

Ministry of Health

Fact Sheet: Monkeypox - Reference guide comparing monkeypox, chickenpox, and hand-foot-and-mouth disease

Category	Monkeypox	Chickenpox	Hand-Foot-and-Mouth Disease
Virus	<i>Monkeypox virus</i> ¹	<i>Varicella zoster virus (VZV)</i> ²	<i>Enteroviruses</i> (e.g. Coxsackievirus A16, Enterovirus 71) ³
Incubation period	5-21 days ¹	10-21 days, but can be up to 28 days in breakthrough ^a infections ²	3-7 days ³
Fever	May occur ^b , most commonly 1-3 days before rash onset ^{1,4}	Unvaccinated: Mild if present, 1-2 days before rash ² Breakthrough: Less common ²	1-2 days before oral vesicles ⁵
Lymphadenopathy	May occur ¹	Less common ¹	Less common ³

^a Breakthrough varicella is an infection that occurs in a varicella vaccinated person more than 42 days after varicella vaccination.

^b Atypical presentations of monkeypox include initial signs of a genital or peri-anal rash prior to or without prodromal symptoms which may not spread to other parts of the body, and having lesions at different stages of development.^{4,10}

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Rash appearance	<p>Appears at the site of inoculation^b, then may appear on other parts of the body, including¹:</p> <ul style="list-style-type: none"> • oral mucosa, • genital area, • conjunctiva, • palms of the hands, and • soles of the feet 	<p>Usually appears on the chest, back, and face then spreads to other parts of the body⁶</p> <p>Rarely, lesions may appear on palms of the hands and soles of the feet in immunocompromised individuals⁷</p>	<p>Usually, vesicles appear in or on the mouth, then may appear on other parts of the body, including³</p> <ul style="list-style-type: none"> • palms of the hands, • soles of the feet, • knees, • elbows, • buttocks, or • genital area
Rash progression	<p>Slowly progresses through macules, papules, vesicles, pustules, and crusting/scab. May have central umbilication^{4,8}</p> <p>Lesions may develop simultaneously and evolve together^b on any given part of the body (i.e., monomorphic)⁸</p>	<p>Unvaccinated: Pleomorphic rash; Rapidly progresses through macules, papules, vesicles, and crusting/scab²</p> <p>Breakthrough: Usually, maculopapular lesions that do not progress to vesicles²</p> <p>Lesions occur in “crops” with old and new lesions present at the same time²</p>	<p>Macules, sometimes with vesicles⁹</p> <p>Vesicles may break open and progress to crusting/scab⁹</p>
Rash duration	14-28 days ¹	<p>Unvaccinated: 4-7 days⁶</p> <p>Breakthrough: Shorter duration of illness compared to unvaccinated⁶</p>	7-10 days ³

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Testing information	Monkeypox Virus Public Health Ontario (in children also test for Enterovirus Public Health Ontario)	Varicella – Serology Public Health Ontario Varicella Zoster Virus Detection Public Health Ontario	Enterovirus Public Health Ontario

For more information, visit [Monkeypox Virus \(gov.on.ca\)](#)

References

1. Ontario Agency for Health Protection and Promotion (Public health Ontario). Multi-jurisdictional monkeypox outbreak 2022 – what we know so far [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022. [updated May 23, 2022; cited June 16, 2022]. Available from: https://www.publichealthontario.ca/-/media/Documents/M/2022/wwksf-multi-jurisdictional-monkeypox-outbreak-2022.pdf?sc_lang=en
2. Ministry of Health. OPHS - Infectious Disease Protocol; Appendix 1: Case definitions and disease-specific information disease: Varicella (Chickenpox) [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [updated April 2022; cited June 6, 2022]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/chickenpox_chapter.pdf
3. Government of Canada. Hand, foot, and mouth disease (Enterovirus 71, EV 71) [Internet]. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2019 [updated March 19, 2019; cited June 6, 2022]. Available from: <https://www.canada.ca/en/public-health/services/diseases/hand-foot-mouth-disease.html>

4. Centers for Disease Control and Prevention. Morbidity and mortality weekly report (MMWR): Monkeypox outbreak – Nine states, May 2022 [Internet]. 2022 [updated June 3 2022; cited June 16, 2022]. Available from: <https://www.cdc.gov/mmwr/volumes/71/wr/mm7123e1.htm#:~:text=CDC%20urges%20health%20care%20providers,specific%20risk%20factors%20for%20monkeypox>
5. MyHealth.Alberta.ca. Hand-foot-and-mouth disease [Internet]. Edmonton, AB: Alberta Government and Alberta Health Services; 2021 [updated July 1, 2021; cited June 6, 2022]. Available from: <https://myhealth.alberta.ca/Health/Pages/conditions.aspx?hwid=ty6230>
6. Centers for Disease Control and Prevention. Varicella (chickenpox): fact sheet [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [updated August 2, 2021; cited June 6, 2022]. Available from: <https://www.cdc.gov/chickenpox/downloads/Varicella-diagnosis-fact-sheet-508.pdf>
7. Centers for Disease Control and Prevention. Chickenpox (varicella): for healthcare providers [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [updated April 28, 2021; cited June 6, 2022]. Available from: <https://www.cdc.gov/chickenpox/hcp/index.html>
8. Centers for Disease Control and Prevention. Monkeypox: clinical recognition [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2022 [updated May 23, 2022; cited June 6, 2022]. Available from: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html>
9. Centers for Disease Control and Prevention. Hand, foot, and mouth disease (HFMD): symptoms and diagnosis of hand, foot, and mouth disease [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [updated February 2, 2021; cited June 6, 2022]. Available from: <https://www.cdc.gov/hand-foot-mouth/about/signs-symptoms.html>
10. World Health Organization. Multi-country Monkeypox Outbreak in Non-Endemic Countries [Internet]. 2022 [updated May 21, 2022; cited June 16, 2022]. Available from: <https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON385>