

# Vaccine against chlamydia not far away

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When a woman becomes infected with Chlamydia, the first white blood cells that arrive at the scene to fight the infection are not the most effective. This is shown by a thesis from the Sahlgrenska Academy. This discovery could pave the way for the relatively rapid development of a vaccine against Chlamydia.

"Now that we know how the body defends itself against the Chlamydia bacteria, we can develop a [vaccine](#) that optimises that defence. We have a basic understanding of how the vaccine could work, but some work remains to be done. We believe that it will take a few years before the vaccine becomes a reality," says researcher Ellen Marks, the author of the thesis.

The body defends itself against infections with a type of white cell called the [T lymphocyte](#). When these [blood cells](#) take on the bacteria, they trigger an inflammation that can damage tissue, so there are also other similar blood cells whose main task is to reduce the inflammation and protect tissue. Ellen Marks and her colleagues are the first research team to discover that these anti-inflammatory forces predominate in the lower parts of the female [genital tract](#), mainly mediated by a hormone called IL-10, which is highly protective against tissue damage.

"The result is that the T lymphocytes that could fight [Chlamydia](#) are not concentrated in the lower vagina, and the infection can move up towards the womb and fallopian tubes relatively unhindered," says Ellen Marks.

The research team already has a concept of how a vaccine based on this

new understanding could work, and they have also tested it on mice.

"The method of administration is an important remaining issue. Previous research has shown that injections don't work, and so the vaccine will probably need to be given either as a nasal spray or in the form of a cream applied into the vagina," says Ellen Marks.

Source: University of Gothenburg ([news](#) : [web](#))

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