

Chlamydia vaccine shows promise in early trial

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A chlamydia vaccine has triggered immune responses in an early trial,

raising hopes that one day it might help curb the spread of the sexually transmitted infection (STI).

There is currently no vaccine for chlamydia, which is the most common bacterial STI in the United States, according to the [U.S. Centers for Disease Control and Prevention](#).

In the new trial results, published April 11 in the journal [Lancet Infectious Diseases](#), the vaccine was found to be safe and it also prompted an antibody response.

"This is desperately needed," David Harvey, executive director of the National Coalition of STD Directors, told NBC News. "We have the highest STI rates in America since the 1950s and possibly beyond."

Chlamydia also remains one of the most common causes of infertility in women, Dr. Jay Varma, a professor of population health sciences at Weill Cornell Medicine in New York City, told NBC News. If left untreated, chlamydia can cause [pelvic inflammatory disease](#), which makes it harder to get pregnant.

The bacteria can also cause an [eye infection](#) that leads to [vision loss in 1.9 million people worldwide](#).

In the new Phase 1 trial, which took place from 2020 through 2022, participants were equally split between healthy men and women with an average age of 26. The researchers tested several different dosages for the vaccine, and participants got either the vaccine or a placebo on three separate days over a period of almost four months.

Despite the promising results, many questions remain.

"Does it confer the ability to hold off infection with [chlamydia](#)?" asked

Dr. Hilary Reno, a professor of medicine at Washington University School of Medicine in St. Louis and medical director of the St. Louis County Sexual Health Clinic. "If you do have an infection, does it mean you're more likely to have an asymptomatic infection?"

"We don't know that, and that's what the next phase of studies would be," she told NBC News.

The researchers are already planning to launch a larger, Phase 2 trial that would weigh the vaccine's effectiveness.

The hope is that one day the vaccine could prevent both infections in the reproductive system and the eyes, said study author Jes Dietrich, a senior scientist at Statens Serum Institut in Denmark.

In addition to a shot in the arm, volunteers in the study also got a vaccine in the form of an eye drop.

"I was very pleasantly surprised, because it's really difficult to induce immunity in the eye," Dietrich told NBC News.

There are a handful of vaccines that can prevent other sexually transmitted infections: the HPV vaccine, the hepatitis B vaccine and the mpox vaccine, although recent research has suggested that booster doses of the mpox vaccine might be needed.

More information: Katrina M Pollock et al, An investigation of trachoma vaccine regimens by the chlamydia vaccine CTH522 administered with cationic liposomes in healthy adults (CHLM-02): a phase 1, double-blind trial, *The Lancet Infectious Diseases* (2024). [DOI: 10.1016/S1473-3099\(24\)00147-6](https://doi.org/10.1016/S1473-3099(24)00147-6)

The U.S Centers for Disease Control and Prevention has more on [chlamydia](#).

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