

Did you **know?**

Each year, millions of people eat raw shellfish such as oysters, clams and mussels. For people at risk, eating *raw* or undercooked oysters, clams and mussels can lead to serious illness or death caused by the bacteria *Vibrio vulnificus*.

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 and mussels.

Vibrio vulnificus is a bacteria found naturally in coastal waters throughout the world. It is not the result of pollution. The bacteria may be found in waters approved for harvesting. During the warm weather months of April through October, higher amounts of the bacteria are found in shellfish.

Vibrio vulnificus does not change the look, taste or smell of oysters, clams or mussels.

For more information, call:

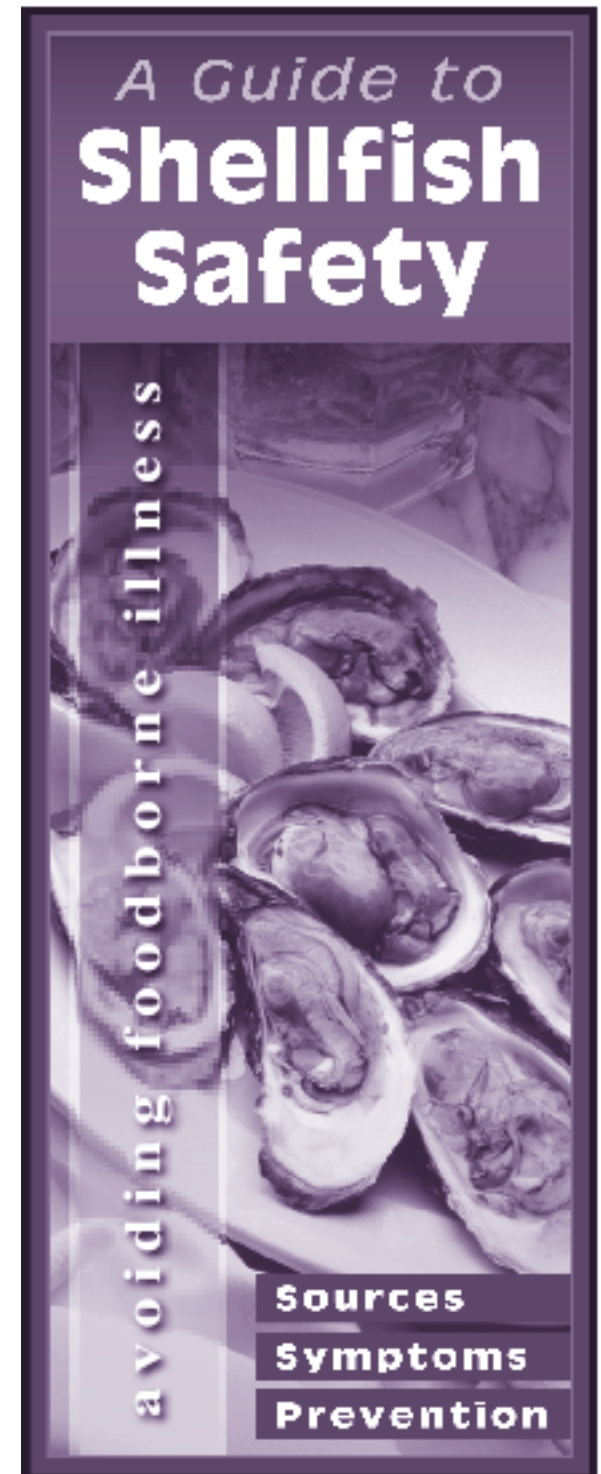
- Your local health department
- DHEC's Division of Food Protection at (803) 896-0640, or fax them at (803) 896-0645
- DHEC's Shellfish Sanitation Program at (803) 898-4300
- DHEC's Division of Public Health Services at (803) 898-0778



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*Promoting and protecting the health of the public
and the environment.*

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Who can get sick from **Vibrio vulnificus**?

Most healthy people are not at risk from *Vibrio vulnificus*. People with the following conditions are at **high risk**:

- Any illness or medical treatment which results in a weakened immune system
- Bowel disorders
- Cancer
- Diabetes
- Heavy or chronic alcohol drinking
- Hemochromatosis (an iron disorder)
- HIV/AIDS
- Liver disease
- Long-term steroid use (as in asthma and arthritis)
- Stomach disorders

If you are at high risk:

- Do not eat raw shellfish (oysters, clams, mussels).
- Choose cooked shellfish when eating out.
- Always cook oysters, clams and mussels thoroughly.
- Do not swim or wade in saltwater with open wounds or sores.



How does **Vibrio vulnificus** make people sick?

Vibrio vulnificus causes an infection and a severe illness which is fatal in half the cases. Infection can also happen if *Vibrio vulnificus* from seawater gets into healing wounds, cuts, burns or punctures, but this is less common.

What are the symptoms?

Symptoms of illness caused by *Vibrio vulnificus* are:

- Chills (sudden/shaking)
- Diarrhea
- Fever
- Nausea
- Severe weakness
- Shock
- Skin rashes and blisters
- Stomach pains
- Vomiting

Symptoms are seen 2 to 3 days after eating raw shellfish or exposure of cuts/wounds to raw shellfish or warm seawater. In high-risk people, blood poisoning and death can happen within two days.

What should I do if I have symptoms after eating raw shellfish?

Call your doctor right away. Illness caused by *Vibrio vulnificus* is treated with antibiotics. Quick treatment can save your life.

What can I do to avoid **Vibrio vulnificus** infection?

To avoid infection, cook shellfish completely to destroy the bacteria.

How to cook shellfish so it is safe to eat

Boil in the shell

- Cook live shellfish in boiling water.
- Continue cooking them for 3 to 5 minutes **after** the shells open.

Steam in the shell

- Steam live shellfish until the shell opens.
- Continue steaming for 4 to 9 minutes more.

Out of the shell ("shucked")

- Boil or simmer for at least 3 minutes, or until edges curl
- Fry in oil at 375°F for at least 3 minutes
- Broil 3 inches from heat for 3 minutes
- Bake for 10 minutes at 450°F