

Ministry of Health

# **Recommendations for the management of cases and contacts of mpox in Ontario**

Effective: September 2024

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## Significant updates

Page #	Description
Throughout the document	In consultation with stakeholders, the Ministry of Health is referring to human monkeypox disease as mpox and monkeypox virus as MPXV. This is consistent with other jurisdictions and scientific publications.
6 - 7	Updated background to include information on mpox strains and the WHO declaration of mpox outbreak as a Public Health Emergency of International Concern (PHEIC).
7	Updated to modify language related to reporting of mpox in individuals that do not identify as part of the key population affected or do not have an identified common risk factor.
7	Updated to include language related to clade I case detection protocol.
15	Added recommendations and considerations for extending contact tracing to certain contacts who were exposed to the case up to 4 days before their symptom onset as per the Public Health Agency of Canada's <a href="#">Mpox (monkeypox): Public health management of cases and contacts in Canada</a> . <sup>1</sup>
19	Updated language for self-isolation (quarantine) for asymptomatic contacts. Updated list of mpox signs and symptoms.
20	Added a recommendation that PHUs should ensure contacts are aware of the importance of consistently practicing recommended risk mitigation measures, given the potential for pre-symptomatic transmission.

## Disclaimer

This guidance document provides basic information only. It is not intended to provide medical advice, diagnosis or treatment or legal advice. In the event of any conflict between this guidance document and any orders or directives issued by the Minister of Health or the Chief Medical Officer of Health (CMOH), the order or directive prevails.

This document provides information for public health management of cases and contacts related to monkeypox virus in Ontario. The Ministry of Health (MOH) has developed this document with contributions from Public Health Ontario (PHO) based on the best available scientific evidence and expert opinion. This document is subject to change as new evidence emerges. This document is intended to provide broad guidelines only and cannot cover every scenario that may be encountered; therefore, local public health unit (PHU) decision-making is required. Nothing in this document is intended to restrict or affect the discretion of local medical officers of health to exercise their statutory powers under the *Health Protection*

*and Promotion Act (HPPA).*

## Background

Monkeypox virus (MPXV) is an orthopoxvirus, first discovered in monkeys used for research in 1958 when two outbreaks of a pox-like disease were identified.<sup>2</sup> In 1970 the first human case of the virus was identified in the Democratic Republic of the Congo (DRC). Mpox is endemic in parts of Central and West Africa where it spreads from animals (e.g., small rodents, mammals, and monkeys) to humans and from person-to-person.

The virus that causes mpox is distinguished by two separate genetic clades:

- Clade I: Sub-clade Ia is endemic to Central Africa and causes more severe illness and deaths than clade II. Sub-clade Ib emerged in the Democratic Republic of Congo (DRC) in 2023 and is spreading through direct contact, primarily through heterosexual networks.
- Clade II: This clade is endemic to West Africa and is associated with less severe illness and deaths than clade I. Sub-clade IIb was responsible for the 2022 global mpox outbreak that primarily affected adults who identified as men who have sex with other men.

Prior to 2022, sporadic cases of mpox disease in humans were reported in various countries outside of Africa, however, most of these were related to travel to endemic areas or to contact with infected animals imported from endemic areas.<sup>2</sup>

In May 2022, numerous mpox clade II cases with no history of travel to an mpox endemic country were reported by many countries where mpox had not been typically found (e.g., European, American, African, Western Pacific, Eastern Mediterranean, and South-East Asian countries). In July 2022, the World Health Organization (WHO) Director-General declared the global mpox outbreak a public health emergency of international concern (PHEIC).<sup>3</sup> Through the fall of 2022, many of the affected countries saw a decrease in the number of weekly reported mpox cases, including Canada. On December 10, 2022, Ontario declared its mpox outbreak over. In May 2023, the WHO advised that the multi-country outbreak of mpox is no longer considered a PHEIC, given the sustained decline in cases.<sup>4</sup> In 2023, sporadic cases of mpox were detected and in the first half of 2024 there has been an increase in activity in Ontario.

On June 16, 2022 mpox was designated as a Disease of Public Health Significance (DOPHS) requiring the reporting of mpox cases (see [Appendix 1: Case Definitions and Disease Specific Information, Disease: Smallpox and other Orthopoxviruses including mpox](#)) directly to the local medical officer of health in accordance with the reporting requirements in the HPPA, as per routine disease processes.<sup>5</sup>

On August 14, 2024, the WHO declared a Public Health Emergency of International Concern (PHEIC) due to the emergence of a new more severe sub-lineage of the clade I mpox virus, classified as clade Ib.

# Public health considerations for case management in community settings

- The primary goal of mpox case management is to support cases and reduce community transmission.
- PHUs should consider active monitoring of confirmed cases (e.g., regular phone calls/communication) if there is concern that the case will not be adherent to public health recommendations and/or is at high risk of developing severe mpox disease (e.g., immunocompromised).
- The vast majority of mpox cases in Ontario and globally have been reported in adults 18 years of age and older who identify as male and report sex with the same sex. The most common risk factors for cases in Ontario have included sexual or intimate contact with a partner of the same sex, with new and/or more than one partner, or anonymous partners. To monitor for changing mpox transmission dynamics, PHUs should notify PHO and the MOH of all cases that do not identify as part of the key population affected or do not have an identified common risk factor (e.g., individuals who identify as male and report sex with opposite sex, individuals who identify as female, individuals less than 18 years of age excluding teenagers with an identified risk factor) prior to entering the case classification as “confirmed” in the integrated Public Health Information System (iPHIS).. Please email both [Healthprotection@oahpp.ca](mailto:Healthprotection@oahpp.ca) and [IDPP@ontario.ca](mailto:IDPP@ontario.ca).
- PHUs that suspect that a case may be infected with clade I MPXV (e.g., based on travel history, risk factors, laboratory results) should proceed with case and contact management as outlined below and notify PHO and the MOH immediately. Please email both [Healthprotection@oahpp.ca](mailto:Healthprotection@oahpp.ca) and [IDPP@ontario.ca](mailto:IDPP@ontario.ca).

## Guidelines for cases

- As the clinical presentation of mpox is variable the approach to case management should consider the case’s clinical symptoms/progression and ability to apply risk mitigation measures. The aim of case management is to balance the risk of transmission to others while taking into consideration the potential health, social, financial, and other harms associated with a prolonged isolation period.
  - **Self-isolation.**
    - In general, self-isolation is not required if cases can adhere to risk mitigation measures (see Use of risk mitigation measures below).
    - Cases presenting with skin lesions that can be covered and those with no or mild systemic symptoms that can adhere to risk mitigation measures are not required to self-isolate.
    - Cases presenting with eruptions of skin lesions that cannot be covered and/or have systemic symptoms that make adherence to risk mitigation

measures difficult (e.g. unable to wear a medical mask) should self-isolate (Refer to Self-isolation for additional information).

- Cases who initially present with mild symptoms but go on to develop symptoms that make adherence to risk mitigation measures difficult should self-isolate (e.g., numerous skin lesions that cannot be covered).
- **Recovered from mpox infection.** A case is considered recovered when all lesions have scabbed over and fallen off with a fresh layer of skin formed underneath.
- **Post-recovery period measures.** As evidence emerges on potential infectivity of bodily fluids, including genital fluids, after a case has recovered, cases should be counselled on risk mitigation measures during their post-recovery period (Refer to Post-recovery period measures for additional information).

## Self-isolation

- **Self-isolation** means:
  - Stay in a separate room/area away from other household members.
    - Whenever possible, isolating in a separate room/area should be prioritized for persons with skin lesions that cannot easily be covered/draining/weeping lesions, and/or systemic symptoms that make adherence to risk mitigation measures difficult (e.g. ability to wear a medical mask).
  - Avoid close physical contact, including sexual contact, with others
  - Avoid contact with those at higher risk of severe mpox illness (i.e., people who are immunocompromised and/or pregnant, and children under 12 years of age).<sup>1</sup>
  - Avoid close and unprotected contact with animals, including household pets, poultry, wildlife, and livestock. Refer to [Precautions to take with animals](#) for additional information.
  - Arrange to have necessities (e.g., medication, groceries, etc.) delivered to the home, if possible.
  - If close contact with others in the home (including animals) is unavoidable (e.g., the case is a caregiver or receives caregiving support), the case should:
    - Wear a medical mask for source control (if safe and tolerated) if there are lesions inside the mouth/oral cavity and/or respiratory symptoms such as a cough or sore throat present
    - Cover all skin lesions with clothing, bandages, medical mask, and/or gloves.
  - See [Appendix A](#) for caregiver recommendations and additional information on Infection Prevention and Control in community settings.

- See [Recovering from mpox at home \(who.int\)](#) for additional information on taking care of oneself.<sup>6</sup>
- For additional precautions see [Mpox \(who.int\)](#).
- **Limit contamination of environmental surfaces** means:
  - Cleaning hands often with alcohol-based hand rub or soap and water, including before exiting the place of self-isolation and upon return. Refer to PHO's [Best Practices for Hand Hygiene in All Health Care Settings](#) for additional information.<sup>7</sup>
  - Having dedicated clothing, bed linens, and towels that are not shared with others.
  - Covering shared upholstered furniture (e.g., couch, chairs, mattress) with a launderable coversheet, waterproof mattress cover, blanket, tarp, etc.
  - Cleaning and disinfecting shared items/surfaces in common/shared spaces after use. See [Appendix A](#).
  - Using a separate bathroom if available/feasible.
    - If a separate bathroom is not available, clean and disinfect items/surfaces that were in contact with skin lesions, bodily fluids, or potentially infectious respiratory secretions with a household disinfectant after each use (e.g., counters, toilet seats, sinks and faucets, door handles, etc.). See [Appendix A](#).
  - Discarding contaminated items directly into a waste container and avoiding touching the outside of the waste container or other surfaces. Hands should be cleaned immediately after handling the waste.
  - Double bagging waste using strong bags, securely tied, and storing the waste in a secure bin until municipal pick-up. Wear gloves if handling bags and clean hands after removing gloves.
- PHUs should identify potential barriers and identify supports as needed and available (e.g., help with essentials such as groceries, providing instructions for hand washing laundry if there are no laundry machines within the home, access to home care laundry services, etc.; voluntary alternate isolation spaces), with attention to a non-stigmatizing, equitable and client-centred approach.
- Note that severe cases (including individuals who are moderately to severely immunocompromised as defined in [Mpox Vaccine \(Imvamune®\) Guidance for Health Care Providers](#))<sup>8</sup> may experience prolonged viral shedding from the upper respiratory tract. Clinical evaluation may be required to determine when precautions may be discontinued.<sup>9</sup>

## Use of risk mitigation measures

Measures that mpox cases can take to decrease the risk of transmission to others include:

- Performing frequent hand hygiene
- Covering skin lesions (e.g., bandages, long sleeves, long pants, gloves).
  - If a PHU determines that a case's lesions are not easily covered (e.g., face, hands) then they may decide as part of their risk assessment that a case should self-isolate.
- Wear a medical mask for source control (if safe and tolerated) if there are lesions inside the mouth/oral cavity and/or respiratory symptoms such as a cough or sore throat present.
- Avoiding close or direct contact with individuals at higher risk of severe mpox illness where feasible (i.e., people who are immunocompromised and/or pregnant, children under 12 years of age), if possible.
- Avoiding interactions where prolonged close, direct skin-to-skin contact with others may occur (e.g., sexual contact, large crowds, participation in contact sports such as wrestling).
- Avoiding congregate settings (e.g., homeless shelter, long-term care facility), if possible.
- Avoiding use of shared recreational water facilities (e.g., pool, hot tub).

## Recovered from mpox infection

A case is considered recovered once all lesions have scabbed over and fallen off with a fresh layer of skin formed underneath.

## Post-recovery period measures

- Research is underway to understand the possibility of MPXV transmission in the bodily fluids of recovered cases. As a cautious approach, cases should be counselled on the following risk mitigation measures:
  - **Use of barrier methods during sexual activity:**
    - Recovered cases should be counselled on using barrier methods (e.g., condoms, dental dams) during any sexual activity to decrease the potential risk of exposure to MPXV from genital excretions to sexual partner(s).
    - There is little evidence to support a length of time that a recovered individual should utilize barrier methods during sexual activity. Some countries and the World Health Organization (WHO) recommend a minimum of 12 weeks.
    - There is currently no available evidence that an individual who recovered from a MPXV infection can transmit the virus via genital



excretions (i.e., seminal or vaginal fluids). Guidance will be updated as additional evidence becomes available.

- **Consulting with a health care provider prior to donating bodily fluids (e.g., blood, semen, breast milk), human cells, tissues, cellular, or tissue-based products (HCT/Ps).**
  - To date, there have been no cases of mpox transmitted by blood transfusion; organ transplantation; or implantation, transplantation, infusion, or transfer of HCT/Ps.
  - There is no evidence to support a length of time that a recovered individual should avoid donation of bodily fluids or HCT/Ps. Guidance will be updated as additional evidence becomes available.
  - Information on blood donations for those who have had mpox is available from [Canadian Blood Services](#).<sup>10</sup>

## Seeking medical care

PHUs should provide information on risk mitigation measures (See Use of risk mitigation measures) to cases who need to access medical care. In addition, cases should consider alerting health care providers of the infection upon arrival to ensure appropriate infection control and prevention practices.

## Treatment

In most cases, mpox is self-limiting in nature and management is supportive. Decisions regarding antiviral treatment of individual cases is at the discretion of the attending clinician(s). Antivirals may be considered for individuals who are severely ill and/or at high risk for severe disease; for more information on antivirals, refer to [MPOX Antiviral Guidance for Health Care Providers](#) document. For additional resources, visit [Mpox Virus \(gov.on.ca\)](#).<sup>11,12</sup>

## Breastfeeding

According to the [WHO](#), it is not currently known if MPXV and/or antibodies are present in breast milk.<sup>13</sup>

- The WHO recommends that continuing or stopping infant feeding practices should be assessed on a case-by-case basis.
- Cases who choose to breastfeed should take risk mitigation measures including performing hand hygiene before and after each feeding, wearing a medical mask, covering lesions which may have direct contact with the infant to the greatest extent possible (e.g., with clothing, a gown, bedding), and if only one breast has lesions, to feed from the non-affected breast, if possible.

Additional assessment and recommendations are to be made on a case-by-case basis, in collaboration with the PHU and/or a health care provider (e.g., consider physical status of mother, disease severity, risk of transmission from mother to infant).

## Precautions to take with animals

Although no cases of mpox have been reported in animals in Canada, cases should avoid contact with animals, including household pets, wildlife, poultry, and livestock.

### Recommendations for symptomatic mpox cases:

- Cases should avoid close and/or prolonged unprotected contact (e.g., not wearing clothing or bandages covering lesions) with pets while infectious (e.g., petting, snuggling, kissing, sleeping with pets) without the use of risk mitigations measures.
  - It is particularly important to prevent direct contact of pets with any unhealed skin lesions.
  - The public health veterinarian at the Ministry of Health can assist with providing recommendations on when and under what conditions a case can return to work, if the individual's work involves contact with animals, especially rodents, rabbits, non-human primates, wildlife, poultry, or livestock. To contact the Ministry's public health veterinarian, email [IDPP@ontario.ca](mailto:IDPP@ontario.ca).
- PHUs with knowledge of a confirmed case with ongoing exposure to mammals, particularly within the household or through occupational exposure (excluding dogs and cats), should report the animal details (no personal health information) to the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA) at 1-877-424-1300 for an animal health risk assessment and further guidance on a case-by-case basis.

### Recommendations for asymptomatic exposed animals:

- Ask someone else in the home who is not sick with mpox to care for the pet, especially for rodents, rabbits, and non-human primates. For dogs that need to go outside periodically, keep them on leash and away from other animals.
- If no one else is available to care for the pet, the case should take precautions when providing care to the animal (see use of risk mitigation measures).

### Recommendations for exposed animals who develop unexplained signs of a compatible viral illness within 21 days of having close contact with a case (e.g., fever, depression, not eating, respiratory signs, diarrhea, oral ulcers, skin lesions):

- Consult a veterinarian.<sup>1</sup> Veterinarians seeking advice on MPXV testing or whether such testing is indicated in a particular case should contact OMAFRA at the number above.
- Avoid unprotected contact with the pet, or any contact with anyone who is immunocompromised, pregnant, or children under 12 years of age.

# Public health considerations for contact management in community settings

## Contact management

Contact management recommendations outlined below apply regardless of an individual's history of receiving a vaccine for smallpox or mpox.

[Table 1](#) provides advice on when to initiate management for confirmed, probable and suspect mpox cases and persons under investigation.

- Backward contact tracing (BCT) can be used to identify potential source cases or exposure venues/events, and support case detection (e.g., communication/outreach with populations at risk and their health care providers to promote awareness of signs/symptoms).

[Table 2](#) provides advice on exposure risk assessment for contacts in community settings.

## Exposure risk assessment considerations

PHUs should consider the following when conducting an exposure risk assessment:

- Case symptoms at time of interaction, such as:
  - Location and extent of skin lesions (e.g., single genital lesion vs. disseminated rash),
  - If skin lesions were appropriately and consistently covered, and
  - Presence of respiratory symptoms and use of a well-fitting mask by case.
- Contact characteristics and risk factors, such as being at higher risk of severe mpox illness (i.e., people who are immunocompromised and/or pregnant, and children under 12 years of age)
- The duration and nature of the interaction between the case and contact, taking into consideration:
  - The most likely route of transmission based on interaction (e.g., direct contact with exposed skin lesions vs. loud talking without the appropriate and consistent use of a well-fitting mask for source control vs. sharing of potentially contaminated items or indirect contact with potentially contaminated surfaces), and
  - Other environmental factors, such as the level of crowding or sleeping arrangements in congregate settings (e.g., large dormitory room vs. closed units).

## Extending contact tracing period

Recent evidence suggests that some cases may be infectious up to 4 days before the onset of symptoms.<sup>1</sup> It is currently unknown what proportion of mpox cases transmit the virus pre-symptomatically, and if the likelihood of pre-symptomatic transmission varies by route of transmission.<sup>1</sup>

PHUs may consider extending contact tracing to high-risk contacts who were exposed to the case up to 4 days before their symptom onset.

- PHUs may decide to trace high-risk contacts exposed during a case's pre-symptomatic period if opting for a more rigorous contact management approach and if the necessary resources are available.<sup>1</sup>
- Extending contact tracing may be done based on a risk assessment of the case's behaviour up to 4 days before their symptom onset.<sup>1</sup>
- When assessing the risk, PHUs could consider whether the case had engaged in an activity with a greater risk of mpox transmission and/or visited a high-risk setting or event during the pre-symptomatic period.<sup>1</sup>

**Table 1: When to initiate contact follow up for confirmed, probable and suspect mpox cases and persons under investigation**

Case classification	Contact tracing (forward/traditional)	<a href="#">Backward contact tracing</a> <sup>14</sup> (BCT) considerations
Confirmed case	<ul style="list-style-type: none"><li>• Initiate contact tracing as soon as possible and</li><li>• Prioritize high-risk contacts.</li></ul>	<ul style="list-style-type: none"><li>• Consider initiating BCT if there is no known epidemiological link <b>AND</b> the case does not identify as part of the key population affected or do not have an identified common risk factor (e.g., individuals who identify as male and report sex with opposite sex, individuals who identify as female, individuals less than 18 years of age excluding teenagers with an identified risk factor)</li></ul>

Case classification	Contact tracing (forward/traditional)	<a href="#">Backward contact tracing</a> <sup>14</sup> (BCT) considerations
Probable cases	<ul style="list-style-type: none"> <li>Based on a PHU risk assessment, including index of suspicion for mpox</li> </ul>	<ul style="list-style-type: none"> <li>Based on a PHU risk assessment, including index of suspicion for mpox</li> </ul>
Suspect cases	<ul style="list-style-type: none"> <li>Await test result</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
Persons Under Investigation (PUI)	<ul style="list-style-type: none"> <li>Await test result</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

**Table 2: Risk of exposure assessment for contacts of a person infected with mpox in community settings\***

Risk of exposure	Description	Examples
High	<ul style="list-style-type: none"> <li>Direct prolonged contact between the individual's skin/mucus membranes and a case's lesion(s)/scab(s), mucus membranes, respiratory secretions, and/or body/biological fluids</li> </ul>	<ul style="list-style-type: none"> <li>Intimate or sexual contact</li> <li>Touching a case's skin lesion(s)/scab(s) without wearing gloves</li> </ul>

Risk of exposure	Description	Examples
Intermediate	<p>Does not meet high-risk criteria, but interaction may result in direct contact with infectious materials such as:</p> <ul style="list-style-type: none"> <li>• Prolonged close face-to-face contact (within 2 metres) with case who has respiratory symptoms</li> <li>• Direct contact with surfaces or objects contaminated by a case's skin lesion(s)/scab(s) or body/biological fluids</li> </ul>	<ul style="list-style-type: none"> <li>• Unprotected prolonged face-to-face interaction with a case who has oral lesions and was not wearing a medical mask for source control</li> <li>• Unprotected contact with a case's contaminated bedding/linens, towels, clothing, lesion dressings, sex toys, etc.</li> </ul>
Low**	A limited exposure deemed not meeting criteria for other risk categories	<ul style="list-style-type: none"> <li>• Individuals in same room as a case but no close proximity (e.g., co-workers in nearby cubicles)</li> </ul>

\* At the discretion of the PHU, an exposure may be re-classified to a different risk level due to context-specific factors.

\*\* For low risk contacts, public health follow-up/monitoring is not required.

## Flight exposures

- Mpox is not a designated communicable disease listed under the *Quarantine Act*. As such, there are no expectations for PHUs to routinely report and investigate flight exposures related to a mpox case who travelled during their period of communicability.<sup>15</sup>
  - However, if a PHU has reason to believe a high-risk inflight exposure has occurred warranting further contact tracing, the PHU may consult with the ministry, PHO and work with PHAC to request an International Health Regulations (IHR) notification and flight manifest as per existing protocols for infectious diseases.
- If the case is a passenger, contact tracing should be considered for individuals where a high-risk exposure occurred (e.g., individual sitting directly beside the case and had direct contact with the case's skin lesions). PHUs should consider offering post-exposure vaccination to individuals that meet the eligibility criteria.
- If the case is a member of the flight crew, passengers are considered to be low risk if the case covered their lesions.

## Exposures in educational and congregate settings

- Educational and congregate settings (e.g. long-term care home, shelter, correctional facility), should follow sector specific legislation and guidelines for when a child/client or

staff member becomes ill while at the setting.

- See [Appendix A](#) for additional information on Infection Prevention and Control in community settings.
- PHUs should work with the case and/or educational/congregate setting to complete an exposure risk assessment, identify close contacts, and offer PEP where appropriate.
- Given the potential for an outbreak/increased severity of disease, if a high-risk exposure to an mpox case in an educational/congregate setting occurs, the PHU should consult with the ministry and PHO to assist with the risk assessment and investigation.

## Post-exposure vaccination

- Offering the Imvamune® vaccine to contacts as post-exposure vaccination is a key component of the public health strategy to contain the spread of mpox and limit ongoing transmission. This provision of Imvamune® for post-exposure vaccination requires an assessment of the risk of exposure by the PHU.
  - Post-exposure vaccination should be offered ideally within 4 days (up to 14 days) from the date of the last exposure to individuals who are a high-risk contact of a confirmed or probable case of mpox (see [Table 2](#) for details on exposure risk assessment).
  - For more information about Ontario's mpox vaccine strategy as well as post-exposure vaccination eligibility criteria, see [Mpox \(monkeypox\) resources for health care professionals | ontario.ca](#).
  - Although post-exposure vaccination is not routinely indicated for intermediate risk contacts, it may be considered on a case-by-case basis based on the PHU's exposure risk assessment. PHUs may consider having a **lower threshold** to offer post-exposure vaccination more broadly to intermediate risk contacts in situations where the exposure risk assessment is challenging and/or not feasible (e.g., case(s) and/or contact(s) are not able to provide a reliable exposure history).
- PHUs should consider offering the Imvamune® vaccine as pre-exposure vaccination to individuals who meet the eligibility criteria (see [Mpox Vaccine \(Imvamune®\) Guidance for Health Care Providers](#)).<sup>8</sup>
  - Individuals receiving a second dose of Imvamune® vaccine should be offered the vaccine at least 28 days after their first dose. Booster doses are not recommended at this time.
- **Note:** Individuals who have been vaccinated with Imvamune® may experience less severe disease if they become infected. Emerging evidence on vaccine effectiveness of Imvamune® has demonstrated that the vaccine reduces risk of mpox and that the two-dose primary series provides better protection than a single dose, however estimates vary.<sup>1</sup>

## Guidelines for contacts

### Self-isolation (quarantine) of contacts:

- Quarantine is not indicated for asymptomatic contacts.

### Monitoring for signs and symptoms:

- Contacts should be advised to monitor for signs and symptoms for 21 days from last exposure including new skin rash/lesions, fever, chills, headache, myalgias, lymphadenopathy, pharyngitis (sore throat), and proctitis (rectal inflammation/pain).
- Contacts who develop signs and symptoms of mpox infection should:
  - Notify the PHU
  - Seek a clinical assessment by a health care provider to facilitate testing<sup>16</sup>
- Contacts should be aware of their potential to develop infection (including mild illness or symptoms) even if they have received one or two doses of Imvamune® vaccine.<sup>1</sup>
- High-risk contacts of confirmed or probable cases who are unable to reliably self-monitor for new or worsening symptoms (e.g., infants, young children) should be monitored by their caregivers.
  - If the PHU is concerned about the ability of a contact or their caregiver to complete daily self-monitoring for mpox signs and symptoms or adhere to self-isolation if symptoms develop, the PHU may consider active monitoring and/or additional supports.
- Contacts should avoid regular or prolonged use of fever-reducing medications (e.g., acetaminophen, ibuprofen, acetylsalicylic acid), if possible, as these medications could mask an early symptom of mpox.

### Risk mitigation measures:

- PHUs should ensure high-risk contacts (or their caregivers if the high-risk contact is an infant/young child) are aware of the importance of daily self-monitoring for signs and symptoms of mpox for 21 days from their last exposure .<sup>1</sup>
- Asymptomatic high-risk children and adult contacts who can self-monitor for signs and symptoms of mpox illness can continue their activities (i.e., attend work, school, and day camps).
- Generally, infants and young children who are identified as asymptomatic high-risk contacts do not need to be excluded from attending **daycare/childcare/educational settings**. However, PHUs may use their discretion to recommend limiting participation in activities and interactions in some situations. In their assessment, PHUs may consider the:
  - Parents', guardians', or caregivers' ability to assess the infant or young child for signs and symptoms of mpox daily, and prior to attending a daycare/childcare/educational setting,



- Details and extent of the high-risk exposure and the likelihood the infant or young child may develop mpox disease,
- Type of setting and interactions with other individuals (e.g., those with individuals at higher risk for severe mpox illness).

### Other considerations:

- Contacts who are considering donation of bodily fluids (e.g., blood, semen, breast milk) or HCT/Ps should first discuss this with a health care provider.
  - There is limited evidence to support asymptomatic or pre-symptomatic transmission of MPXV in bodily fluids or HCT/Ps. Guidance will be updated as additional evidence becomes available.
  - Information on donating blood by those who are contacts of a mpox case is available from [Canadian Blood Services](#).<sup>10</sup>

## Public health considerations for contact management in health care settings

### General information

[Table 3](#) provides advice on exposure risk assessment for a healthcare worker (HCW) who is a contact of a patient mpox case in a health care setting.

[Table 4](#) provides advice on exposure risk assessment for a patient who is a contact of a HCW mpox case in a health care setting.

See [Public health considerations for case management in community settings](#) (above) for case management considerations for individuals with confirmed or probable mpox.

- Contact management advice applies regardless of an individual's history of receiving of a vaccine for smallpox or mpox.

See PHO's [Infection Prevention and Control \(IPAC\) Recommendations for Monkeypox in Health Care Settings](#) for more information on IPAC in health care settings including hospitals and outpatient settings (e.g., primary care, sexual health clinics, and vaccine clinics).<sup>17</sup>

### Healthcare worker contacts

- Any HCW who has cared for a patient with confirmed or probable mpox and has had a high, intermediate, or low risk exposure should monitor for signs and symptoms of mpox for 21 days after last date of exposure.
- HCWs and essential caregivers in congregate settings (e.g., long-term care) should report their exposure to their employer/occupational health/setting and follow any additional guidance and workplace policies (e.g., screening/monitoring).
- HCW contacts who develop any mpox signs and symptoms including prodromal symptoms should contact their employer/occupational health/setting to indicate that

they are under investigation and contact a healthcare provider to facilitate clinical assessment and consideration of appropriate testing.<sup>16</sup>

- Asymptomatic HCW contacts should generally be able to continue working if they are able to complete daily active screening for signs and symptoms of mpox for the 21-day period from last date of exposure (e.g., daily contact with Occupational Health).
  - PHUs and/or occupational health may use their discretion in advising an asymptomatic HCW contact to avoid working. In their assessment, a PHU and/or occupational health may consider the type of contact (e.g., greater concern for a high-risk contact), the contact's ability to complete daily self-assessments for symptoms and the types of patient population served (e.g., those at higher risk of severe mpox illness), etc.

**Table 3: Risk of exposure assessment for health care worker (HCW) contacts of a person infected with mpox in health care settings\***

Risk of exposure	Description	Examples
High	<ul style="list-style-type: none"> <li>• Unprotected direct contact between a HCW's skin (i.e., no gloves) or mucus membranes (i.e., no eye protection, no N95 respirator or medical mask) and a patient's skin lesion(s)/scab(s), mucus membranes, respiratory secretions, or body/biological fluids</li> <li>• HCW has unprotected direct contact (i.e., no gloves) with surfaces or objects contaminated by a patient's skin lesion(s)/scab(s), mucus membranes, respiratory secretions, or body/biological fluids</li> </ul>	<ul style="list-style-type: none"> <li>• Accidental splash(es) of patient saliva to the unprotected eye(s) or oral cavity of an HCW</li> <li>• HCW had direct contact with a patient's skin lesions without wearing gloves</li> <li>• HCW was not wearing gloves and handled contaminated materials with the patient's respiratory secretions and/or body/biological fluids (e.g., linens, clothing)</li> </ul>

Risk of exposure	Description	Examples
Intermediate	<p>Does not meet high risk criteria, but interaction may result in an unprotected exposure to infectious materials such as:</p> <ul style="list-style-type: none"> <li>• HCW is inside the patient's room during any procedures that may involve producing aerosols, without eye protection, N95 respirator or medical mask, gown and gloves</li> <li>• Close face-to-face contact with an unmasked patient with oral lesions or respiratory symptoms where HCW was not wearing an N95 respirator or medical mask</li> <li>• Actions that result in unprotected contact (i.e., gloves, but no gown) between sleeves or other parts of the HCWs' clothing and the patient's skin lesions, bodily fluids, or soiled linens</li> </ul>	<ul style="list-style-type: none"> <li>• HCW was not wearing eye protection, N95 respirator or medical mask, gown and gloves during a procedure that may involve producing aerosols including oral secretions (e.g., intubation), or re-suspension of dried fluids (e.g., shaking or changing of soiled linens)</li> <li>• HCW was not wearing a medical mask and there was unprotected prolonged face-to-face interaction with a case who has oral lesions and was not wearing a medical mask for source control</li> <li>• HCW was turning, bathing, or assisting with transfer of a case while wearing gloves, and medical mask but not wearing a gown</li> <li>• HCW handled materials contaminated by the patient's respiratory secretions and/or body/biological fluids (e.g., linens, clothing) while wearing gloves and medical mask but not wearing a gown</li> </ul>

Risk of exposure	Description	Examples
Low	Does not meet high or intermediate risk criteria, but a limited exposure may have occurred without appropriate PPE for the situation	<ul style="list-style-type: none"> <li>• HCW was in a patient room without wearing eye protection and medical mask</li> <li>• HCW was not wearing a medical mask when in the patient care area but they did not have face-to-face contact with an unmasked patient or contact was transitory (e.g., triage)</li> <li>• HCW conducted vitals on the patient without wearing a gown or gloves, and the only contact was with the patient's intact skin. Any lesions were covered during the assessment and hand hygiene is performed after the assessment (e.g., patient only had genital lesions that was covered and they had no other signs or symptoms of mpox illness)</li> <li>• HCW was inside the patient's room during a procedure that may have involved producing aerosols while wearing eye protection, gown, gloves and medical mask (i.e., no N95 respirator)</li> <li>• HCW was not wearing a medical mask and was in the patient care area where they had non-transient close (within 2 metres) face-to-face contact with an unmasked patient</li> </ul>
No/very low	An exposure deemed not meeting criteria for other risk categories	HCW wore all PPE (eye protection, N95 respirator or medical mask, gown and gloves) during all visits in the patient care area or room

\* At the discretion of the PHU or hospital occupational health/IPAC, an exposure may be re-classified to a different risk level due to context-specific factors.

## Patient contacts

- Any patient who has had a high, intermediate, or low risk exposure should monitor for signs and symptoms of mpox for 21 days after last date of exposure.
  - Staff should monitor patients who are unable to self-monitor for signs and symptoms of mpox at least twice a day or once per shift including temperature checks and skin assessment.
- Asymptomatic patients who are contacts of a confirmed case of mpox in a health care setting do not routinely need to be placed in additional precautions including if they are transferred to another unit within the hospital or to a different setting (e.g., transferred from hospital to a long-term care facility).
- Patient contacts who are considering donation of bodily fluids (e.g., blood, semen, breast milk) or HCT/Ps should first discuss this with a health care provider.
- Should patient contacts develop any mpox signs or symptoms, including prodromal symptoms, the contact should be immediately placed in a single-patient room with the door closed and a dedicated toileting facility or commode (to facilitate clinical assessment and consideration of appropriate testing).

**Table 4: Risk of exposure assessment for a patient who is a contact of a health care worker mpox case in a health care setting†**

Risk of exposure	Description	Examples
High	Unprotected direct contact between a HCW case's skin lesion(s)/scab(s) (i.e., no gloves or gown) and a patient's unprotected skin	Patient had direct contact with HCW case's unprotected skin lesions (e.g., HCW had lesion on their hand and was not wearing gloves when in direct contact with patient or HCW had an uncovered lesion on their arm and they were not wearing a gown when the lesion came in direct contact with patient).

Risk of exposure	Description	Examples
<b>Intermediate</b>	<p>Does not meet high risk criteria, but interaction may result in an unprotected exposure to infectious materials such as:</p> <ul style="list-style-type: none"> <li>• Patient had non-transient close (within 2 metres) face-to-face contact with an unmasked HCW case with oral lesions or respiratory symptoms (i.e., HCW was not wearing an N95 respirator or medical mask)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>HCW case's lesions were covered, but HCW case was not wearing a medical mask and was in the patient care area where they had non-transient close (within 2 metres) face-to-face contact with an unmasked patient</b></li> <li>• <b>Patient had unprotected prolonged face-to-face interaction with a HCW who has oral lesions or respiratory symptoms and was not wearing a medical mask for source control.</b></li> </ul>
<b>Low</b>	<p>Does not meet high or intermediate risk criteria, but a limited exposure may have occurred without appropriate PPE for the situation</p>	<p>HCW case was doing vitals without wearing gown or gloves, where only contact was with patient's intact skin and the HCW case's lesions were covered and were not located on exposed areas such as their hands, arms, or face (i.e., HCW case only had covered genital or truncal lesions and no other signs or symptoms of mpox illness).</p>
<b>No/very low</b>	<p>An exposure deemed not meeting criteria for other risk categories</p>	<p>HCW case was wearing all PPE (i.e., eye protection, N95 respirator or medical mask, gown, and gloves) during all visits in the patient contact's care area or room</p>

† At the discretion of the local PHU or hospital occupational health/IPAC, an exposure may be re-classified to a different risk level due to context-specific factors.

# Outbreak management

- If there is concern of a mpox outbreak in a facility, PHUs should consult with PHO and the MOH prior to declaring an outbreak. Please email both [EPIR@oahpp.ca](mailto:EPIR@oahpp.ca) and [IDPP@ontario.ca](mailto:IDPP@ontario.ca).

## Outbreak definitions

Declaring an outbreak in a hospital/health care or congregate setting:

- **Suspect outbreak:** a single probable case of mpox acquired in the facility
- **Confirmed outbreak:** a single confirmed case of mpox acquired in the facility

## Considerations for outbreak prevention and management

### Prevention

- Vaccinations:
  - PHUs are encouraged to support mpox vaccinations for those eligible to receive the vaccine in collaboration with relevant health system partners.
  - All clients/residents, staff, and visitors should be encouraged to get vaccinated against mpox if they are eligible to receive the vaccine. See [Mpox Vaccine \(Imvamune®\) Guidance for Health Care Providers](#) for eligibility criteria.<sup>8</sup>
- Screening:
  - The purpose of active and passive screening is to prevent those who may be infectious from spreading the infection within the setting.
    - Passive screening means those entering the setting monitor their own health and may review screening questions themselves; there is no verification or attestation of screening (e.g., signage at entrances as a visual reminder to not enter if symptomatic).
    - Active screening means there is some form of attestation/confirmation of screening. This can be achieved through pre-arrival submission of online screening or in-person.
  - Settings are recommended to develop an operational plan including guidance for staff, visitors, and clients/residents to self-monitor for symptoms of communicable diseases (e.g., fever, respiratory symptoms, skin lesions, etc.). Settings should provide steps that should be taken if a staff member, visitor, or client/resident is experiencing new or worsening symptoms and/or fails the screening.
- Daily symptom assessment:
  - Exposed clients/residents should be assessed at least once daily to identify new or worsening symptoms.

- In large congregate settings that primarily serve transient clients and/or a large number of clients, staff should be encouraged to check in with clients opportunistically while providing services and remind clients to self-identify if they are feeling unwell.
- Infection prevention and control:
  - See PHO's [Infection Prevention and Control \(IPAC\) Recommendations for Monkeypox in Health Care Settings](#) and [Appendix A](#).<sup>17</sup>

## Case management

- Isolation:
  - Isolation of confirmed cases of mpox in single rooms with a door that closes, and if feasible, with access to a private bathroom.
  - If a single room is not available, the case should be placed in an area where they will not have direct contact with others (e.g., cubicle with curtains drawn or other room dividers to create a separate space), given a medical mask to wear if it is safe for the client to do so, and exposed skin lesions covered as much as possible (e.g., by clothing, gown or bedding).
  - If a private bathroom is not available, care should be taken to ensure that no items which come into contact with skin lesions or their fluids will be shared between individuals (e.g., towels). As best as possible, assign specific items for the case's use and other items for the roommate(s)/other occupant(s) use (e.g., commode service, shared washroom, showering facilities). Any surfaces/items that may come into contact with potentially infectious respiratory secretions, lesions or fluid from lesions (e.g., toilet seat, toilet handle) should be cleaned and disinfected after use and before use by another individual.
  - Cases who are isolating due to mpox should be provided with access to key services and supports as needed, including medical care, routine medications, mental health supports/counselling, harm reduction supplies, addiction services and supports, nicotine replacement, and naloxone (for emergency response).
  - PHUs may use their discretion in advising a case to continue to self-isolate and/or avoid specific settings until the end of their period of communicability.
- Monitoring:
  - Cases should be monitored daily by staff for worsening of symptoms so medical care can be arranged quickly if needed.
  - See [Treatment](#) section for information on the use of TPoxx®.



## Contact management

- Monitoring:
  - All contacts in the setting should be advised to report any signs or symptoms of mpox illness to staff immediately.
  - Where contacts are unable to reliably report new or worsening symptoms, staff should conduct daily active monitoring (including daily temperature checks and skin assessment) of contacts for the duration of the outbreak.
    - **Note:** Skin assessments may be difficult to operationalize in non-healthcare congregate settings. However, these settings should continue to monitor contacts through daily temperature checks, and as possible, a visual skin assessment.
  - Employees of the setting who are identified as contacts should speak with their employer/occupational health to report their exposure and follow their workplace guidance.
  - See [Public health considerations for contact management in health care settings](#) for additional information.
  - See [Post-exposure vaccination](#) section for guidance and resources.

## Personal Protective Equipment (PPE)

- Staff or visitors who will be entering the case's room/isolation space, or who will/may have contact with the case's skin lesions or their fluid (e.g., during the provision of direct care) are to wear appropriate PPE (See PHO's [Infection Prevention and Control \(IPAC\) Recommendations for Monkeypox in Health Care Settings](#)).<sup>17</sup>
- Additional precautions are to be maintained until all scabs have fallen off and new skin is present.
- Where possible, pregnant women or moderately to severely immunocompromised individuals should not provide direct care for confirmed cases of mpox.

## Transportation

- If a mpox case must be transported off-site (e.g., for a medical appointment), the client should wear clean clothes/gown, wash their hands, wear a medical mask, and cover their lesions to the best extent possible for transport.
- Staff accompanying the mpox case are to wear PPE (per that recommended for staff involved in provision of direct care).

## Declaring an outbreak over

An outbreak may be declared over by the PHU when there are no new cases in residents or staff linked to exposures in the setting after 21 days (one maximum incubation period has passed) from the last date that others were potentially exposed to an infectious case.

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# Appendix A - Infection Prevention and Control in Community Settings

## Recommendations for personal protective equipment

- Caregivers should perform hand hygiene regularly, including after touching skin lesions or lesion material, before putting on and after removing gloves, or after handling clothing, linens, or environmental surfaces that may have come into contact with fluid from lesions.
- Caregivers and household members should wear a medical mask when entering the case's isolation space (e.g., to deliver food).
- Caregivers should wear a medical mask and disposable gloves for direct contact with lesions. These should be disposed of after single-use.

## Recommendations for handling soiled laundry/linens

- The individual should be handling their own laundry to the extent possible.
- Avoid direct contact when handling contaminated laundry/linens (i.e., wear disposable gloves, disposable gowns or long sleeved clothing if gowns are not available).
- Do not shake or otherwise agitate soiled laundry in a way that could disperse infectious particles or hold the linens against one's clothing.
- Washing laundry in a standard washing machine with hot water and detergent is acceptable.

## Recommendations for cleaning/disinfection in the home environment

- Do not share dishes or utensils when eating; however, dishes/utensils can be used by others in the home if these are washed between uses either in a dishwasher or in a sink, using warm water and soap.
- Clean and disinfect contaminated surfaces (e.g., bathroom, if shared, after use by the person isolating).
- No special cleaning products are required; usual household cleaning and disinfecting products are sufficient to inactivate the virus. These should be used as per manufacturer instructions, including following recommended contact times to help ensure safe and effective use of the cleaning/disinfecting product.

## Recommendations for waste disposal

- The risk to humans within the household who may directly handle contaminated domestic waste (e.g., gauze, wound dressings) generated within the home setting can be reduced through practices such as;
  - performing regular hand hygiene, including after removing gloves used to handle waste,
  - wearing gloves when handling waste,
  - discarding contaminated items directly into a dedicated lined waste container,
  - and not touching the outside of the waste container or other surfaces with contaminated gloves.
- The risk to individuals who collect domestic waste (e.g., sanitation worker/collector) can be reduced by advising the case/household members to use strong bags, ensure bags are securely tied, double bag waste, and reinforce the need for hand hygiene and wearing of disposable gloves when handling waste.
- Measures to prevent transmission from domestic waste to susceptible animals at home (including pets), or to peri-domestic animals (especially rodents) can include double bagging waste, using strong bags, ensuring bags are securely tied, and storing the garbage in a secure bin prior to collection.