The risk of eating raw oysters

What is the risk of eating raw oysters?

Each year, millions of Americans eat raw molluscan shellfish, especially oysters, clams, and mussels. However, persons with HIV, AIDS, liver diseases such as hepatitis, and other conditions that weaken the immune system should not eat raw oysters, clams, or mussels.

For persons with these health conditions, eating raw oysters, clams, and mussels is especially risky because viruses, parasites, and bacteria may be present in these shellfish. The bacteria Vibrio vulnificus poses a particularly serious risk of potentially deadly food poisoning.

Individuals with these health conditions can avoid this illness by making sure oysters, clams, and mussels have been thoroughly cooked prior to eating them.

What is Vibrio vulnificus?

Vibrio vulnificus is a bacteria that can cause severe illness or death in at-risk people who eat raw oysters, clams or mussels. Vibrio vulnificus does not change the appearance, taste, or odor of oysters, clams, or mussels.

From 1989 to 2000, the U.S. Food and Drug Administration (FDA) recorded 282 serious illnesses associated with consumption of raw oysters and clams containing the Vibrio vulnificus bacteria. While illnesses are infrequent, about half (149) have resulted in death.

Where is it found?

Vibrio vulnificus is a naturally occurring bacteria found in warm coastal waters, such as the Gulf of Mexico. Levels are elevated during the summer months, but it can be found in the warm coastal waters all year long. Vibrio vulnificus is not a result of pollution, and can be found in waters approved for oyster and clam harvesting.

Are you at risk?

You are at risk of serious illness if you eat raw oysters, clams, or mussels and have any of these health conditions:

- HIV/AIDS
- Liver disease from hepatitis, cirrhosis, cancer, or alcoholism – if you drink three or more alcoholic drinks every day, you may be at risk for liver disease
- Iron overload disease (hemochromatosis)
- Diabetes
- Cancer (including lymphoma, leukemia, Hodgkin's disease)
- Stomach disorders
- Any other illness or medical treatment that weakens the body’s immune system

If you are still unsure of your risk, ask your doctor.

Vibrio vulnificus rarely affects healthy people. When it does, symptoms are usually mild and temporary.
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What are the symptoms?
Symptoms usually occur within 24 to 48 hours and may include:
- Stomach pain
- Nausea and vomiting
- Diarrhea
- Fever and chills
- Skin lesions
- Shock

Seek medical attention immediately if you have any of these symptoms after eating raw oysters, clams, or mussels. For those at risk, infection can lead to death within two days. Early, aggressive antibiotic treatment is the most effective therapy.

How can you avoid this illness?
If you are at risk, raw or undercooked oysters, clams, or mussels containing *Vibrio vulnificus* can make you very sick. You can also become infected if these bacteria enter your body through an open wound while swimming. To safeguard your health, take these precautions:
- **Eat only oysters and clams that have been thoroughly cooked** – heat destroys the bacteria
- **Never swim or wade in seawater when you have sores or open wounds**

Cooking tips

In the shell:
- Cook live oysters, clams, or mussels in small pots so those in the middle are cooked thoroughly
- **Boiling**: After the shells open, boil live oysters or clams for another five minutes
- **Steaming**: In a pot that is already steaming, cook live oysters or clams for another nine minutes

Shucked oysters:
- **Boil** for at least three minutes or until edges curl
- **Fry** at 375°F for at least three minutes
- **Broil** three inches from heat for three minutes
- **Bake** at 450°F for 10 minutes

Always avoid cross-contamination of cooked food with raw seafood and juices from raw seafood.

For more information
- FDA Food Safety Hotline: 1-888-723-3366
- FDA Web site: [www.cfsan.fda.gov](http://www.cfsan.fda.gov)
- Texas Department of State Health Services Seafood Safety Division: 512-719-0215
- This fact sheet is available online at: [www.dshs.state.tx.us/hivstd/info/edmat/E13-11908.pdf](http://www.dshs.state.tx.us/hivstd/info/edmat/E13-11908.pdf)