

2022 Monkeypox Outbreak

Alameda County Public Health Department

8/05/2022

[What is Monkeypox? \(acphd.org\)](https://www.acphd.org/monkeypox)

Monkeypox

- Monkeypox is a rare disease caused by the monkeypox virus
 - The virus is related to the smallpox virus (in the *Orthopoxvirus* genus)
 - Monkeypox is a much milder illness than smallpox
- 2003 US monkeypox outbreak (47 cases)
 - Exposure was to animal reservoir (pet prairie dogs)



Monkeypox Symptoms

- Prodrome (fever, headache, muscle aches, and tiredness)
 - Rash
 - Swollen lymph nodes
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- Rash can occur anywhere on the body, but may be in the mouth, groin or genitals, and around the anus.
 - The rash is usually bumpy and umbilicated (a dome and central sunken area in the middle) and can be blisters or pustules. The rash can progress through different stages and then scab and heal.
 - Some people report the lesions are painful and itchy.



Monkeypox Symptoms

- Most common symptoms: ▪ Rash (99%) ▪ Malaise (70%) ▪ Fever (64%) ▪ Lymphadenopathy (63%)

- Graphics of monkeypox rash:

<https://www.cdc.gov/poxvirus/monkeypox/resources/graphics.html>



Monkeypox transmission

- The monkeypox virus is primarily spread through *close and intimate contact* with someone with infection.
 - Cuddling, kissing or sex with someone with monkeypox infection
 - Close household contacts
 - Sharing clothes, linens or towels
- Risk of transmission in a healthcare setting is prevented by use of PPE



U.S., California and Alameda County Monkeypox Cases as of 08/02/2022

- **Total US cases: 4,639** cases among U.S. residents
 - 48 states, District of Columbia, and Puerto Rico
- **Total California cases: 786**
 - 11 hospitalization, no deaths
- **Total Alameda County: 69**
 - Most ages 30-39 years
 - Most identify as gay or bisexual men, and other men who have sex with men
 - More than 50% are Hispanic/Latinx



Current Outbreak Response

- Case identification and contact tracing
 - Testing: commercial and public health laboratory tests (CDPH) available. Requires a provider to collect a specimen by swabbing lesions (rash).
 - Persons with confirmed orthopox/monkeypox interviewed and close contacts elicited.
- Containment: isolation of cases, identifying close contacts, referral for vaccination.
 - Providing guidance on isolation.
 - Allocating vaccine to established community partners and healthcare settings.
- Outreach: Community partners, providers/healthcare settings, general public
 - Reporting
 - Education and guidance
 - Vaccination and Treatment

[Considerations for Monkeypox Vaccination](#) | [Monkeypox](#) | [Poxvirus](#) | [CDC](#)



Monkeypox Testing

- Provider evaluation of persons with characteristic rash/symptoms, swab of rash.
- Commercial laboratories (e.g. Quest, Labcorps, Aegis, Sonic, Mayo, ARUP)
 - Probable MPX: positive OPX PCR
 - Confirmed MPX: positive MPX-specific PCR or sequence analysis
- State testing: Laboratory Response Network (LRN) lab testing perform CDC's FDA cleared non-variola Orthopoxvirus (NVO)-specific PCR test
 - CDC for MPX-specific PCR and sequencing
- Results available by electronic laboratory report (ELR) and reported to Alameda County.



Public Health Activities

- Providers are requested to report suspect cases when testing is initiated
 - Screening form completed, ACPHD follows-up on testing results.
- When lab results identify cases, ACPHD collects demographic, behavioral and contact information—including information on housing.
- ACPHD provides timely information to patient
 - Recommendations for isolation and other guidance
 - Supportive management
- Close contacts referred to get vaccination (post-exposure prophylaxis).

- [Interim Guidance for Treatment of Monkeypox \(nyc.gov\)](https://www.nyc.gov)



Vaccine for Monkeypox

- JYNNEOS: FDA approved vaccine to prevent Monkeypox.
 - Made with replication deficient virus (cannot cause disease).
 - Two dose vaccine (first dose, and 28 days later second dose) given subcutaneously
 - Most side effects are local reactions (pain, redness at site of injection).
 - Vaccine can prevent disease if given within 4 days of exposure, and can reduce symptoms if given within 14 days of exposure.



Monkeypox vaccine—Post Exposure Prophylaxis (PEP) or PEP++

- Close contact to someone with confirmed monkeypox
- Close contact to someone with high clinical suspicion (i.e., characteristic rash and risk factors) for monkeypox
- Close contact with others at a venue or event or within a social group where a suspected or confirmed monkeypox case was identified
- Persons living with HIV who are gay, bisexual, other men who have sex with men, or transgender persons who have sex with men who have had: A sexually transmitted infection such as chlamydia, gonorrhea, or syphilis in the past month; or more than one sex partner in the past month
- A healthcare professional who has been identified with a high or intermediate risk occupational exposure to someone who has confirmed monkeypox according to the CDC exposure risk assessment
- A laboratory worker who routinely handles monkeypox virus samples for diagnosis or testing purposes



Vaccination in Alameda County

Post Exposure Prophylaxis (PEP) or PEP++

- ACPHD collaborating with community partners and healthcare providers to vaccinate county residents at risk
 - Highland, East Bay AIDS Center, Kaiser San Leandro, Oakland, Fremont
 - LGBTQ Center (twice weekly clinics)
 - Lifelong (in the works)
 - Regional clinic: Steamworks Vaccine PODs: 07/06/22, 07/13/22, 07/20/22, 07/27/22, 08/03/22
- Vaccine supply is limited—prioritizing first vaccine doses
 - Alameda County currently has ~3000 doses of vaccine being allocated to vaccine PODS, healthcare facilities, and CBOS and we are anticipating new allocations of vaccine



Monkeypox Treatment

- Tecovirimat (TPOXX or ST-246) is an antiviral medication developed for smallpox and is available from the Strategic National Stockpile
- Oral capsule and IV formulations approved by FDA for the treatment of human smallpox disease in adults and pediatric patients under Animal Rule
 - Efficacy based on studies of non-human primates infected with monkeypox and rabbits infected with rabbitpox
 - Safety evaluation in 359 healthy adults (18-79 years)
- Tecovirimat use for unapproved indications (i.e., uses not covered by the FDA approved labeling) requires an Expanded Access Investigational New Drug (EA-IND) or Emergency Use Authorization.
 - Process is outlined by CDC for providers who are interested in implementing.



Monkeypox

Clinical Guidance for Monkeypox

Monkeypox

Public health officials are tracking multiple cases of monkeypox that have been reported in several countries that don't normally report monkeypox ([view global map](#)), including the United States. For travelers, see: [Travel Health Notice for Monkeypox in Multiple Countries](#).

It's not clear how people were exposed to monkeypox, but early data suggest that gay, bisexual, and other men who have sex with men make up a high number of cases. However, anyone who has been in close contact with someone who has monkeypox is at risk.

What You Should Do

Anyone with a rash that [looks like monkeypox](#) should talk to their healthcare provider, even if they don't think they had contact with someone who has monkeypox. People who may be at higher risk might include but are not limited to those who:

[Monkeypox \(acphd.org\)](https://www.acphd.org)



Questions

How best to screen/educate residents around Monkeypox symptoms/risk?

What are the immediate steps a shelter provider should take when they have a resident who displays possible Monkeypox symptoms?

- Signs and information shared on common monkeypox symptoms.
 - Monkeypox illness can start with a flu-like illness and then there is a rash.
 - The rash can be bumpy, red, pustular, blister-like and in certain areas (groin, anus, mouth) or throughout the body.
- If you have these symptoms, it is important to notify someone in the facility, stay in a private space, wear a mask, and cover the rash with bandages/clothes.
- Testing should be done as soon as possible.



Question

Where should a symptomatic person without a medical provider go to get tested/treated for Monkeypox

- We are currently referring for testing at Highland Hospital ED for persons that are uninsured.
 - The ED/Infection Prevention should be notified to facilitate the visit.
 - A provider will collect a test (commercial or state laboratory).
 - Isolation should occur until results of the test are returned.
 - We are exploring different pathways working with community groups to have other pathways for testing.



Infection Control Steps

What sort of infection control steps should a congregate provider take to reduce monkeypox transmission:

- Kitchen
- Sleeping quarters
- Laundry
- Shared bathrooms

The best guidance on disinfecting different locations is:

- [Interim Guidance for Household Disinfection of Monkeypox Virus \(cdc.gov\)](https://www.cdc.gov/media/releases/2022/s0622-monkeypox-guidance.html)



Questions

Under what circumstances could a monkeypox-infected person isolate in place at a facility; when should they be referred to Isolation & Quarantine?

- Consultation with HCH and ACPHD
- Issues to consider: a person with more severe disease (lesions that cannot be covered) or a person in which they cannot stay in a room by themselves, or a private space/room is unavailable should be considered for Isolation and Quarantine space.
- Persons with severe and painful illness, or persons with HIV or other immunocompromising conditions) should be referred for treatment Tecovirimat (TPOXX). This can be administered inpatient or outpatient.

What steps should a facility take after a person with monkey pox has been diagnosed?

- Optimally, a person diagnosed with monkeypox is able to stay in a private room for the duration of the infectious period, until scabs have fallen off and healing has occurred, with lesions covered and wearing a mask.
- Appropriate cleaning/disinfection (refer to CDC link)

