

Monkeypox virus (MPV) in Boston and K-12 Schools

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**BOSTON
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MPV in Boston

- What is Monkeypox?
- What are the symptoms of Monkeypox?
- How is Monkeypox spread?
- How to protect against Monkeypox?
- Monkeypox and Colleges
 - Prevention strategies
 - Response protocols
- Q&A

What is monkeypox (MPV)?

MPV: caused by the monkeypox virus, can infect both animals and humans, similar to smallpox

First identified in 1958 in monkeys; First human case in 1970 in the Democratic Republic of Congo

Since then, infection has become endemic in Central and West Africa;
Most cases in DRC and Nigeria

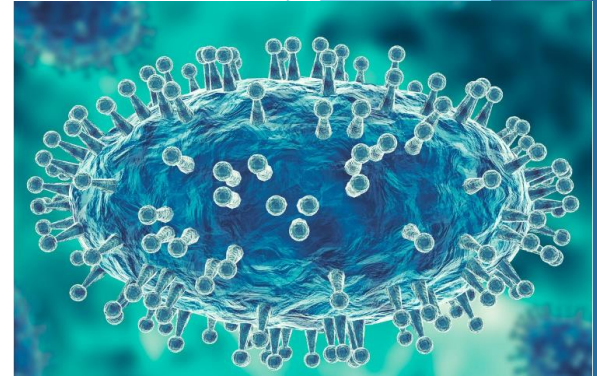
Outbreaks outside of sub-Saharan Africa directly linked to travel or contact with imported animals

May 2022: Cases in the UK and elsewhere in Europe

May 17, 2022: First case reported in the US (Massachusetts)

July 23, 2022: WHO declares public health emergency

August 4, 2022: US declares public health emergency



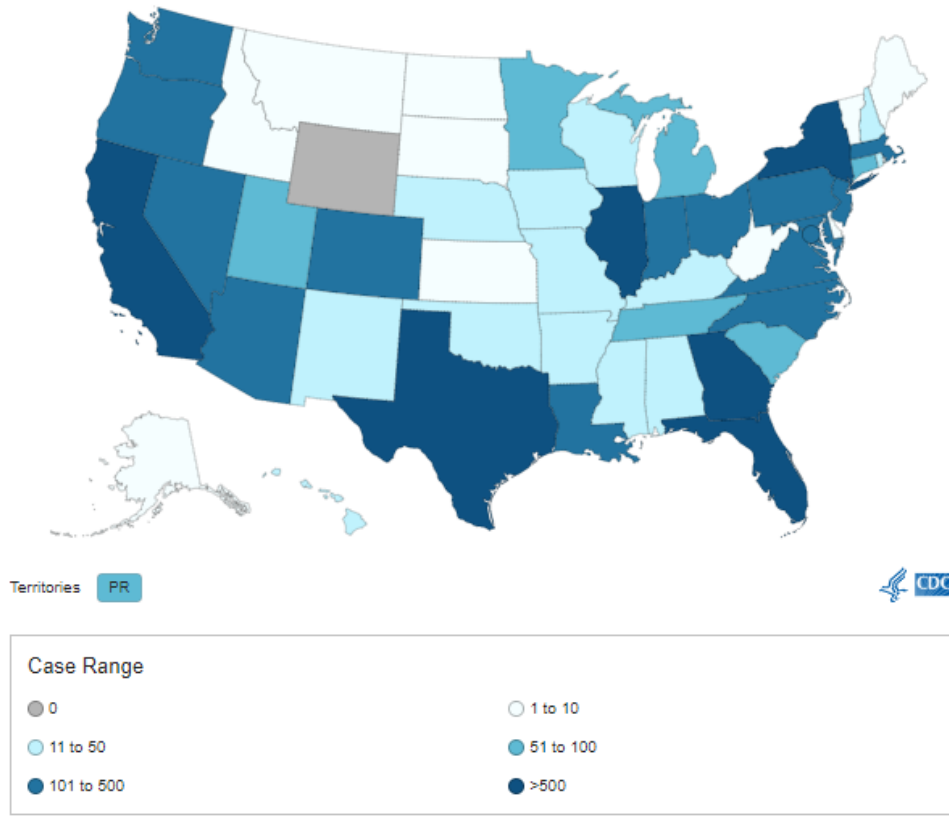
The Boston Globe

How a Boston doctor diagnosed the first US case of monkeypox

By Felice J. Freyer Globe Staff, Updated May 29, 2022, 5:34 p.m.



US MPV Map and Case Counts



54,911 Globally
20,733 US
3,526 New York State
336 Massachusetts
0 US Deaths

CDC, as of September 6, 2022

What is monkeypox (MPV)?

- A disease caused by infection with the monkeypox virus.
- Most common symptom is a rash +/- other flu like symptoms
 - A rash that can look like pimples or blisters that appears on the face, inside the mouth, and on other parts of the body, like the hands, feet, chest, genitals, or anus.
 - The rash goes through different stages before healing completely. The illness typically lasts 2-4 weeks.
- Symptoms are similar to smallpox, but milder, and monkeypox is rarely fatal. However, the rash can be painful and lead to scarring
- Immunocompromised individuals are at higher risk for disseminated rash and complications
- Prolonged isolation requirements carry tolls for individual and societal mental health
- Vaccines and treatments exist, working to increase supply and distribution





What are the symptoms of monkeypox?

Monkeypox (MPV) Symptoms continued...

Examples of Monkeypox Rashes

Photo Credit: NHS England High Consequence Infectious Diseases Network



Photo Credit: NHS England High Consequence Infectious Diseases Network, [Signs and Symptoms | Monkeypox | Poxvirus | CDC](#)

Monkeypox (MPV) Transmission

- The virus typically requires **close contact with infected lesions or body fluids to spread among people or animals:**
 - Skin to skin contact- Ex. touching, hugging, sexual contact
 - Skin to mouth contact- Ex. kissing, sexual contact
 - Touching or sharing objects, fabrics (clothing, bedding, or towels), and surfaces that have been used by someone with monkeypox.
- Transmission also occur through exposure to respiratory droplets during prolonged face-to-face contact.
 - Less common
- Pregnant people can spread the virus to their fetus through the placenta
- A person is considered infectious until there is full healing of the rash with formation of a fresh layer of skin.



How Is Monkeypox Spread?

✓ Close skin-to-skin contact with a monkeypox rash, sores, or scabs, through touching, sex, hugging, massaging or kissing

✓ Contact with clothing, bedding or surfaces used by someone with monkeypox

- Anyone can get Monkeypox and spread it to others once symptoms start.
- People with Monkeypox are contagious until the rash and sores have healed and disappeared.
- Monkeypox is not a gay disease. The risk of monkeypox is not limited to people who are sexually active or men who have sex with men.

TRANSMISSION OF MONKEYPOX

Incubation period 7 to 14 days



CONTACT
WITH LESIONS



BODY
FLUIDS



CONTAMINATED
MATERIALS



RESPIRATORY
DROPLET

Is treatment available?

- ▶ Antiviral therapy (tecovirimat or TPOxx)
 - ▶ FDA-approved in 2018 as the first drug to treat smallpox, not monkeypox
 - ▶ Expanded Access Investigational New Drug (EA-IND)
 - ▶ Free
 - ▶ Access challenges
- ▶ Eligibility
 - ▶ Severe disease or potential for severe disease
 - ▶ Immunocompromise
 - ▶ Children



Isolation and return to school

Isolation:

- Current data suggest people can spread monkeypox *from the time symptoms start until all symptoms have resolved and there is full healing of the rash with formation of a fresh layer of skin.*
- Anyone diagnosed with monkeypox will need to stay home for the duration of illness until they are fully recovered---including full healing of the rash with formation of a fresh layer of skin
- This may take as long as 4 weeks after symptoms began. Caregivers should work with a healthcare provider and the department of health to decide when the child or adolescent can return to the educational setting.

Guidance for exposed individuals



Quarantine is not required.

Asymptomatic exposed contacts are not required to quarantine and can continue to attend school. If any of the following symptoms occur, individuals should stay home and contact their healthcare provider for further guidance:

- Fever $\geq 100.4^{\circ}\text{F}$ (38°C)
- Chills
- New lymphadenopathy (periauricular, axillary, cervical, or inguinal)
- New rash
- Children and adolescents who are exposed to monkeypox should be monitored for symptoms for 21 days. Some symptoms in young children may be difficult to recognize promptly. When monitoring a child for illness following exposure to monkeypox, parents and caregivers should check the child's temperature daily. Parents and caregivers should also perform daily full-body skin checks for a new rash and inspect the inside of the mouth for any sores or ulcers on young children.
- If a child or adolescent develops symptoms while at home, the parent or caregiver should contact the local health department and their healthcare provider. The child should not return to the educational setting until medically assessed.



Household exposures and guidance for families

Colleges play a critical role in offering guidance to mitigate transmission within the school community:

- Wear a well-fitting mask or respirator and cover rash lesions during interactions with others
- Wear a well-fitting mask or respirator, gloves, and wash hands after laundering items that were used by someone with MPV, avoid shaking!
- Wash hands regularly
- Disinfect and clean high-touch surfaces daily
- Avoid sharing of clothing, towels or linens
- Avoid skin-skin contact, wear clothing that covers skin
- Post-exposure vaccination



How can I protect myself?

Prevention Priorities for Colleges

1

Provide clear and multilingual information to staff, students, and families about monkeypox prevention.

2

Include information about the potential for transmission through close, sustained physical contact, including sexual activity, shared items, and household transmission.

3

Provide considerations for safer sex. Keep messages fact-based to avoid introducing stigma when communicating about monkeypox.

PROTECT YOURSELF AND OTHERS FROM GETTING INFECTED WITH MONKEYPOX



- Getting vaccinated against monkeypox before or soon after an exposure can protect you from getting infected. For more information on eligibility and availability of vaccine, visit: <https://www.mass.gov/info-details/monkeypox-vaccination>
- Avoid physical and sexual contact with anyone who has a new rash or sores or who feels ill.
- Avoid touching any rashes or sores on others.
- Minimize skin-to-skin contact with others, especially if you are attending raves, parties, or large events.
- Talk to your partners about recent illness.
- Be aware of new or unexplained sores or rashes on your body or your partner's body, including the genitals and anus.
- If you feel sick, have a new rash, or think you may have a monkeypox infection, stay home and away from others and seek a doctor immediately



How can transmission be prevented?

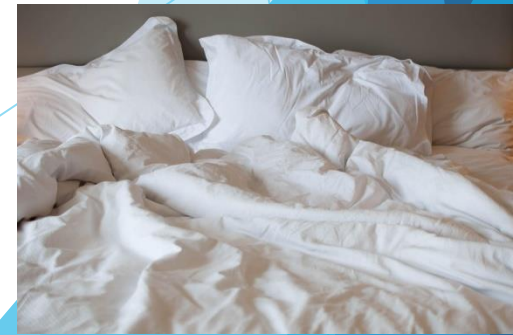


- ▶ Students and staff should be encouraged to follow standard and enhanced precautions:
 - Practice good hand hygiene. Wash hands regularly.
 - Avoid sharing clothing, bedding, and towels with others.
 - Avoid touching or kissing any sores, warts, or rashes.
 - Avoid close contact with individuals who feel unwell or are experiencing a new rash.

Schools and universities should pay close attention to the transmission risk factors that may be more prevalent in their settings.

These include settings with heightened contact with towels, bedding, linens, and sports equipment:

- Household and family exposures
- Athletics
- Cleaning
- Adolescents and safe sex



How can transmission be prevented?

JYNNEOS vaccination is available to individuals who live or work in Massachusetts and meet the CDC's current eligibility criteria, prioritizing those who are most at risk of exposure to an individual with monkeypox. This includes:

- Known contacts identified via case investigation, contact tracing, and risk exposure assessments (e.g., sexual partners, household contacts, and healthcare workers); as well as:
- Presumed contacts who meet the following criteria:
 - Had a sexual partner in the past 14 days diagnosed with monkeypox
 - Had multiple sexual partners in the past 14 days in a jurisdiction with known monkeypox



How can transmission be prevented?



▶ Vaccination - very limited supply

- JYNNEOS

- ▶ FDA-approved for monkeypox and smallpox
- ▶ Free
- ▶ Two doses 4 weeks apart (now one dose in MA due to limited supply)
- ▶ ~85% effective at preventing MPV
- ▶ Receiving one dose is not fully vaccinated, but provides some protection
- ▶ Side effect profile: pain, redness, itching and swelling at the injection site, headache, muscle pain, fatigue and nausea.
- ▶ Should be given within 4 days from the date of exposure to prevent disease
- ▶ If given between 4–14 days after the date of exposure, vaccination may reduce the symptoms of disease.
- ▶ If monkeypox symptoms have already occurred, JYNNEOS vaccine is not recommended.

Where is vaccine available in Boston?



Massachusetts General Hospital Sexual Health Clinic (Boston): Appointments can be made by calling [617-726-2748](tel:617-726-2748), Monday through Friday, between 9 a.m. and 5 p.m.

Boston Medical Center Infectious Disease Clinic (Boston): Appointments can be made by calling [617-414-4290](tel:617-414-4290), Monday through Friday, between 9 a.m. and 5 p.m.

Fenway Health (Boston): Appointments can be made by calling [617-927-6060](tel:617-927-6060), Monday through Friday, between 9 a.m. and 5 p.m.

East Boston Neighborhood Health Center (Boston): Appointments can be made by calling [617-568-4500](tel:617-568-4500) Monday through Friday between 8 AM and 5 PM

Codman Square Health Center (Dorchester): Please register for an appointment directly at <https://www.codman.org/medical-service/x-clinic/>. Appointments can also be made by calling [617-822-8271](tel:617-822-8271) Monday through Friday between 8:30 AM and 8:30 PM. This site also offers vaccine appointments on Saturday between 9 AM and 1 PM

MPV Response and Schools: How Should we Prepare for Monkeypox Exposures?

- College settings should follow their **everyday operational guidance** that reduces the transmission of infectious diseases.
- This includes:
 - Children, staff, and volunteers staying home when sick
 - Ensuring access to adequate handwashing supplies, including soap and water
 - Maintaining routine cleaning and disinfection practices
 - Identifying private spaces for isolation of an ill child away from others
 - Providing personal protective equipment (PPE) for staff who care for students with infectious diseases
- BPHC as LBOH will assist with any MPV exposures or case investigations- we are here!

MPV Response Recommendations for Colleges: What to do if a case is reported?



- Work with BPHC via [exposure risk assessment](#) to identify anyone who had a high degree of exposure to someone with monkeypox. Post-exposure vaccination can be provided for people with high degree exposures.
 - The sooner an exposed person gets the vaccine, the better.
 - The vaccine should be given within 4 days from the date of exposure in order 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.

MPV Response

Recommendations for Schools

- Any staff member experiencing and/or reporting a new, unexplained maculopapular, vesicular, or vesiculopustular rash should be sent home.
- School-based providers should not attempt to perform an evaluation and should avoid touching the lesions. If they experience any delays in leaving the school, they should be instructed to wear a mask and cover any skin lesions with clothing, bandages, or a sheet or gown. They should be instructed to seek a medical evaluation prior to return to school.
- Any student reporting a new, unexplained maculopapular, vesicular, or vesiculopustular rash should be immediately masked and isolated in an exam room, pending school pickup. They should be instructed to wear a mask and cover any skin lesions with clothing, bandages, or a sheet or gown
- Parents and/or legal guardians should be immediately notified that the student will need to be sent home that same day. School-based providers should not attempt to perform an evaluation and should avoid touching the lesions. If an exam room is not available, the student should be masked and avoid physical contact with others.
- Parents should be instructed that the student will require a medical evaluation prior to return to school.

MPV Response Recommendations for Schools



Personal protective equipment and standard precautions:

- Any school-based provider who is accompanying a student reporting a new maculopapular, vesicular, or vesiculopustular rash to isolate should wear the following PPE: gown, gloves, eye protection, and a well-fitting mask or respirator.
- Any staff member instructed to clean areas where the people with monkeypox spent time should wear a gown, gloves, eye protection, and a well-fitting mask or respirator.
- Anyone who touches lesions or clothing, linens, or surfaces that may have had contact with lesions should wash their hands immediately.

MPV Response Recommendations for Schools

Disinfection/Cleaning Protocols:

- **Clean and disinfect the areas where people with monkeypox spent time** — All areas and surfaces in the classroom and/or other school common areas that the individual with suspected or confirmed monkeypox came into contact with that day should be cleaned. Perform disinfection using an EPA-registered disinfectant with an [Emerging Viral Pathogens](#) claim, which may be found on EPA's [List Q](#). Follow the manufacturer's directions for concentration, contact time, and care and handling.
- **Waste:** Waste from isolation areas (i.e., handling, storage, treatment, and disposal of soiled PPE, patient dressings, etc.) should be managed in accordance with U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR; 49 CFR, Parts 171-180.) Required waste management practices and category designation can differ depending on the Monkeypox virus clade (strain) the patient has. Cases in the current outbreak have been identified to be West African clade and waste from these patients is classified as regulated medical waste (Category B).

MPV Response Recommendations for Schools

- Anyone who touches lesions or clothing, linens, or surfaces that may have had contact with lesions should [wash their hands](#) immediately.
- Avoid handling linens in a way that could spread dried material from lesions (e.g., use of fans, dry dusting, sweeping, or vacuuming).
- Disinfect using an EPA-registered disinfectant with an [Emerging Viral Pathogens](#) claim, which may be found on EPA's [List Q](#).
- Linens can be washed using regular detergent and warm water. Soiled laundry should be gently and promptly contained in a laundry bag.
 - Covering mattresses in isolation areas (e.g., with sheets, blankets)

MPV Response for Schools: Communications

Addressing stigma and misinformation

Prevention strategies in the household, social settings (ex. safe gatherings and sex) and school (ex. athletics)

Where to access vaccination

Need to notify if students or staff have been exposed or test positive

How to report new rash or positive MPV test

How to report new rash or positive MPV test

Guidance to minimize transmission in these settings



myth or fact

Monkeypox is spread only by men who have sex with men?

myth

fact

The risk of monkeypox is not limited to people who are sexually active or men who have sex with men. Monkeypox is not a gay disease.

What Practices Already Exist?

- ▶ Standard precautions and sanitation/hygiene practices
 - ▶ Regular hand washing
 - ▶ Respiratory etiquette: Covering your cough
 - ▶ Staying home when sick
 - ▶ Avoid sharing of linens/towels
- ▶ Covid-19 protocols for isolation, quarantine and sanitation.
- ▶ MRSA and other skin infection protocols.

Boston.gov/ Monkeypox

- Colleges and higher education settings have a unique and important role in health education and prevention of MPV in the City of Boston.
- BPHC is proud to support our city's schools in ensuring our students and staff remain safe and healthy.



To learn more about
Monkeypox follow the link

To find vaccines in your area
tap the link



Boston.Gov/Monkeypox





Any Questions?