Non-Cholera Vibrio Infections in Florida and the United States
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Vibrio are a family of gram-negative rod bacteria that occur naturally in surface water around the world. While they are most commonly found in salty or brackish water, they can occur in freshwater as well. Vibrio infections occur most often between April and October, when the seawater is warm and the bacteria are present in higher concentrations. There are approximately a dozen species of Vibrio that are pathogenic in humans. The most well-known species is Vibrio cholerae, which causes cholera.

In the United States, Vibrio vulnificus, Vibrio parahaemolyticus, and Vibrio alginolyticus are responsible for the majority of infections. Depending on the site, Vibrio infections, also known as vibriosis, can cause different types of illness. Gastroenteritis occurs after ingestion of the Vibrio bacteria and symptoms can include diarrhea, vomiting, or abdominal pain. Wound infections occur when lacerations or other breaks in the skin come into contact with seawater containing Vibrio bacteria. Septicemia may occur after bacteria enter the bloodstream through the digestive tract or open wound and cause fever, chills, a drop in blood pressure, shock or possibly death. While not limited to these sites, they are among the most common types of Vibrio infections.

A majority of Vibrio infections tend to occur in the Gulf of Mexico region. Between 2010-2012, Florida reported more cases of vibriosis than any other state. In 2013, 192 cases of vibriosis were reported in Florida. V. parahaemolyticus was responsible for 55 cases, V. alginolyticus for 49 cases, and V. vulnificus for 41 cases. While Florida’s cases peaked in the summer months, every month saw more reported cases than were seen on average during the previous five years (except January and April). Broward County reported the highest number of cases, a total of 18, in the state and in Pinellas County, 11 cases were reported. Nationally, most cases of vibriosis are due to foodborne exposures.

Common food items associated with ingestion of vibrio include cooked and raw oysters, crab, and raw clams. In Florida, during 2013, most cases were associated with wound infections due to seawater or marine wildlife exposures. Treatment for vibriosis depends on the site of infection as well the strain of Vibrio that caused the infection. For example, patients with V. vulnificus infections require immediate treatment because antibiotics improve the chance of survival. However, most patients with gastroenteritis due to V. parahaemolyticus may not require antibiotic treatment, but do need fluids to replenish those lost through diarrhea and vomiting. Treatment should be determined on a case by case basis. To avoid Vibrio infections, seafood should be cooked thoroughly before consumption. Raw seafood, especially oysters, should be avoided. Exposure to seawater should be avoided while open wounds are present on the body.

Vibrio infections should be reported to your local health department by the next business day. For more information on vibriosis, please visit the Centers for Disease Control and Prevention’s website: http://www.cdc.gov/vibrio/index.html

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