NMDOH
NEW MEXICO DEPARTMENT OF HEALTH

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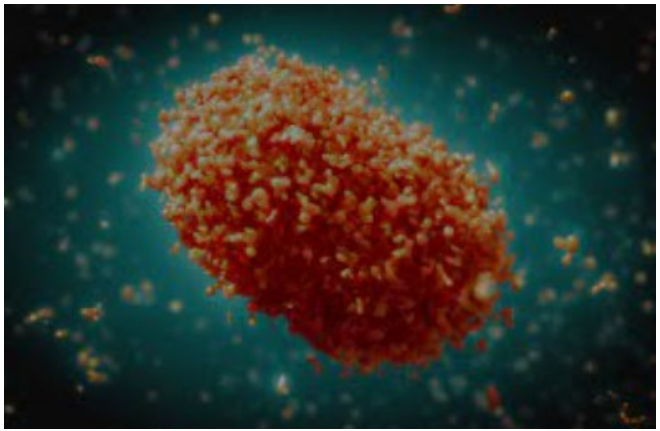
Monkeypox Update NM APIC



September 9, 2022

1190 S. St. Francis Drive • Santa Fe, NM 87505 • Phone: 505-827-2613 • Fax: 505-827-2530 • nmhealth.org

What is Monkeypox?

- Orthopoxvirus, part of a genus of DNA viruses that infect humans and animals
  - Most well known is smallpox (variola)
  - Non-variola orthopoxviruses
    - Monkeypox
    - Cowpox
    - Horsepox
    - Ectromelia virus, and others
  - Not related to chickenpox (varicella)
  - 2 distinct clades, Central African or Congo Basin, and West African. Current outbreak caused by West African clade which is a milder illness
- Monkeypox is endemic in some parts of Africa, animal reservoir thought to be small African rodents and non-human primates like monkeys. Discovered in 1958 in 2 colonies of monkeys kept for research.

2003 US monkeypox outbreak

- 800 small African mammals imported from Ghana to Texas for sale in pet stores
- This shipment was housed near prairie dogs headed to Illinois vendor. These prairie dogs were sold as pets and went on to infect their owners.
- 47 confirmed cases in six states-Illinois, Indiana, Kansas, Missouri, Ohio and Wisconsin before outbreak was contained.
- This was the first time human monkeypox was reported outside of Africa
- As a result, there is a restriction on the importation of African rodents that remains in place today

How Monkeypox is Transmitted

The virus can spread from person-to-person through:

- direct skin to skin contact with the monkeypox rash, scabs, or fluids, during intimate physical contact such as kissing, cuddling, or sex
- respiratory secretions during prolonged, face-to-face contact, or during intimate physical contact, such as kissing, cuddling, or sex
- items such as clothing, bedding, towels and surfaces used by a person with monkeypox infection
- pregnant people can spread the virus to their fetus through the placenta
- contact with infected animals
- At this time, it is not known if monkeypox can spread through semen or vaginal fluids.

Infectious Period

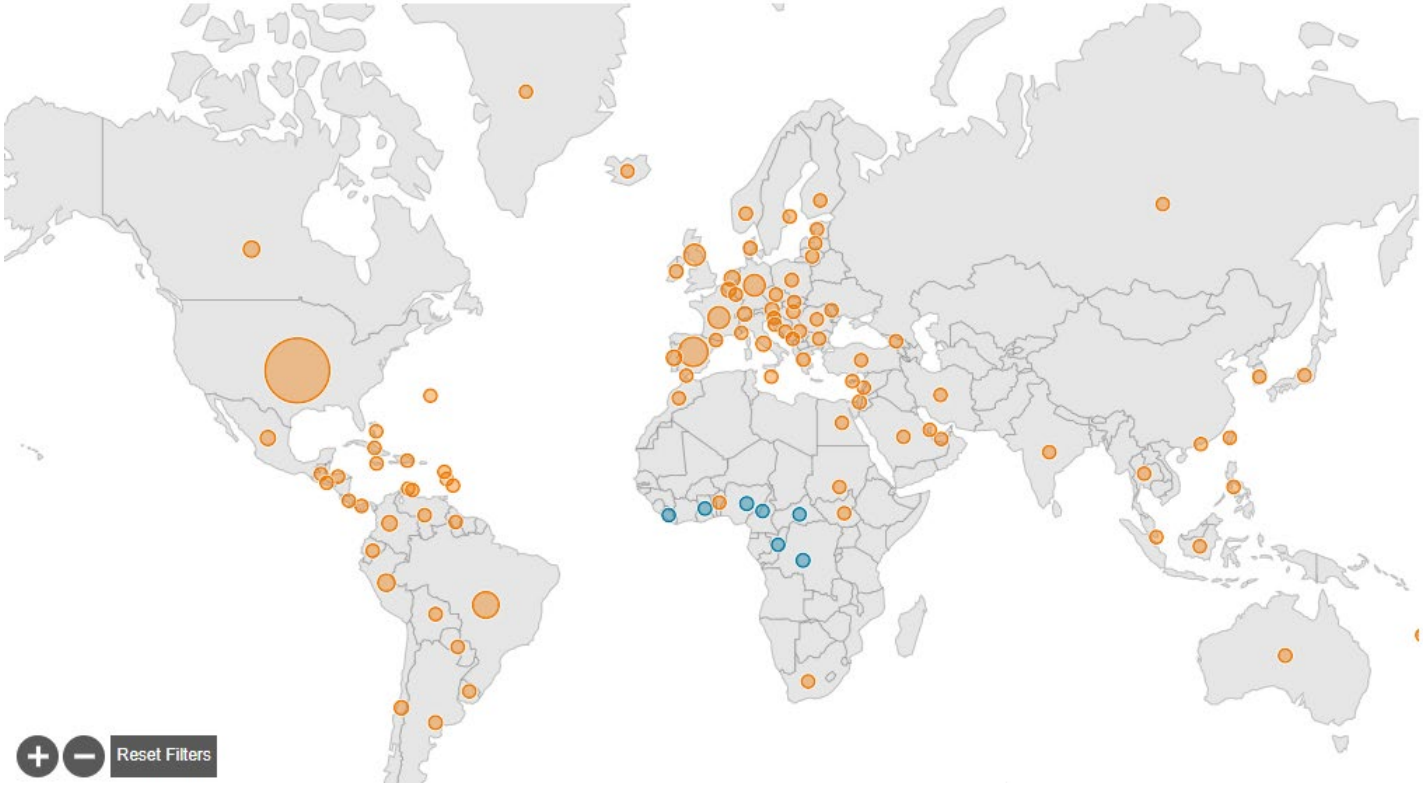
- Monkeypox can spread from the time symptoms start until the rash has fully healed and a fresh layer of skin has formed.
- The illness typically lasts 2-4 weeks.
- People who do not have monkeypox symptoms cannot spread the virus to others.
- Incubation period is typically 3-17 days (up to 21 days)

Enanthem Through the Scab Stage

Stage	Stage Duration	Characteristics
Enanthem		• Sometimes, lesions first form on the tongue and in the mouth.
Macules	1–2 days	• Macular lesions appear.
Papules	1–2 days	• Lesions typically progress from macular (flat) to papular (raised).
Vesicles	1–2 days	• Lesions then typically become vesicular (raised and filled with clear fluid).
Pustules	5–7 days	• Lesions then typically become pustular (filled with opaque fluid) – sharply raised, usually round, and firm to the touch (deep seated). • Finally, lesions typically develop a depression in the center (umbilication). • The pustules will remain for approximately 5 to 7 days before beginning to crust.
Scabs	7–14 days	• By the end of the second week, pustules have crusted and scabbed over. • Scabs will remain for about a week before beginning to fall off.

2022 Monkeypox Outbreak Global Map

Data as of 08 Sep 2022 5:00 PM EDT



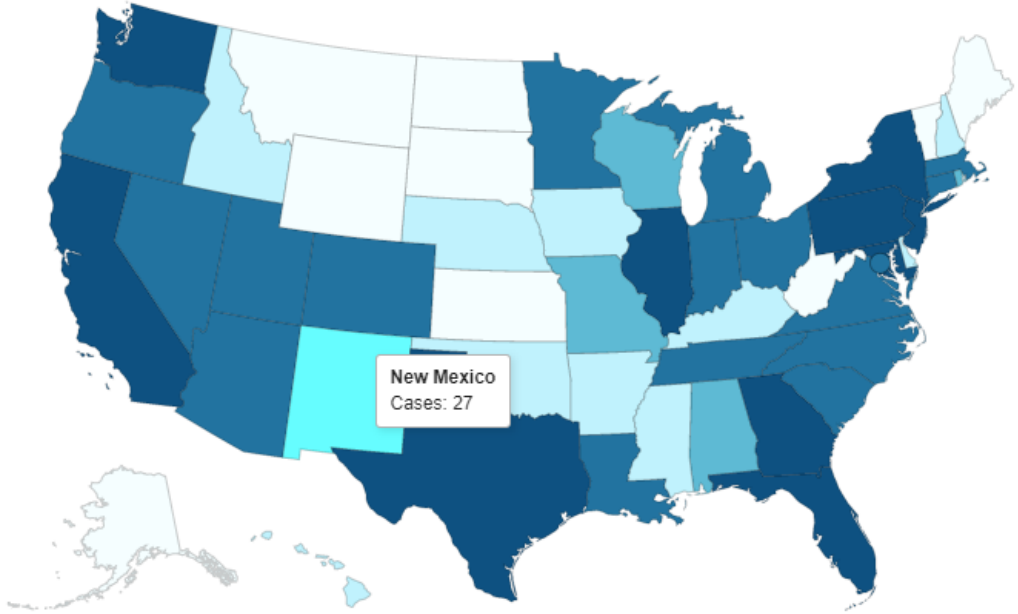
2022 U.S. Map & Case Count

Data as of September 08 2022 at 2:00 pm EDT

Español Print

21,504 Total confirmed monkeypox/orthopoxvirus cases

*One Florida case is listed here but included in the United Kingdom case counts because the individual was tested while in the UK.



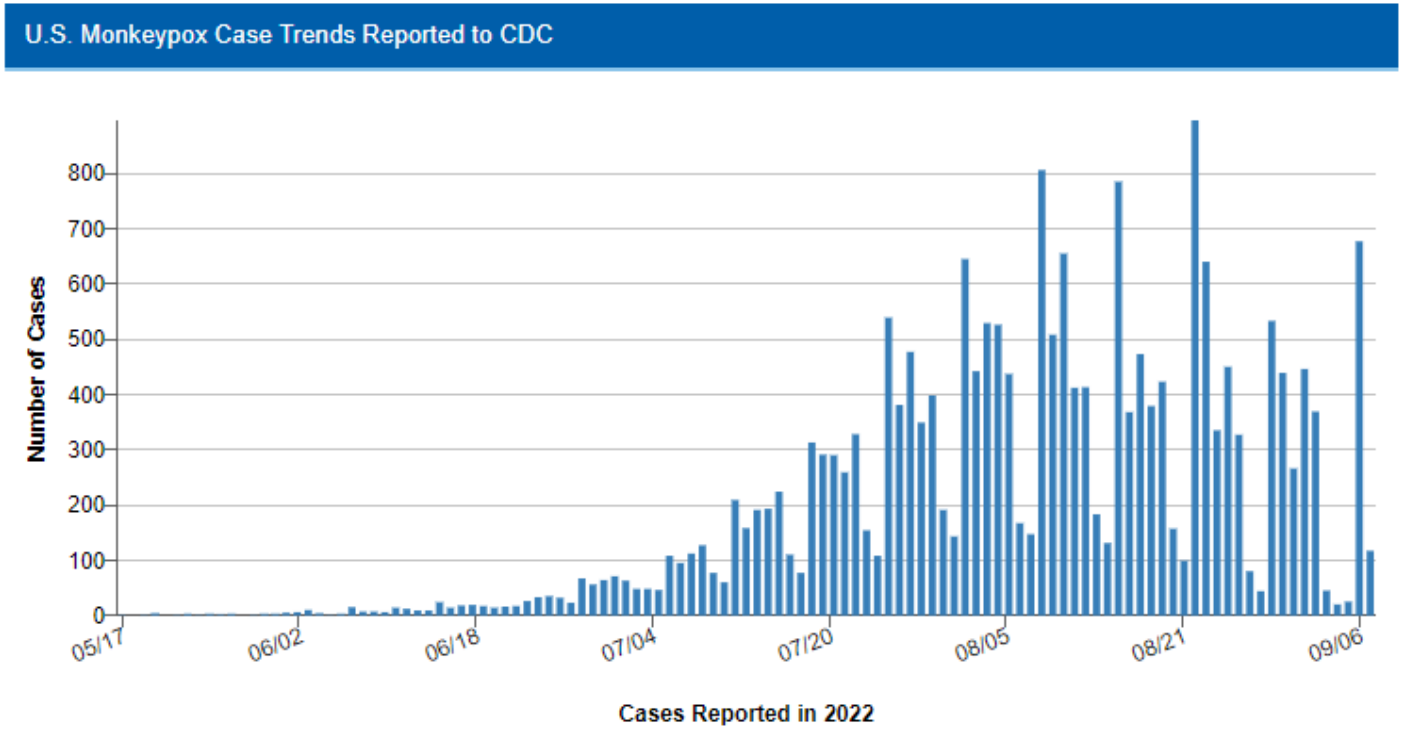
Territories PR

U.S. Monkeypox Case Trends Reported to CDC

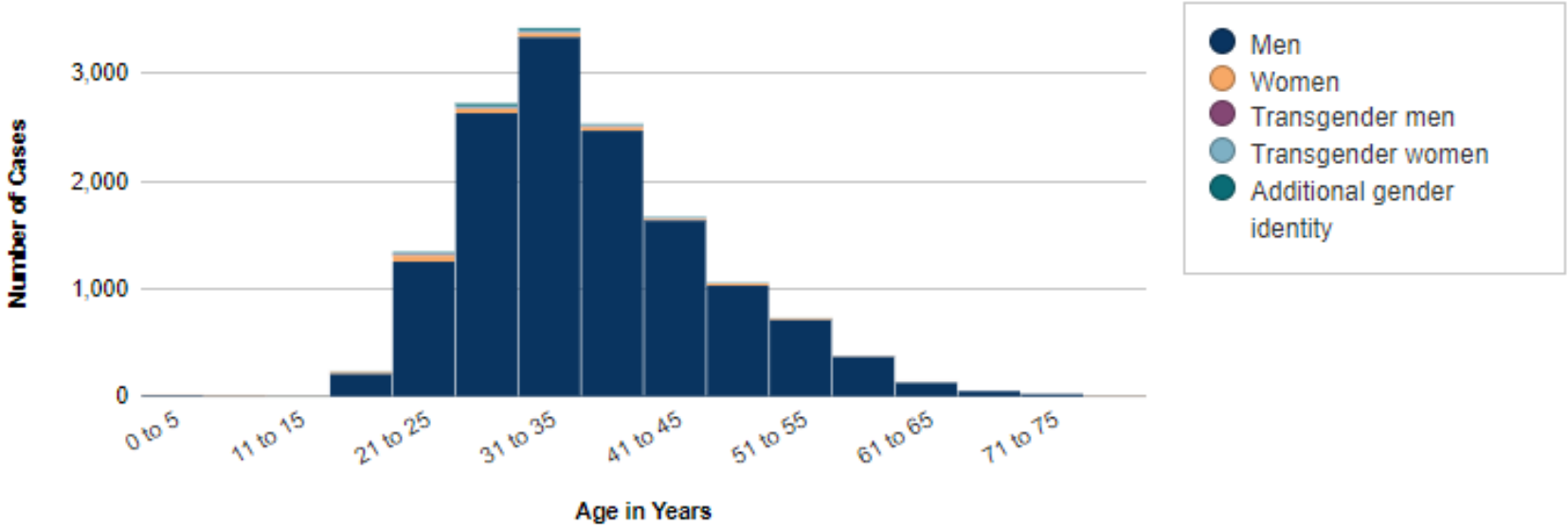
Data as of 9/7/2022

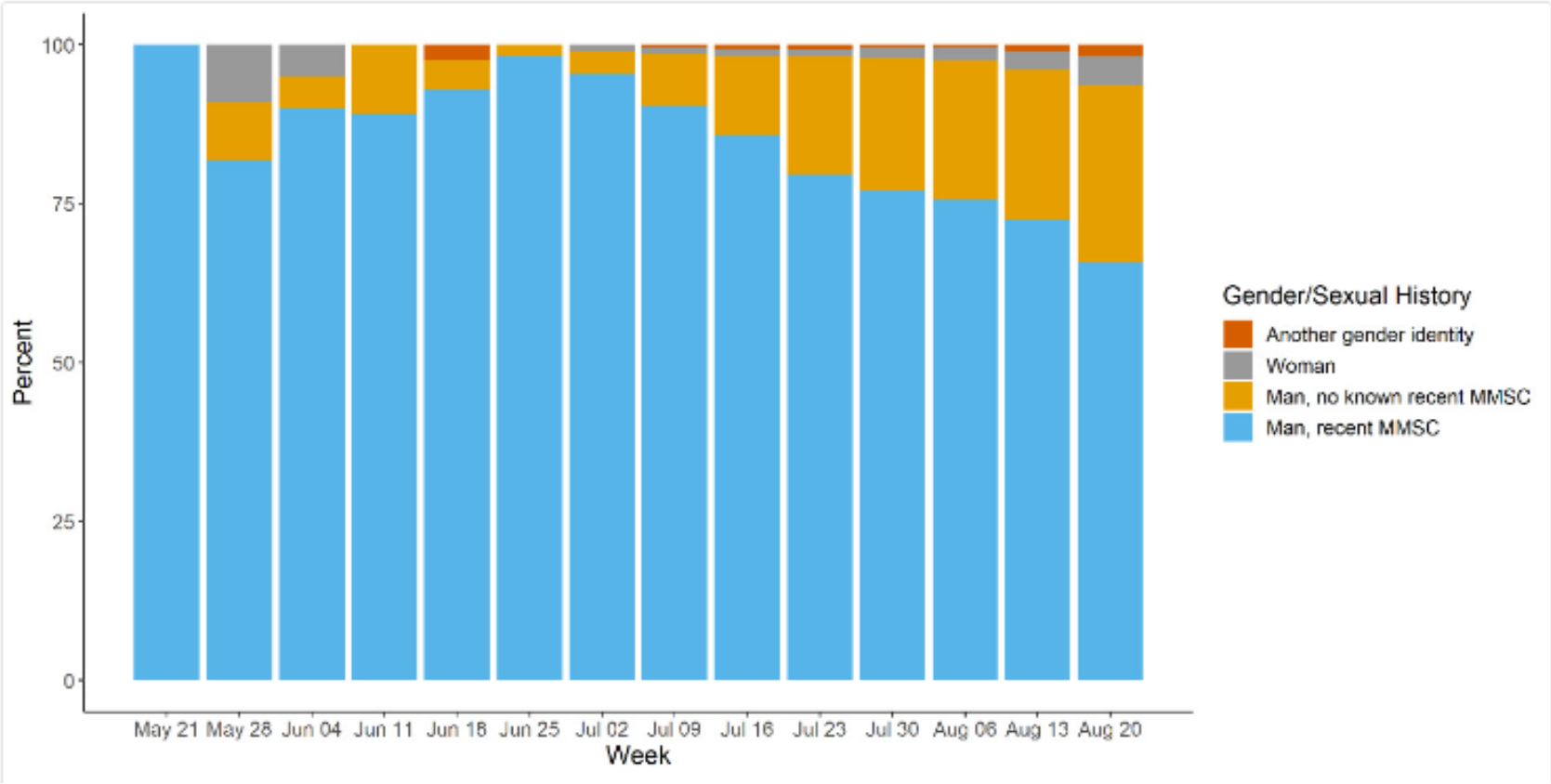
Español Print

Trends of monkeypox cases reported to CDC since May 17, 2022, the start of the response to the current outbreak in the United States. Data include cases with reporting date.*



Monkeypox cases reported to CDC: Age and Gender





https://www.cdc.gov/poxvirus/monkeypox/cases-data/technical-report/report-2.html

Infection Control for Suspect or Confirmed Cases

- Single person room with dedicated bathroom; special air handling not required
- Door should be kept closed if safe to do so
- Transport and movement outside room should be limited to medically essential purposes.
- Any transport outside the room, patient should wear mask and all lesions should be covered
- Airborne and contact precautions for anyone entering patient room (gown, gloves, eye protection, N95 or higher respirator)
- Intubation, extubation or other aerosol generating procedures should be performed in airborne isolation room.

Infection Control for Suspect or Confirmed Cases

- Standard cleaning and disinfection using EPA registered disinfectant with an emerging pathogen claim. List Q
- Avoid dry dusting, sweeping, and fans which could resuspend dried material from lesions. Wet cleaning methods should be used.
- Laundry should be promptly contained in appropriate laundry bag and never shaken or handled in a manner that may disperse infectious material and laundered using standard practices
- Routine procedures for food service items, no special handling needed
- Waste should be handled as UN3291 regulated medical waste in the same manner as other infectious medical waste. Not category A waste for current outbreak clade

Duration of Precautions

For patients with suspected or confirmed monkeypox infection in a healthcare setting:

- Those with suspected monkeypox infection should have recommended isolation precautions for monkeypox maintained until monkeypox infection is ruled out.
- Those with confirmed monkeypox infection should have recommended isolation precautions for monkeypox maintained until all lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed underneath.

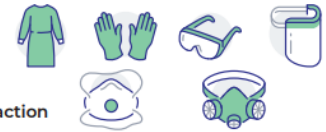
Infection Control for Suspect or Confirmed Cases in Outpatient Setting

PATIENT PRECAUTIONS

- **Have suspect patient wear a mask and cover any exposed skin lesions prior to arrival**
- **Do not place suspect patient in general waiting area, bring patient directly back to exam room**
- **Place suspect patient directly into a closed, single-person room.** Special air handling is not required.

HEALTHCARE PERSONNEL PRECAUTIONS

- Prior to seeing a suspect patient, healthcare personnel should don:
  - **Disposable gown**
  - **Gloves**
  - **Eye protection**
  - **N95 or higher-level respirator mask**
  - **Pregnant or immune compromised staff should avoid interaction with suspect patients**



- See **Sequence for Donning and Doffing Personal Protective Equipment.**

ENVIRONMENTAL CLEANING

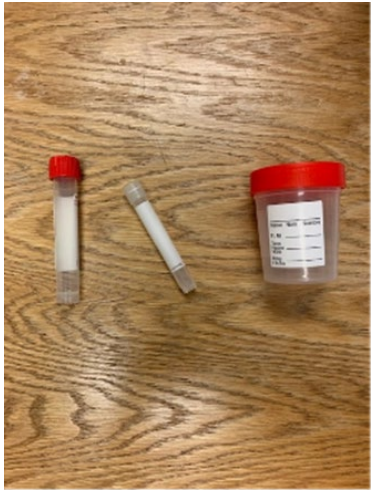
- Standard cleaning and disinfection procedures should be performed using an EPA-registered healthcare-grade disinfectant with an emerging viral pathogen claim. Products with Emerging Viral Pathogens claims may be found on **EPA's List Q**. Follow the manufacturer's directions for concentration, contact time, and care and handling.
- Dry dusting, sweeping, and fans should be avoided, wet cleaning methods are preferred
- All waste, including PPE, should be managed as regulated medical waste in the same manner as other potentially infectious medical waste (e.g. soiled dressings, bloodborne pathogens, contaminated sharps).

How to Test

TESTING DIRECTIONS FOR SLD

- ☐ The goal is to sample 2 to 3 lesions from 2 to 3 different locations on the body and/or lesions with differing appearances.
- ☐ Vigorously swab or scrub each lesion **with two** separate sterile, dry, polyester swabs (one for preliminary and one for confirmatory testing). **Do not use cotton swabs and do not swab more than one lesion with each swab.** You do not need to unroof the lesion.
- ☐ Each swab should each be placed in a separate dry container (such as sterile urine cup or tube).
- ☐ Do not add or store in viral or universal transport media (for SLD).
- ☐ Each lesion that is sampled requires a **separate test requisition form**.
- ☐ If you swab 3 lesions, you will have 6 swabs in 6 separate dry containers and 3 requisitions.
- ☐ Immediately refrigerate samples (2-8°C), and contact NMDOH at (505) 827-0006 for shipping instructions.

Testing is now available through several commercial clinical laboratories including Quest Diagnostics, LabCorp, and Aegis Science. Refer to their respective client websites for instructions on specimen collection and submission. **Patients cannot go to a client service center (draw site) for specimen collection, specimens must be collected by the clinician for submission to the lab.**



Who to Test

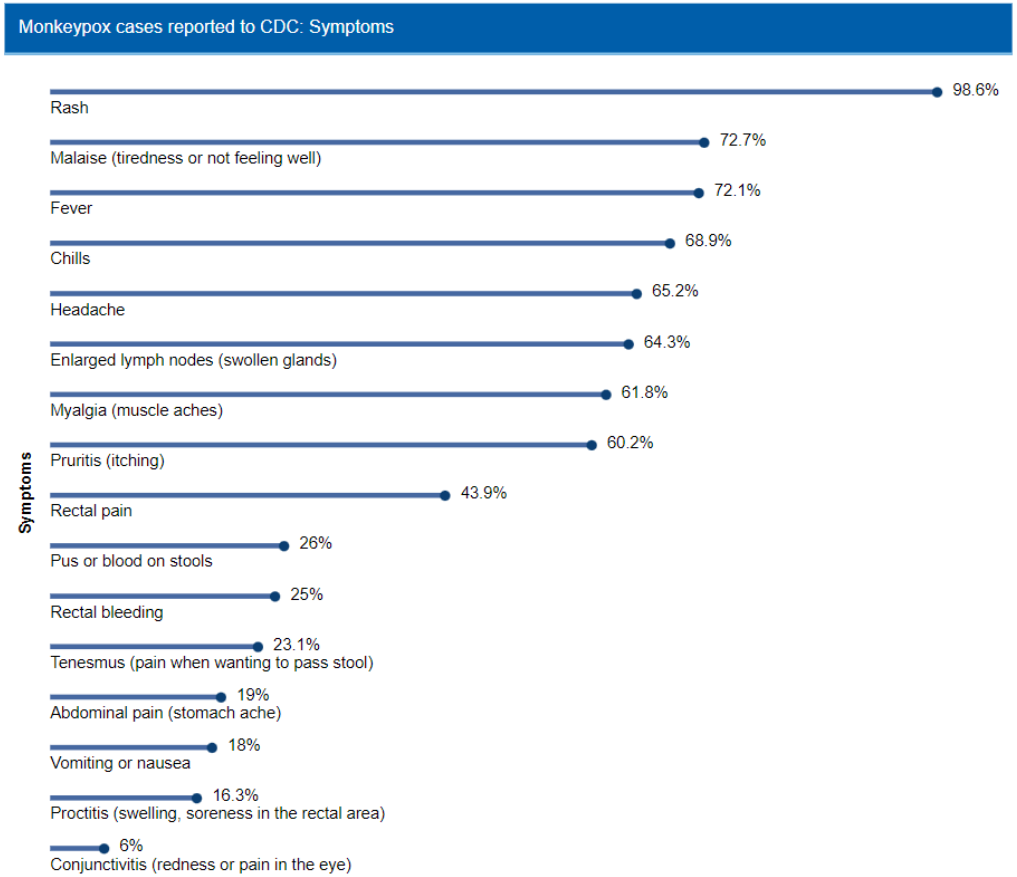
PATIENT SCREENING

Consider testing if the person has a rash/lesions and **in the last 21 days** has had:

- ☐ Direct, skin-to-skin contact with a person who has confirmed/suspected monkeypox
- ☐ Close, in-person contact with other men who have sex with men
- ☐ Traveled outside the US or in the US where there has been monkeypox noted
- ☐ Lymphadenopathy, fever, and fatigue
- ☐ Well-circumscribed, deep seated lesions that often have a central umbilication (can be in mucosal areas such as mouth and anogenital areas)

Key Characteristics for Identifying Monkeypox

- Lesions are firm, well circumscribed, deep seated, and often develop umbilication
- Lesions often occur in the genital, anorectal areas or in the mouth
- Rash is not always disseminated across many sites, may be confined to only a few lesions
- Rectal symptoms (purulent or bloody stools, rectal pain, or rectal bleeding) frequently reported during current outbreak
- Lesions often described as painful until the healing phase when they become itchy crusts
- Fever, lymphadenopathy, malaise and other prodromal symptoms may occur before or at same time as rash.
- Diagnosis of STI does not rule-out co-infection with monkeypox



https://www.cdc.gov/poxvirus/monkeypox/response/2022/demographics.html

Symptom Management

- Pain relievers and fever reducers (ibuprofen and tylenol)
- Epsom Salts
- Oatmeal baths
- Antihistamines
- Topical Lidocaine
- Stool softener
- Magic Mouthwash
- Meds for pain management

Treatment

- Tecovirimat (also known as TPOXX, ST-246)
- Requested from CDC/SNS
- FDA approved for smallpox, but not monkeypox

- CDC holds an expanded access protocol that allows for the use of stockpiled tecovirimat to treat monkeypox during an outbreak.

- Tecovirimat dosing: 600mg (3 tabs) twice a day for 14 days with a full fatty meal

- Efficacy data are from animal studies (decreases risk of dying when given early); drug levels; and a few case studies in humans (may shorten course and viral shedding)

Treatment Information for Healthcare Professionals | Monkeypox | Poxvirus | CDC

Tecovirimat Indications

1. People with severe MPX disease (e.g., hemorrhagic disease, confluent lesions, sepsis, encephalitis, or other conditions requiring hospitalization)
2. People at high risk of severe MPX disease:
    - People with immunocompromising conditions
    - Pediatric populations, particularly patients younger than 8 years of age
    - Pregnant or breastfeeding women
    - People with a history or presence of atopic dermatitis or other active exfoliative skin conditions
    - People with one or more complication (e.g., secondary bacterial skin infection; gastroenteritis with severe nausea/vomiting, diarrhea, or dehydration; bronchopneumonia; concurrent disease or other comorbidities)
    - People with aberrant infections involving accidental implantation in eyes, mouth, or other anatomic areas where *Monkeypox virus* infection might constitute a special hazard (e.g., the genitals or anus)

https://www.cdc.gov/poxvirus/monkeypox/clinicians/Tecovirimat.html

Adverse Reactions

- Oral: headache (12%), nausea (5%), abdominal pain (2%), and vomiting (2%). Neutropenia was found in one study participant.
- IV: infusion site pain (73%), infusion site swelling (39%), infusion site erythema (23%), infusion site extravasation (19%), and headache (15%)

https://www.cdc.gov/poxvirus/monkeypox/clinicians/Tecovirimat.html

Monitoring Exposed Healthcare Personnel

- Correct and consistent use of PPE when caring for a patient with monkeypox infection is highly protective and prevents transmission to HCP.
- Exposed HCP do not need to be excluded from work but should be monitored for symptoms of monkeypox, could be employee health or self screening prior to shift.
- HCP cases currently being investigated involve using needles to unroof or aspirate lesions (needlestick) or case where no PPE was used when sampling lesions
- In the absence of an exposure described below HCP who enter a patient room while wearing all recommended PPE should self monitor for signs and symptoms of monkeypox for 21 days and notify employee health, leave work/not report to work should symptoms occur.

Risk level of exposure	Exposure characteristics	Recommendations	
		Monitoring	PEP¶
Higher	Unprotected contact between an exposed individual's broken skin or mucous membranes and the skin lesions or bodily fluids from a patient with monkeypox (e.g., inadvertent splashes of patient saliva to the eyes or mouth of a person), or soiled materials (e.g., linens, clothing) -OR-	Yes	Recommended
	Being inside the patient's room or within 6 feet of a patient with monkeypox during any medical procedures that may create aerosols from oral secretions (e.g., cardiopulmonary resuscitation, intubation), or activities that may resuspend dried exudates (e.g., shaking of soiled linens), without wearing a NIOSH-approved particulate respirator with N95 filters or higher and eye protection		
Intermediate	Being within 6 feet for a total of 3 hours or more (cumulative) of an unmasked patient with monkeypox without wearing a facemask or respirator -OR-	Yes	Informed clinical decision making recommended on an individual basis to determine whether benefits of PEP outweigh risks of transmission or severe disease ¶¶
	Unprotected contact between an exposed individual's intact skin and the skin lesions or bodily fluids from a patient with monkeypox, or soiled materials (e.g., linens, clothing) -OR-		
	Activities resulting in contact between an exposed individual's clothing and the patient with monkeypox's skin lesions or bodily fluids, or their soiled materials (e.g., during turning, bathing, or assisting with transfer) while not wearing a gown		
Lower	Entry into the contaminated room or patient care area of a patient with monkeypox without wearing all recommended PPE, and in the absence of any exposures above	Yes	None
No Risk	No contact with the patient with monkeypox, their contaminated materials, nor entry into the contaminated patient room or care area	No	None

Current Vaccine Recommendations

- Post Exposure Prophylaxis
  - CDC recommends that the vaccine be given within 4 days from the date of exposure for the best chance to prevent onset of the disease.
  - If given between 4 and 14 days after the date of exposure, vaccination may reduce the symptoms of disease, but may not prevent the disease.
- PEP++
  - people with certain risk factors and recent experiences that might make them more likely to have been recently exposed to monkeypox can be considered for vaccination [i.e., expanded post-exposure prophylaxis (PEP++)]

HCP do not need routine preexposure prophylaxis, with the exception of laboratory workers handling monkeypox virus specimens.

Who Should Get Vaccinated?

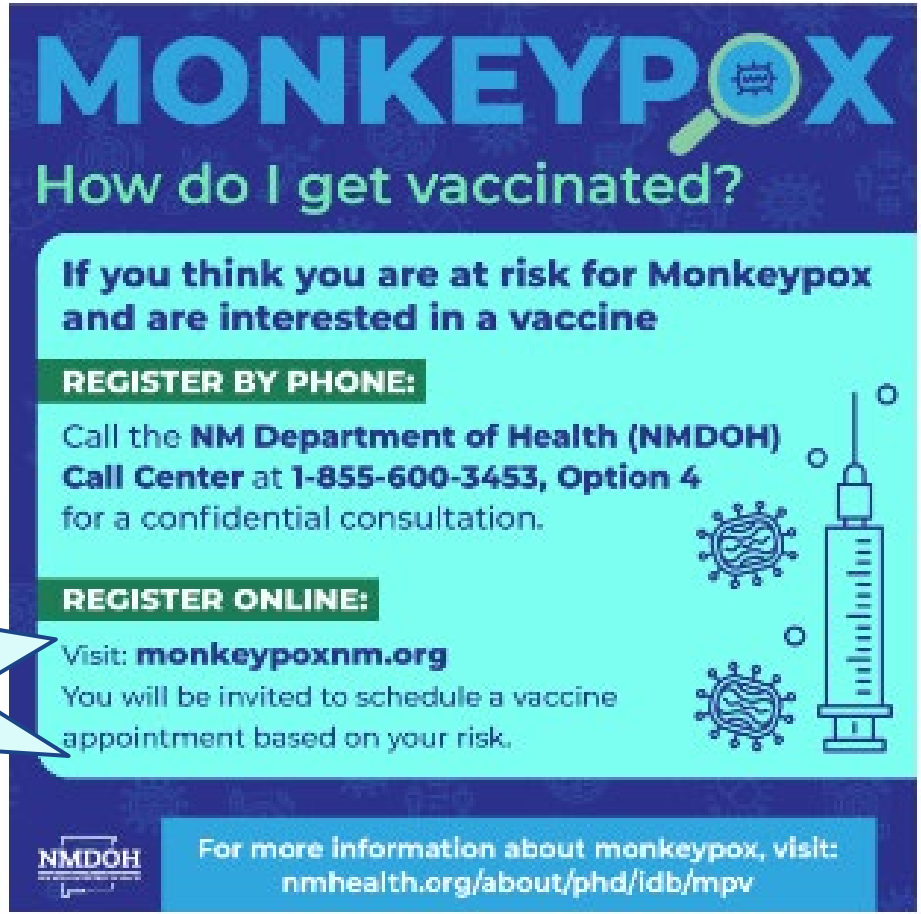
In the current outbreak, you may want to get vaccinated if:

- You have been identified as a close contact of someone with monkeypox.
- You learn that one of your sex partners in the past 2 weeks has been diagnosed with monkeypox.

In addition, you may want to get vaccinated if you are a man who has sex with other men or are a transgender or gender-diverse person who has sex with men and in the past 2 weeks:

- You have had sex with multiple partners or group sex.
- You have had sex at a commercial sex venue (like a sex club or bathhouse).
- You have had sex at an event, venue, or in an area where monkeypox transmission is occurring.

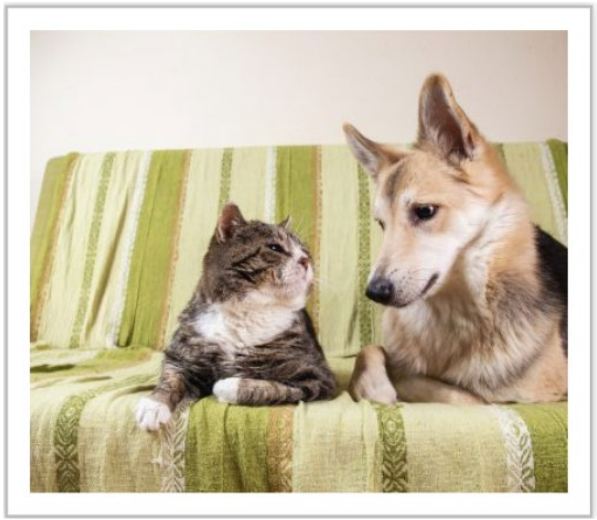
NMDOH Monkeypox site: https://www.nmhealth.org/about/phd/idb/mpv/



online MPX vaccine registration now available!

Home Isolation Guidance

Situation*	Lowest Risk	Intermediate Risk	Higher Risk
Living Space	Remain alone in a home or where only others with monkeypox are located. Cover upholstered furniture and porous materials that cannot be washed with sheets, blankets, tarps, and other covers.	Remain in a separate room in a home or facility away from others who do not have monkeypox. Cover all upholstered furniture and porous surfaces with sheets, blankets, tarps, or other covers. Wear a well-fitting mask and cover lesions while around others. Disinfect surfaces (doorknobs, countertops) between each use.	Share space with others but avoid close contact. Do not share a bed with another person. Wear a well-fitting mask and cover lesions while around others. Disinfect surfaces (doorknobs, countertops) between each use.



https://www.cdc.gov/poxvirus/monkeypox/if-sick/preventing-spread.html

https://www.cdc.gov/poxvirus/monkeypox/specific-settings/home-disinfection.html

NMDOH Monkeypox Webpage

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Monkeypox Virus

Overview

Monkeypox is a rare disease caused by infection with the monkeypox virus. It was first discovered in 1958 when there were two outbreaks of a pox-like disease in colonies of monkeys kept for research. The first human case was in 1970. Prior to 2022, nearly all U.S. cases were related to international travel.

MONKEYPOX: Get the FACTS

Infographics

Monkeypox: Get The Facts Poster (English)

Monkeypox: Get The Facts Poster (Spanish)

Monkeypox: Screening and Testing Guidance

Monkeypox: Infection Control Checklist

https://www.nmhealth.org/about/phd/idb/mpv/

Additional resources

- MAY 26, 2022 NMDOH HAN here https://www.nmhealth.org/publication/view/general/7527/
- JULY 8, 2022 HAN here https://www.nmhealth.org/publication/view/general/7614/
- There is also a page on the NMDOH website with monkeypox resources information for clinicians and the general public nmhealth.org/Monkeypox
- https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html
- https://www.cdc.gov/poxvirus/monkeypox/pdf/mpx-clinician-what-to-do.pdf