

Frequently Asked Questions about *Vibrio* in Florida



Under certain conditions, one type of marine bacteria known as *Vibrio* is capable of causing wound infections and seafood sickness in people with weakened immune systems.

Recently, the term “flesh-eating bacteria” has been used to refer to *Vibrio*. This description is false and misleading and causes unnecessary fear and panic.

To ensure that your time on the water is safe and enjoyable, be aware of local hazards and follow these simple safety guidelines.

What are *Vibrio*?

The name *Vibrio* refers to a large and diverse group of marine bacteria. Most members are harmless and can actually benefit the ecosystem by breaking down organic matter or providing food for larger organisms. However, some strains produce harmful toxins and are capable of causing a disease known as “vibriosis.” About 15 species are known to infect humans, but two of particular concern are *Vibrio vulnificus* and *Vibrio parahaemolyticus*. The presence of these pathogens cannot be detected by the naked eye and specific laboratory techniques are necessary to confirm their identity.

When and where are *Vibrio* found?

Because of Florida’s warm climate, *Vibrio* are present in brackish waters year-round. They are most abundant from April to November when the water is the warmest. People are also more likely to participate in water activities during these months. The combination of these factors contribute to a peak in reported cases during the summer.

Vibrio naturally occur in coastal waters worldwide. They are not a result of pollution and can be present even if the water looks clean. Species that infect humans are most common in brackish environments (areas where fresh and salt water mix) and can be associated with aquatic animals.

How can people become infected?

For infection to occur, pathogenic *Vibrio* strains must enter the body of a susceptible individual who either eats raw and contaminated seafood or exposes an open wound for a prolonged period in water containing these bacteria. Activities that may result

in contact with *Vibrio* include fishing, wading and swimming, as well as cleaning and eating seafood, especially during summer months. The severity of disease depends on the type and amount of bacteria encountered as well as the individual’s health.

Who is at risk for infection?

Most people are not, but it is important to understand your personal risk for developing infection. A healthy immune system will combat infection. People with weakened immune systems can develop life-threatening infections. Some high-risk conditions include: liver disease, alcoholism, diabetes, hepatitis, hemochromatosis, stomach disorders, HIV/AIDS, cancer, and long-term steroid use.

Are *Vibrio* really “flesh-eating” bacteria?

No. *Vibrio* cannot break down healthy, intact skin on contact, even if the skin is exposed for long periods of time. For infection to occur, the bacteria must actually enter the body through prolonged exposure of an open, unhealed wound or be consumed in raw seafood. “Flesh eating” is not a medical term and was likely derived from the fact that tissue death or “necrosis” can occur during advanced, late stages of infection around untreated wounds, especially in people with weakened immune systems.

What are the symptoms of a wound infection from *Vibrio*?

Infections typically begin with swelling and redness of skin, followed by severe pain, blistering, and discharge at the site of the wound. As the infection progresses, tissue necrosis, fever, chills, low blood pressure, shock, and death may occur, especially if the infection spreads to the bloodstream.

How long after exposure does it take for symptoms to occur?

Symptoms of *vibriosis* may arise within 1–3 days, but usually occur a few hours after exposure. The disease can progress rapidly. Infections cannot heal on their own and require medical treatment such as antibiotics, aggressive wound care, or limb amputation. Recovery is greatest when diagnosed early.

What should I do if I suffer a flesh wound during water activities?

Always have access to a first-aid kit and treat injuries as soon as they happen.

- Clean the wound thoroughly with soap and water, removing any foreign material or debris. Treat with a local antiseptic.
- Cover the area with a bandage and prevent further exposure to the environment. For a minor cut, remove the bandage after a couple of days to promote healing. However, never submerge wounds or broken skin in aquatic environments.
- If the area becomes swollen, hot or very painful and you suspect infection seek medical treatment immediately.

Are there safety tips for preventing wound infections?

Remember, the best way to avoid infection is to prevent exposure by using the proper gear and safety practices.

- Contrary to popular folklore, it is never recommended to clean wounds by bathing them in seawater or other aquatic environments.
- Always access the water from a non-obstructed area where the bottom is visible. Be aware of hazards like submerged objects and wildlife.
- When wading, use puncture-resistant footwear with a good grip. Exercise caution on slippery surfaces like boat ramps, rocks and kayak launches.
- Wear gloves when handling sharp objects, especially if harvesting or shucking oysters.
- Clean gear and wash off after being in the water, especially before handling food.

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Practice safe handling techniques when landing or cleaning your catch to reduce your risk of developing a *Vibrio* infection.

Are there specific safety tips for anglers?

- Because fish carry *Vibrio* on their bodies, avoid or minimize handling whenever possible. This is not only beneficial for your health, but also for the fish.
- Decide ahead of time what you intend to keep, and release unwanted fish right away.
- The proper use of a release tool can help remove hooks safely and quickly. If you plan to retrieve the fish, use a landing net or pliers to minimize handling.
- Circle hooks are recommended because they are more likely to catch a fish in the jaw, making removal easy.
- If you cannot avoid handling the fish, use a wet towel or gloves to protect yourself. Be aware of areas that can cause injury like spines, barbs, and teeth.
- Always wash your hands thoroughly after fishing, especially before handling food. Be sure to clean your gear after each use, taking special care with sharp objects like hooks and knives.
- Live bait can also carry *Vibrio*. Use caution when hooking or handling, paying attention to areas that can inflict injuries like spines, shells, and claws.
- Bait buckets can be reservoirs for *Vibrio* because they accumulate bacteria from waste produced by the animals they contain. Do not overstock the container and be sure to change its water frequently. Use a handnet to retrieve bait and never submerge wounds.

Additional reading:

An expanded version of this fact sheet can be found at:
<http://edis.ifas.ufl.edu/sg140>

More information about *Vibrio* can also be found at:
<http://www.fau.edu/hboi/mbbr/vibrio.php>