



California Department of Public Health

Mpox Investigation Quicksheet

December 1, 2022



Mpox symptoms

Mpox virus belongs to the *Orthopoxvirus* genus that includes variola (smallpox) virus as well as the vaccinia virus that is used in the smallpox vaccine. Mpox often starts with symptoms like the flu, with fever, low energy, swollen lymph nodes, and general body aches. Within 1 to 3 days (sometimes longer) of generalized symptoms, the person often develops rash or sores. The sores go through several stages, including scabs, before healing. They can look like pimples or blisters and might be painful and itchy. The rash or sores might be located on or near the genitals (penis, testicles, labia, and vagina) or anus (butt), but could also be on other areas like the hands, feet, chest, and face, or inside the mouth. They might be limited to one part of the body. People with mpox may experience all or only a few of these [symptoms](#). Most people with mpox will develop the rash or sores. Some people report developing a rash or sores before (or without) the flu-like symptoms.

Infectious period

From time symptoms start until all sores have healed, scabs have fallen off, and a fresh layer of skin has formed underneath. This can take 2-4 weeks.

Mpox Transmission Modes

- Direct skin-to-skin contact with the sores or scabs of people with mpox.
- Direct contact with body fluids of people with mpox, such as drainage from skin sores or saliva that was in contact with mouth sores.
- Contact with respiratory secretions of people with mpox, such as saliva, during prolonged, face-to-face contact or intimate physical contact, such as kissing, cuddling, or sex.
- Touching items (such as bedding, towels, clothing, cups and utensils) that previously touched the sores or body fluids of people with mpox.

Incubation period

Typically is 3-17 days, but can be up to 21 days.

CSTE/CDC Epidemiologic criteria

Within 21 days of illness onset:

- Contact with person with a similar appearing rash who was diagnosed with probable or confirmed mpox; OR
- Close or intimate in-person contact with individuals in a social network experiencing high mpox activity, including men who have sex with men who meet partners through an online website, digital application, or social event; OR
- Travel outside US to a country with confirmed cases of mpox; OR
- Had contact with dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals.

CSTE/CDC Case classification

- **Confirmed:** Presence of mpox virus DNA by PCR or Next-Generation sequencing of clinical specimen; **OR** isolation of mpox in culture from clinical specimen
- **Probable:** No suspicion of other recent *Orthopoxvirus* exposure **AND** demonstration of:
 - *Orthopoxvirus* DNA by PCR; OR
 - *Orthopoxvirus* identification via immunohistochemical or electron microscopy testing; OR
 - anti-*Orthopoxvirus* IgM antibody during the period of 4-56 days after rash onset.
- **Suspect:**
 - New characteristic rash; OR
 - Meets one of the epidemiologic criteria and has high clinical suspicion for mpox.

Specimen collection for PCR and virus isolation

- A PCR assay can detect mpox from lesions.
- Testing is available at CDPH and other public health laboratories as well as many clinical laboratories.
- Specimens should be collected from 2-3 lesions, preferably from different locations on the body and that differ in appearance.
- Collection guidance includes:
 - Collector should wear appropriate personal protective equipment.
 - Use two sterile synthetic swabs for each lesion.
 - Vigorously swab the lesion to collect adequate DNA. Do not de-roof the lesion before swabbing.
 - Place swab in a sterile container that has a gasket seal and can be shipped under the required conditions.
 - Swabs from different lesions and any other specimens (e.g., scabs) should be placed in different containers.
- For more information, see: [CDC Guidelines for Collecting and Handling Specimens for Mpox Testing](#).

Post-exposure prophylaxis

Available post-exposure prophylaxis (PEP) for mpox is vaccination with JYNNEOS vaccine. PEP is most effective at preventing mpox if the vaccine is administered within 4 days of exposure. If given between 4-14 days after exposure, vaccination might help reduce symptoms but might not prevent infection from developing. Additional information and any updates to PEP recommendations can be found on the [CDC website](#).

Pre-exposure prophylaxis

Per the Advisory Committee on Immunization Practices (ACIP) [guidance](#), pre-exposure prophylaxis (PrEP) using JYNNEOS vaccine can be considered for people at occupational risk for mpox.

This includes laboratory workers who perform mpox testing, clinical and public health workers who collect mpox specimens, and others at risk.

Please see [CDPH Considerations for Mpox Vaccination in California](#) for groups recommended for vaccination. Recommendations may change based on vaccine availability.

Home isolation guidance

Individuals with confirmed or suspected mpox should follow the [CDPH Mpox Home Isolation Guidance for the General Public](#).

Persons with mpox who live with other people should take precautions at home until all lesions are fully healed and other symptoms have been fully resolved for at least 48 hours.

Return to work/school

Students and workers can return to activities outside the home in settings that are not listed as **settings of concern** in the [CDPH Mpox Home Isolation Guidance for the General Public](#) *without medical clearance* IF they can avoid physical contact with others at work/school, and IF they also meet certain clinical criteria. Additionally, anyone exiting isolation prior to resolution of all lesions and systemic symptoms must follow certain precautions to reduce the risk of secondary transmission.

Of note in this guidance, children younger than 8 years of age and staff caring for children younger than 8 years of age should not return to work/school prior to lesions being completely healed and systemic symptoms having been resolved. This is based on reports of increased disease severity among younger children and increased risk for close personal contact among younger children in school and childcare settings.

Exposed persons

Persons exposed to mpox can continue their daily activities as long as they do not have signs or symptoms of mpox. Most exposed individuals can self-monitor for mpox symptoms. See: [CDPH Recommendations for Management of Persons with Possible Exposure to Someone with Mpox in Community Settings](#).

Treatment of Mpox

Many people infected with mpox have a mild, self-limited disease course in the absence of therapy. However, prognosis depends on multiple factors including previous vaccination, baseline health status, concurrent illness, and comorbidities.

Antiviral drugs developed to protect against smallpox, such as tecovirimat (TPOXX), may be used to treat mpox. Treatment may be recommended for people who are more likely to get severely ill, people experiencing severe disease, or people with rash and sores in areas that are at risk for complications, such as the eyes or genitals. TPOXX is approved for the treatment of smallpox in adults and children and is available under expanded access investigational new drug (IND) protocol to treat mpox. TPOXX effectiveness data for mpox is not currently available.

Patients for whom treatment is especially recommended can be found on the [CDC website](#) and include those with a weakened immune system, children less than 8 years of age, those who are pregnant or breastfeeding, and those with a history of certain skin diseases like eczema.

Current treatment recommendations are available on the [CDC](#) and [CDPH](#) websites, as is CDC guidance on the treatment of [immunocompromised](#) people. Information on supportive care is also available on the [CDC](#) and [CDPH](#) websites.

Additional testing

People who are immunocompromised due to HIV or other conditions are at higher risk for severe manifestations of mpox. Therefore, [CDC](#) recommends that clinicians test all sexually active adults and adolescents who present with signs and symptoms of mpox for HIV (including acute infection) and other sexually transmitted infections such as syphilis, herpes, gonorrhea, and chlamydia, and assess for other immunocompromising conditions.

Healthcare settings

Guidance on mpox infection control in healthcare settings can be found on the [CDC website](#).

CDPH guidance about management of medical waste can be found on the CDPH mpox medical waste [page](#).

The Cal/OSHA Aerosol Transmissible Diseases Standard applies to California healthcare personnel and other workers covered by the Standard. Mpox is considered an airborne pathogen per the [Standard](#).

Additional Q&A documents are also available at [CDPH Mpox Q&A](#) within the Recommended Infection Control Practices to Prevent Transmission of Mpox in Healthcare Settings section.

Congregate living settings

There is risk of mpox transmission within congregate living settings, which include correctional facilities, homeless shelters, residential substance use treatment facilities, and other similar settings.

Homeless Service providers can access [CDPH Mpox Guidance for Homeless Services Providers](#) for more information. Please see additional CDPH guidance for [correctional facilities](#) and for other [congregate living facilities](#).

K-12 schools and child care facilities

K-12 schools and child care facilities should follow their everyday operational guidance that reduces transmission of infectious agents. This includes staying home when sick or with a rash of unknown origin (particularly a vesicular or pustular rash), ensuring access to adequate handwashing supplies, maintaining routine cleaning and disinfection practices, identifying private spaces for assessment of an ill child away from others, and providing personal protective equipment (PPE) for staff who care for students with rashes, fevers, or other symptoms concerning for infections.

See [CDPH Mpox Considerations for Childcare and School Settings](#) for more information.