

# Vibrio

## What is *Vibrio*?

*Vibrio* is a group of bacteria commonly found in coastal marine waters and seafood throughout the world.

## What types of illness do *Vibrio* cause?

These bacteria can make people sick in three ways:

- **Wound infection:** If bacteria enter an opening in the skin, they can cause serious skin infection. These infections usually begin with redness and swelling at the wound site. *Vibrio* wound infections occur when a person with a cut or abrasion swims, wades or fishes in seawater containing a high number of these bacteria.
- **Gastrointestinal illness:** The bacteria can cause diarrhea in people who eat raw or undercooked seafood containing the bacteria. When this happens, the person usually becomes only mildly or moderately sick, although some people may become sick enough to be hospitalized. The patient may have symptoms such as diarrhea, abdominal cramps, nausea, vomiting, headache, fever and chills. The illness lasts from 1 to 7 days. Symptoms usually begin within 12 to 24 hours of eating contaminated seafood but onset can range from 4 to 30 hours.
- **Blood infection (septicemia):** This infection occurs when bacteria that enter the body through a wound or gastrointestinal tract invade the blood. Blood infections generally occur only in people with certain underlying health problems. Bloodstream

infections can be serious, even fatal, and require immediate treatment.

## How do people get the skin infection form of this illness?

Because *Vibrio* are found naturally in warm seawater, skin infections typically occur when a person with a cut or abrasion swims or wades in seawater containing these bacteria. Skin infections are a particular concern in the Gulf Coast region after a hurricane when people are exposed to floodwater containing a mixture of fresh and salt water (brackish water).

## How do people get the diarrheal form of this illness?

In the United States, diarrheal illness often is due to eating raw or improperly cooked shellfish or by consuming cooked fish and shellfish contaminated with the bacteria after it was cooked. Outbreaks have occurred when cooked seafood was allowed to touch contaminated raw seafood, surfaces or utensils, or the seafood was kept at temperatures above 40 degrees F. *Vibrio* bacteria grows rapidly in seafood that is not kept clean or properly chilled.

## How do people get the blood infection form of this illness?

*Vibrio* bacteria can move from an infected cut or the gastrointestinal tract into the blood, causing a bloodstream infection, or septicemia. People who get these infections almost always have one or more underlying health problems. Healthy people are at much lower risk for *Vibrio* bloodstream infection (septicemia).

### **How are *Vibrio* infections diagnosed?**

*Vibrio* diagnosis is made by taking blood, stool or wound samples from an infected person. The samples are allowed to grow more bacteria if present, and then studied in a laboratory. The Texas Department of State Health Services asks healthcare providers to send specimens from people who may have this illness to a laboratory. A special test is required to identify *Vibrio*. Health care providers should be on the lookout for this illness, especially when patients have been exposed to floodwaters.

### **How are *Vibrio* infections treated?**

Most people can recover from *Vibrio* diarrheal illness without treatment. However, a few people may be sick enough to need extra fluids, antibiotics and possibly hospitalization. *Vibrio* skin and wound infections are treated with antibiotics. Serious skin infections may require hospitalization or surgical treatment. People with *Vibrio* bloodstream infections (septicemia) almost always require hospitalization.

### **How can I keep from getting a *Vibrio* skin infection?**

- If you have an open wound or broken skin, avoid contact with seawater or water that is a mixture of fresh and salt water (brackish water).
- If you work in a hurricane-damaged area, especially an area with standing water that is a mixture of fresh and salt water, wear boots and other protective gear to prevent wounds and to prevent exposing broken skin to water containing *Vibrio* bacteria. In areas where floodwaters have receded and surfaces are dry, *Vibrio* are not usually a concern because the bacteria are killed rapidly by drying.

### **How can I minimize my risk of getting *Vibrio* diarrheal illness?**

- Cook shellfish (oysters, clams, mussels) thoroughly.
- For shellfish in the shell boil until the shells open and continue boiling for 5 more minutes or steam until the shells open and continue cooking for 9 minutes;
- For shucked oysters boil for at least 3 minutes or fry them in oil at least 10 minutes at 350 degrees.
- Do not eat shellfish that do not open during cooking.
- Do not allow seafood already cooked to touch raw seafood, and do not touch cooked seafood after you have handled raw seafood without washing your hands first.

### **Who should be especially careful to avoid *Vibrio* infection?**

Certain health problems put you at risk for serious illness such as blood infections (septicemia) or death if you develop either *Vibrio* skin or gastrointestinal illness. People with the following health conditions should take special precautions to avoid skin or gastrointestinal *Vibrio* illness:

- Liver disease
- Hemochromatosis, an iron disorder
- Diabetes
- Stomach problems such as previous stomach surgery, low stomach acid and problems leading to regular use of antacids
- Cancer
- Immune disorders such as HIV infection
- Long-term steroid use such as for asthma and arthritis.