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Safe Handling and Preparation of Fish and Shellfish Products

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When You Shop

- *Select only seafood that is fresh*. Fish should have bright eyes that are clear and protruding. The skin should be bright and shiny with no discoloration. Scales should cling tightly and skin should not feel slimy. Odor should be fresh and mild, not "fishy." Gills should be pink or bright red and free of slime.
- Fresh fish steaks and fillets should be moist with no drying around the edges.
- Packages of frozen fish should be undamaged, clean and solidly frozen. They should not show signs of having been thawed and refrozen.
- *Know your seafood seller.* Buy seafood products from approved, licensed stores and markets. Avoid sales from the back of a truck, since it is often difficult to know where these fish were caught, how they've been handled or to return to the seller if questions arise.
- *Purchase raw shellfish carefully*. Buy raw oysters, clams and mussels only from approved, reputable sources. All "shell on" seafood should be shipped with a certified shipper's tag, and all containers of shucked oysters should have a shipper number. If you question whether the shellfish offered is from a reputable source, you can ask to see this tag or number.
- Get seafood purchases home and into the refrigerator as quickly as possible. If you will be delayed getting home, have your purchases packed so they will stay cold.

When You Store Seafood

- *Keep seafood cold*. Keep fresh, pasteurized or smoked seafood products refrigerated at 40°F or lower. If you are not going to use fresh products in a day or two, freeze them.
- Keep frozen products solidly frozen until ready to use. Store at 0°F.
- *Refrigerate live shellfish properly.* Live shellfish, such as clams, mussels and oysters, should be stored loosely covered with a damp cloth in a well-ventilated refrigerator, not in airtight plastic bags or containers. Shells of live clams, mussels and oysters may gape naturally but should close tightly when tapped, indicating they are alive. If not alive, discard.
- Live lobsters and crabs should be stored in a well-ventilated area. Do not store in water.
- Remove leftover canned fish from the can and store in the refrigerator.
- Smoked fish, pickled fish, vacuum-packed fish and modified atmosphere-packed fish products should always be refrigerated.

Keep It Clean

- Wash hands thoroughly with hot, soapy water before and after handling raw seafood.
- Use disposable paper towels to clean up drips from raw product. If you use a dishcloth or sponge, do not reuse it without washing it first. Replace sponges frequently.

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- *Don't cross-contaminate*. Wash and rinse counters, knives, cutting boards and hands with hot, soapy water after handling raw seafood and before working with foods like salad ingredients that will be eaten without cooking. Keep raw and cooked seafood from coming in contact with each other.

When You Prepare Seafood

Proper handling of fish and shellfish varies depending on the type of product, its form (fresh or frozen) and how it is to be prepared.

- *Do not thaw frozen seafood at room temperature*. Thaw in the refrigerator or defrost in the microwave oven. If thawing in the refrigerator, allow one to two hours per pound of seafood.
- If using a microwave to thaw seafood, follow the directions for your microwave. The size and shape of the product affect thawing time. Whole fish, packaged seafood and larger cuts should be turned midway through the thawing cycle.
- If pressed for time, defrost fish in its original package under cold, running water.
- *Cook fish and shellfish thoroughly*. Fish is done when it flakes and reaches an internal temperature of 145°F. Shellfish such as shrimp and scallops turn from fairly clear to cloudy when done. Oysters, clams and mussels open their shells when cooked. Lobster turns red and the flesh becomes pearly.
- For finfish, an easy way to estimate cooking time when baking, sauteing, grilling, steaming or poaching at 450°F is to follow the "10 minute rule." Measure the fish at the thickest part and allow 10 minutes cooking time for each inch of thickness. Turn the fish over halfway through the cooking time, unless the fish is less than 1/2-inch thick. For fish cooked in foil or in a sauce, add 5 minutes to the cooking time. This rule can be applied to frozen fish cooked without thawing by just doubling the estimated time.
- Use small pots to boil or steam shellfish. If too many shells are cooking in the same pot, it's possible that the ones in the middle will not cook thoroughly. Discard any clams, mussels or oysters that do not open during cooking, since this could be a sign they were not heated thoroughly.
- Don't use the plate that held raw products for serving cooked products unless it is washed thoroughly while the food is cooking. For instance, when grilling outdoors, use separate plates for carrying raw product to the grill and taking the cooked product to the table.
- Marinate seafood in the refrigerator. Never marinate at room temperature.
- *Eating your own catch*. If you catch your own fish or shellfish from local waters, make sure the waters are approved for harvest. Check with your state or local health department.

Handling Leftovers

- Transfer seafood to shallow, moisture-proof containers and refrigerate promptly after the meal. Never leave cooked seafood at room temperature for more than two hours. Refrigerated leftovers should be used within one to two days. Freeze them for longer storage.
- Do not store cooked seafood in the original container.
- **Never taste seafood that looks or smells strange** to see if you can still use it. If you have questions about the safety of a fish or shellfish product, throw it out.

Using Raw Seafood

Many consumers enjoy raw or lightly marinated seafood. Just as the consumption of raw meat, raw eggs and raw milk carries a degree of risk of foodborne disease, so does consumption of raw fish, raw oysters, clams and mussels.

Here are some special tips to reduce this risk:

- Use commercially frozen fish for raw fish in dishes such as sashimi, sushi and ceviche. Freezing kills most parasites that might be in the fish.
- Be certain that oysters, clams and mussels come from certified growing waters. Make certain they are kept well refrigerated until eaten.

References

Fresh and Frozen Seafood: Selecting and Serving It Safely (August 2006). Center for Food Safety and Applied Nutrition, U.S. Food and Drug Administration.

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