

Health Benefits of Seafood



A 3 ounce serving of seafood provides 50-60% of an adult's daily protein needs.

All seafood is relatively low in fat.

Most seafood is low in cholesterol except for shrimp, squid and fish roe.

Seafood also provides the diet with iron, iodine, zinc, niacin, B-complex vitamins and phosphorous.

Fatty species of fish provide generous amounts of vitamins A and D.

Fish with bones, like canned salmon and sardines, are good sources of bone-building calcium.

An average 3-ounce serving of fish cooked without fat has about 85 calories making it a low-calorie food.

Try not to add extra calories by frying or using cream or cheese-based sauces with seafood.



Why Fish and Shellfish Are Beneficial

Seafood has been on the menu of many restaurants for years, and now consumers are beginning to include more fish and seafood as a regular selection for their menus at home.

Including seafood as part of an overall balanced diet can provide many health benefits. Fish and shellfish are fairly inexpensive, quick and easy to prepare as well providing lots of nutrition.

Besides being an excellent source of lean protein, fish and shellfish are low in saturated fat. In addition, they provide essential omega-3 fatty acids, which are important to the diet for several reasons.

Omega-3 fatty acids, which are polyunsaturated fatty acids, are believed to help lower rates of heart disease, reduce hypertension, relieve some arthritis symptoms and prevent cancer.

According to the American Heart Association, consumers should eat two servings of fish per week to prevent coronary heart disease.

Will the choice of seafood you eat make a difference? It's difficult to say there is a "best" fish or shellfish. Fish that are "oily" in nature like salmon, tuna, mackerel, herring and sardines are higher in the omega-3 fats. Fish and shellfish that are lower in fat like cod and crabmeat are perfect alternatives for other protein foods that are higher in saturated fats like red meat and pork. But all seafood—no matter your choice—will provide a diet with healthful benefits.

The best advice is to include more fish and shellfish in the diet and not to worry about the type you may be eating.

**See the chart on page 2 for Omega 3 content of seafood

Special Health Notes

Certain groups of people are at a greater risk for foodborne illness and should stay away from eating raw or partially cooked fish or shellfish. These higher risk groups include:

- Pregnant women
- Young children
- Older adults
- Persons with compromised immune systems
- Persons with decreased stomach acid

Methylmercury is a concern for anyone who is pregnant, nursing or thinking about becoming pregnant. Consuming too much of this substance found in certain fish can cause problems with the development of an unborn child's nervous system. Shark, swordfish, king mackerel and tilefish should be avoided because they may contain higher levels of this substance.

Five of the most commonly eaten fish that are low in mercury are:

- Shrimp
- Canned light tuna
- Pollock
- Catfish
- Salmon

If elevated levels of methylmercury are found in an area, local advisories will be issued about the safety of fish caught by family and friends in local lakes, rivers and coastal areas.

A second concern with food safety and shellfish is listeriosis, which is a serious illness caused by eating food contaminated with the bacteria *Listeria monocytogenes*. To avoid listeriosis it is recommended that you not eat refrigerated smoked seafood unless it is contained in a cooked dish, such as a casserole. Refrigerated smoked seafood, such as salmon, trout, whitefish, cod, tuna or mackerel, will be labeled as “nova-style,” “lox,” “kippered,” “smoked” or “jerky.” This type of fish can be found in the refrigerated section or in the deli area of grocery stores and other markets. Canned or shelf-stable smoked seafood may be eaten.

The best food safety rule of thumb to follow is to cook seafood thoroughly. If you choose to eat raw fish, it is best to eat fish that has been previously frozen. Freezing kills any parasites that may be found in some types of fish. But be aware that freezing will not kill all of the harmful microorganisms that may be present. That’s why the safest thing to do is to cook your seafood. The USDA recommends cooking fish to an internal temperature of 145° F.

One note of concern about oysters: Some oysters are treated for safety after they are harvested, and this fact may or may not be given on the label. But these oysters should still not be eaten raw by people at risk for foodborne illness. The safety treatment may get rid of some unsafe organisms, but not all of the ones that can cause illness.

Research is showing that getting even small amounts of omega-3 fatty acids in the diet on a regular basis has a positive effect on heart disease.

Omega-3 Content of Fish and Shellfish Amounts are in grams per 3 ounce portion*		
Finfish	Catfish: channel, farmed	0.2
	Cod: Atlantic	0.1
	Flatfish: flounder and sole species	0.4
	Salmon: Atlantic	1.8
	Salmon: Chinook	1.5
	Salmon: Chinook, smoked (lox)	0.4
	Salmon: chum	0.7
	Salmon: coho, wild	0.9
	Salmon: pink, canned, solids w/bone & liquid	1.4
	Tuna: light, canned in water, drained solids	0.2
	Tuna: white, canned in water, drained solids	0.7
	Tuna: yellowfin, fresh	0.2
Mollusks	Clam: mixed species	0.2
	Scallop: mixed species	0.3
Shellfish	Crab: Alaska king	0.4
	Crab: Alaska king, imitation	0.5
	Crab: blue	0.4
	Shrimp: mixed species	0.3

*Cooked without added fat or sauces
Source: USDA Nutrient Database for Standard Reference

Shopping for Seafood

To make sure you are getting the safest seafood possible, buy fish that is refrigerated or properly iced. Look for seafood to be displayed on fresh ice, and buyers beware when you see ice melting. Seafood should also be displayed in a case or under some type of cover.

When choosing fresh, whole fish look for these features: clear, bulging eyes; elastic, firm flesh; red gills, shining skin and close fitting scales. Fresh seafood should smell fresh and mild, not fishy, sour or ammonialike.

Look for fish fillets and cutlets that have moist flesh, firm texture and no discoloration or dryness. If touched, the flesh should spring back. Flesh that looks dull could mean the fish is old.

When selecting fresh shellfish, look for the tag or label on the packages. These tags and labels will give specific information about the product, including a certification number for the processor.

In addition, follow these general guidelines:

- Throw away any dead, cracked or broken shellfish.
- Perform the “tap test.” Clams, oysters and mussels that are alive will close up when their shells are tapped.
- Look for moving legs. Live crabs, crawfish and lobsters will show leg movement.

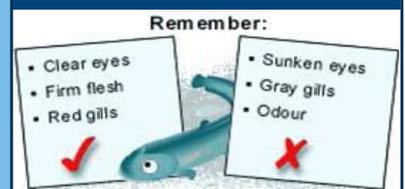
How much fish should you buy for one person?

Whole:
10-12 ounces

Filets:
3-5 ounces

Fish portions:
3.5-5 ounces

Fish cutlets:
5-8 ounces



Storing Seafood

Once you buy seafood, you should store it on ice or in the refrigerator or freezer immediately. Follow these guidelines for safe storage:

After buying, if you will use it within two days, store it in the refrigerator.

If you won't use it for three or more days after purchase, freeze it using the following guidelines.

Fillets

- Vacuum packaging is the best way to freeze fish fillets or steaks to prevent freezer burn and development of off-flavors. If you don't have vacuum packaging equipment, use heavy duty freezer bags or moisture-vapor proof plastic wrap. Place each fillet in a separate freezer bag or wrap individually in plastic wrap without adding water. Eliminate as much air as possible from the freezer bag or wrapped fish.
- Freeze individually wrapped fish as quickly as possible. The frozen fish may be packed together in larger bags or other containers.
- Small fish with skin on freeze well in water. Place in a waxed milk carton or other watertight container, add ice water and freeze.

Whole Dressed Fish

- Leave skin on and wrap in moisture-vapor proof plastic wrap, or glaze the fish. Glazing helps prevent both dehydration and freezer burn. To glaze, freeze the fish quickly, remove from freezer and dip in ice-cold water. The water freezes and forms a thin layer of ice. To protect the glaze from cracking or chipping, wrap fish with freezer paper or heavy duty aluminum foil.

Shrimp

- Shrimp can be frozen raw or cooked, in or out of the shell. For maximum storage life and quality, freeze shrimp raw, with heads removed, but shells still on. Be sure to wash and drain the shrimp if frozen uncooked. Shrimp also may be frozen in water in a freezer container or zipper bag.

Crabmeat

- Freeze crabmeat in a sealed bag (preferably vacuum-sealed). Do not add water to prevent flavor and texture loss.

Crawfish

- Peel cooked or blanched crawfish tails and rinse with cold water to remove all fat. To blanch, put live crawfish in boiling water to cover them, bring back to a boil and boil for 7-8 minutes for a large pot. To prevent darkening, dip peeled tails in a solution of lemon juice and water (one-third cup lemon juice to 1 quart water.) Drain and package in freezer bags, removing as much air as possible.

Oysters

- Freeze oysters in juice in freezer bags or freezer containers for use in cooked or baked products.

All seafood should be thawed in the refrigerator on bottom shelf to prevent dripping on other foods. Thaw in cold water, changing water every 30 minutes or in the microwave following manufacturer's directions. Cook immediately after thawing.

10 Tips to Add More Seafood to Your Diet

- Use fish or shellfish in place of meat or poultry in your favorite recipes. They will put a new spin on your favorite casseroles, salads, soups, and pasta recipes.
- Do you have a meat lover at home? Use "meatier" varieties of fish like swordfish, fresh tuna, halibut and shark to satisfy their craving for meat.
- Not used to eating much seafood in your diet? Try adding one menu that includes fish or shellfish to the family's meals and work your way up from there.
- Add extra flavor to seafood by using lemon and lime juice; herbs like dill or basil; onions and garlic; ketchup, tarter sauce and low-fat sauces when preparing recipes.
- Add a cookbook to the kitchen that focuses on low-fat seafood dishes. Learn to prepare several quick-and-easy seafood recipes that you can add to your cooking routine.
- To prevent overcooking of seafood, remember these tips: high temperature, short time and don't leave it.
- Canned and frozen fish and shellfish can be easy on the food budget, and watch for specials at the supermarket.
- Can't seem to include seafood at dinnertime? Try having it at lunch instead, at least once or twice a week. Enjoy a fresh salad with tuna or shrimp, or how about a broiled or grilled fish sandwich? Stay away from the battered or breaded fish selections; they add lots of calories and fat.
- Instead of hamburgers or meatloaf, why not try fish burgers or fish loaf made using canned salmon or tuna in place of the meat?
- Try new ways of preparing your favorite seafood. Instead of frying, which adds extra calories and fat, try grilling, baking, broiling, poaching in a seasoned liquid or even steaming.

Recommended storage times for seafood

	Refrigerator	Freezer
Fish	1-2 days	3-8 months
Shellfish	1-2 days	3-12 months





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