imvamune® vaccine is approved by Health Canada for adults 18 years of age and older who have been in close contact with someone with MPOX or may come in contact (pre-exposure) with someone who has MPOX. Imvamune vaccine is recommended to help prevent persons who may be in contact with MPOX from getting sick. Those interested in being vaccinated should contact the SMDHU Immunization Program via <http://smdhu.org/mpox> to request an appointment.

How do I protect myself and others?

There are number of measures that can be taken to prevent infection with MPOX virus:

- Practice good hand hygiene by washing your hands with soap and water or using an alcohol-based hand sanitizer when hands are not visibly dirty
 - Wash your hands after handling nose or throat secretions (e.g., after disposal of facial tissues containing nose and throat secretions)
- Ask people if they have symptoms before you have close or sexual contact

- Do not share personal items such as water bottles, straws, eating utensils, cigarettes or vapes, toothbrushes, linens, clothing, or anything else that has been in contact with saliva, nose or throat secretions
- Cough or sneeze into your elbow and encourage others to do the same
- If you are ill, stay at home and isolate yourself from others
- Clean hands, objects, surfaces, bedding, towels, and clothes regularly
- Condoms and dental dams can be used to protect against MPOX but may not provide full protection, as they do not always cover the lesions/rash completely
- Wear a medical mask and use disposable gloves if caring for an individual infected with MPOX.
- Get Immunized with Imvamune if you could be (pre-exposure) or have been (post-exposure) exposed to MPOX.
- If you think you have been exposed to MPOX, abstain from any sexual activity for 21 days as a precaution to stop the spread.