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# Oysters harbor, transmit human norovirus: Avoid raw ones

Date:

August 28, 2015

Source:

American Society for Microbiology

Summary:

Oysters not only transmit human norovirus; they also serve as a major reservoir for these pathogens, according to new research.

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### FULL STORY

Oysters not only transmit human norovirus; they also serve as a major reservoir for these pathogens, according to research published August 28 in *Applied and Environmental Microbiology*, a journal of the American Society for Microbiology. "More than 80 percent of human norovirus genotypes were detected in oyster samples or oyster-related outbreaks," said corresponding author Yongjie Wang, PhD.

"The results highlight oysters' important role in the persistence of norovirus in the environment, and its transmission to humans, and they demonstrate the need for surveillance of human norovirus in oyster samples," said Wang, who is Professor in the College of Food Science and Technology, Shanghai Ocean University, Shanghai, China.

In the study, the investigators downloaded all oyster-related norovirus sequences deposited during 1983-2014 into

the National Center for Biotechnology's GenBank database, and into the Noronet outbreak database. They conducted genotyping and phylogenetic analyses, and mapped the norovirus's genetic diversity and geographic distribution over time.

In earlier research, the investigators found that 90 percent of human norovirus sequences in China came from coastal regions. The current research showed that the same is true all over the world, except in tropical regions, from which sequences are absent.

Oysters's status as reservoirs and vectors for human norovirus transmission is likely abetted by their presence in coastal waters, which are frequently contaminated by human waste, said Wang. Previous research suggests that noroviruses can persist for weeks in oyster tissues, and commercial depuration fails to expunge them.

Norovirus causes stomach pain, diarrhea, nausea, and vomiting. It is extremely contagious, and infects more than 6 percent of the US population, annually, resulting in around 20 million cases, including 56,000-71,000 hospitalizations and 570-800 deaths, according to the Centers for Disease Control and Prevention. Even touching a contaminated surface can result in infection.

Wang advised that people who eat oysters and other shellfish should eat them fully cooked, and never raw. He also urged development of a reliable method for detecting noroviruses in oysters, and a worldwide oyster-related norovirus outbreak surveillance network.



#### Story Source:

The above post is reprinted from materials provided by [American Society for Microbiology](#). *Note: Materials may be edited for content and length.*

#### Journal Reference:

1. Yongxin Yu, Hui Cai, Linghao Hu, Rongwei Lei, Yingjie Pan, Shuling Yan, and Yongjie Wang. **Molecular epidemiology of oyster-related human noroviruses: Global genetic diversity and temporal-geographical distribution from 1983 to 2014.** *Appl. Environ. Microbiol.*, 2015 DOI: [10.1128/AEM.01729-15](#)

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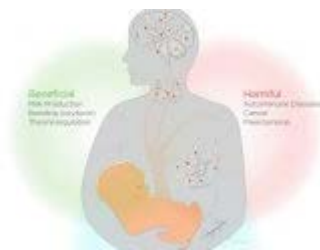
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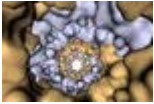


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