



What is vibriosis?

Vibriosis is a potentially serious illness caused by a group of bacteria called *Vibrio*. Infection with *Vibrio* bacteria can cause two types of illness: vibriosis and cholera. Although many species of *Vibrio* exist, most vibriosis (non-cholera) cases are caused by *Vibrio vulnificus* or *Vibrio parahaemolyticus*.

Who gets vibriosis?

Anyone can become infected with *Vibrio*, but it is more common among individuals with weakened immune systems. People with conditions that damage the liver (e.g., hepatitis, liver disease, excessive alcohol use, drug use) are more likely to experience severe illness.

Where are *Vibrio* found?

The bacteria are naturally found in salt and brackish (i.e., somewhat salty) waters, including coastal waters of the United States and Canada. The bacteria thrive in warm waters and thus cause more infections during the summer months.

How are *Vibrio* bacteria spread?

Vibriosis cannot be passed from one person to another. Most people become infected through eating raw or undercooked seafood, especially shellfish (including oysters, mussels, and clams). Infection can also occur when the *Vibrio* bacteria enter the body through a break in the skin while a person is in salt or brackish water or while handling raw fish or shellfish caught from these waters. Certain *Vibrio* species can also cause ear infections when salt or brackish water enters a person's ear.

What are the symptoms of vibriosis?

Vibrio bacteria can cause three types of infection: gastrointestinal, wound, and blood. Symptoms of gastrointestinal vibriosis include watery diarrhea, abdominal cramps, nausea, vomiting, and/or fever. Symptoms of wound infections are sores that become painful, red, and swollen. Among people with weakened immune systems, the bacteria can enter the blood and cause severe life-threatening illness with fever and chills, decreased blood pressure, or blistering skin lesions. Studies have shown that people with liver or kidney disease, iron disorders, or diabetes are 80 times as likely to develop *V. vulnificus* blood infections compared to healthy people. Some species of *Vibrio*, such as *V. vulnificus*, can cause particularly severe and even life-threatening infections. Many people with *V. vulnificus* infections require intensive care or limb amputations, and about a quarter of people with this infection die.

How soon after exposure do symptoms appear?

The time between exposure and onset of symptoms varies with infection type (e.g., gastrointestinal, wound, blood) and *Vibrio* species. Symptoms of gastrointestinal infection with most *Vibrio* species can appear anywhere from 4-96 hours after eating raw or undercooked seafood, but usually appear within 12-24 hours after exposure. Symptoms of wound infection might appear as few as four hours after exposure, and symptoms of blood infection usually appear within four days of exposure.



How is vibriosis diagnosed?

Vibriosis is diagnosed by laboratory testing of stool, wound, or blood samples.

What is the treatment for vibriosis?

People with diarrhea should drink plenty of fluids to avoid becoming dehydrated. Treatment is not necessary for most cases of vibriosis, and people usually recover with no long-term health problems. If severe infection is suspected, treatment should be started right away because antibiotics improve survival. Antibiotics are generally not recommended for infections with species other than *V. vulnificus*, but can improve survival in severe or prolonged illnesses. Vibriosis wound infections might require rapid medical attention; some wound infections are serious and might require surgery.

How can vibriosis be prevented?

People should not consume raw or undercooked seafood. This is particularly important for those with a weakened immune system or liver disorder because they are at increased risk of developing a severe or fatal infection. Most gastrointestinal infections can be prevented by thoroughly cooking shellfish, especially oysters. When ordering shellfish at a restaurant, ask that the shellfish be fully cooked. For shellfish in the shell, either boil until the shells open and continue boiling for five more minutes or steam until the shells open and then continue cooking for nine more minutes. Do not eat shellfish that does not open during cooking. Boil shucked oysters at least three minutes, or fry them in oil at least three minutes at 375°F. When cooking, make sure that raw foods do not touch cooked foods or surfaces used for cooking and eating. Wear protective clothing (e.g., gloves) when handling raw seafood. *Vibrio* bacteria do not alter the appearance, taste, or odor of seafood.

To prevent wound infections, it is important to avoid exposing open wounds or cuts to salt or brackish water, especially for those who have a weakened immune system. If you get cut or wounded in the water or if a pre-existing cut or wound is exposed to salt or brackish water, wash the affected area right away with soap and clean water. Antibiotic ointment or hydrogen peroxide can also be used as directed to clean wounds. If the wound shows signs of an infection, such as swelling, warmth, or redness, visit a healthcare provider right away and discuss your exposure to water sources.

Can you test for *Vibrio* bacteria in waterways?

Yes, but it is not usually necessary. The bacteria are present naturally in salt and brackish water, especially in warmer months.

How can I get more information on vibriosis?

- If you have concerns about vibriosis, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <https://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/vibrio/index.html>.



Vibriosis (Non-Cholera) Fact Sheet

September 2018