# Table of Contents

2  Situation Summary (updates in yellow) ................................................................. 3  
3  Case Definition -updated July 22, 2022, CDC ...................................................... 4  
4  Clinical Presentation ............................................................................................... 5  
5  Recommendations for Clinicians (Per CDC HAN) .................................................. 7  
6  Patient Transport ..................................................................................................... 7  
7  Bed placement .......................................................................................................... 8  
8  Isolation Precautions: .............................................................................................. 8  
9  Hand Hygiene .......................................................................................................... 8  
10 Personal Protective Equipment ................................................................................ 9  
11 Notification ............................................................................................................. 9  
12 Specimen Collection and Testing Guidance- Quest Laboratory UPDATED 7/25/22 .. 10  
13 SPECIMEN COLLECTION AND TESTING GUIDANCE-CDPH .......................... 11  
14 Patient Pre-exposure prophylaxis-Jynneos Vaccine ............................................... 12  
15 Patient Post-Exposure Prophylaxis-Jynneos Vaccine ............................................ 12  
16 Treatment ................................................................................................................ 12  
17 Code Blue .............................................................................................................. 12  
18 Environmental Cleaning ......................................................................................... 12  
19 Food Service .......................................................................................................... 13  
20 Waste handling ...................................................................................................... 13  
21 Discharge Planning ............................................................................................... 13  
22 Pediatric Considerations ....................................................................................... 14  
23 Labor and Delivery, Postpartum, Newborn Nursery ............................................... 15  
24 Neonatal Intensive Care Unit .................................................................................. 18  
25 Perioperative services or Procedural areas ............................................................. 18  
26 Ambulatory Visits with rash complaints ................................................................. 19  
27 Send Out Laboratory .............................................................................................. 19  
28 Patient Education Resources ................................................................................ 20  
29 EMPLOYEE EXPOSURE ....................................................................................... 20  
30 Patient to Patient Exposure .................................................................................. 21  
31 Visitation ................................................................................................................ 23
The first identification of a monkeypox case in the United States was in May 2022. As of July 26, 2022, 3,591 cases in 46 states, Puerto Rico, and Washington D.C., have been diagnosed, representing 19 percent of global monkeypox cases. This number is thought to be likely undercounted due to limitations in testing, knowledge gaps in providers, stigma associated with medical care, especially when sores are in the genital or anal region.

As of July 31, 2022, there have been 799 confirmed cases of monkeypox in California with thirty-eight confirmed cases of Monkeypox identified in Sacramento County. Local health departments (LHDs) are working with health care providers to evaluate persons with possible Monkeypox. While monkeypox can infect anyone, many of the recent cases in 2022 have occurred among persons self-identifying as men who have sex with men (MSM). Health care providers should notify the Local Health Department (LHD) immediately of any potential cases of Monkeypox.

The current monkeypox strain is the West African clade which is the milder form of Monkeypox according to CDPH. The risk of Monkeypox to the public is currently very low based on the information available. The CDC states, “The case fatality rate of monkeypox associated with the West African clade of monkeypox virus is 1%, and possibly is higher in immunocompromised individuals; five deaths have been reported in African Nations from the current outbreak”. Close contact, sustained skin-to-skin contact including sexual contact, with a person with monkeypox or contact with contaminated fomites (e.g., shared linens) are the most significant risk factors associated with human-to-human transmission of Monkeypox virus.

NOTE: Monkeypox is a rare disease. When evaluating patients with rash, consider other common causes, such as herpes, molluscum contagiosum, syphilis, varicella-zoster, etc.

Sacramento County has also expanded the monkeypox vaccination criteria as follows:

A. MSM who have sex with men and/or transgender individuals who meet at least one of the following criteria:

1. Have tested positive for sexually transmitted infections in the past 2 months
2. Had two or more sexual partners in the last 3 weeks
3. Attended or work at a commercial sex venue in the last 3 weeks
4. Had anonymous sex in the last 3 weeks
5. Engaged in transactional sex (sex work) in the last 3 weeks

B. Health care providers can request a minimum of 20 doses of the JYNNEOS vaccine from Sacramento County Public Health (SCPH) Immunization Assistance Program (IAP) to vaccinate high-risk individuals.

Vaccine Prophylaxis for Exposures: CDC recommends that the vaccine be given within 4 days from the date of exposure to prevent onset of the disease. If given between 4–14 days after the date of exposure, vaccination may reduce the symptoms of disease, but may not prevent the disease.
MONKEYPOX CONTROL PLAN

3 CASE DEFINITION -UPDATED JULY 22, 2022, CDC

I. **Confirmed case:** Demonstration of the presence of Monkeypox virus DNA by polymerase chain reaction testing or Next-Generation sequencing of a clinical specimen OR isolation of Monkeypox virus in culture from a clinical specimen.

II. **Probable case:**

   A. No suspicion of other recent Orthopoxvirus exposure (e.g., Vaccinia virus in ACAM2000 vaccination) AND demonstration of the presence of

      1. *Orthopoxvirus* DNA by polymerase chain reaction of a clinical specimen OR

      2. *Orthopoxvirus* using immunohistochemical or electron microscopy testing methods OR

      3. Demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4 to 56 days after rash onset

III. **Suspect case:** New characteristic rash* OR

   A. Meets one of the epidemiologic criteria and has a high clinical suspicion* for monkeypox

IV. **Epidemiologic Criteria**

   A. Within 21 days of illness onset:

      1. Reports having contact with a person or people with a similar appearing rash or who received a diagnosis of confirmed or probable monkeypox OR

      2. Had close or intimate in-person contact with individuals in a social network experiencing monkeypox activity, this includes men who have sex with men (MSM) who meet partners through an online website, digital application ("app"), or social event (e.g., a bar or party) OR

      3. Traveled outside the US to a country with confirmed cases of monkeypox or where Monkeypox virus is endemic OR

      4. Had contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals (e.g., game meat, creams, lotions, powders, etc.)

V. **Exclusion Criteria**

   A. A case may be excluded as a suspect, probable, or confirmed case if:

      1. An alternative diagnosis* can fully explain the illness OR
MONKEYPOX CONTROL PLAN

2. An individual with symptoms consistent with monkeypox does not develop a rash within 5 days of illness onset OR

3. A case where high-quality specimens do not demonstrate the presence of Orthopoxvirus or Monkeypox virus or antibodies to orthopoxvirus

4 CLINICAL PRESENTATION

The incubation period lasts, on average, 5-21 days. The development of initial symptoms (e.g., fever, malaise, headache, weakness, and swollen lymph nodes) marks the beginning of the prodromal period. Rash appears shortly after the prodrome with lesions developing on various parts of the body, progressing through four stages (macular, papular, vesicular, pustular) before scabbing over and resolving. Illness typically lasts 2-4 weeks.

Note: Cases in the United States have experienced rash with the characteristic firm, deep-seated, well-circumscribed and sometimes umbilicated rash with the start of the rash in mucosal areas (e.g., genital, perianal, oral mucosa) and in some patients the rash lesions have been scattered or localized to a specific body site rather than diffuse and have not involved the face or extremities.

Patients have presented with symptoms such as anorectal pain, tenesmus, and rectal bleeding which upon physical examination, have been associated with visible perianal vesicular, pustular, or ulcerative skin lesions and proctitis. The lesions have sometimes been in various stages of progression on a specific anatomic site (e.g., vesicles and pustules existing side-by-side). In addition, prodromal symptoms including fever, malaise, headache, and lymphadenopathy have not always occurred before the rash if they have occurred at all.

Complete list of Signs and Symptoms: See Clinical Recognition | Monkeypox | Poxvirus | CDC
II. Transmission: Monkeypox spreads between people primarily through direct contact with infectious sores, scabs, or body fluids. It also spreads by respiratory secretions during prolonged, face-to-face contact. Monkeypox can spread during intimate contact between people, including during sex, as well as activities like kissing, cuddling, or touching parts of the body with monkeypox sores or contact with fomites (e.g., shared linens). At this time, it is not known if Monkeypox can spread through semen or vaginal fluids. See Transmission | Monkeypox | Poxvirus | CDC
MONKEYPOX CONTROL PLAN

A. Take pictures of the lesions/rash and provide to SCPH if requested.

III. Resolution of Infection: A person is considered no longer infectious only after all lesions have resolved, scabs have fallen off, and a fresh layer of intact skin is formed.

IV. Most patients do not require hospitalization. There have not been any reported deaths.

5 RECOMMENDATIONS FOR CLINICIANS (PER CDC HAN)

VI. Patients with rashes initially considered characteristic of more common infections (e.g., varicella zoster or sexually transmitted infections) should be carefully evaluated for a characteristic monkeypox rash (see images and links), and submission of specimens of lesions should be considered, especially if the person has epidemiologic risk factors for monkeypox infection.

A. Clinicians should perform a thorough skin and mucosal (e.g., anal, vaginal, oral) examination for the characteristic vesiculo-pustular rash of monkeypox; this allows for detection of lesions the patient may not have been previously aware of.

B. If a patient does not respond to STI treatment as expected, the patient should return for follow-up evaluation and monkeypox testing should be considered.

C. Advise patients with prodromal symptoms (e.g., fever, malaise, headache) and one or more epidemiologic risk factors for monkeypox to self-quarantine. If a rash does not appear within 5 days, the illness is unlikely to be monkeypox and alternative etiologies should be sought.

6 PATIENT TRANSPORT

I. Isolate the patient in a single patient or exam room as soon as possible.

II. Transport and movement of the patient outside of the room should be limited to medically essential purposes.

A. If the patient is transported outside of their room, they should use well-fitting source control (e.g., medical mask) and have any exposed skin lesions covered with a clean sheet or gown.

III. HCW transporting the patient that will have direct contact with the patient will wear Personal Protective Equipment

A. If possible, a second person in respiratory PPE will address keeping the path clear and touching the doors and elevator buttons if appropriate.
MONKEYPOX CONTROL PLAN

7 BED PLACEMENT

I. A patient with suspected or confirmed monkeypox infection should be placed in a single-person airborne infection isolation room (AIIR). If unable to room in a AIIR room a single room with a HEPA is preferred if an AGP is performed (i.e., Intubation and extubation, and any procedures likely to spread oral secretions should be performed in an airborne infection isolation room).

II. The door should be kept closed (if safe to do so).

III. The patient should have a dedicated bathroom.

8 ISOLATION PRECAUTIONS:

I. Inpatient: Place an order for Airborne, Droplet and Contact Isolation.

II. Ambulatory: Observe Airborne, Droplet and Contact isolation precautions.

III. Do not use of portable fans.

IV. Durations of Precautions-Isolation precautions will be maintained until cleared by infectious disease MD and Sacramento County Health Department. Precautions should be maintained until all lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed underneath.

V. HCW should don PPE before entering the patient’s room and use during all contact with the patient.

VI. HCW should remove and discard gloves, gown, and eye protection, and perform hand hygiene prior to leaving the patient’s room; the N95 respirator should be removed, discarded, and replaced with a mask for source control after leaving the patient’s room and closing the door.

VII. The patient should not leave room to ambulate in the hallways regardless of using a face mask.

9 HAND HYGIENE

I. Hand Hygiene is essential as Monkeypox is primarily spread through contact with sores, scabs, or body fluids. See Policy 11023 Hand Hygiene.

II. Hospital-approved Hand hygiene products such as soap and water and alcohol-based hand rubs are effective.
MONKEYPOX CONTROL PLAN

III. Provide the patient with hand hygiene education and ensure tissues are available for respiratory etiquette.

10 PERSONAL PROTECTIVE EQUIPMENT

I. Respiratory Protection- see Policy 2002 Aerosol Transmissible Disease Plan
   a. PAPR, full-face respirator, a half-face respirator with eye protection, or N95 with eye protection.
   b. Eye Protection goggles or face shield
   c. Gloves
   d. Gown

II. PPE Donning and Doffing PPE: See PPE-Sequence.pdf (cdc.gov)

11 NOTIFICATION

I. Inpatient Provider: Report any suspect cases immediately by phone to Sacramento County Public Health at 916-875-5881.

II. Provider or designee to notify the following as soon as possible:
   A. Leadership Notification
      1. Inpatient Notification to Nursing Supervisor 916-416-9881
         a) Notify AOD if any issues
         b) After hours - Mary Reilly, Director of HEIP, will be notified by the Nursing Supervisor by phone if any issues noted and may send an email after hours or on weekend to add the “r/o Monkeypox” flag.
         c) Ambulatory Notification to Diane Woods and Dr. Allen D. Hall
            2. Infectious Diseases Fellow (on-call) for emergencies only. Do not send e-consult regarding exposures or treatment as this may delay care.
            3. Hospital epidemiology and Infection Prevention (HEIP)
               a. Monday- Friday 0700 to 1700 - Vocera “IP nurse of the Day” or call 916-734-3377

   III. Hospital epidemiology and Infection Prevention Will notify CDPH IDB (510-620-3434) during regular business hours or the DCDC Duty Officer of the Day (DOD) or CDPH DOD (916-328-3605) after hours or on weekends.
MONKEYPOX CONTROL PLAN

A. IP will notify prehospital personnel if exposure is suspected. See Policy 2014 Prehospital Personnel Infectious Disease Exposure

12 SPECIMEN COLLECTION AND TESTING GUIDANCE- QUEST LABORATORY
UPDATED 7/25/22

I. UCD Sendout Lab will be using Quest Diagnostics for monkeypox testing. Please follow the collection, storage, and shipping instructions from these laboratories as they may differ and contact the commercial lab directly for any questions. For more information on Monkeypox Virus DNA, Qualitative, Real-time PCR test.

A. Use BD Universal viral transport (UVT) System to collect specimen

B. Swabs

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1. Do not use Calcium Alginate swabs • Wooden swabs

II. Storage and Transport, stability

Room temperature: Unacceptable
Refrigerated: 7 days
Frozen: 30 days

III. NEW 7/25/22:

A. Samples sent to commercial laboratories for testing do not need to be sent to SCPH for confirmatory testing.
MONKEYPOX CONTROL PLAN

B. VDRL forms are NO longer needed. The Sendout lab will fill out the Quest forms. The staff needs to follow the collection/labelling instructions and send the samples to the Send Out Lab.

C. Any provider may Order as miscellaneous lab-Orthopox PCR Suspect Monkeypox test without consultation with infectious disease physician to send a specimen.

NOTE: If multiple lesions are present, collect specimens from separate locations on the body and/or from lesions with different appearances, or if only one body location is affected, collect two specimens per lesion from more than one lesion. At this time, up to a total of three lesions should be swabbed, for a total of six swabs collected. It is important that an adequate specimen is collected to maximize the sensitivity of the test, which could include unroofing** of the lesion before swabbing.

IV. Take the necessary steps to prevent leaking and ensure that the primary specimen container is closed tightly.

V. Use an appropriate, sealed secondary bag or container with absorbent material included.

VI. Laboratory - Order as miscellaneous lab-Orthopox PCR Suspect Monkeypox.

VII. Notify Laboratory Client Service at 916-734-5888 and process.

13 SPECIMEN COLLECTION AND TESTING GUIDANCE-CDPH

I. Sacramento Public Health will be prioritizing inpatient monkeypox testing. See Appendix III

Monkeypox Testing update SCPH 7/22/2022

II. Do not collect specimens prior to consultation with infectious disease physician. Do not send an e-consult.

III. Prior to collecting specimens Collect the specimen following APPENDIX I CDPH ORTHOPOX VIRUS LABORATORY TESTING GUIDANCE and APPENDIX IV Examples of Testing Supplies.

IV. Specimen Collection, Storage, and Shipping:

1. Collect a minimum of 2 samples from lesions, sampling lesions from different body sites. Use a synthetic tip swab.

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MONKEYPOX CONTROL PLAN

V. Vigorously swab or brush lesions with 2 separate sterile dry swabs, break off swabs into separate 1.5- or 2-mL screw-capped tubes with O-rings, or place each entire swab in separate sterile container.
   A. DO NOT add or store in viral or universal transport media.

VI. Store all specimens at 4°C if shipping within 24-72 hours. Store at -80°C

VII. If shipping will be delayed. Ship all specimens on cold pack (2-8 °C) or dry ice within 24-72 hours.

14 PATIENT PRE-EXPOSURE PROPHYLAXIS-JYNNEOS VACCINE

I. Consider pre-exposure prophylaxis for high-risk. Currently available through Sacramento County Public health or Pucci’s pharmacy.
   A. Pucci’s pharmacy schedule appointment on website:
      https://www.puccirx.com/monkeypox-info

15 PATIENT POST-EXPOSURE PROPHYLAXIS-JYNNEOS VACCINE

I. Post-Exposure Prophylaxis: Jynneos Vaccine within 4 days to prevent infection and 14 days to reduce severity of symptoms following high-risk exposure

16 TREATMENT

I. Manage and treat with supportive care and symptom control.

II. Antiviral treatment and prophylaxis are available from CDC after case-by-case evaluation.
   A. See Treatment | Monkeypox | Poxvirus | CDC

   NOTE: UCDH will have a treatment protocol for Tecovirimat.

17 CODE BLUE

HCW will follow the PPE recommended per policy of N95 or higher during Code blue response.

18 ENVIRONMENTAL CLEANING

I. Hospital-approved disinfectant wipes such as Oxivir TB, Oxivir 1, bleach wipes, etc., are effective against Monkeypox. Follow appropriate wet times. Monkeypox is a Tier 1 (enveloped virus). See list Disinfectants for Emerging Viral Pathogens (EVPs): List Q | US EPA approved for Tier 1 viruses.
MONKEYPOX CONTROL PLAN

II. Standard cleaning and disinfection procedures with hospital-approved disinfectants are effective.

III. Wet cleaning methods are preferable. Activities that could resuspend dried material from lesions, e.g., dry dusting, sweeping, or vacuuming, should be avoided.

IV. Soiled linen (e.g., bedding, towels, personal clothing) should be managed in accordance with standard precautions, avoiding contact with lesion material that may be present on the linen while putting the linen in the bag. Soiled laundry should be gently and promptly contained in an appropriate laundry bag and never be shaken or handled in a manner that may disperse infectious material.

V. Curtains will be changed on transfer or discharge.

VI. Let room rest/air exchanges turn over for one hour after patient leaves. Staff may clean room in appropriate PPE during rest period.

19 FOOD SERVICE

Management of food service items should also be performed in accordance with routine procedures.

20 WASTE HANDLING


NOTE: The waste handling requirement above is specific for the West African Clade if an additional clade, such as the Congo Basin Clade, is identified HEIP will provide notification and update this document as needed.

21 DISCHARGE PLANNING

I. Confirmed, probable, or suspect case patients

   A. Discharge. The patient should not be discharged without Sacramento County Public Health Department approval. If the patient’s address is different than Sacramento County, then the patient’s county of residence must approve discharge.

   B. Transfers to another facility, hospital, etc.

      1. The facility or hospital will need to be informed of the transfer and status of Monkeypox
MONKEYPOX CONTROL PLAN

2. Notify Transfer service of Monkeypox status.
   a) Sacramento County Public Health needs to be notified to approve.
   b) If the transferring facility is in another county, the county of that facility’s public health department must be notified too.

22 PEDIATRIC CONSIDERATIONS

I. Monkeypox should be considered when children or adolescents present with a rash that could be consistent with the disease, especially if epidemiologic criteria are present.

II. Symptoms: Once illness occurs, the clinical presentation is expected to be similar to that in adults (Section 4 Clinical presentation).

   A. Monkeypox rash can be confused with other rash illnesses that are commonly considered in children, including varicella (chickenpox); hand, foot, and mouth disease; measles; scabies; molluscum contagiosum; herpes; syphilis (including congenital syphilis); allergic skin rashes; and drug eruptions.

   B. Disease is more likely to be severe in children under 8 years of age. Additionally, anyone with immunocompromising conditions or certain skin conditions, such as eczema, is at risk of severe monkeypox disease.

III. Testing: Children and adolescents presenting with signs and symptoms suspicious for monkeypox should be tested for monkeypox, particularly if the children meet epidemiologic criteria for monkeypox.

IV. For the pediatric population, particular attention should be paid to keeping skin lesions covered and preventing children from scratching lesions or touching their eyes; these may result in auto-inoculation and more severe illness.

V. Treatment should be considered for the following groups:

   A. Children and adolescents with severe disease (e.g., hemorrhagic disease, confluent lesions, encephalitis, airway obstruction due to lymphadenopathy, or other conditions requiring hospitalization).

   B. Children and adolescents with complications from monkeypox (e.g., pneumonia, sepsis, ocular lesions, cellulitis, or abscess).
MONKEYPOX CONTROL PLAN

C. Children and adolescents at risk of severe disease including:
   1. Children under 8 years of age
   2. Children and adolescents with immunocompromising conditions
   3. Children and adolescents with a history or presence of atopic dermatitis, or with other active exfoliative skin conditions (e.g., eczema, burns, impetigo, varicella zoster, herpes simplex, severe acne, severe diaper dermatitis with extensive areas of denuded skin, psoriasis, or Darier disease [keratosis follicularis])
   4. Children and adolescents with aberrant infections, such as those involving the eyes, face, or genitals

VI. At this time, Tecovirimat is first-line treatment for infection with Monkeypox virus in children and adolescents (PO capsules for patients >13kg, IV therapy for patients <13kg).

   A. Monitoring of renal function at least weekly is recommended during treatment for children and adolescents receiving IV tecovirimat, especially for pediatric patients less than 2 years of age.

VII. PEP:
   A. Prophylactic therapeutics that can be administered include vaccination, immune globulin, and antiviral medication. For almost all patients, vaccination is the therapeutic that should be administered. Immune globulin or antivirals may also be considered for infants under 6 months of age, given their immature immune systems and possible decreased responses to vaccination.

VIII. Isolation precautions: Airborne, Droplet and Contact Precautions for Rule out Monkeypox or confirmed monkeypox infection:
   A. Duration: These precautions should be continued until criteria for discontinuing isolation have been met (i.e., all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed) and patient is cleared by infectious disease provider.

IX. Visitation:
   A. The presence of caregivers in the hospital provides immeasurable benefit to children. Decisions about who might visit, including whether the visitor stays or sleeps in the room with the patient, take into consideration the patient’s age, the patient’s ability to advocate for themselves, ability of the visitor to adhere to IPC recommendations, whether the visitor already had higher risk exposure to the patient, and other aspects.

   B. In general, visitors with contagious diseases should not be visiting patients in healthcare settings to minimize the risk of transmission to others. In the Children’s Hospital, a visitor that has Monkey Pox infection may cohort in the patient’s room, under the patient’s isolation precautions, provided the visitor is not severely ill and can adhere to infection prevention recommendations.
MONKEYPOX CONTROL PLAN

23 LABOR AND DELIVERY, POSTPARTUM, NEWBORN NURSERY

I. Monkeypox infection during pregnancy has limited information related to susceptibility and severity. Adverse pregnancy outcomes including preterm delivery, spontaneous pregnancy loss and stillbirth have been reported in pregnant persons.

II. Monkeypox can be transmitted to the fetus during pregnancy or to the newborn by close contact during and after birth.

III. Symptoms are the same as noted in Section 4 Clinical Presentation.

A. Fever may be difficult to differentiate from other infections, such as intraamniotic infection (chorioamnionitis), until the rash appears.

B. Rash in a person who is pregnant with risk factors for monkeypox virus infection needs to be differentiated from dermatoses of pregnancy, including polymorphic eruption of pregnancy (also known as pruritic urticarial papules and plaques of pregnancy).

IV. Diagnostic testing:

A. Consider if the person has epidemiologic risk factors for monkeypox virus infection.

B. Co-infections with monkeypox virus and sexually transmitted infections (STIs) have been reported and the presence of an STI does not rule out monkeypox, so a broad approach to testing is encouraged. See Specimen Collection and Testing Guidance

V. Treatment: Pregnant, recently pregnant, and breastfeeding people should be prioritized for medical treatment if needed due to risk of severe disease, transmission to the fetus during pregnancy and to the newborn after birth and risk of severe infections in newborns.

A. Tecovirimat (TPOXX) treatment-Consultation with the CDC to see if this antiviral is indicated.

1. While Tecovirimat is the first-line antiviral, there is not any human data of impact during pregnancy to developing fetus and it is not known whether treatment with Tecovirimat prevents congenital monkeypox.

2. Tecovirimat was present in breast milk in animal studies. Despite potential presence of Tecovirimat in the human breastmilk, breastfeeding children with monkeypox should be treated independently with Tecovirimat.

B. JYNNEOS can be offered to people who are pregnant or breastfeeding who are otherwise eligible.
VI. Isolation precautions-Airborne, Droplet and Contact Precautions for Rule out Monkeypox or confirmed monkeypox infection:

A. The mother and newborn will be placed in isolation precautions in separate rooms pending diagnostics. Newborns undergoing work-up, should not be cohorted with other newborns pending diagnostic work-up.

B. Duration: These precautions should be continued until criteria for discontinuing isolation have been met (i.e., all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed) and patient is cleared by infectious disease provider.

VII. C-section follow Perioperative Services direction.

VIII. Postpartum-Separate rooms for patient and newborn is best way to prevent transmission to the newborn during the infectious period.

IX. Contact with newborn

A. Counsel patient on risk of transmission and potential for severe disease in infant.

B. Direct contact or skin to skin contact between the patient and the newborn is not advised due to risk of neonatal transmission. If the patient chooses to have contact with the newborn during the infectious period, strict precautions should be taken, including the following:

1. Newborn: Swaddle or fully cloth newborn. After contact remove clothing or blanket and replace with new clothes/linen.

2. Mother: Apply well-fitting source control mask during visit, fresh gown, and gloves with all visible skin below the neck covered. Mask, gown, and gloves must be worn by patient when newborn is present. Remove all soiled linens.

C. Breastfeeding

1. Monkeypox virus is spread by close contact and neonatal monkeypox infection may be severe, breastfeeding should be delayed until criteria for discontinuing isolation have been met (i.e., all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed).

2. It is unknown if Monkeypox virus is present in breast milk. Breast milk expressed from a patient who is symptomatic or isolated should be discarded while breastfeeding is delayed. To avoid inadvertently exposing an infant to the Monkeypox virus, a healthy caregiver can feed pasteurized donor human milk or infant formula.

X. Visitors:
MONKEYPOX CONTROL PLAN

A. Delivery and Postpartum-Limit visitors during delivery to those that are essential to the patient’s care and wellbeing. Visitors must wear the appropriate PPE. Visitors should not go to other locations within the facility including the newborn nursery or NICU.

XI. Discharge Planning- Consider the duration of isolation, ability to strictly adhere to recommended isolation precautions, and availability of alternative caregivers.

24 NEONATAL INTENSIVE CARE UNIT

I. Newborns born to patients with rule out monkeypox or confirmed monkeypox will be placed in Airborne Droplet and Contact precautions in a separate room from other NICU infants.
   A. Duration: These precautions should be continued until criteria for discontinuing isolation have been met (i.e., all lesions have resolved, the scabs have fallen off, and a fresh layer of intact skin has formed) and patient is cleared by infectious disease provider.

II. Breastmilk- see Breastfeeding under Labor and Delivery, Postpartum and Newborn Nursery

III. Visitors:
   A. Visitors to patients with monkeypox should be limited to those essential for the patient’s care and wellbeing (e.g., parents of a child). All visitors should be screened by NICU manager and infectious disease/infection prevention MD. Visitors must wear the appropriate PPE. Visitors should go directly to the patient’s single isolation room and leave the unit promptly after visiting the patient. The visitor should not go to other pods/beds within the NICU.

25 PERIOPERATIVE SERVICES OR PROCEDURAL AREAS

I. Screening
   A. Patients should be screened for symptoms preoperatively. Symptoms develop five to 21 days after exposure and include:
      1. Fever
      2. Chills
      3. Swollen lymph nodes
      4. New skin rash

II. Elective surgery/procedure should be postponed for a patient who has a suspected or confirmed monkeypox until the patient is determined to be noninfectious.

III. Urgent or Emergent surgery/procedure
   A. If surgery cannot be postponed, the surgery should be scheduled when a minimum number of perioperative personnel are present and at the end of the day when possible.
MONKEYPOX CONTROL PLAN

1. Following the surgery, allow the air in the OR to “rest” for the specified time based on the room exchanges per hour (ACH). Main ORs at 20 ACH would be at least 15 minutes. All other areas must know the room air exchanges for IP to calculate the room turn over.

2. Recover patient in the OR suite or call 4-3377/Vocera “IP nurse of the day” during business hours to order a HEPA unit to be used to recover patient in a private room. Note: Call house supervisors on weekends/holidays

IV. Standard cleaning and disinfection procedures should be performed using an EPA-registered hospital-grade disinfectant. The surgical suite/procedure room may be cleaned, and curtains changed (if applicable) while the room is “resting” if N95 or higher with face shield, gowns and gloves are worn in addition to head covers (if required by area).

26 AMBULATORY VISITS WITH RASH COMPLAINTS

I. Schedule the patient a video visit to discern history of rash. Instruct patient send rash pictures in MyChart to evaluate rash ahead of time

II. Room patient immediately for an appointment

A. If possible, send masked patient to Glassrock rash room, ensuring the patient is masked with lesions covered on arrival. Staff will wear Personal Protective equipment.

B. Take the masked patient with lesions covered directly back to a designated room. Staff will wear See Personal Protective equipment.

III. If the patient was seen in a standard room (not an airborne isolation room), allow room to test/air exchanges to turnover for one hour before placing another patient. If you are aware of the specific room’s air exchanges per hour (verified by PO&M) use this chart for the amount of time for air turnover. Staff may clean room in appropriate PPE during rest period.

VII. If specimens are collected, the Provider or designee must complete the paper version of VDRL General Purpose Specimen Submittal form (APPENDIX III) per each specimen. Ensure the form is completed before walking the specimen to the clinic laboratory.

IV. Clinic lab staff must stabilize and package the swabs appropriately and ensure the VRDL form is complete and placed with the specimen. The specimen is sent to the Main Lab located in the hospital via the regular couriers.
MONKEYPOX CONTROL PLAN

27 SEND OUT LABORATORY

I. The Send Out lab will submit the electronic version of the VRDL form.

II. Send Out Lab will process, notify, and ship the specimens to the CDPH Lab.

III. A hard copy of VRDL forms must accompany the specimens and ensure the form is completed and with the specimen before it is sent to the CDPH Lab.

28 PATIENT EDUCATION RESOURCES

I. Monkeys: Get the Facts

II. What Gay & Bisexual Men Need to Know About Monkeys

III. SCPH Home Isolation Instructions for People with Monkeys

IV. SCPH Instructions for People Exposed to Monkeys

V. Isolation and Prevention Practices for People with Monkeys | Monkeys | Poxvirus | CDC

29 EMPLOYEE EXPOSURE

I. Staff who have unprotected exposures (not wearing PPE) to patients with suspected or confirmed monkeypox should complete the following steps:

   A. Notify HEIP/Employee Health Services (EHS) as soon as possible after exposure.

   B. Monitor for symptoms that suggest monkeypox infection within the 21-day period after the last day of care (including twice daily temperature checks x 21 days). Symptoms include fever ≥100.4°F, chills, new rash, swollen lymph nodes, etc. Notify EHS of any symptoms within 24 hours of development.

   C. If fever or rash develops, exposed employees should stop working, self-isolate, and contact EHS immediately. If only chills or lymphadenopathy develop, the exposed employee should remain at their residence and self-isolate for 24-hours. During this time, the individual should monitor their temperature for a fever, and if a fever or rash develop, EHS should be notified. If a fever or rash do not develop and chills or lymphadenopathy persist, the individual should be evaluated by a clinician for potential cause.

   D. EHS will notify Sacramento County Public Health (916-875-5881) if any employee is indicated for post-exposure prophylaxis or develops symptoms of Monkeypox requiring treatment.
MONKEYPOX CONTROL PLAN

E. Exposed staff under active surveillance can report to work in an N95 respirator for the full 21 days exposure period. Staff who are being followed for exposure to Monkeypox will need to break and have meal periods alone when mask is removed.

II. Exposure Risk Assessment

A. For high-risk employee exposures, CDC recommends monitoring and offering post-exposure prophylaxis. High risk exposure is defined as:

1. Unprotected contact with person’s skin or mucous membranes and infected persons skin, lesions, or bodily fluids (e.g., any sexual contact, silvasplashes, ungloved contact with person), or contaminated material such as linens, clothing. – OR-

2. Being inside the patient’s room or within six feet of a patient during any procedures that may create aerosols from oral secretions, skin lesions, or resuspension of dried exudates (e.g., shaking of soiled linens), without wearing an N95 or equivalent respirator and eye protection.

B. For intermediate risk employee exposures, CDC recommends monitoring and considering offering PEP based on informed clinical decision-making weighting the individual benefits vs risks. Intermediate risk exposure is defined as:

1. Being within six feet for 3 hours or more of an unmasked patient without wearing, at a minimum, a surgical mask – OR-

2. Activities resulting in contact between sleeves and other parts of an individual’s clothing and the patient’s skin lesions or bodily fluids, or their soiled linens or dressings (e.g., assisting with transfer off and on an exam table) while wearing gloves but not wearing a gown.

C. For low or uncertain risk employee exposures, CDC recommends monitoring and does not recommend PEP. Low or uncertain risk exposure is defined as:

1. Entered the patient room without wearing eye protection on one or more occasions, regardless of duration of exposure -OR-

2. During all entries in the patient care area or room (except for during any procedures listed above in the high-risk category), wore gown, gloves, eye protection, and at minimum, a surgical mask -OR-

3. Being within six feet of an unmasked patient for less than three hours without wearing at minimum, a surgical mask -OR-

4. Exposure that, at the discretion of public health authorities, was recategorized to this risk level based on unique circumstances (e.g., uncertainty about whether Monkeypox virus was present on a surface and/or whether a person touched that surface)
MONKEYPOX CONTROL PLAN

30 PATIENT TO PATIENT EXPOSURE

I. Transmission of monkeypox requires prolonged close contact with a symptomatic individual.
   A. Notify HEIP/ EHS as soon as possible after exposure identified if staff are aware of potential patient to patient, patient to visitor exposures.
      1. Visitors’ exposure and any potential treatment will be addressed by Sacramento County Health Department or their county of residence.
   B. Infection Prevention as a part of the index monkeypox case evaluation will assess for exposures, consult with ID and Sacramento Public Health. IP will send out and send appropriate notification out to impacted departments, patients, and care teams.
      1. Post Exposure Prophylaxis (PEP) - Jynneos vaccine for high-risk or intermediate exposures will be given pending availability and at the direction of the Sacramento County Public Health. Vaccine should be given within 4 days from the date of exposure. Persons exposed who have not received smallpox vaccine within the last 3 years should consider getting vaccinated.
      2. Exposed patients should be place in Airborne, Droplet and Contact Isolation or in a single patient room with a HEPA filter.
         a) Exposure patients should follow the same precautions as a positive monkeypox patient.

II. High-risk exposure, CDC recommends monitoring and offering post-exposure prophylaxis. High-risk exposure is defined as:
   A. Unprotected contact between a person’s skin of mucous membranes, bodily fluids (sexual contact, splashes, ungloved contact) from a patient, or contaminated materials.
   B. Being inside the patient’s room or within six feet during any procedures that may create aerosols from oral secretions, skin lesions, or resuspension of dried exudates without N95 or equivalent and eye protection.
   C. Recommendations for patients or visitors with a high-risk exposure.
      1. Monitor for symptoms that suggest monkeypox infection after the last day of contact (including twice daily temperature checks x 21 days). Symptoms include fever ≥100.4°F, chills, new swollen lymph nodes (periauricular, axillary, cervical, inguinal) and new skin rash through 21 days after the exposure to the patient or the patient’s materials.
         a) PEP will be directed by ID in consultation with Sacramento County Health Department.
MONKEYPOX CONTROL PLAN

III. Intermediate risk exposure: CDC recommends monitoring and considering offering PEP based on informed clinical decision-making weighting the individual benefits vs risks. Intermediate risk exposure is defined as:

A. Being within six feet for three hours or more of an unmasked patient without wearing, at a minimum, a surgical mask

B. Activities resulting in contact between sleeves and other parts of an individual’s clothing, soiled linens, or dressing while wearing gloves without gown.

C. Recommendations for patients or visitors with an intermediate-risk exposure.

1. Monitor for symptoms that suggest monkeypox infection after the last day of contact (including twice daily temperature checks x 21 days). Symptoms include fever ≥100.4°F, chills, new swollen lymph nodes (periauricular, axillary, cervical, inguinal) and new skin rash through 21 days after the exposure to the patient or the patient’s materials.

   a) PEP will be directed by ID in consultation with Sacramento County Health Department.

IV. For low or uncertain risk employee exposures, CDC recommends monitoring and does not recommend PEP. Low or uncertain risk exposure is defined as:

A. Entering patient’s room without eye protection on one or more occasions, regardless of duration of exposure.

B. Being within six feet of an unmasked patient for less than three hours without wearing a surgical mask.

C. Exposure that, at the discretion of public health authorities, was recategorized to this risk level based on unique circumstances (e.g., uncertainty about whether Monkeypox virus was present on a surface and/or whether a person touched that surface)

D. Recommendations

1. Monitor for symptoms that suggest monkeypox infection after the last day of contact (including twice daily temperature checks x 21 days). Symptoms include fever ≥100.4°F, chills, new swollen lymph nodes (periauricular, axillary, cervical, inguinal) and new skin rash through 21 days after the exposure to the patient or the patient’s materials.

31 VISITATION

I. Visitors to patients with monkeypox should be limited to those essential for the patient’s care and wellbeing (e.g., parents of a child, spouse). Decisions about who might visit, including whether the
MONKEYPOX CONTROL PLAN

visitor stays or sleeps in the room with the patient, typically take into consideration the patient’s age, the patient’s ability to advocate for themselves, ability of the visitor to adhere to IPC recommendations, whether the visitor already had higher risk exposure to the patient, and other aspects. In general, visitors with contagious diseases should not be visiting patients in healthcare settings to minimize the risk of transmission to others.

32 RESOURCES

CDC July 26, 2022 Isolation and Prevention Practices for People with Monkeypox | Monkeypox | Poxvirus | CDC

CDC July 18, 2022 Clinical Considerations for Monkeypox in People Who are Pregnant or Breastfeeding

CDC July 1, 2022 Infection Control: Healthcare Settings | Monkeypox | Poxvirus | CDC

CDC June 24, 2022 Clinical Recognition | Monkeypox | Poxvirus | CDC

CDC HAN, June 14, 2022: Updated Case-finding Guidance: Monkeypox Outbreak—United States, 2022

CDC HAN, May 20, 2022: Monkeypox Virus Infection in the United States and Other Non-endemic Countries—2022

CDPH, July 26, 2022. Monkeypox.

CDPH. May 27, 2022. Healthcare Provider Monkeypox Health Advisory, May 27, 2022: Monkeypox Virus Infection in the United States and Other Non-endemic Countries

Sacramento County Public Health. MONKEYPOX TESTING UPDATE July 28, 2022 (Update to July 22, 2022)

Sacramento County Public Health. MONKEYPOX HEALTH ALERT July 7, 2022

UC Davis video What is Monkeypox? Symptoms, transmission and Vaccination Questions Answered

WHO, May 23, 2022 Multi-country monkeypox outbreak in non-endemic countries (WHO)
ORTHOPOX VIRUS LABORATORY TESTING GUIDANCE

Health care providers must contact their local public health department for consultation and testing approval. Specimens that test positive for orthopox virus nucleic acid are considered presumptive for an orthopox, and additional specimen(s) will be referred to the CDC for confirmatory testing.

Pre-approval
Evaluation and testing should be coordinated with your local health department. Patients must present firm, well circumscribed, deep-seated, and umbilicated skin lesions associated with monkeypox or other orthopox virus.

Specimen Collection
The following human specimens may be submitted for testing at CDPH VRDL:
- Dry swabs of lesions, using sterile nylon, polyester, or Dacron swabs with plastic or aluminum shaft
- More than one lesion should be sampled, preferably from different body sites, for preliminary and confirmatory testing. 1) Vigorously swab or brush lesion with two separate sterile dry swabs; 2) Break off swabs into separate 1.5- or 2-mL screw capped tubes with O-ring, or place each entire swab in a separate sterile container.
- Sample, label, and store each lesion separately
- Do not add or store in viral or universal transport media

Specimen storage and shipping
- Store all specimens at 4°C if shipping within 24-72 hours; store at -80°C if shipping will be delayed.
- Electronically complete one VRDL General Purpose Specimen Submittal Form for each specimen container. Handwritten forms or stickers will not be accepted.
  - Test(s) Requested: Poxvirus PCR
  - Disease Suspected: Monkeypox
  - Vaccination history: date of smallpox (vaccinia) vaccination, if administered
  - Clinical Findings and Symptoms: date of rash onset
  - Travel information: travel and/or exposure history

Send submittal form by secure email in advance of delivery to VRDL.submittal@cdph.ca.gov; include hard copy with specimens.
- Email package tracking number to VRDL.submittal@cdph.ca.gov to expedite processing.
- Ship all specimens on cold pack (2°-8°C) or dry ice within 24 to 72 hours.
- Label outside of box with “VRDL” to ensure prioritization on arrival.
- Specimens should be packed and shipped as Category B Infectious substances (UN 3373) in accordance with the U.S. DOT’s Hazardous Materials Regulations and IATA Dangerous Goods Regulations.
- Ship approved specimens and a hard copy of the completed submittal form to:

CDPH VRDL
ATTN: Specimen Receiving
850 Marina Bay Parkway
Richmond, CA 94804
Phone: 510-307-8585

For questions about specimen collection, submittal, or shipping, please contact the VRDL Medical and Epidemiology Liaisons (MELS) at (510) 307-8585 or VRDL.submittal@cdph.ca.gov.
MONKEYPOX REPORTING, INFECTION CONTROL AND CLEARANCE
July 25, 2022

Situational Update
Sacramento County has a total of 29 confirmed and probable monkeypox cases as of July 25, 2022. Statewide, 434 cases have been reported as of July 21, 2022.

Clinical Features
The incubation period for monkeypox is roughly 1-2 weeks. Initial symptoms (prodrome) may include fever, malaise, headache, weakness, and swollen lymph nodes. Rash appears shortly after the prodrome with lesions developing on various parts of the body, progressing through four stages (macular, papular, vesicular, pustular) before scabbing over and resolving. Illness typically lasts 2-4 weeks. A person is considered no longer infectious only after all lesions have resolved, scabs have fallen off, and a fresh layer of intact skin is formed.

Actions Requested of Health Care Systems and Clinicians:
1. **Report** any suspect cases and positives tests immediately to Sacramento County Public Health (SCPH) via CalREDIE Provider Portal (PP) or confidential morbidity report (CMR) form. Please provide the following when reporting:
   - Risk level (e.g. direct contact with skin lesions and household members being high risk)
   - Medical records
   - Pictures of lesions
   - Specimen collection date and results, if available
   If reporting via CMR, send CMR, medical records, and pictures to DHS-PUBL-PHN@sacounty.net.
2. **Follow infection control** guidance, including placing suspected or confirmed cases in a single-person room and donning appropriate personal protective equipment to include gowns, gloves, eye protection, and N95 face masks.
3. **Prioritize** treatment for confirmed monkeypox patients that meet the criteria (see Monkeypox Update from 7/22/22). Currently, treatment is available at UC Davis Medical Center. Patients need to be referred through SCPH.
4. **Examine** confirmed monkeypox patients, preferably in-person OR alternatively via telehealth and pictures, to ensure that all lesions have resolved, scabs have fallen off, and a fresh layer of intact skin is formed before providing clearance.

Resources:
2. Infection Prevention and Control of Monkeypox in Healthcare Settings (CDC): [https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control/healthcare.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control/healthcare.html)
3. Clinical Recognition (CDC): [https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html)
4. Duration of Isolation Procedures (CDC): [https://www.cdc.gov/poxvirus/monkeypox/clinicians/isolation-procedures.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/isolation-procedures.html)
5. Monkeypox (CDPH): [https://www.cdph.ca.gov/Programs/UI/DCDC/Pages/Monkeypox.aspx](https://www.cdph.ca.gov/Programs/UI/DCDC/Pages/Monkeypox.aspx)
6. Monkeypox (SCPH): [https://dhs.sacounty.gov/FUB/Pages/Communicable-Disease-Control/Monkeypox.aspx](https://dhs.sacounty.gov/FUB/Pages/Communicable-Disease-Control/Monkeypox.aspx)

Sincerely,

[Signature]

Olivia Lange, MD
MONKEYPOX CONTROL PLAN
35 APPENDIX III MONKEYPOX TESTING UPDATE SCPH 7/22/2022

MONKEYPOX TESTING UPDATE
July 28, 2022 (Update to July 22, 2022)

Situational Update
Sacramento County has a total of 38 confirmed and probable monkeypox cases as of July 28, 2022. Statewide, 646 cases have been reported as of July 26, 2022.

Commercial Laboratory Monkeypox Testing
Five commercial laboratories have begun testing for monkeypox this month, greatly increasing testing capacity. These labs include: Aegis Science, Labcorp, Mayo Clinic Laboratories, Sonic Healthcare, Quest Diagnostics. Please follow the collection, storage, and shipping instructions from these laboratories as they may differ and contact the commercial lab directly for any questions. Prior authorization is not required from Sacramento County Public Health (SCPH) for commercial laboratory monkeypox testing. Samples sent to commercial laboratories for testing do not need to be sent to SCPH for confirmatory testing.

Sacramento County Public Health Monkeypox Testing
SCPH will test samples from hospitalized patients. Testing for outpatient referrals to SCPH will require prior authorization. Contact SCPH by phone at (916) 875-5881 to consult with a Public Health Nurse.

Resources:
2. Monkeypox (CDPH): https://www.cdph.ca.gov/Programs/CIP/DCDC/Pages/Monkeypox.aspx

Sincerely,

Olivia Kasirye, MD
Public Health Officer
Acceptable sterile containers for monkeypox dry lesion swabs

Source: https://emergency.cdc.gov/han/2022/han00466.asp

- Use sterile dry polyester or Dacron swabs
- You may use 1.5- or 2-mL screw-capped tube with O-ring (break off swab), or
- Sterile container (submit entire swab)
- Do not add media!

NOTE: Photos shown here are examples of acceptable swabs and containers and not endorsements of specific manufacturers.

NOTE: A sterile urine cup is appropriate to use too. Do not use wooden stick swabs. For any questions about the specimen, containers call Laboratory Client Service at 916-734-5888

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<th>MCAT</th>
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MONKEYPOX CONTROL PLAN

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37 Appendix IV JYNNEOS Information
JYNNEOS Information Sheet

1. Why get vaccinated?

JYNNEOS is a vaccine indicated for prevention of smallpox and monkeypox disease in adults 18 years of age and older determined to be at high risk for smallpox or monkeypox infection.

In humans, the symptoms of monkeypox are similar to but milder than the symptoms of smallpox. Monkeypox begins with fever, headache, muscle aches, and exhaustion. The main difference between symptoms of smallpox and monkeypox is that monkeypox causes lymph nodes to swell (lymphadenopathy) while smallpox does not. The incubation period (time from infection to symptoms) for monkeypox is usually 7–14 days but can range from 5–21 days.

Within 1 to 3 days (sometimes longer) after the appearance of fever, the patient develops a rash, often beginning on the face then spreading to other parts of the body.

The illness typically lasts for 2–4 weeks. In Africa, monkeypox has been shown to cause death in as many as 1 in 10 persons who contract the disease.

2. Vaccine

The vaccine is 0.5 mL injected subcutaneously (under the skin) in 2 doses, 28 days apart. It is important to return for the second dose to receive the full protection from the vaccine.

3. Talk with your health care provider

Tell your vaccination provider if the person getting the vaccine has had an allergic reaction after a previous dose of smallpox/monkeypox vaccine, or has any severe, life-threatening allergies.

4. Risks of a vaccine reaction

You may feel pain, redness or swelling where the shot is given. Some people also had sore muscles, headache or felt tired after receiving their vaccine. Tell your doctor if you notice any unusual side effects such as changes to your digestive system, trouble breathing, problems with your vision or tightness in your throat. Call your doctor right away if you notice a fast or irregular heartbeat.

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<th>More Common</th>
<th>Rare</th>
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<td>At the injection site</td>
<td>Body as a whole</td>
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<tr>
<td>Pain</td>
<td>Muscle pain</td>
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<td>Redness</td>
<td>Headache</td>
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<td>Swelling</td>
<td>Fatigue</td>
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<td>Itching</td>
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VERSION 2.0 5/26/2022
The majority of people who had side effects said they usually lasted between 1 and 6 days and were about the same after the first and second dose. More people reported pain after the first dose compared to the second dose.

5. What if there is a serious problem?
An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, or weakness), call 9-1-1 and get the person to the nearest hospital. For other signs that concern you, call your health care provider. Adverse reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your health care provider will usually file this report, or you can do it yourself. Visit the VAERS website at www.vaers.hhs.gov or call 1-800-822-7967. VAERS is only for reporting reactions, and VAERS staff members do not give medical advice.

6. The National Vaccine Injury Compensation Program
The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines. Claims regarding alleged injury or death due to vaccination have a time limit for filing, which may be as short as two years. Visit the VICP website at www.hrsa.gov/vaccinecompensation or call 1-800-338-2382 to learn about the program and about filing a claim.

7. How can I learn more?
- Ask your health care provider.
- Call your local or state health department.
- Visit the website of the Food and Drug Administration (FDA) for vaccine package inserts and additional information at https://www.cdc.gov/poxvirus/monkeypox/index.html
- Contact the Centers for Disease Control and Prevention (CDC): -Call 1-800-232-4636 (1-800-CDC-INFO) or -Visit CDC’s website at www.cdc.gov.