

Ministry of Health

Recommendations for the management of cases and contacts of monkeypox (MPX) in Ontario

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Version 3 – Significant updates

Page #	Description
Throughout the document	In consultation with stakeholders, the Ministry of Health is referring to human monkeypox disease as MPX and monkeypox virus as MPX virus. This is consistent with other jurisdictions and scientific publications.
6	Added a recommendation for public health units to review all female and pediatric cases with Public Health Ontario and Ministry of Health prior to entering the case classification as “confirmed” in iPHIS. Contact information for Public Health Ontario and Ministry of Health is provided.
6-12	<p>Updated guidelines for cases to include:</p> <ul style="list-style-type: none"> • Phase One: Self-isolation, <ul style="list-style-type: none"> ○ Updated de-isolation criteria for cases which permits cases to end their self-isolation earlier with added risk mitigation measures. Criteria for absence of a fever have been updated. • Phase Two: Ending self-isolation with risk mitigation measures, <ul style="list-style-type: none"> ○ Updated and clarified risk mitigation measures, and • Phase Three: Recovered. <ul style="list-style-type: none"> ○ Updated and clarified information on post-recovery use of barrier methods during sexual activities and donations of bodily fluids and tissues.
13-14	Updated recommendations for precautions to take with animals.
15-16	Added exposure risk assessment considerations for contact management.
16	Table 1: Updated the backward contact tracing recommendation for a confirmed case.

Page #	Description
17-18	Table 2: Updated to combine “Low/very low risk” exposures and removed “No risk” exposures. Downgraded contact with contaminated objects from a high risk of exposure to an intermediate risk of exposure.
18-19	Added and updated recommendations for flight exposures.
19	Added recommendations for exposures in educational settings.
19-20	Added considerations for having a lower threshold to offer post-exposure vaccination to intermediate risk contacts where the exposure risk assessment is challenging and/or not feasible.
20-21	Updated and clarified guidelines for contacts including risk assessment and mitigation considerations for infants and young children.
29	Added a recommendation for public health units to consult with Public Health Ontario and Ministry of Health prior to declaring an outbreak in a hospital/health care setting/long-term care home/congregate setting. Contact information for Public Health Ontario and Ministry of Health is provided.
29-30	Added outbreak prevention considerations.

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 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 (MPX) virus is an orthopoxvirus, first discovered in monkeys used for research in 1958 when two outbreaks of a pox-like disease were identified.¹ In 1970 the first human case of the virus was identified in the Democratic Republic of the Congo (DRC).

Sporadic cases of MPX in humans have been reported in various countries outside of Africa, however, most of these were deemed to be related to travel to endemic areas or to contact with infected animals imported from endemic areas.^{1,2}

Since May 2022, numerous cases of MPX have been reported from several European, American, African, Western Pacific, Eastern Mediterranean, and South-East Asian countries, where MPX has not been typically found and where there are no identified associations with travel to MPX endemic countries. In July 2022, the WHO Director-General declared the global MPX outbreak a public health emergency of international concern.³ Through September and October 2022, many of the affected countries have seen a decrease in the number of weekly reported MPX cases, including Canada.

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

Public health considerations for case management in community settings

- The primary goal of public health case management is to prevent and control cases and community transmission.
- To support adherence to public health recommendations, PHUs should consider active monitoring of confirmed cases (e.g., regular phone calls/communication).
- Since the vast majority of MPX cases identified in Ontario and globally have been reported in males 18 years of age and older, PHUs should review all **female** and **pediatric cases** (less than 18 years of age) with PHO and the Ministry of Health

prior to entering the case classification as "confirmed" in iPHIS. Please email both EPIR@oahpp.ca and IDPP@ontario.ca.

Guidelines for cases

- In context of the current MPX outbreak to date, along with available literature and experiences, Ontario is taking a phased approach to case management. The aim 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.
 - **Phase One: Self-isolation** is indicated in the initial stages of a clinical MPX infection. During the initial stages, the case may be experiencing systemic symptoms as well as new and ongoing eruption of skin lesions that may be associated with pain and discomfort. Supportive care may be required if these skin lesions interfere with activities of daily living. When the case meets the [de-isolation criteria](#), they are permitted to leave their place of self-isolation and follow the risk mitigation recommendations provided in [Phase Two: Ending self-isolation with risk mitigation measures](#).
 - **Phase Two: Ending self-isolation with risk mitigation measures** is indicated when the case is no longer experiencing systemic symptoms, their skin lesions are manageable from both a symptomatic and wound care perspective (i.e., can be covered), and they are enabled to resume their activities of daily living. At this stage, cases should start to experience healing of active lesions.
 - **Phase Three: Recovered** is when the case has reached the end of their period of communicability (i.e., all lesions have scabbed over and fallen off with a fresh layer of skin formed underneath) and is considered recovered from the MPX infection.
- Movement between [Phase One](#) and [Phase Two](#) is **not unidirectional**. If the case is no longer in the self-isolation phase, but subsequently develops fever, respiratory symptoms, and/or skin lesions that cannot be easily covered, the case should re-enter [Phase One: Self-isolation](#) until the criteria for de-isolation have been met.

Phase One: Self-isolation

- All individuals for whom MPX testing is being performed should be advised to self-isolate at home (or in the community) pending test results.

- Clinicians and PHUs may use their clinical judgment to determine whether an individual classified as a person under investigation (PUI) as per the [case definition](#) should generally self-isolate pending test results. For case definitions, refer to [Infectious Disease Protocol - Appendix 1: Case Definitions and Disease-Specific Information - Disease: Smallpox and other Orthopoxviruses including Monkeypox \(gov.on.ca\)](#)
- Individuals for whom MPX is clinically suspected but testing is unavailable or not completed should self-isolate at home (or in the community) and follow the phased approach recommendations for self-isolation.
- **Self-isolation** means:
 - Staying 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 respiratory symptoms.
 - Avoiding close physical contact, including sexual contact, with others, especially with those at higher risk of severe MPX illness (i.e., people who are immunocompromised and/or pregnant, and children under 12 years of age).⁹
 - Avoiding contact with animals, including household pets, poultry, and livestock. Refer to [Precautions to take with animals](#) for additional information.
 - If close contact with others in the home 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, especially if respiratory symptoms such as a cough or sore throat are present and/or if there are lesions inside the mouth/oral cavity, and
 - 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 monkeypox at home \(who.int\)](#) for additional information on taking care of oneself.
- **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.
- Having dedicated clothing, bed linens, and towels that are not shared with others.
- Covering upholstered furniture (e.g., couch, chairs, mattress) with a launderable coversheet, waterproof mattress cover, blanket, tarp etc.
- Avoiding areas commonly used by others in the household, if possible.
- Cleaning and disinfecting items/surfaces in common/shared spaces after use. See [Appendix A](#).
- Eating meals in a separate room and away from other household members.
 - Where possible, cases should ask someone to bring their meals to them and use dedicated items for eating and drinking.
- 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. Wearing gloves if handling bags and washing hands after removing gloves.
- As much as possible, cases should have necessities (e.g., medication, groceries, etc.) delivered to the home. Items should be left outside of the home and picked up only after the individual delivering the items has left, to avoid contact.
- 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.

De-isolation criteria

PHUs should assess when cases can end their self-isolation on a case-by-case basis and, if required, in consultation with a clinician.

De-isolation criteria:

- Absence of fever for at least 24 hours,
- Absence of respiratory signs and symptoms (e.g., sore throat, cough), and
- Skin lesions are in locations on the body that can be easily covered by clothing, bandages, medical mask, and/or gloves.

When the case meets the de-isolation criteria, they are permitted to leave their place of self-isolation and follow the risk mitigation recommendations provided in [Phase Two: Ending self-isolation with risk mitigation measures](#).

Severe cases (including individuals who are moderately to severely immunocompromised as defined in [Monkeypox Vaccine Guidance - English \(gov.on.ca\)](#)) may experience prolonged viral shedding from the upper respiratory tract. Clinical evaluation may be required to determine when transmission-based precautions may be discontinued.¹¹

Phase Two: Ending self-isolation with risk mitigation measures

Once the case is experiencing improvement in their symptoms (see [De-isolation criteria](#)), they may begin to resume their daily activities. 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.

While skin lesion symptoms persist, PHUs should advise cases to continue to **prioritize** the recommendations outlined in the [Phase One: Self-isolation](#) section and follow additional risk mitigation measures when they are interacting with others inside and outside of their home:

- 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 not leave their place of self-isolation and continue to follow the recommendations in [Phase One: Self-isolation](#) until the [De-isolation criteria](#) are met.
- Wear a medical mask for source control, especially if history of respiratory symptoms.

- Avoiding close or direct contact with individuals at higher risk of severe MPX illness where feasible (i.e., people who are immunocompromised and/or pregnant, children under 12 years of age).
- Avoiding interactions where prolonged close, direct skin-to-skin contact with others may occur (e.g. sexual contact, crowded concert, contact sports such as wrestling).
- Avoiding congregate settings (e.g. shelter, long-term care facility).
- Do not use shared recreational water facilities (e.g., pool, hot tub).

When advising the case on returning to **essential** activities (e.g., work, school, and day camps), the PHU may consider the following in their risk assessment such as:

- The case's ability to adhere to risk mitigation measures (e.g., ability to wear a mask, cover skin lesions, clean hands often, etc.),
- The type of setting and interactions and/or populations served (e.g., those at higher risk of severe MPX illness),

A return to **non-essential** activities (e.g., social gatherings, attending public performances) should be delayed until the case has fully recovered and enters Phase Three.

Phase Three: Recovered

- The case can end Phase Two risk mitigation activities once all lesions have scabbed over and fallen off with a fresh layer of skin formed underneath.
- As a cautious approach, recovered cases should be counselled on using barrier methods (e.g., condoms, dental dams) during any sexual activity following symptom resolution. A barrier method may decrease the risk of exposure to MPX virus in the genital excretions for sexual partner(s) of the recovered case. This is in line with the precautionary recommendations from the [Public Health Agency of Canada](#).
 - There is little evidence to support a length of time that a recovered individual should utilize barrier methods during sexual activity. Some countries are recommending a minimum of 8 weeks.
 - There is currently no available evidence that an individual who recovered from a MPX infection can transmit the virus via genital excretions (i.e., seminal or vaginal fluids). Guidance will be updated as additional evidence becomes available.

- Given the potential for excretion of MPX virus post-recovery, cases should consult with a health care provider prior to donating bodily fluids (e.g. blood, semen, breast milk) or human cells, tissues, or cellular or tissue-based products (HCT/Ps).
 - To date, there have been no cases of MPX 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 MPX is available from [Canadian Blood Services](#).

Seeking medical care

PHUs should provide information to cases in [Phase One](#) and [Phase Two](#) on risk mitigation measures when accessing urgent medical care such as:

- Wearing a medical mask, performing frequent hand hygiene, and keeping lesions covered as feasible when they are outside of their isolation space.
- Using their own private vehicle where possible.
 - If the case is not able to use their own vehicle, the PHU should consider assisting the case in transportation (e.g. private taxi) to avoid the use of public transportation (e.g. bus, street car, subway) and advise the case to use appropriate risk mitigation measures (e.g., use of a medical mask, keeping lesions covered, hand hygiene).
- Alerting health care providers of the infection prior to leaving their home (if possible) and upon arrival to ensure appropriate infection control and prevention practices.

Cases should postpone elective medical visits and other elective procedures (e.g., elective dental visits, elective blood tests) until [Phase Three: Recovered](#).

Treatment

Decisions regarding treatment of individual cases, including the use of antiviral medications, are at the discretion of the attending clinicians. In general, treatment is supportive as the infection is self-limiting in nature.

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 the Ministry of Health's

[Monkeypox Antiviral Guidance for Health Care Providers](#) document. For additional resources, visit [Monkeypox Virus \(gov.on.ca\)](#).

Breastfeeding

According to the [WHO](#), it is not currently known if MPX virus and/or antibodies are present in breast milk.

- 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 MPX have been reported in animals in Canada, cases should avoid contact with animals, including household pets, wildlife, poultry, and livestock:

- Keep pets in the home until 21 days after last exposure to a symptomatic person with MPX. If possible, ask someone else in the home who is not sick with MPX to care for the pet. This is especially important for rodents, rabbits, and non-human primates.
 - For dogs that need to go outside periodically, keep them on leash and avoid contact with other people and animals.
- If an animal develops signs of MPX (e.g., fever, depression, not eating, respiratory signs, diarrhea, oral ulcers, skin lesions) within 21 days of having close contact with a case, a veterinarian should be consulted.⁶
- Anyone who is immunocompromised and/or pregnant, and children under 12 years of age, should avoid being caregivers to exposed or symptomatic animals.
- If no one else is available to care for the pet, the case should take precautions when providing care to animals. While infectious, wear a well-fitting medical mask and gloves, cover all skin lesions with clothing, bandages, and perform hygiene measures, as recommended to reduce the risk of transmission when

interacting with animals, their food, and supplies.

- Avoid close and/or prolonged contact with pets, for example, petting, snuggling, kissing, sleeping with pets, or sharing food, especially if it involves direct contact with any unhealed skin lesions.
- 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, including not working with wildlife, livestock, or poultry. See [De-isolation criteria](#) and [Phase Two: Ending self-isolation with risk mitigation measures](#) for risk assessment considerations.
- 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 Rural Affairs at 1-877-424-1300 for an animal health risk assessment.

Public health considerations for contact management in community settings

Contact management

Contact management for MPX can range from passive self-monitoring to active monitoring by the PHU (e.g., phone calls / other regular communication).

- Active monitoring involves regular communication between the PHU and the contact (e.g., daily communication by phone or another method).
- Passive monitoring involves providing education to the contact on how to self-monitor and when to self-isolate, call the PHU and seek clinical assessment.

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

[Table 1](#) provides advice on when to initiate management for confirmed, probable and suspect MPX 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. 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
 - Respiratory symptoms and use of a well-fitting mask.
- Contact characteristics and risk factors, such as being at higher risk of severe MPX 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 the 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).

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

Case classification	Contact tracing (forward/traditional)	¹³ <u>Backward contact tracing (BCT) considerations</u>
Confirmed case	<ul style="list-style-type: none"> • Initiate contact tracing as soon as possible. • Prioritize high-risk contacts. 	<ul style="list-style-type: none"> • Consider initiating BCT based on PHU risk assessment • BCT should be initiated as soon as possible if the case is in a child (less than 18 years old) or female.
Probable cases	<ul style="list-style-type: none"> • Based on a PHU risk assessment, including consideration of index of suspicion for MPX 	<ul style="list-style-type: none"> • Consider initiating BCT based on PHU risk assessment, including consideration of index of suspicion for MPX
Suspect cases	<ul style="list-style-type: none"> • Await test result 	<ul style="list-style-type: none"> • N/A
Persons Under Investigation (PUI)	<ul style="list-style-type: none"> • Await test result 	<ul style="list-style-type: none"> • N/A

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

Risk of exposure	Description	Examples
High [†]	<ul style="list-style-type: none"> • Direct contact between the individual's skin/mucus membranes and a case's skin lesion(s)/scab(s), mucus membranes, respiratory secretions, or body/biological fluids 	<ul style="list-style-type: none"> • Intimate or sexual partner • Touching a case's skin lesion(s)/scab(s) without wearing gloves • Prolonged face-to-face interaction with a case, without the use of a medical mask by the case and the contact
Inter-mediate [§]	<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"> • Non-transient close (within 2 metres) face-to-face contact with an unmasked case • Non-transient direct contact with case's intact skin-only (i.e., area of skin with no lesions/scabs) • Direct contact with surfaces or objects contaminated by a case's skin lesion(s)/scab(s), mucus membranes, respiratory secretions, or body/biological fluids 	<ul style="list-style-type: none"> • Sitting next to a case in a taxi or ride share where the case was unmasked • Sitting next to a case on a plane or train where non-transient direct contact occurred (e.g. with the case's exposed intact skin from forearms on an arm rest) • Shared living space where there are limited interactions with a case or their belongings • Contact with a case's contaminated bedding, linens, towels, clothing, lesion dressings, utensils, razors, needles, sex toys, etc.

Risk of exposure	Description	Examples
Low /very low**	A limited exposure deemed not meeting criteria for other risk categories	<ul style="list-style-type: none"> • Individuals in same room as a case but no close proximity (e.g., co-workers in nearby cubicles) • Transient or brief social interactions that did not involve close or prolonged contact or risk of direct contact with an infectious lesion • Individual wearing appropriate PPE at all times when interacting with a case

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

† For high-risk contacts, PHUs should consider implementing active monitoring.

§ For intermediate contacts, PHU's should use their discretion to initiate active monitoring or passive monitoring based on context-specific risk assessment.

** For low/very low-risk contacts, monitoring is not generally required, but PHU's should use their discretion to initiate monitoring based on context-specific risk assessment.

Flight exposures

- MPX 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 MPX case who travelled during their period of communicability.
 - 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 and 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 settings

- Educational settings should follow sector specific legislation and guidelines for when a child or staff member becomes ill while at the setting, including separating the ill person from others while continuing to provide age-appropriate care until the ill person can go home and/or seek medical assessment, testing, and/or treatment.
- See [Appendix A](#) for additional information on Infection Prevention and Control in community settings.
- PHUs should work with the case and/or educational setting to complete an exposure risk assessment, identify close contacts, and offer PEP where appropriate.

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 MPX and limit ongoing transmission. This provision of Imvamune® for post-exposure vaccination requires an assessment of the risk of exposure by the PHU.
 - For more information about Ontario's MPX vaccine strategy as well as post-exposure vaccination eligibility criteria, see Ministry of Health's [Monkeypox Vaccine \(Imvamune®\) Guidance for Health Care Providers \(gov.on.ca\)](#) (2022, or as current).
- At this time, Imvamune® should be offered as post-exposure vaccination to individuals who are identified as a high-risk contact of a confirmed or probable case of MPX (see [Table 2](#) for details on exposure risk assessment).
- 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 may also consider offering the Imvamune® vaccine as pre-exposure vaccination to individuals who meet the eligibility criteria (see Ministry of Health's

[Monkeypox Vaccine \(Imvamune®\) Guidance for Health Care Providers \(gov.on.ca\)](#) (2022, or as current)).

- **Note:** Individuals who have been vaccinated with Imvamune® may experience less severe disease if they become infected.

Guidelines for contacts

Self-isolation (quarantine) of contacts:

- Asymptomatic contacts are not considered infectious and therefore quarantine is not indicated.
- PHUs should advise contacts to self-isolate immediately if any symptoms develop (including non-rash prodromal symptoms) and contact the PHU.

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 (advised to take temperature twice daily), chills, headache, myalgias, and lymphadenopathy.
- Contacts should self-isolate immediately if any symptoms (including prodromal symptoms) develop and contact the PHU and a health care provider (to facilitate clinical assessment and consideration of appropriate testing).¹²
- 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 MPX signs and symptoms or adhere to self-isolation if symptoms develop, the PHU may consider active monitoring / additional supports.
- Advise contacts to avoid regular or prolonged use of fever-reducing medications (e.g., acetaminophen, ibuprofen, acetylsalicylic acid) as these medications could mask an early symptom of MPX.

Risk mitigation measures:

- Asymptomatic high-risk children and adult contacts who can **reliably** self-monitor for signs and symptoms of MPX illness should generally be able to continue their **essential** activities (i.e., attend work, school, and day camps).

- As a risk mitigation measure, asymptomatic high-risk contacts should consider wearing a medical mask when in enclosed indoor settings where close or direct contact with others is unavoidable.
- Children and adults who have been identified as high-risk contacts should conduct a self-assessment for signs and symptoms of MPX daily, before attending their essential activities.
- Interactions that are **non-essential** should be avoided for 21 days, such as close or direct contact with individuals at higher risk of severe MPX illness (i.e., people who are immunocompromised and/or pregnant, and children under 12 years of age).
- PHUs may use their discretion in advising an asymptomatic contact to **avoid** an activity or interaction. In their assessment, a PHU may consider the:
 - type of contact (e.g., greater concern for a high-risk contact),
 - contact's ability to adhere to risk mitigation measures (e.g., conduct self-assessment for symptoms and communicate symptoms),
 - type of setting and interactions with other individuals,
- 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 cases. In their assessment, PHUs may consider the:
 - Parents', guardians', or caregivers' ability to assess the infant or young child for signs and symptoms of MPX 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 MPX disease,
 - Type of setting and interactions with other individuals (e.g., those with individuals at higher risk for severe MPX 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 no evidence to support asymptomatic or pre-symptomatic transmission of MPX virus 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 MPX case is available from [Canadian Blood Services](#).

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 MPX case in a health care setting.

[Table 4](#) provides advice on exposure risk assessment for a patient who is a contact of a HCW MPX 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 MPX.

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

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).

Healthcare worker contacts

- Any HCW who has cared for a patient with confirmed or probable MPX and has had a high, intermediate, or low risk exposure should monitor for signs and symptoms of MPX 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 MPX signs and symptoms including prodromal symptoms should self-isolate immediately and contact their employer/occupational health/setting (to facilitate clinical assessment and consideration of appropriate testing).¹²
- Asymptomatic HCW contacts should generally be able to continue working with risk mitigation measures in place for the 21-day period from last date of exposure

such as wearing a medical mask and daily active screening for signs and symptoms of MPX (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 adhere to risk mitigation measures (e.g., ability to wear a mask, conduct self-assessment for symptoms), types of patient population served (e.g., those at higher risk of severe MPX illness), etc.

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

Risk of exposure	Description	Examples
High	<ul style="list-style-type: none"> • 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 • 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 • 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 	<ul style="list-style-type: none"> • Accidental splash(es) of patient saliva to the unprotected eye(s) or oral cavity of a HCW • HCW had direct contact with a patient's skin lesions without wearing gloves • 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) • HCW was not wearing gloves and handled contaminated materials with the patient's respiratory secretions and/or body/biological fluids (e.g., linens, clothing)

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"> • Being inside the patient's room during any procedure that may involve producing aerosols while wearing eye protection, gown, gloves and medical mask (i.e., no N95 respirator) • Close face-to-face contact with an unmasked patient where HCW was not wearing an N95 respirator or medical mask • 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 	<ul style="list-style-type: none"> • 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 • HCW was turning, bathing, or assisting with transfer of a case while wearing gloves, and medical mask but not wearing a gown • 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

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"> • HCW was in a patient room without wearing eye protection and medical mask • 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) • 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 MPX illness)
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 local 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 MPX for 21 days after last date of exposure.
 - Staff should monitor patients who are unable to self-monitor for signs and

symptoms of MPX at least twice a day or once per shift including temperature checks and skin assessment.

- PHUs may use their discretion in deciding that a high-risk contact patient who was scheduled to be discharged/transferred from hospital should remain in hospital during their self-monitoring period.
 - In particular, a PHU should assess the ability of both the patient contact (e.g. patient with dementia) and the setting for which the patient is being discharged/transferred to (e.g. staff capacity to complete an assessment for a new rash) to appropriately monitor for signs and symptoms MPX infection.
- Asymptomatic patients who are contacts of a confirmed case of MPX 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 MPX 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 MPX 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
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"> • Patient had non-transient close (within 2 metres) face-to-face contact with an unmasked HCW case (i.e., HCW was not wearing an N95 respirator or medical mask) 	<p>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</p>
Low	<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 MPX illness).</p>
No/very low	<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 MPX outbreak in a facility, PHUs should consult with PHO and the Ministry of Health prior to declaring an outbreak. Please email both EPIR@oahpp.ca and IDPP@ontario.ca.

Outbreak definitions

Declaring an outbreak in a hospital/health care setting:

- **Suspect outbreak:** a single probable case of nosocomially acquired MPX
- **Confirmed outbreak:** a single confirmed case of nosocomially acquired MPX

Declaring an outbreak in a long-term care home or congregate setting:

- **Suspect outbreak:** a single probable case of MPX acquired in the home/setting
- **Confirmed outbreak:** a single confirmed case of MPX acquired in the home/setting

Considerations for outbreak management

Prevention

- Vaccinations:
 - PHUs are encouraged to support MPX 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 MPX if they are eligible to receive the vaccine. See [Monkeypox Vaccine \(Imvamune®\) Guidance for Health Care Providers \(gov.on.ca\)](#) (2022, or as current) for eligibility criteria.
- 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:
 - 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.
- Physical distancing:
 - Individuals should generally be encouraged to avoid crowded places, close-contact settings, and confined and enclosed spaces with poor ventilation.
- Infection prevention and control:
 - See PHO's [Infection Prevention and Control \(IPAC\) Recommendations for Monkeypox in Health Care Settings](#) and [Appendix A](#).

Case management

- Isolation:
 - Isolation of confirmed cases of MPX 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 MPX 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. See [De-isolation criteria](#) and [Phase Two: Ending self-isolation with risk mitigation measures](#) for risk assessment considerations.
- 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 MPX 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 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 ring vaccination guidance and resources.

Personal Protective Equipment

- 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](#))
- 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 MPX.

Transportation

- If a MPX 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 MPX case are to wear appropriate PPE (as 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 42 days (two incubation periods have 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 and household members should wear a medical mask when entering the case's isolation space (e.g., to deliver food, change linens, etc.).
- Caregivers should wear a medical mask and disposable gloves for direct contact with lesions. These should be disposed of after single-use.
- 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.

Recommendations for handling soiled laundry/linens

- Avoid direct contact when handling contaminated laundry/linens (i.e., wear disposable gloves).
- Do not shake or otherwise agitate soiled laundry in a way that could disperse infectious particles.
- Washing laundry in a standard washing machine with warm 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 properly 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, where available.

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, wearing gloves, discarding contaminated items directly, 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 routine practices for management of waste (i.e., good hand hygiene, gloves if bags are handled).
- 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.