

April 2015

## ***Vibrio parahaemolyticus* Infection**

### **What is *Vibrio parahaemolyticus* infection?**

It is a potentially serious illness caused by bacteria called *Vibrio parahaemolyticus*. The bacteria are found naturally in salt and brackish (i.e., somewhat salty) waters, including coastal waters of the United States and Canada. *Vibrio parahaemolyticus* thrives in warm waters and thus causes more infections during the summer months. *Vibrio parahaemolyticus* is the most commonly reported type of *Vibrio* infection in Virginia.

### **Who gets *Vibrio parahaemolyticus* infection?**

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

### **How is *Vibrio parahaemolyticus* spread?**

Most people become infected through eating raw or undercooked seafood, especially shellfish (including oysters, mussels, and clams). Infection can also occur when the *Vibrio parahaemolyticus* 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. *Vibrio parahaemolyticus* infection cannot be passed from person to person.

### **What are the symptoms of *Vibrio parahaemolyticus* infection?**

*Vibrio parahaemolyticus* bacteria can cause three types of infection: gastrointestinal, wound, and blood; the most common type of infection is gastrointestinal infection. Gastrointestinal illness happens when someone gets infected by eating raw or undercooked seafood, and the symptoms include watery diarrhea, abdominal cramps, nausea, vomiting, and/or fever. Wound infections happen when *Vibrio parahaemolyticus* bacteria enter openings in the skin and cause skin breakdown and sores that become painful, red, and/or swollen. Among persons with weakened immune systems, the bacteria can enter the blood and cause severe life-threatening illness with fever and chills, decreased blood pressure, and/or blistering skin lesions.

### **How soon after exposure do symptoms appear?**

Symptoms of gastrointestinal infection may appear anywhere from 4 to 96 hours after exposure, but usually appear within 12 to 24 hours after exposure.

### **How is *Vibrio parahaemolyticus* infection diagnosed?**

*Vibrio parahaemolyticus* infection is diagnosed by laboratory testing of stool, wound, or blood samples.

### **What is the treatment for *Vibrio parahaemolyticus* infection?**

People with diarrhea should drink plenty of fluids to avoid becoming dehydrated. Treatment is not necessary for most cases of *Vibrio parahaemolyticus* infection, and people usually recover with no long-term health problems. Antibiotics are generally not recommended for infections, but may improve survival during severe or prolonged illnesses.

### **How can *Vibrio parahaemolyticus* infections be prevented?**

*Vibrio parahaemolyticus* bacteria do not alter the appearance, taste, or odor of seafood. Persons with weakened immune systems and/or a liver disorder should avoid eating raw or undercooked seafood due to a high risk of 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 unless it has been treated with a post-harvesting method to reduce the presence of *Vibrio*. 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 shellfish that does not open during cooking. Boil shucked oysters at least 3 minutes, or fry them in oil at least 10 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. If seafood is not eaten immediately, it should be refrigerated; eat seafood promptly after cooking and refrigerate leftovers.

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 a 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 to clean wounds. If the wound shows signs of an infection, such as swelling or redness, visit a healthcare provider right away.

### **Can you test for *Vibrio parahaemolyticus* in waterways?**

Yes, but testing is not routinely performed due to its natural presence in waterways. People should assume the bacteria are present in salt and brackish water, especially in warmer months.

**How can I get more information about *Vibrio parahaemolyticus*?**

- 1) If you have concerns about *Vibrio parahaemolyticus* infection, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention's website at <http://www.cdc.gov/vibrio/index.html>.