

# Norovirus vaccine reduces symptoms of illness by more than half, early research shows

October 4 2013

---

An investigational vaccine appears generally well tolerated and effective against the most common strain of norovirus, reducing the main symptoms of the gastrointestinal (GI) infection, vomiting and/or diarrhea, by 52 percent, suggests research being presented at IDWeek 2013.

Currently, there is no treatment or cure for norovirus, the most common cause of severe GI infection in the United States. Norovirus is highly contagious. Significant outbreaks occur in health care facilities, childcare centers and other places where people are in close quarters, including in the military and on cruise ships. Each year, 19 to 21 million Americans – one in 15 – are infected and as many as 800 die, according to the Centers for Disease Control and Prevention (CDC). In addition, one recent evaluation reports that the overall cost of the disease in the United States is \$5.5 billion annually.

"Norovirus truly is a global issue and most if not everyone has experienced it to some degree," said David I. Bernstein, MD, MA, professor of pediatrics at Cincinnati Children's Hospital Medical Center and the University of Cincinnati and lead author of the study. "The results of our study are promising and our next step is to test this vaccine in a real-world setting."

The randomized, multi-center study included 98 people who agreed to

drink water containing a significant dose of the virus, 50 who received the injected vaccine and 48 who received a placebo injection that did not contain the vaccine. Neither the participants nor the researchers knew in advance who received the vaccine and who did not. In the vaccine group, 26 (52 percent) were infected, as were 29 (60 percent) of those in the non-vaccine group. In people who received the vaccine, 10 (20 percent) suffered from mild, moderate or severe vomiting and/or diarrhea versus 20 (42 percent) in the non-vaccine group, a 52 percent reduction in symptoms.

The vaccine targets two genotypes of norovirus: GI.1 and GII.4, the latter of which is now the leading cause of outbreaks in the United States.

Norovirus can spread from person to person through infected food or water or contaminated surfaces. The best prevention is proper hand washing, but the virus is so contagious that people can become ill even from contact with viral particles in the air. Not everyone who is exposed to norovirus becomes infected and of those who are infected, not everyone gets sick, said Dr. Bernstein. But it nonetheless is very common, and can be serious, particularly for children and older adults.

"If the vaccine continues to prove as effective as our initial results indicate, it could be used for specific populations or situations – in those at a higher risk of severe disease such as the elderly or at high risk for infection or transmission such as in day care, people going on a cruise, those in [nursing homes](#) or in the military," said Dr. Bernstein. "Or it could be offered to everyone, since all of us are exposed at one time or another."

## AT A GLANCE

- An investigational vaccine reduces symptoms of norovirus

gastrointestinal (GI) infection by 52 percent, an early study shows.

- Norovirus is the most common cause of GI illness, sickening one in 15 Americans every year, and killing as many as 800.
- In the randomized multicenter study, people drank water infected with the virus. Those who had been vaccinated experienced a 52 percent reduction in vomiting and/or diarrhea versus those who did not receive the vaccine.
- If further testing proves the [vaccine](#) effective, it might be offered to the general population, or people most likely to be exposed to [norovirus](#), such as those in the military, who are going on cruises, or who live in nursing homes.

Provided by Infectious Diseases Society of America

Citation: Norovirus vaccine reduces symptoms of illness by more than half, early research shows (2013, October 4) retrieved 8 May 2024 from

<https://medicalxpress.com/news/2013-10-norovirus-vaccine-symptoms-illness-early.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.