

Mpox vaccine found to be protective by CDC

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Researchers from the Mpox Emergency Response Team, Centers for Disease Control and Prevention (CDC) in Atlanta have conducted a case-control study based on data from a nationwide electronic health record database, Cosmos, to assess the effectiveness of the JYNNEOS vaccination, made by Bavarian Nordic, in preventing mpox disease among adults. The work is published in the *New England Journal of Medicine*.

Mpox, formerly and still somewhat currently known as monkeypox but being transitioned to mpox by the WHO in an attempt to lower the stigma of the disease, has had more than 30,000 cases in the United States over the past four years. According to the CDC, the current mpox

outbreak spreads primarily through [sexual contact](#).

The JYNNEOS [vaccine](#) was approved for subcutaneous administration (0.5 ml per dose) to prevent mpox infection. In August of 2022, as cases escalated, an emergency use authorization was issued for a second administration (0.1 ml per dose). CDC researchers wanted to retrospectively study the effectiveness of the vaccinations.

Patients in the review had a mpox diagnosis or positive orthopoxvirus or mpox virus laboratory result, and control patients had an incident diagnosis of human immunodeficiency virus (HIV) infection or a new or refill order for preexposure prophylaxis against HIV infection between August 15, 2022, and November 19, 2022.

Among 2,193 case patients and 8,319 control patients, 25 case patients and 335 control patients received two doses (full vaccination), among whom the estimated adjusted vaccine effectiveness was 66.0%. Another 146 case and 1,000 control patients received one dose (partial vaccination), among whom the estimated adjusted vaccine effectiveness was 35.8%. When excluding patients with immunocompromising conditions, vaccine effectiveness jumped to 76.3% in the fully vaccinated and 40.8% in the partially vaccinated group.

The results indicate that both one and two doses of the vaccine provide some protection against mpox, and full vaccination offers the most.

According to the CDC, people infected with mpox "...often get a rash that may be located on hands, feet, chest, face, or mouth or near the genitals, including penis, testicles, labia, and vagina, and anus. The [incubation period](#) is 3–17 days. During this time, a person does not have symptoms and may feel fine." Additionally, the CDC reports that people with mpox can begin spreading the disease as many as four days before they experience any symptoms.

More information: Nicholas P. Deputy et al, Vaccine Effectiveness of JYNNEOS against Mpox Disease in the United States, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMoa2215201](https://doi.org/10.1056/NEJMoa2215201)

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