



Monkeypox Fact Sheet

TAKING PRECAUTION FOR A NEW HAZARD

The SARs outbreak in 2003 was a stark reminder to Canadian and world health professionals alike that we must be prepared to deal with new and unforeseen potential health crises.

Unfortunately, the reminder went unheeded until the COVID-19 pandemic shook up the world. We are still in the midst of the COVID-19 crisis, though hopefully in the wind-down to COVID-19 becoming an endemic and more manageable disease.

If nothing else, this pandemic has taught us that we must rely on the precautionary principle when encountering a new or unknown hazard. Until we have all of the facts, we must always err on the side of caution.

Today we are talking about monkeypox outbreaks across the globe. Currently the World Health Organization (WHO) has reported more than 900 confirmed monkeypox cases, in areas where the virus is not endemic, including more than 110 in Canada.

WHAT IS MONKEYPOX?

Monkeypox is an extremely rare viral disease, considered less severe than smallpox and has been contained in countries around the world where it is endemic, namely the tropical rainforest areas of Central and West Africa, each with its own strain of the virus.

Since monkeypox is now “out of the box” of new viruses trying to break through, it is important that public awareness is raised, even though the current risk to the Canadian public is quite low.

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Introduction to Monkeypox

Signs and Symptoms of Monkeypox

How is Monkeypox Transmitted?

Protecting Ourselves from Monkeypox

Treatments and Current Outlook

MONKEYPOX IS A ZONOTIC DISEASE

Monkeypox is a zoonotic disease which means that it is an infectious disease transmitted from animals to humans. Anyone can get ill from a zoonotic disease, including healthy people. Some people are more at risk and should take steps to protect themselves or family members. These groups of people include:

- Children younger than 5
- Adults older than 65
- People with weakened immune systems
- Pregnant women

Hundreds of cases of human monkeypox are detected in West and Central Africa every year. The few cases seen outside Africa have all (in the past) been associated with travel to Africa or contact with imported infected rodents. Since 2017, there have been only a handful of cases of monkeypox across the globe, outside of Africa. The interesting point of concern is that now it seems that there is no link to travel for a number of these monkeypox cases found on various continents.

Monkeypox is related to the smallpox virus (which was actually eradicated more than 40 years ago through the success of vaccination). The reservoir of the monkeypox virus is in rodents, namely porcupines, squirrels, mice and rats and other rodents in Central and West Africa. Many countries have importation regulations to limit the import of rodents across borders. Indeed, past outbreaks have been linked to imported Central African rodents.

Initially monkeypox was first detected through research in Denmark in 1958 when monkeys exhibited a “pox” like disease. The first human case of monkeypox was found in 1970 when a nine-month old child was diagnosed.

SYMPTOMS OF MONKEYPOX

Monkeypox typically starts with a fever, headache, muscle aches, chills, exhaustion and swollen lymph nodes (lymphadenopathy). It also can lead to backache. The incubation period for monkeypox (time from infection to symptoms) can range from 5 to 21 days.

Within 3 days after the onset of fever, the patient develops a rash, often beginning on the face then spreading downward to other parts of the body. Lesions go through the following stages before drying up and falling off:

- Macules (flat, nonpalpable, and of small diameter)
- Papules (elevated, usually palpable lesions 10 mm in diameter)
- Vesicles (small, clear, fluid-filled blisters 10 mm in diameter)
- Pustules (elevated, usually yellow-topped lesions that contain pus)
- Scabs (consist of dried serum, blood, or pus)

The entire illness cycle typically lasts for 2–4 weeks and the hosts will remain infectious as long as the rash or pustules are present. The fatality ratio of monkeypox varies on what type of virus is present. The Congo-based virus has a fatality ratio of 10% compared to the less virulent West African monkeypox virus which has a fatality ratio of 3%.

HOW IS MONKEYPOX SPREAD?

Monkeypox is transmitted through close physical contact with the above described lesions that may or may not be visible. This may occur in intimate or sexual settings, including with lesions that may be in the infected person’s mouth and saliva. The disease can also be spread between mother and fetus, or through contact with bed linens or other clothing worn by the infected person.

While we do know that monkeypox virus can be spread through droplet contact we are still unsure about aerosol transmission. Much like COVID-19, there is not enough evidence to prove aerosol spread. We have learned not to wait for scientific certainty and in all cases of contact with monkeypox we will adhere to the precautionary principle.



HOW DO WE PROTECT OURSELVES FROM MONKEYPOX?

Monkeypox lesions must be covered up to avoid any skin-to-skin contact and, based on the lack of evidence and applying the precautionary principle, we recommend the same protections that we have called for along with the SARS-CoV-2 virus. Physical separation, engineering controls, including ventilation, PPE N95 (or better) respiratory protection, all necessary head, face, eye and skin protection, separating work clothes from street clothes, hand washing with soap and water or alcohol disinfectant. In active settings, hospital laundry workers may be especially at risk.

MANAGING THE SPREAD OF MONKEYPOX

Infected persons are no longer contagious once the crusts fall off the pustules. Contact tracing must go back 21 days and anyone coming into contact with the infected person must be monitored for 21 days for fever, lymph node swelling and rashes. Public health authorities should also be notified. Those under observation should not donate blood or semen. Unfortunately, there is no information of asymptomatic spread of monkeypox. Monkeypox disease presence is proven through a polymerase chain reaction (PCR) test of the fluid in the pustule.

HOW IS MONKEYPOX TREATED?

Contact your physician who may recommend specific mouth rinses and eye drops, vaccinia immune globulin (VIG) for severe cases etc. An antiviral that was developed to treat smallpox (tecovirimat, commercialized as TPOXX) was also approved for the treatment of monkeypox in January 2022.

MONKEYPOX TODAY

The recent outbreaks of monkeypox cases found across the world today are in young adults (with assumed robust immune systems). So far there have been no known monkeypox related deaths. As reported at the time of writing, the WHO has been monitoring the worldwide outbreaks and has been urging health care providers to watch closely for possible symptoms, and to offer testing to anyone who has these symptoms. WHO leaders have stated they “are not concerned of a global pandemic” from monkeypox at the moment.

CONCLUSION

These are interesting times that we are living through, and though we may not know all of the hazards associated with monkeypox, we do know that we have three basic rights in the workplace. The right to know about hazards in the workplace (including the potential presence of the monkeypox virus in the workplace), the right to participate in workplace safety by raising concerns and making recommendations to our employers and the right to refuse unsafe work.

Using the precautionary principle in all of our dealings with monkeypox is the safest way to move forward at this time.

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