

Vibrio Vulnificus



What is Vibrio Vulnificus?

Vibrio vulnificus is a bacterium that normally lives in warm, brackish seawater and, although rare, can cause infections in those who have an open wound that is exposed to warm seawater containing the bacteria. Vibrio vulnificus, can be life-threatening and require intensive care or limb amputations, Statistics show that 1 in 5 people with this infection die, sometimes within a day or two of becoming ill. Some vibrio vulnificus infections lead to necrotizing fasciitis, a severe infection in which the flesh around an open wound dies.

How do persons get infected with vibrio vulnificus?

People can get infected with vibrio vulnificus when they eat raw shellfish, particularly oysters. The bacterium is frequently isolated from oysters and other shellfish in warm coastal waters during the summer months. Since it is naturally found in warm marine waters, people with open wounds can be exposed to vibrio vulnificus through direct contact with seawater. There is no evidence of person-to-person transmission of vibrio vulnificus.

How can vibrio vulnificus infection be diagnosed?

Vibrio vulnificus infection is diagnosed by stool, wound, or blood cultures. Notifying the laboratory when this infection is suspected helps because a special growth medium should be used to increase the diagnostic yield. Doctors should have a high suspicion for this organism when patients present with stomach illness, fever or shock following the ingestion of raw seafood, especially oysters, or with a wound infection after exposure to seawater.

What type of illness does vibrio vulnificus cause?

Vibrio vulnificus can cause disease in those who eat contaminated seafood or have an open wound that is exposed to warm seawater containing the bacteria. Ingestion of vibrio vulnificus can cause vomiting, diarrhea and abdominal pain. vibrio vulnificus can also cause an infection of the skin when open wounds are exposed to warm seawater; these infections may lead to skin breakdown and ulcers.

Healthy individuals typically develop a mild disease; however, vibrio vulnificus infections can be a serious concern for people who have weakened immune systems, particularly those with chronic liver disease. The bacterium can invade the bloodstream, causing a severe and life-threatening illness with symptoms like fever, chills, decreased blood pressure (septic shock) and blistering skin lesions. Vibrio vulnificus bloodstream infections are fatal about 50 percent of the time. A recent study showed that people with these pre-existing medical conditions were 80 times more likely to develop vibrio vulnificus bloodstream infections than healthy people. Wound infections may also be serious in people with weakened immune systems. The wound may heal poorly and require surgery. Sometimes amputation may even be needed for recovery.

How common is vibrio vulnificus infection?

Vibrio vulnificus is a rare cause of disease, but it is also underreported. Between 1988 and 2006, the Centers for Disease Control and Prevention (CDC) received reports of more than 900 vibrio vulnificus infections from the Gulf Coast states, where most cases occur. Before 2007, there was no national surveillance system for vibrio vulnificus, but CDC collaborated with Alabama, Florida, Louisiana, Texas and Mississippi to monitor the number of cases in the Gulf Coast region. In 2007, infections caused by vibrio vulnificus, and other vibrio species became nationally notifiable.

What are some tips for preventing vibrio vulnificus infections?

- Do not eat raw oysters or other raw shellfish.
- Cook shellfish (oysters, clams, mussels) thoroughly.
- For shellfish in the shell, either a) boil until the shells open and continue boiling for 5 more minutes, or b) steam until the shells open and then continue cooking for 9 more minutes. Do not eat those shellfish that do not open during cooking. Boil shucked oysters at least 3 minutes, or fry them in oil at least 10 minutes at 375°F.
- Avoid cross-contamination of cooked seafood and other foods with raw seafood and juices from raw seafood.
- Eat shellfish promptly after cooking and refrigerate leftovers.
- Avoid exposure of open wounds or broken skin to warm salt or brackish water, or to raw shellfish harvested from such waters.
- Wear protective clothing (e.g., gloves) when handling raw shellfish.

How is vibrio vulnificus infection treated?

If vibrio vulnificus is suspected, treatment should be initiated immediately because antibiotics improve survival. Aggressive attention should be given to the wound site; for patients with wound infections, amputation of the infected limb is sometimes necessary.

For more information on vibrio vulnificus, visit the [CDC's website](#).