

Shellfish are delicious, nutritious and healthful, but to ensure a safe and wholesome shellfish experience everyone needs to make sure shellfish are kept cold at all times. If shellfish are allowed to warm up harmful bacteria may start to multiply.

Millions of Connecticut shellfish are eaten annually without issues, but consumers need to be aware of the small risk associated with *Vibrio* bacteria which can cause illnesses. If not handled properly, bacteria may multiply turning safe shellfish into potential problems.



WHAT ARE VIBRIO BACTERIA?

Vibrio parahaemolyticus (Vp.) and *Vibrio vulnificus* (Vv.) are naturally occurring bacteria that proliferate during warm weather. Shellfish can concentrate *Vibrio* as they feed and if the shellfish are eaten raw these bacteria can make you ill. Eating raw or undercooked shellfish when Vp. bacteria are at high levels can cause flu-like

symptoms known as gastroenteritis (diarrhea, vomiting, headache, fever and chills). Symptoms usually appear 12-24 hours after eating contaminated shellfish, and can last two to seven days. Vv. infections can be life-threatening for immune-compromised people or those with chronic liver disease.

Also at greater risk are people who regularly take antacids, heart or diabetes medication, or who have had antibiotic or cancer treatments recently. Ask your doctor if you have any questions about your individual risk from eating shellfish or other raw or undercooked proteins.

Consumers who think they might have become ill from eating shellfish should consult their health care providers for appropriate follow-up and treatment.

HOW TO REDUCE OR ELIMINATE ILLNESSES CAUSED BY VIBRIO

Vibrio bacteria thrive at higher temperatures. When shellfish are warm the bacteria can multiply at alarming rates.

Keeping shellfish cold is the best way to enjoy a safe and delicious shellfish meal. Shellfish producers work hard to ensure the shellfish you eat is the safest possible.

Bacterial growth slows at low temperatures and stops altogether below 45° F. To reduce or eliminate bacterial growth consumers should take every precaution to chill shellfish as quickly as possible.



KEY POINTS:

- **Keep shellfish cold**, especially on the way home!
- When purchasing shellfish, bring a cooler and an ice pack and get them refrigerated, at less than 45°F, as soon as possible.
- Never leave shellfish in the car - **get them refrigerated ASAP!**
- Never store shellfish in water as they may die and spoil.
- If shellfish are gaping and don't clamp shut when tapped, they are probably dead and should be thrown away.
- Raw, unshucked shellfish should be stored in an open container in the refrigerator. Place a damp towel on top to maintain humidity.

- Storage times vary:
 - Oysters **7 days**
 - Quahogs **7 days**
 - Blue Mussels **4 days**
 - Soft shell clams **use immediately**
 - Razor clams **within a day**

COOKING SHELLFISH

The only way to determine if shellfish has reached a safe internal temperature of 145°F is to measure the food with a thin-tip thermometer. This will provide the best and most accurate cooking temperature. If you are immuno-compromised you should enjoy your shellfish grilled, steamed or baked to ensure that any potential bacteria are destroyed.

Additional recommendations include:

- The Food and Drug Administration (FDA) suggests boiling shucked oysters for 3 minutes, frying them in oil at 375°F for 10 minutes, or baking them at 450°F for 10 minutes.
- Clams, mussels and oysters in the shell will open when cooked. The FDA suggests steaming oysters for 4 to 9 minutes or boiling them for 3 to 5 minutes after they open.

This information has been compiled by the Connecticut Sea Grant Extension Program with permission from the following sources: Connecticut Department of Agriculture Bureau of Aquaculture, Connecticut Department of Public Health, Connecticut Department of Consumer Protection, University of Delaware Sea Grant College Program, Washington State Department of Public Health, and FDA.

For more information contact the Connecticut Department of Agriculture Bureau of Aquaculture at 203-874-0696.

For additional information and great recipes check out the following websites:

www.ecsga.org

www.seafoodhealthfacts.org

www.seagrants.uconn.edu



ENJOYING SAFE SHELLFISH ...

MEANS KEEPING THEM COOL!

