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# **Listerine may hold promise in fight against gonorrhea**

By [Andrew M. Seaman](http://uk.reuters.com/journalists/andrew-m-seaman)

Antiseptic mouthwashes may someday be a tool in the fight against the sexually transmitted infection known as gonorrhea, but more research is needed, according to a new study from Australia.

Researchers found that the brand of mouthwash known Listerine inhibited the growth of the bacteria known as N. gonorrhea in the lab and in the mouths of gay and bisexual men who tested positive for the infection.

"We were very excited (with) our preliminary results. However, further studies are required," said Eric Chow, the study's lead author from the Melbourne Sexual Health Center and Monash University.

"Results are very preliminary and hence it is too early to advise men (to start) using Listerine," he told Reuters Health in an email. "We are currently doing a larger trial to confirm our preliminary results."

The U.S. Centers for Disease Control and Prevention (CDC) says gonorrhea can be spread through anal, vaginal and oral sex with an infected person. In 2015, there were about 124 gonorrhea cases per 100,000 people in the U.S., according to the CDC.

Gonorrhea cases doubled in Australia over the past five years, Chow and colleagues write in Sexually Transmitted Infections. About 70 percent of Australia's cases occur among gay and bisexual men.

Chow said gonorrhea is one of the most common sexually transmitted infections among gay and bisexual men. "It can infect the throat, penis and rectum in men," he said.

Furthermore, Chow said, gonorrhea is increasingly resistant to treatment with antibiotics. "A novel antibiotic-free intervention is required."

If left untreated, gonorrhea can cause serious and permanent health issues for men and women. In rare cases, the infection can be fatal.

For the new study, the researchers conducted a lab experiment and then a clinical trial with gay and bisexual to see if Listerine could treat gonorrhea, which Chow and colleagues say is a claim the manufacturer made in 1879.

For the lab experiment, they exposed the bacteria for one minute to the brand's Cool Mint and Total Care products, which contain about 22 percent alcohol. They also exposed the bacteria to saline for comparison.

The two Listerine products inhibited the growth of the bacteria over two days in the lab, compared to saline.

For the trial, 58 men with gonorrhea throat infections were asked to gargle with Listerine's Cool Mint mouthwash or saline for one minute. After five minutes, the researchers swabbed the participants' mouths in two spots.

Overall, the researchers found that 52 percent of men who gargled with the mouthwash tested positive for gonorrhea, compared to 84 percent of those who gargled with saline.

The biggest difference occurred toward the front of the throat near the tonsils. Swabs of that area revealed 57 percent of men who gargled with mouthwash still tested positive after five minutes, compared to 90 percent who used saline.

There was a smaller difference when the researchers analyzed swabs taken from the back of the throat, but that finding could be due to chance.

All participants then received standard treatment and care for their infection.

Chow emphasized that the results are "very preliminary."

"I’d like to see more data," said Dr. Jeffrey Klausner, of the division of infectious diseases at the David Geffen School of Medicine and the Fielding School of Public Health at the University of California, Los Angeles.

For example, it would be nice to see results from swabs taken 24 hours after the men gargled to see if the infection was really gone, said Klausner, who wasn't involved with the new study.

The premise is promising since it's examining a way to combat gonorrhea infections of the throat without antibiotics, he said.

"Oral infections are important because the throat is the reservoir for resistance," said Klausner.

He said there is a major push in the U.S. to find ways to combat antibiotic resistance, and a non-antibiotics approach to gonorrhea fits into that campaign.

"But before we go out recommending people go out and gargle with Listerine, we need to see more evidence," he said.