

# Consumer Tips For Handling Seafood Safely

CIRCULATING COPY

Sea Grant Depository

LOAN COPY ONLY

## Purchasing Seafood

Always purchase seafood from a dealer that maintains high quality. Know the characteristics of high quality seafood, and avoid low-quality products.

*Purchase raw shellfish carefully.* Buy raw clams, oysters and mussels only from reputable markets. If in doubt, ask the seafood market personnel to show you the certified shipper's tag that accompanies "shell on" products or check the shipper number on shucked oyster containers.

When you leave the seafood market, keep your seafood cold. Leaving groceries in the car on a hot day speeds spoilage and may make seafood unsafe to eat.

## Storing Fresh Seafood

Place seafood immediately in the refrigerator when you get home from the seafood market.

Wrap fresh seafood in "cling wrap" or store in air-tight containers. Store fresh, pasteurized, or smoked seafood products at 32-38°F.

Refrigerate live clams, oysters, mussels, crabs, lobsters, and crayfish in well ventilated containers. Cover the containers with a damp cloth or paper towel.

Do not store live shellfish in air-tight bags or containers. Storing live shellfish in salt water shortens their shelf life. Storing them in fresh water kills them.

Keep "live" shellfish alive. Do not cook or eat shellfish such as clams, oysters, mussels, crabs, lobsters, and crayfish that have died during storage. Live clams, oysters, and mussels have tightly closed shells, or the shells will close when tapped. Live crabs, lobsters, and crayfish move their legs. Dead shellfish spoil rapidly and develop off-flavors and off-odors.

## Storing Frozen Seafood

Store frozen seafood products immediately in the freezer when you get home from the seafood market. Store them in their original moisture and vapor proof package.

Frozen seafoods packaged in over-wrapped trays should be repackaged in "cling wrap," plastic "freezer" wrap, freezer paper, or other moisture and vapor proof material before you store them in the freezer.

Keep frozen seafood products at 0°F or below until ready to use.

## Thawing Frozen Seafood

Many frozen seafood products do not need to thaw before being cooked. Follow the processor's directions for preparing frozen seafoods.

Thaw frozen seafood in the refrigerator (about 18 hours per pound) or under cold running water (about 1 hour per pound).

*Do not* thaw frozen seafood at room temperature or under warm running water. Thinner parts of the seafood thaw faster than thicker parts, and the outer edges may start to spoil before the center has thawed.

## Handling and Preparation

*Don't cross-contaminate!* Food poisoning and spoilage bacteria can spread from live and raw seafood to cooked seafood. Handle raw and cooked seafood products separately.

Thoroughly wash and rinse knives, containers, and cutting boards between handling raw and cooked seafoods. Keep raw and cooked seafoods from coming in contact with each other.



UCSSEP 90-10

University of California Cooperative Extension  
Sea Grant Extension Program Publication

## Handling and Preparation (Cont.)

Cook fish and shellfish thoroughly. Fish is cooked when it begins to flake and reaches an internal temperature of 140°F.

All raw foods contain bacteria. Handle seafoods as you would any perishable food. Keep seafood properly refrigerated, cook adequately, and handle with safety in mind.

### Raw Seafoods

Many consumers enjoy raw or lightly marinated seafood products such as sashimi, sushi, ceviche, gravlax, cold-smoked fish and raw shellfish. Eating raw seafood (and raw meat, poultry, or dairy products), has a greater food safety risk than eating properly cooked products. Follow these tips to reduce this risk:

- Use commercially frozen fish for sashimi, sushi, ceviche, gravlax, or cold-smoked fish. Freezing seafood to -31°F for 15 hours or to -10°F for 7 days eliminates risks from parasites that may be present in the fish.
- Be certain that clams, oysters, and mussels come from certified shellfish growing waters. Refrigerate until use.

### High Risk Individuals

Individuals with chronic liver disease or compromised immune systems should avoid eating raw or partially cooked oysters. The U.S. Food and Drug Administration advises that oysters may contain the bacterium, *Vibrio vulnificus*. This is especially true with oysters in the summer months from Gulf Coast waters. *Vibrio vulnificus* can cause severe illness and death for individuals suffering from liver disease, stomach disorders, blood disorders, or immune system deficiencies.

Since cooking destroys *Vibrio vulnificus*, consumers with these conditions can enjoy cooked shellfish preparations.

## Seafood Safety Tips

### Know Your Seafood Seller

### Purchase Seafood Carefully

### Keep Seafoods Cold

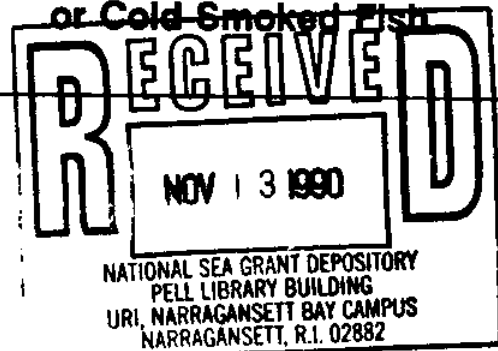
### Keep "Live" Shellfish "Alive"

### Refrigerate Live Shellfish Properly

### Don't Cross-Contaminate

### Cook Seafood Thoroughly

### Freeze Fish Before Making Sashimi, Sushi, Ceviche, Gravlax, or Cold-Smoked Fish



The author is Robert J. Price, Ph.D., Extension Seafood Technology Specialist  
Department of Food Science & Technology, University of California, Davis, California 95616-8598.

Based in part on "Food Safety: Fish and Shellfish. Raw Seafood." National Fisheries Institute, Washington, DC

UCSGEP 90-10

August 1990

This work is sponsored in part by NOAA, National Sea Grant College Program, Department of Commerce, under grant number NA89AA-D-8G138, project number A/EA-1, through the California Sea Grant College Program, and in part by the California State Resources Agency. The U.S. Government may reproduce and distribute reprints for governmental purposes.

In accordance with applicable State and Federal law and University policy, the University of California does not discriminate in any of its policies, procedures or practices on the basis of race, religion, color, national origin, sex, marital status, sexual orientation, age, veteran status, medical condition, or handicap. Address inquiries regarding this policy to the Affirmative Action Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3590. (415) 987-0087.

University of California, the United States Department of Agriculture, and the United States Department of Commerce cooperating.