

MPOX CLINICAL RECOGNITION AND TESTING OVERVIEW

Purpose

Mpox (formerly known as monkeypox) presentations can vary and be confused with other common exanthems (e.g., syphilis, herpes, varicella, molluscum contagiosum, and aphthous ulcers). This guide summarizes clinical presentations and testing recommendations to enhance mpox recognition and identification. There are two types of mpox: clade IIb has been circulating in the California since 2022; clade I, a more severe form of mpox, currently exists in Africa and has caused sporadic travel-associated cases outside of Africa (including in California).

Mpox testing should be considered for any rash including, but not limited to, rashes affecting the genital and perianal areas—especially for patients being considered for sexually transmitted infection (STI) testing and/or who may have had recent sexual exposure that puts them at risk. While the current mpox outbreak has disproportionately impacted gay, bisexual, and other men who have sex with men, any person (regardless of gender identity or sexual orientation) can become infected with mpox if exposed.

Identification of Mpox Rashes

Typical mpox lesions are known to be deep-seated, well-circumscribed, umbilicated with a classic progression (macules, papules, vesicles, pustules, and then scabs), though atypical presentations have been common. Although some cases may present with a diffuse rash, it is more common for patients to have localized lesions. Lesions can be more painful than their appearance suggests. Mpox rashes may present with or without a recognizable flu-like prodromal syndrome.

When evaluating rashes, take the following steps:

- **Perform a complete physical exam (mucosa and skin), as not all mpox lesions are painful or obvious.** Patients may be unaware of lesions, including in locations such as the throat, vaginal, or anal canals.
- **In patients presenting with genital lesions or proctitis, consider testing concurrently for HIV, herpes simplex virus, gonorrhea, chlamydia, syphilis, as well as mpox.** [STI co-infections are common](#); approximately 40% of mpox cases are co-infected with HIV or have had another STI in the past year.
- **Testing is still warranted among persons who were previously vaccinated or had previous mpox infection** if they present with clinically compatible symptoms, as post-vaccination infections and re-infections can occur.
- **Review travel history and contact your health department if clade I mpox is suspected (e.g., in patients with travel or close contact with travelers from the African continent in last 21 days), as [expedited testing via the health department may be indicated](#).**

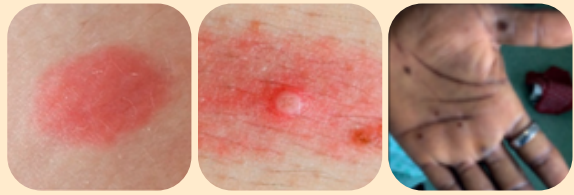
Consider mpox testing in patients vulnerable to mpox exposures and/or if any of the following are on your differential diagnosis:

	Infectious Mpox Mimickers	Non-infectious Mpox Mimickers
Genital Lesions	<ul style="list-style-type: none"> • Herpes simplex virus (HSV; genital herpes) • Primary or secondary syphilis • Molluscum contagiosum • Lymphogranuloma venereum (LGV) • Chancroid • Granuloma inguinale 	<ul style="list-style-type: none"> • Recurrent aphthous ulcers • Behçet’s disease • Hidradenitis suppurativa • Squamous cell carcinoma • Drug-induced • Trauma
Diffuse Rash	<ul style="list-style-type: none"> • Secondary syphilis • Primary varicella (chickenpox) • Disseminated varicella zoster (VZV) • Disseminated HSV • Molluscum contagiosum • Disseminated fungal or gonococcal infection • Scabies • Hand, foot, and mouth disease (coxsackievirus) 	<ul style="list-style-type: none"> • Atopic dermatitis (eczema) • Contact dermatitis • Psoriasis • Pityriasis rosea • Autoimmune • Drug-induced
Proctitis	<ul style="list-style-type: none"> • Gonorrhea (GC) • Chlamydia (CT), including LGV • HSV • Syphilis 	<ul style="list-style-type: none"> • Inflammatory bowel disease (Ulcerative colitis or Crohn’s disease) • Anal fissure • Hemorrhoids

Source: [CDC Mpox 101 – What Clinicians Need to Know](https://www.cdc.gov/poxvirus/mpox/pdf/Mpox-101-What-Clinicians-Need-to-Know.pdf) (<https://www.cdc.gov/poxvirus/mpox/pdf/Mpox-101-What-Clinicians-Need-to-Know.pdf>)

Mpox Clinical Recognition and Testing Quicksheet: Mpox Presentations vs Common Exanthems

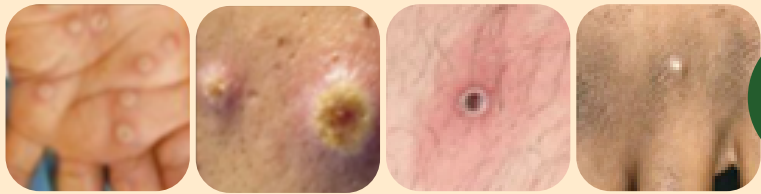
Mpox



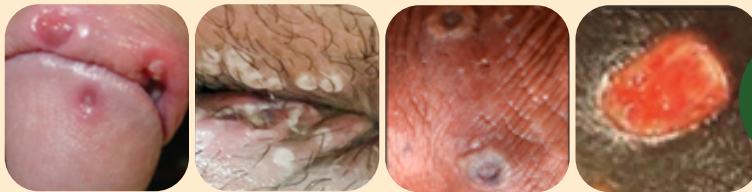
Macular/
Papular



Vesicular



Pustule/
Scab



Ulcerative
Lesions



Oral
Lesions

Mimickers



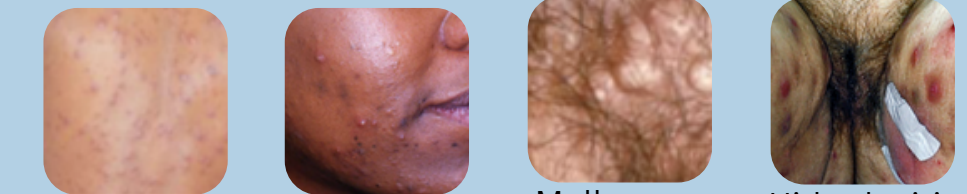
Secondary Syphilis

Disseminated Gonorrhea



Herpes

Disseminated Gonorrhea



Varicella

Acne

Molluscum
Contagiosum

Hidradenitis
Suppurativa



Primary Syphilis

Hand-foot-mouth



Herpes

Hand-foot-
mouth

Aphthous ulcer
(canker sore)

Secondary syphilis
mucous patch

Mpox Specimen Collection and Lab Procedures

Mpox lesion-based polymerase chain reaction (PCR) testing is widely available at commercial laboratories and certain public health laboratories. Test collection materials are not specialized, and labs may have different submission requirements (i.e., testing media and swabs) and rejection criteria. Providers are encouraged to confirm submission requirements by contacting their lab directly or reviewing online test directories such as: [Quest Diagnostics](#) | [LabCorp](#) | [ARUP](#) | [Mayo Clinic](#) | [Stanford](#) | [Aegis Science](#) | [Sonic Reference Lab](#) ^{*see footnote}

Contact your [local health department](#) if you have questions, are experiencing barriers to mpox testing, or to facilitate [expedited clade-specific testing for specimens from patients with suspected clade I mpox](#) (e.g., patient reports travel or close contact—including sexual contact—with a traveler to Africa within 21 days prior to symptom onset).

Mpox Testing Tips

- When searching for mpox testing orders within electronic health systems, consider searching: “mpox,” “monkeypox,” or “orthopoxvirus.”
- Gather your materials (e.g., personal protective equipment [PPE], swabs, and collection tubes). Appropriate [PPE](#) includes gloves, gown, eyewear, and a fit-tested N95.
- Vigorously swab a lesion with 1-2 sterile, synthetic swab(s) and place into appropriate sterile container as specified in lab submission criteria. Do not unroof or aspirate lesion(s); do not clean the site before testing.
- Given variation in rash presentations, collection of multiple specimens may be clinically indicated. Ideally, 2-3 lesions in different locations or at different stages are tested using separate swab(s) and tube(s) for each lesion.
- Swab specimens for mpox testing cannot be combined with other swabs (e.g., HSV, VZV, Chlamydia and Gonorrhea, etc.) and must be collected separately.
- See [U.S. Centers for Disease Control and Prevention \(CDC\) Tips for Testing Patients for Mpox](#).

Mpox Vaccination

[Providers should routinely encourage vaccination.](#) The two-dose mpox vaccine (JYNNEOS) series is recommended for anyone who requests it, persons who [may be vulnerable to mpox exposures](#), and as [post-exposure prophylaxis](#). See [CDPH Mpox Vaccine Information for Providers](#) for more information.

Mpox Treatment: Supportive Care and Antivirals

Supportive care and/or pain management are appropriate for all patients with mpox symptoms. While many cases will be relatively mild and resolve without the need for additional treatment, antiviral treatment, such as Tecovirimat (TPOXX), is available through the [CDC-held expanded access investigational new drug \(EA-IND\) protocol](#) for the treatment of non-variola orthopoxvirus infections in people who have or are at risk of severe infection.

Patients that meet [eligibility criteria under the EA-IND protocol](#) can obtain oral TPOXX through local and state pre-positioned supplies in California. See [CDPH Tecovirimat Treatment Information for Health Care Providers](#) for more information on clinical indications and how to obtain TPOXX.

Patient Education: Home Isolation

See [CDC Guidance: Mpox Isolation and Infection Control at Home](#) and [CDC Guidance: What To Do If You are Sick](#).

Resource Links

Clinical Recognition

- [CDPH Mpox Guidance for Health Care Providers](#)—Up-to-date links on clinical recommendations, provider reporting, treatment, and infection control.
- CAPTC Mpox Job Aid: Visit the [CAPTC mpox job aids site](#) and click “Mpox Clinical Recognition and Testing Quicksheet” for a printable one-page supplement for clinical providers comparing mpox presentations vs common exanths.

Mpox Testing and Labs

- [Mpox specimen collection training video](#) – from National Emerging Special Pathogens Training and Education Center (NETEC)
- [CDC Guidelines for Collecting and Handling Specimens for Mpox Testing](#)
- Sample List of Commercial Laboratories with Specimen Collection Guidance: ^{*see footnote}
 - [Quest Diagnostics - Specimen collection guidance from Quest Diagnostics](#)
 - [LabCorp – Specimen collection guidance from LabCorp](#)
 - [ARUP Laboratories - Mpox Ordering FAQs for ARUP](#)
 - [Mayo Clinic Laboratories](#)
 - [Aegis Science Labs](#)
 - [Sonic Reference Laboratory](#)
- [Information about testing for suspected clade I mpox](#) – for guidance on how to submit specimens for expedited, clade-specific testing at the CDPH Viral and Rickettsial Diseases Lab (VRDL).

Clade I Mpox Health Updates

- [CDPH CAHAN on the first Clade I Mpox in California \(November 2024\)](#) – details regarding Clade I recognition and reminders about testing and vaccination.
- [CDPH CAHAN Health Update on Clade I Mpox Geographical Spread in Africa: Recommendations for California Health Care Providers \(8/12/2024\)](#) – guidance on screening for clade I mpox, reporting, and how to submit specimens for expedited, clade-specific testing at the state public health lab (CDPH VRDL).
- [CDC: Mpox Outbreak in Democratic Republic of the Congo](#) – up-to-date clade I mpox outbreak situation overview and risk assessment.

Mpox Vaccination

- [CDPH Mpox Vaccine Information for Providers](#) – Information on vaccine ordering, administration support.
- [CDPH Mpox Vaccination](#) – Patient information on how to find a vaccine provider and information on insurance coverage at go.cdph.ca.gov/mpoxvax
- [CDC Mpox Vaccine Recommendations](#) – Vaccine recommendations overview for patients.

Mpox Treatment

- [CDPH Mpox Treatment with Tecovirimat \(TPOXX\): Information for Health Care Providers](#) – Information and recommendations about obtaining TPOXX in California at go.cdph.ca.gov/TPOXX
- [CDPH Supportive Care Suggestions for Patients with Mpox](#)
- [CDC Clinical Considerations for Pain Management of Mpox](#)

Patient Self-Monitoring, Isolation and Infection Control at Home

- [CDC Guidance: Mpox Isolation and Infection Control at Home](#)
- [CDC Guidance: What To Do If You are Sick](#)

**This list is not intended to be comprehensive; example links with laboratory names are provided for informational purposes only and do not constitute an endorsement of any company or its products.*