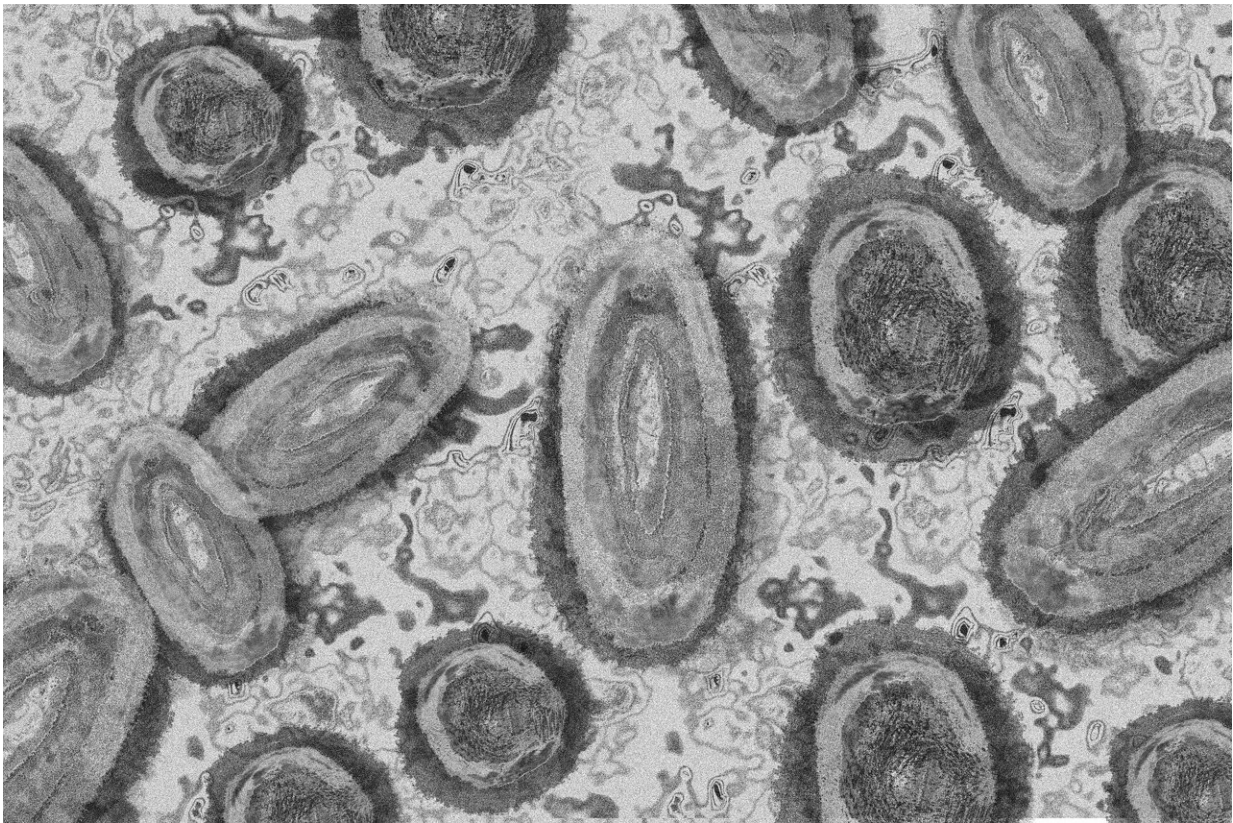


How to get a vaccine against monkeypox in the US: Who should get one?

June 27 2022, by Mike Snider, USA Today



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An outbreak of monkeypox has grown over the last two months with more than 4,100 confirmed cases worldwide.

Monkeypox cases in the U.S. have surpassed 200 cases in 25 states including California, Florida, New York and Texas. Health officials have begun vaccinations for those at risk. New York City opened a [vaccine](#) clinic last week.

Cases of [monkeypox](#) are increasing across the U.S., and as health officials maintain the threat to the general population is low, efforts to vaccinate those at risk have begun.

The disease, which is caused by a virus and was first identified in humans in 1970, according to the World Health Organization, has usually been seen in parts of Central and West Africa. Scientists think it has jumped occasionally from animals, probably rodents, to people.

Since May 2022, there have been more than 4,100 confirmed cases of monkeypox reported—and one death—in 47 countries across Europe and South America, according to the Centers for Disease Control and Prevention.

In the U.S., there have been more than 200 cases of monkeypox reported in 25 states as of Friday, the CDC says. States reporting cases include California, Florida, Illinois, Massachusetts, New York, Texas, Utah, Virginia and Washington.

Earlier this week, the Biden administration began shipping monkeypox tests to commercial laboratories including Aegis Science, Labcorp, and Quest Diagnostics to expand testing capabilities.

The disease, which is rare, typically starts with flu-like symptoms including fever before muscle aches, chills and fatigue. It can progress to include a rash, often on the face and genitals.

Monkeypox can spread through person-to-person contact with the rash,

scabs or [body fluids](#)—and touching items such as clothing or bedding an infected person has used.

Most people recover from monkeypox within weeks, but the disease is fatal for up to 1 in 10 people, the WHO says.

Who needs a monkeypox vaccine?

Those at highest risk for monkeypox in this outbreak are gay, bisexual or other men who have sex with men, health officials say.

In the U.K., where Britain has the largest monkeypox outbreak beyond Africa, vaccines are now being considered for those at the highest risk: men who have sex with men and who have multiple partners, participate in group sex or attend venues where sex occurs on the premises. A survey of those infected in the U.K., found 96% were men who were gay, bisexual or had sex with other men.

The CDC also recommends vaccinations for lab and medical personnel—and any other people—who might be exposed to monkeypox.

What is the Jynneos vaccine?

The Jynneos vaccine, approved in 2019 by the Food and Drug Administration for the prevention of smallpox and monkeypox in people ages 18 and older, requires two doses, four weeks apart. The CDC is also investigating a measure to allow the vaccine to be used in children.

The Jynneos vaccine is considered safer than alternatives because it is made from a virus that is related to smallpox and monkeypox, but is less harmful. Research that led to its approval found Jynneos created an

immune response similar to that of the [smallpox vaccine](#). Research data suggests the vaccine is at least 85% effective in preventing monkeypox, according to Johns Hopkins Center for Health Security.

However, it remains unknown how well the vaccine protects humans from getting monkeypox. Studies done in the Democratic Republic of the Congo found none of the 1,600 health care workers vaccinated developed monkeypox over two years, the journal *Science* reported. However, the research did not include a control group and one person did get monkeypox after the study period.

The Department of Health and Human Services, within its Strategic National Stockpile, has more than 36,000 courses of Jynneos and expects to get about another 500,000 total delivered this year, according to the CDC.

"The truth is, we don't know the efficacy of any of these monkeypox vaccines," Ira Longini, a biostatistician at the University of Florida who is advising WHO, told *Science*.

Does the smallpox vaccine protect against monkeypox?

The U.S. has 100 million doses of the smallpox vaccine ACAM2000, the CDC says. Research from Africa suggests the vaccine is at least 85% effective in preventing monkeypox, the agency says.

However, the vaccine, which is delivered by multiple punctures of a bifurcated or forked needle rather than a shot, can have some side effects, according to the FDA, including the inflammation and swelling of the heart and surrounding tissue, inflammation of the brain (encephalitis) and the spread of the virus to the rest of the body or to

others they come into contact with.

The vaccine is not made from the smallpox virus, but from a poxvirus similar to smallpox.

New York City is offering monkeypox vaccines; are other states?

New York City's health department and hospitals have been administering vaccines to those who suspect they have come into contact with someone with monkeypox. The department last week opened a vaccine clinic eligible for all gay, bisexual, and other men who have sex with men who have had multiple or anonymous sex partners in the last two weeks.

Other states and local agencies have also been working with the CDC on vaccinations, the agency says.

The California Department of Public Health has requested and received vaccines from the stockpile to protect against monkeypox, the agency told U.S. TODAY in a statement.

Across five counties in the state, 52 cases have been reported, the agency said. "Cases have primarily been among gay, bisexual, and other men and transgender people who have sex with men," the statement said. "Monkeypox is transmitted through close and intimate physical contact. Although the risk to the general public is very low, it is important to remember that anyone who has such contact with an infected person can get monkeypox. People with an unusual rash or skin lesion should contact their health care provider for an assessment."

The CDC recommends contacting your health care provider if you have

any symptoms of monkeypox, even if you don't think you had contact with someone who has the disease.

Is there a treatment for monkeypox?

Those who get monkeypox typically develop painful and itchy [lesions](#), which eventually become scabs and fall off. Those infected begin experiencing symptoms seven to 14 days after exposure and can remain infectious for several weeks.

The monkeypox and smallpox vaccines, when given within four days from the date of exposure, the CDC says, can prevent onset of the disease—and possibly lessen symptoms if given up to two weeks after exposure.

However, there's no current proven treatment for monkeypox, according to the National Institute of Allergy and Infectious Diseases. But there are several [antiviral medications](#) used to treat smallpox and other conditions that may help patients with monkeypox infection.

The antiviral drug Tecovirimat, developed to treat smallpox, has been approved for emergency treatment of viruses such as monkeypox.

An antibody drug, Vaccinia Immune Globulin Intravenous (VIGIV), developed to treat side effects from smallpox vaccinations, and another antiviral drug, Cidofovir, used to treat eye infections in AIDS patients, are also available for emergency treatment of monkeypox and similar viruses. Another antiviral medication, Brincidofovir, could potentially be used to treat the disease and research continues into additional treatments and vaccines.

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Citation: How to get a vaccine against monkeypox in the US: Who should get one? (2022, June 27) retrieved 8 May 2024 from <https://medicalxpress.com/news/2022-06-vaccine-monkeypox.html>

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