

YES! The U.S. Food and Drug Administration's Office of Seafood is on record as saying, "On a pound-for-pound basis, seafood is as safe as, if not more safe than, other meat sources." Unfortunately, seafood has suffered some bad press in recent years. Concerns about water quality and environmental issues have led some to speculate and overdramatize reports regarding the safety of seafood. In reality, illnesses can result from the cross-contamination of cooked and raw foods, from contamination which occurs during preparation or from eating seafood harvested from closed waters, but more often seafood-related illnesses occur from eating raw or undercooked shellfish.

The National Academy of Science spent two years in the early 1990's studying the health risks associated with eating seafood. Their report concludes: "Fish and shellfish are nutritious foods that constitute desirable components of a healthy diet. Most seafoods available to the public are wholesome and unlikely to cause illness."

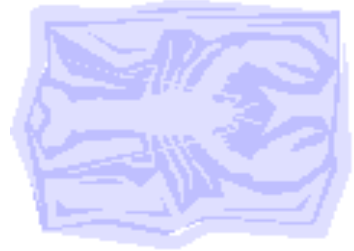
To gather some factual statistics on seafood safety, the U.S. Food and Drug Administration (FDA), the federal agency charged with ensuring the safety of our nation's food supply, studied reports of seafood-related illnesses filed with the Centers for Disease Control (CDC) along with other available epidemiological studies. They found the risk of becoming sick from eating seafood to be one in 250,000, compared to a one in 25,000 risk from eating poultry. If raw molluscan shellfish (clams, oysters and mussels) are excluded from these numbers, the risk of eating seafood drops to one in a million - much less than either beef or poultry. CDC statistics clearly show that the most serious culprits of foodborne illness are raw shellfish.

**There is much average consumers can do personally to eliminate the risks of illness and assure the wholesomeness and safety of their seafood.**

Make careful selections when purchasing seafood. Buy only from reputable dealers who are knowledgeable about their sources and products. Use your senses to determine the quality of your product. Start by looking at the cleanliness of the store, the display cases and the employees. Look to see that fresh seafoods are refrigerated or properly iced and that cooked foods are not in contact with raw foods. A fish's eyes should be clear and bulge slightly. Only a few fish, such as walleye, have naturally cloudy eyes. The flesh of whole fish and fillets should be firm and shiny. Fresh whole fish should have bright red gills. The odors, if any, in your seafood store should be clean and natural, but not strong or fishy. Likewise, seafood should have a slight but fresh odor.

Avoid cross-contamination. Raw seafood, whether fresh or frozen, will normally carry some microorganisms on their outside surfaces. This is particularly true of live shellfish. Cross-contamination occurs when one product form contacts another form of the same or a different food

## Is Our Seafood Safe to Eat?



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product. Common examples are when a raw product contacts a cooked product; when a person reaches over an uncovered cooked product and lifts a raw product that may drip onto the cooked product; or when a cooked product is stored in an unwashed container that previously held a raw product. Much has been publicized of late concerning the importance of handling raw poultry products. The same common-sense approach should be taken with seafood. Wash containers, utensils, hands, cutting boards and other surfaces when handling different products and logically, don't let the foods contaminate one another.

**Use proven methods of handling and preparation. Much can be done to delay the spoilage process in seafood.**

Transporting and storing seafood. If you've landed the catch from coastal waters or harvested it from an open harvest area, make every effort to see that the seafood is handled properly from the point of harvest. You may want to dress the fish completely (scale, head and eviscerate) or fillet so that it is ready to use or freeze when you're home. If you do not wish to dress fish before traveling, at least eviscerate and rinse them well to maintain freshness. Pack the body cavity of large whole fish with ice and place in a sturdy drainable cooler. If traveling a long distance, use salt to prolong the ice (about 1/2 pound for every 5 pounds of ice). Dressed fish and shucked shellfish should be stored in freezer bags or plastic freezer containers; shrimp should be headed, left in the shells and placed in freezer storage bags. Shellfish may be transported alive. The keys to success are cold and oxygen. Place the shellfish above ice in a cooler and insulate from direct contact with the ice using newspapers or damp towels. Tip the lid open slightly to allow a flow of air. Maintain a minimum of 40° F. Properly cooled, clams, mussels, and oysters will stay alive for a week or more. Discard any clams, mussels, oysters, lobsters, crabs or crayfish that die in storage. Freshly shucked oysters will keep for 7 to 10 days. The colder an environment you can provide for your seafood, the longer it will stay fresh. As a general rule, refrigerate foods at a minimum of 41° F and lower is better. Freeze fresh fish within two days and maintain 0° F for optimum quality.

Thawing. Thaw frozen seafood in the refrigerator (about 18 hours per pound), under cold running water (about 1 hour per pound) or in the microwave on the defrost setting if the food is to be cooked immediately. Stop the defrost cycle while the fish is still icy but pliable. Under no circumstances should you thaw frozen seafood at room temperature or under warm running water.

Preparing seafood. Food preparers should wash their hands thoroughly with hot soapy water before and after handling any raw food. Marinate seafood in the refrigerator, not on the counter. Discard the marinade after use because it contains raw juices which may harbor bacteria. If you want to use the marinade as a dip or sauce, reserve a portion before adding the raw seafood.

Cooking seafood. The FDA Food Code recommends cooking most seafood to an internal temperature of 145° F for 15 seconds. If you don't have a thermometer, determine doneness in fish by gently flaking the thicker part with a sharp knife. The flesh should be slightly translucent with flakes beginning to separate. Let the fish stand three to four more minutes to finish cooking. Shrimp turn pink and lobsters red when they are fully cooked. The flesh is pearly opaque. Scallops turn milky white or opaque and firm. Clams, mussels and oysters will open when they are done. Throw away any that stay closed.

Seafood is a versatile and tasty food choice. Fish and shellfish can be baked, broiled, steamed, fried, poached, grilled, microwaved and smoked. Seafood is easily substituted in popular recipes calling for other meat products. Fish and shellfish are fine main ingredients in soups, salads, sandwiches and casseroles, and are excellent in stir-fry dishes with vegetables and in pasta offerings.

Safety First. People with certain illnesses and conditions need to be especially careful to handle seafood safely. Certain diseases or medications put some people at greater risk for illness or death from contaminated seafood. These conditions include: liver disease, either from excessive alcohol use, viral hepatitis, or other causes; hemochromatosis, an iron disorder; diabetes; stomach problems, including previous stomach surgery and low stomach acid; cancer; immune disorders, including HIV infection; and long-term steroid use, as for asthma and arthritis. Raw consumption poses the greatest threat for illness for any consumer so if you or someone you know falls into the above at-risk groups, put safety first and thoroughly cook all seafood.

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For more on seafood safety and quality, contact:

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