

Ministry of Health

Reference guide comparing mpox, varicella, measles and hand-foot-and-mouth disease

April 11, 2024

Category	Mpox	Varicella	Measles	Hand-Foot-and-Mouth Disease
Virus	<i>Monkeypox virus</i> ¹	<i>Varicella-zoster virus</i> ²	<i>Measles virus</i> ¹¹	<i>Enteroviruses</i> (e.g. Coxsackievirus A16, Enterovirus 71) ³
Incubation period	5-21 days ¹	10-21 days; commonly 14-16 days ²	About 10 days, but may be 7-21 days from exposure to onset of fever, usually 14 days until rash appears ¹¹	3-7 days ³
Fever	May occur, most commonly 1-3 days before rash onset ^{1,4}	1-2 days before rash onset, particularly in adults ^{2, 12}	7 – 21 days after exposure ¹¹	1-2 days before oral vesicles ⁵
Lymphadenopathy	May occur ¹	Less common ²	Less common ¹¹	Less common ³

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Rash	<p>Appears at the site of inoculation, 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>Slowly progresses through macules, papules, vesicles, pustules, and crusting/scab. May have central umbilication^{4,6}</p> <p>Lesions may develop simultaneously and evolve together on any given part of the body (i.e., monomorphic)⁶.</p> <p>Atypical presentations include initial signs of a genital or peri-anal rash prior to prodrome symptoms which may not spread to other parts of the body and having lesions at different stages of development^{4, 11, 13}.</p>	<p>A generalized, pruritic, vesicular rash, including on the scalp and on the mucous membranes of the mouth and upper respiratory tract, numbering 250-500 lesions in varying, successive stages of development called "crops".^{2, 8}</p> <p>Lesions progress rapidly from maculopapular rash to vesicular rash, then crusts, resulting in granular scabs.²</p> <p>Varicella varies in severity from very mild, with just a few spots, to severe, with fever and a widespread rash. The more severe form is seen more often in adults.⁸</p> <p>See note below regarding breakthrough varicella.^a</p>	<p>Macular or maculopapular (fine, flat or slightly raised) rash that appears on the face and then progresses to the trunk, arms and legs.¹⁰</p> <p>It becomes confluent as it progresses, giving it a red, blotchy appearance at its peak. In mild cases, the rash tends not to be confluent. However, in severe cases, the rash is more confluent, and the skin may be completely covered.¹⁰</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 <p>Macules, sometimes with vesicles⁷</p> <p>Vesicles may break open and progress to crusting/scab⁷</p>
Rash duration	14-28 days ¹	4-7 days ⁹	4-7 days ¹⁰	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 Zoster Virus Detection Public Health Ontario	Measles – Diagnostic – PCR Public Health Ontario	Enterovirus Public Health Ontario

For more information, please visit the ministry website: [Mpox \(monkeypox\) resources for health care professionals](#)

^a Breakthrough varicella can occur in a vaccinated person more than 42 days after immunization with varicella vaccine. Breakthrough varicella is usually mild. Patients typically are afebrile or have low fever and develop fewer than 50 skin lesions. They usually have a shorter illness compared to unvaccinated people who get varicella. The rash is more likely to be predominantly maculopapular rather than vesicular.¹² Breakthrough varicella is contagious, although less so than varicella in unvaccinated people.

References

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