

# New vaccine for typhoid, salmonella shows promise

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Dr. Wilbur Chen, of the University of Maryland School of Medicine, published results of a successful clinical trial of a typhoid and salmonella vaccine. (Courtesy UMSOM)

A new vaccine against salmonella and typhoid moves closer to approval, according to results of a clinical trial published by researchers at the University of Maryland School of Medicine Oct. 8.

“These results are highly encouraging,” study lead investigator Dr. Wilbur Chen said in a statement announcing the news. “They show that [this treatment] has the potential to protect children in regions where both typhoid and salmonella are endemic and deadly.”

Results were [published in the journal Nature Medicine](#).

Salmonella bacteria — usually from contaminated food — infects about 1.35 million people in the United States each year, [according to the Centers for Disease Control](#).

Another species of salmonella causes typhoid fever, a life-threatening illness usually picked up in international travel. Both diseases are major causes of illness and death among children in sub-Saharan Africa.

The researchers completed a randomized, placebo-controlled Phase 1 clinical trial involving 22 healthy adults, each of whom received either a low or high dose of the vaccine or a placebo. They reported only minor pain at the injection site, according to the release, but all participants developed a strong immune response to the ingredients of the vaccine, even at the lower doses.

The vaccine was developed from sugar molecules taken from the outer coating of the salmonella typhi bacteria that cause typhoid and from two common types of salmonella infections that do not cause typhoid. These sugars help the body's immune system recognize and respond to the bacteria.

The vaccine was developed in collaboration with India-based Bharat Biotech International Limited (BBIL).

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