



Public Health Division  
122 West 25th Street, 3rd Floor West  
Cheyenne, WY 82002  
(307) 777-6004 • 800-599-9754  
Fax (307) 777-8687 • [www.health.wyo.gov](http://www.health.wyo.gov)



---

Stefan Johansson  
Director

Mark Gordon  
Governor

---

## **State Health Advisory Monkeypox Update #4 Wyoming Department of Health August 9, 2022**

### **Summary**

As of August 9, 2022, 8,934 monkeypox cases have been reported from 49 states. No cases of monkeypox have been reported in Wyoming.

JYNNEOS monkeypox vaccine is now available for pre-exposure prophylaxis of at-risk individuals in Wyoming. Due to limited vaccine supply, individuals who will initially be eligible include adults 18 years and older who live or work in Wyoming and meet one of the following criteria:

- Men who have sex with men and have had multiple or anonymous sexual partners in the last year; OR
- Partners of men who have sex with men who have had multiple or anonymous sexual partners in the last year; OR
- Transgender and nonbinary persons assigned male at birth who have sex with multiple or anonymous sexual partners who are male or male assigned at birth within the past year, OR
- Sex workers (of any sex)

WDH asks providers to refer patients who are eligible for pre-exposure prophylaxis and are interested in receiving JYNNEOS vaccine to their local public health nursing office for vaccine administration. While the vaccine doses are being provided by the federal government, a small administration fee may be charged.

JYNNEOS vaccine also continues to be available as post-exposure prophylaxis for individuals with sexual or other close contact with another individual known or suspected to have monkeypox within the last 14 days and individuals who had close contact in the past 14 days with others at a venue, event or social gathering where a suspected or confirmed monkeypox case or outbreak was identified. Providers should notify WDH by calling 1-888-996-9104 if a patient reports being exposed to monkeypox.

Currently, several major commercial laboratories offer monkeypox testing. These laboratories include Labcorp, Mayo Clinic Laboratories, Quest Diagnostics, Aegis Sciences, Sonic Healthcare, and ARUP Laboratories. Providers who suspect potential monkeypox infection may send samples to commercial laboratories without contacting the Wyoming Department of Health (WDH) prior to collection.

Tecovirimat (also known as TPOXX or ST-246) is available under an expanded access Investigational New Drug application to treat monkeypox in adults and children of all ages. Providers seeking treatment for patients with monkeypox infection should contact WDH.

Clinical considerations for people living with HIV, children and adolescents, and pregnant and breastfeeding women are provided.

Guidance for clinicians from the Centers for Disease Control and Prevention (CDC) can be found at the following link: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/>

The Wyoming Department of Health's monkeypox website is located here: <https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/monkeypox/>

### **Monkeypox Vaccine Availability and Eligibility**

JYNNEOS is an FDA-approved vaccine for the prevention of monkeypox infection in individuals aged 18 and older. JYNNEOS is a live, but non-replicating, virus vaccine that is administered by subcutaneous injection as two doses spaced 28 days apart (<https://www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.htm>). JYNNEOS can be used for both pre-exposure and post-exposure prophylaxis. The current U.S. supply of JYNNEOS is limited.

A limited number of JYNNEOS doses are available in Wyoming for pre-exposure prophylaxis among those individuals at increased risk for infection based on the current outbreak. Eligibility criteria may change over time depending on vaccine availability and outbreak characteristics. Currently, eligible individuals include adults 18 years and older who live or work in Wyoming and meet one of the following criteria:

- Men who have sex with men and have had multiple or anonymous sexual partners in the last year; OR
- Partners of men who have sex with men who have had multiple or anonymous sexual partners in the last year; OR
- Transgender and nonbinary persons assigned male at birth who have sex with multiple or anonymous sexual partners who are male or male assigned at birth within the past year, OR
- Sex workers (of any sex)

JYNNEOS vaccine continues to be available as post-exposure prophylaxis for the following persons:

- Individuals with sexual or other close contact with another individual known or suspected to have monkeypox within the last 14 days
- Individuals who had close contact in the past 14 days with others at a venue, event or social gathering where a suspected or confirmed monkeypox case or outbreak was identified.

At this time, JYNNEOS vaccination will only be available through public health nursing offices and local health departments. WDH asks providers to identify patients who meet eligibility criteria and refer them to their local public health nursing office to schedule an appointment. A list of public health nursing offices and contact information can be found here:

<https://health.wyo.gov/publichealth/nursing/phn-co-offices/>

### **Monkeypox Testing**

Currently, several major commercial laboratories offer monkeypox testing. These laboratories include Labcorp, Mayo Clinic Laboratories, Quest Diagnostics, Aegis Sciences, Sonic Healthcare, and ARUP Laboratories. **Providers who suspect monkeypox infection in a patient based on clinical presentation and/or epidemiologic risk factors may submit samples to Labcorp and other commercial laboratories without contacting the Wyoming Department of Health (WDH) prior to submission.** However, WDH requests that providers notify WDH of any patients for whom they have a high suspicion for monkeypox based on clinical presentation and epidemiologic risk factors. WDH also requests that providers notify WDH immediately on receiving positive monkeypox test results. Monkeypox infection has been added to the Wyoming Reportable Diseases and Conditions list:

<https://health.wyo.gov/wp-content/uploads/2022/07/2022ReportableListV2-with-monkeypox.pdf>

Notifications can be made by calling the 24/7 public health emergency line at 888-996-9104.

Providers wishing to submit samples through the Wyoming Public Health Laboratory (WPHL) should continue to call the 24/7 public health emergency line at 888-996-9104.

Providers should ensure that specimens are collected, prepared, and shipped according to the requirements of the laboratory performing the testing; detailed specimen collection and shipping instructions for WPHL are included in the Health Advisory dated June 16, 2022. The recommended specimen type is material collected from the surface of a lesion or crust from a healing lesion. The Centers for Disease Control and Prevention (CDC) recommends that three lesions per patient be swabbed. It is not necessary to de-roof or lance the lesion before swabbing. For some individuals, the lesions may not be overtly visible (such as within the oral cavity or within the rectum); therefore, clinicians should perform a thorough evaluation including a full body skin, oral, genital, and rectal examination to identify appropriate lesions for sampling.

Specimens should be shipped as Category B

(<https://www.phmsa.dot.gov/transporting-infectious-substances/transporting-infectious-substances-safely>).

Providers should instruct patients to self-isolate pending test results, taking particular care to avoid contact with individuals at higher risk for infection from monkeypox, including

immunocompromised individuals, pregnant women, children <8 years of age, and individuals with a history of eczema or atopic dermatitis.

Epidemiologic risk factors associated with the current outbreak include:

- Contact with a person or persons with a similar appearing rash or with a person who has received a diagnosis of confirmed or probable monkeypox OR
- Close or intimate in-person contact with persons in a social network experiencing monkeypox infections. This includes men who have sex with men who meet partners through an online website, digital application (“app”), or social event (e.g., bar or party) OR
- Travel, within 21 days of illness onset outside the United States to a country with confirmed cases of monkeypox (<https://www.cdc.gov/poxvirus/monkeypox/response/2022/world-map.html>) or where *Monkeypox Virus* is endemic (<https://www.cdc.gov/poxvirus/monkeypox/about.html>) OR
- 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...)

A positive *Orthopoxvirus* test from a laboratory is considered to meet the case definition for probable *Monkeypox virus* infection since there are no other circulating *Orthopoxviruses* within the United States that cause systemic disease. Clinical care and prevention precautions should begin based on the *Orthopoxvirus* test result and should not wait for any additional viral characterization testing that may be performed.

### **Monkeypox Treatment**

Many people infected with monkeypox virus have a mild, self-limiting disease course in the absence of specific therapy. However, the prognosis for monkeypox depends on multiple factors, such as previous vaccination status, initial health status, concurrent illnesses, and comorbidities, among others. Patients who should be considered for treatment following consultation with CDC might include:

- People with severe disease (e.g., hemorrhagic disease, confluent lesions, sepsis, encephalitis, or other conditions requiring hospitalization)
- People who may be at high risk of severe disease:
  - People with immunocompromise (e.g., human immunodeficiency virus/acquired immune deficiency syndrome infection, leukemia, lymphoma, generalized malignancy, solid organ transplantation, therapy with alkylating agents, antimetabolites, radiation, tumor necrosis factor inhibitors, high-dose corticosteroids, being a recipient with hematopoietic stem cell transplant <24 months post-transplant or ≥24 months but with graft-versus-host disease or disease relapse, or having autoimmune disease with immunodeficiency as a clinical component)
  - Pediatric populations, particularly patients younger than 8 years of age
  - People with a history or presence of atopic dermatitis, persons with other active exfoliative skin conditions (e.g., eczema, burns, impetigo, varicella zoster virus infection, herpes simplex virus infection, severe acne, severe diaper dermatitis)

- with extensive areas of denuded skin, psoriasis, or Darier disease [keratosis follicularis])
- Pregnant or breastfeeding women
- People with one or more complications (e.g., secondary bacterial skin infection; gastroenteritis with severe nausea/vomiting, diarrhea, or dehydration; bronchopneumonia; concurrent disease or other comorbidities)
- People with monkeypox virus aberrant infections that include accidental implantation in eyes, mouth, or other anatomical areas where monkeypox virus infection might constitute a special hazard (e.g., the genitals or anus)

Currently there is no treatment approved specifically for monkeypox virus infections. However, antivirals developed for use in patients with smallpox may prove beneficial against monkeypox. These medical countermeasures are currently available from the Strategic National Stockpile (SNS) as options for the treatment of monkeypox. Specific information about the available antiviral therapies can be found here: <https://www.cdc.gov/poxvirus/monkeypox/clinicians/treatment.html>

Tecovirimat (also known as TPOXX or ST-246) is approved by the U.S. Food and Drug Administration (FDA) for treating human smallpox disease caused by *Variola virus* in adults and children. Its use for other *Orthopoxvirus* infections, including monkeypox, is not approved by the FDA. However, CDC has an expanded access Investigational New Drug application (EA-IND) to allow access to and use of TPOXX to treat monkeypox in adults and children of all ages. The EA-IND provides an umbrella regulatory coverage so that clinicians and facilities do not need to request and obtain their own INDs. The EA-IND also provides liability protection under the PREP Act for healthcare providers prescribing, administering, or dispensing the drug, and ability for patients to seek compensation if they are seriously injured by the medication through the Countermeasures Injury Compensation Program. In the largest safety study of 359 healthy adult volunteers, other than local site reactions, the most common adverse reactions among those receiving tecovirimat were headache (12%) and nausea (5%). The safety of tecovirimat has not yet been studied in people with *Orthopoxvirus* disease.

At this time, tecovirimat must be requested from the Strategic National Stockpile through CDC. Providers treating patients who may benefit from tecovirimat or antiviral therapies should contact WDH by calling the 24/7 public health emergency line at 888-996-9104. WDH is working to pre-position tecovirimat in the state so that it is more readily available if needed.

### **Monkeypox in People Living with HIV**

In the current outbreak, available international summary surveillance data indicate 30-51% HIV prevalence about persons with monkeypox for whom HIV status was known. It is currently unknown whether HIV infection affects a person's risk of acquiring *Monkeypox virus* infection and developing disease after exposure.

Persons with advanced and uncontrolled HIV might be at higher risk for severe or prolonged monkeypox disease. Therefore, prophylaxis (e.g., vaccination), medical treatment, and close monitoring are a priority for these individuals. Compared with other persons with monkeypox, case reports among persons with inadequately treated HIV who have CD4 counts  $\leq 350$  cells per mm<sup>3</sup> reported higher rates of secondary bacterial infection, more prolonged illness (and thereby also longer period of infectiousness), as well as a higher likelihood of a confluent or partially

confluent rash, rather than discrete lesions. In contrast, recent reports of patients with HIV infection and monkeypox who are on effective antiretroviral therapy (ART) have noted no deaths or evident excess hospitalizations to date. Providers should consider both viral suppression and CD4 count in weighing the risk of severe outcomes from monkeypox for any patient living with HIV.

The rash of monkeypox can be confused with other rash illnesses that are considered in people with HIV, including herpes zoster (shingles), scabies, molluscum contagiosum, herpes, syphilis, chancroid, lymphogranuloma venereum, allergic skin rashes, and drug eruptions. Immunocompromised persons, including persons with advanced, untreated, or inadequately suppressed HIV, may present with an atypical rash, including a disseminated rash that may make diagnosis more challenging.

Prevention of monkeypox and infection control practices in the home or healthcare setting are the same regardless of peoples' HIV status. Post-exposure prophylaxis and antiviral treatments, including tecovirimat, are available for persons exposed to monkeypox or with *Monkeypox virus* infection. The safety and immunogenicity of JYNNEOS, a live, non-replicating viral vaccine, has been specifically established in people with HIV; however, immunogenicity among persons with HIV who have CD4 counts below 100 cells per mm<sup>3</sup> or who are not virologically suppressed remains unknown. ACAM2000, a replicating viral vaccine, should not be given to people with HIV regardless of immune status. Antiviral treatments for monkeypox have few interactions with antiretroviral therapy. ART and opportunistic infection prophylaxis should be continued in all people with HIV who develop monkeypox.

Further information from CDC can be found here:

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/people-with-HIV.html>

### **Monkeypox in Children and Adolescents**

Limited pediatric data on infection with the Congo Basin clade of *Monkeypox virus* suggests increased risk of severe disease in children younger than 8 years of age. Rare complications of monkeypox include abscess, airway obstruction due to severe lymphadenopathy, cellulitis, corneal scarring, encephalitis, keratitis, pneumonia, and sepsis. The West African clade of *Monkeypox virus* involved in the current outbreak typically causes less severe disease than the Congo Basin clade.

*Monkeypox virus* can spread to children through contact with infectious body fluids (e.g., lesion exudates and respiratory secretions) of people or animals or through contact with fomites, as may occur in households and other close contact settings. The number of monkeypox cases among children in the United States is currently low; however, CDC acknowledges that the expanding U.S. outbreak and the possible risk for transmission in households and other settings may result in additional pediatric cases. Pediatric providers should be familiar with prevention, recognition, and testing considerations for monkeypox in children and adolescents.

Families should be counseled about preventing the spread of *Monkeypox virus* between children, caregivers, and household members in the home, including avoidance of contact with persons who have monkeypox, the body fluids of an infected person, and fomites (e.g., clothing, towels, bedding); wearing a well-fitted mask or respirator by the person with monkeypox and the contact

(for children over 2 years of age) when interaction is unavoidable; and minimizing the number of caregivers for children with monkeypox. Particular attention should be made to keep children with monkeypox from scratching lesions or touching their eyes to prevent auto-inoculation and more severe illness. Caregivers should cover areas of broken skin with bandages to the extent possible and avoid direct skin-to-skin contact with the rash.

Children and adolescents who are close contacts of a person with monkeypox (e.g. household contact, family member, caregiver, or friend) should be evaluated for illness and offered post-exposure prophylaxis with JYNNEOS or ACAM2000 (for children older than 12 months) or treatment when indicated. Monkeypox should be considered when children or adolescents present with signs or symptoms that could be consistent with the disease, especially if epidemiologic criteria are present. The rash of monkeypox can be confused with other rash illnesses that are commonly considered in children including varicella; hand, foot, and mouth disease; measles; scabies; molluscum contagiosum; herpes; allergic skin rashes; syphilis (including congenital syphilis); and drug eruptions.

Data are limited on the effectiveness of post-exposure prophylaxis for children who have been exposed to monkeypox or treatment of children with illness, and no vaccines or other products are currently licensed for monkeypox prevention or treatment in children or adolescents. However, post-exposure prophylaxis should not be withheld from children or adolescents who are otherwise eligible. Decisions about whether to offer post-exposure prophylaxis should take into account the patient's degree of exposure and the patient's individual risk of severe disease.

Prophylactic therapeutics that can be administered include vaccination, Vaccinia immune globulin, and antiviral medication. For almost all children and adolescents, vaccination is the preventive treatment 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.

Tecovirimat is currently being used as the first-line treatment for infection with *Monkeypox virus*, including for children and adolescents with severe disease or underlying medical conditions that may increase risk for severe disease and those with complications from monkeypox. Individual risks and benefits must be considered prior to initiating tecovirimat. Other treatments such as Vaccinia immune globulin may be considered in unusual circumstances.

In pediatric inpatient care settings, infection control procedures for children with monkeypox infection should also consider the child's age and caregiving needs; family and caregiver preferences; the extent, severity, and course of the child's illness; and risks for severe monkeypox disease in exposed caregivers (e.g., pregnancy or immunocompromising conditions.)

Further information from the CDC can be found here:

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/pediatric.html>

### **Monkeypox in Women who are Pregnant or Breastfeeding**

Data regarding *Monkeypox virus* infection during pregnancy are limited. It is unknown if pregnant women are more susceptible to acquiring *Monkeypox virus* infection or if illness is more severe during pregnancy. Other poxviruses cause more severe infection during pregnancy.

*Monkeypox virus* can be transmitted to the fetus during pregnancy and to the newborn by close contact during and after birth. There are few case reports of spontaneous pregnancy loss and stillbirth, preterm delivery, and neonatal monkeypox infection; the frequency and circumstances for these outcomes are unknown. Whether *Monkeypox virus* is present in breast milk is unknown; however, it may be transmitted through close contact during breastfeeding.

Prevention measures for monkeypox infection are similar for pregnant and non-pregnant people. Pre- or post-exposure prophylaxis should be offered to women who are pregnant or breastfeeding. When pre- or post-exposure prophylaxis by vaccination is chosen, JYNNEOS, a live, non-replicating viral vaccine, can be used. ACAM2000, a replicating virtual vaccine, should not be used in people who are pregnant or breastfeeding.

During pregnancy, the cause of fever may be difficult to differentiate from other infections, such as intraamniotic infection (chorioamnionitis), until the monkeypox rash appears. Pregnant patients with rashes initially considered characteristic of dermatoses of pregnancy (e.g., polymorphic eruption of pregnancy) or of more common infections (e.g., varicella zoster or sexually transmitted infections) should be carefully evaluated for a monkeypox rash, and submission of specimens of lesions for monkeypox diagnosis should be considered, especially if the person has any epidemiologic risk factors for monkeypox infection.

While most adults with *Monkeypox virus* infection experience self-limiting infection and recover within 2-4 weeks, pregnant and breastfeeding people should be prioritized for medical treatment, if needed, due to the probable increased risk of severe disease during pregnancy, risk of transmission to the fetus during pregnancy or to the newborn by close contact during and after birth, and risk of severe infection in newborns. Treatment of *Monkeypox virus* infection should be offered to people who are pregnant or breastfeeding. The risks and benefits of treatment options should be discussed with the patient.

Recommendations for infection prevention and control of monkeypox in healthcare settings are the same for pregnant and non-pregnant patients. Newborns born to people with monkeypox should be placed in isolation, and healthcare personnel should follow infection prevention and control recommendations. Patients with monkeypox should be counseled about measures to prevent risk of transmission of *Monkeypox virus* to their newborn from close contact and breastfeeding.

Further information from the CDC can be found here:

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/pregnancy.html>