WHAT ARE THE SYMPTOMS?

Symptoms usually occur within 24-48 hours, and may include:

• Fever / Chills
• Skin lesions
• Stomach pain / Nausea
• Vomiting
• Diarrhea
• Shock

If you have consumed raw shellfish, and have any of these symptoms, seek medical attention immediately.

For those at risk, infection can lead to death within two days. Early, aggressive antibiotic treatment is the most effective therapy.

Vibrio vulnificus rarely affects healthy individuals. When it does, symptoms are mild and temporary.

COOKING TIPS

(IN THE SHELL)

• Purchase oysters with the shells closed. Throw away any oysters with shells already opened.
• Cook live oysters or clams in small pots so those in the middle are cooked thoroughly.
• BOILING: After the shells open, boil live oysters or clams for another 3-5 minutes.
• STEAMING: In a pot that is already steaming, cook live oysters or clams for another 4-9 minutes.
• Discard any oysters that do not open during cooking.

(SHUCKED OYSTERS)

• BOIL or SIMMER for at least 3 minutes or until edges curl
• FRY at 375°F for at least 3 minutes
• BROIL 3 inches from heat for 3 minutes
• BAKE at 450°F for 10 minutes

FOR MORE INFORMATION

Contact the following:
FDAs Food Safety hotline: 1-888-723-3366
FDAs website: www.fda.gov
ISSC website: www.issc.org

The Risk of Eating RAW
Molluscan Shellfish Containing Vibrio vulnificus

Advice for persons with liver disease, diabetes, or weakened immune systems

The American Liver Foundation has reviewed the contents of this brochure, and supports the efforts of the ISSC in educating at-risk consumers.

INTERSTATE SHELLFISH SANITATION CONFERENCE
(803) 788-7559 • www.issc.org

The information contained in this brochure is provided for information only. This information does not constitute medical advice, and it should not be relied upon as such. The American Liver Foundation (ALF) does not engage in the practice of medicine. ALF, under no circumstances, recommends particular treatments for specific individuals, and in all cases recommends that you consult your physician before pursuing any course of treatment.

FOR INFORMATION ON LIVER DISEASE AND HEPATITIS, CONTACT:
1-800-GO-LIVER (465-4837)
www.liverfoundation.org

ISSC
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For more information on liver disease and hepatitis, contact:
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DID YOU KNOW...?
Each year millions of Americans enjoy eating raw molluscan shellfish—especially oysters and clams. But if you have liver disease, diabetes, or a weak immune system, raw shellfish containing the bacteria Vibrio vulnificus can make you seriously ill.
You can avoid illness simply by abstaining from consumption of raw shellfish. Eat only shellfish that have been thoroughly cooked.

WHAT IS VIBRIO VULNIFICUS?
Vibrio vulnificus is a bacteria that can cause severe illness or death to at-risk people who eat raw shellfish.
From 1995 to 2008, the U.S. Food and Drug Administration (FDA) recorded 469 serious illnesses associated with consumption of raw oysters and clams containing the Vibrio vulnificus bacteria. Ninety-eight percent (98%) of these illnesses have been associated with consumption of raw oysters with 2% associated with Eastern Hard Clams. While illnesses are infrequent, about half (237) have resulted in death.

WHERE IS IT FOUND?
Vibrio vulnificus is found naturally in warm coastal waters, such as the Gulf of Mexico, where levels of the bacteria are elevated during the summer months. Vibrio vulnificus is NOT a result of pollution, and can be found in waters approved for shellfish harvesting. Vibrio vulnificus does NOT change the appearance, taste, or odor of shellfish.

ARE YOU AT RISK?
You are at risk of serious illness if you eat raw shellfish and have any of these health conditions:
- Liver disease (from hepatitis, cirrhosis, alcoholism, or cancer)
- Iron overload disease (hemochromatosis)
- Diabetes
- Cancer (including lymphoma, leukemia, Hodgkin's disease)
- Stomach disorders
- Or any illness or medical treatment that weakens the body's immune system
Unsure of your risk? Ask your doctor. Healthy people are not at risk of serious infection.

HOW CAN YOU AVOID INFECTION?
If you are at risk, raw or undercooked shellfish containing Vibrio vulnificus can make you 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:
Physicians recommend that those at risk not eat any food of raw animal protein origin. This includes raw shellfish.
Eat oysters or clams that have been THOROUGHLY COOKED -- heat destroys the bacteria.
Never swim or wade in seawater when you have sores or open wounds.