

The *Vibrio* species are Gram negative bacilli found in marine environments around the United States. They colonize filter feeding animals such as oysters, crabs and mussels, but can also be found free-living in seawater. Despite their broad distribution, most *Vibrio* infections occur in people living in states that border the Gulf of Mexico. The reason for this is that the bacilli multiply better in warm water and thrive in the Gulf during the summer months when the water temperature here generally exceeds 70° F.¹ Of all the *Vibrio* infections reported in Florida's residents and tourists alike, *V. vulnificus* causes the most severe disease and mortality.

Most people become infected with *V. vulnificus* through eating raw shellfish.² The bacteria can attach and enter the intestinal lining and as this happens the patient may experience abdominal cramps, diarrhea and vomiting. In some people the infection spreads into the blood stream and causes septicemia. Those at highest risk for developing septicemia and dying from *V. Vulnificus* have chronic health problems such as liver disease, high alcohol consumption, diabetes mellitus and AIDS. Typical symptoms include fever, chills, hypotension and swollen legs with hemorrhagic skin lesions. Although *Vibrios* are susceptible to antibiotics about half of the septicemic patients die from the disease.³ *Vibrio vulnificus* can also cause wound infections where an open wound is exposed to seawater. Symptoms such as swelling and erythema generally develop within a week after exposure. Wound infections of the limbs can be serious and may be fatal for people with the chronic health problems mentioned above.

V. vulnificus infections are reportable in Florida, Alabama, Mississippi, Louisiana and Texas. Of these states, Florida has reported the majority of the cases¹; on average 14 cases have been reported each year since the disease became reportable in 1981. Most of these are detected between April-October. Records from 1981-1993 (n=141)² showed that males were 4 times or more likely to get infected than females. Septicemia (53%) and wound infections (33%) are the two most commonly reported forms of the disease in Florida. Among the septicemic patients 48% abused alcohol, 39% had chronic liver disease and 25% were diabetic. The mortality rate for those with septicemia was 56%, with wound infections 11%, and with gastro-intestinal illness 6%.

In an effort to prevent *Vibrio* infections, all restaurants in Florida are now required by law to display "either on menus, table placards, or elsewhere in plain view of all patrons", the following notice: *There is risk associated with eating raw oysters. If you have chronic illness of the liver, stomach or blood, or have immune disorders, you are at greater risk of serious illness from raw oysters, and should eat oysters fully cooked. If unsure of your risk, consult a physician.*

References

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1. Kumamoto, Kenneth S. and Vukich, David J. 1998. *Clinical infections of Vibrio vulnificus: A case report and review of the literature*. J. Emerg. Med. 16: 61-66.
2. Hlady, W. Gary and Klontz Karl C. 1996. *The epidemiology of Vibrio infections in Florida 1981-1993*. J. Infect. Dis. 173: 1176-83.
3. CDC, Division of Bacterial and Mycotic Diseases. 1998. *Vibrio vulnificus* (frequently asked questions) www.cdc.gov/ncidod/diseases/foodborn/vibrio.htm.