



Seafood

FOR THE GOOD LIFE

TASTE • VARIETY • HEALTH

A Basic Introduction to Seafood Nutrition With Recipes

Healthy News About Seafood *Read All About It!*

GREENLAND -- Eskimos living here are found to have a very low incidence of heart disease in spite of their heavy diet of fatty fish, whale meat and seal.

JAPAN -- Fishermen and other coastal dwellers have been found to have a lower incidence of heart disease than their farming neighbors.

THE NETHERLANDS -- A 20-year study of 852 middle-aged men shows that those who ate seafood one or two times a week were half as likely to die of heart disease than those who did not.

These studies and others like them have linked eating seafood with a low incidence of heart disease. They have brought the health benefits of seafood to the attention of scientists, encouraging further studies on omega-3 fatty acids—the substance credited with seafood’s heart-healthy effect. While many more studies remain to be completed, the results so far are very promising. They all repeat the same message: Eating more seafood may lower your risk of heart disease—the **nation’s number one killer**.

FOUND PRIMARILY IN SEAFOOD

The fatty acids in seafood differ from those found in plant and animal sources. A large percentage of this fat is made up of **omega-3 fatty acids**, a type of highly polyunsaturated fat. These fatty acids, found

in significant quantities only in marine animals and plants, provide many protective benefits in relation to heart disease.

Scientists are now learning that omega-3 fatty acids protect the body in the following ways:

- They lower the level of triglycerides in the blood more effectively than do polyunsaturated vegetable oils. Under certain conditions, high levels of triglycerides have been associated with increased incidence of heart disease.
- They reduce the stickiness of blood platelets, making the blood less likely to clot. Blood platelets which are too "sticky" can cause blockages in coronary blood vessels.
- They lower total cholesterol levels and favorably change the balance of certain types of cholesterol in the blood.

Extra! Extra!

And that's not all. Studies now underway suggest that omega-3 fatty acids may play a part in helping prevent certain diseases and medical disorders such as breast cancer, inflammatory diseases, immune disorders, arthritis, high blood pressure, migraine headaches, and some kidney diseases.

Where To Find Omega-3 Fatty Acids

All fish and shellfish contain omega-3 fatty acids, but in general, the higher the fat content of the fish, the higher its omega-3 content. Following are some of the most commonly marketed fish, grouped by their fat content:

Low-fat fish (fat content lower than 2.5 percent): This group includes cod, Pacific halibut, pollock, rockfish, grouper, shark, flounder, sole, croaker, red snapper, lingcod, sea bass, haddock, and whiting.

Medium-fat fish (fat content between 2.5 and 5 percent): This group includes Atlantic halibut, yellowfin tuna, mullet, swordfish, and bluefish.

High-fat fish (content over 5 percent): This group includes salmon, mackerel, albacore tuna, bluefin tuna, sablefish, sardines, herring, anchovies, shad, and trout.

OLD NEWS IS GOOD NEWS

Of course, seafood has long been recognized as a nutritious food. Seafood is “nutrient-dense.” That means it offers large quantities of protein and significant amounts of vitamins and minerals, without high levels of saturated fats and calories.

Guidelines established in 1977 by the **U.S. Senate Select Committee on Nutrition and Human Needs** indicate a number of changes Americans should make in their diets in order to avoid many chronic diseases and maintain good health. Among these are:

- Reduce overall fat consumption from approximately 40% to 30% of total calorie intake.
 - Reduce saturated fat consumption from approximately 16% to 10% of total calorie intake.
 - Reduce cholesterol consumption to no more than 300 milligrams a day.
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By eating seafood, we can go a long way toward achieving these goals. Seafood provides recommended levels of the following:

Protein—Seafood is an excellent source of complete protein providing all of the essential amino acids. In fact, a single serving of seafood can provide a large portion of your daily protein needs. The protein in seafood is easily digestible, making it perfect for people of all ages.

Vitamins and Minerals—Seafood is a good source of B vitamins and provides such key minerals and trace elements, as calcium, magnesium, potassium, phosphorus, sulfur, fluorine, selenium, copper, zinc and iodine.

Seafood is **low** in these categories:

Fat—Seafood, in general, has a very small amount of fat. Most varieties of fish and shellfish contain less than 5 percent fat. Even high fat fish generally have less than 15% fat. Compare this with a T-bone steak at 37 percent fat or a pork loin chop at 21 percent. Seafood is also lower in saturated fat than most other protein sources. By substituting fish meals for some meat meals you can lower your total fat and saturated fat intake considerably.

Sodium—Seafood is generally low in sodium. Most fresh finfish contain very low amounts of sodium, ranging from 60 to 100 milligrams per 100 grams (3½ ounces) of raw fish. Sodium levels of shellfish and processed finfish tend to be slightly higher, depending on processing.

Cholesterol—Cholesterol levels are not significant in most seafood products. Finfish are generally quite low in cholesterol, with shellfish having low to moderate amounts. In

the past, shellfish have been excluded from low cholesterol diets because they were believed to be high in cholesterol. New sophisticated measuring techniques have indicated that cholesterol levels of many molluscan shellfish are much lower than was previously thought. In fact, mollusks, such as clams, oysters, scallops and mussels, were found to have a large percentage of non-cholesterol sterols present that appear to have a positive affect. These sterols have been found to inhibit the absorption of cholesterol eaten at the same meal.

Cholesterol levels in such crustaceans as crab and lobster are similar to that found in the dark meat of chicken. While cholesterol in shrimp varies considerably by species, it generally is 1½ to 2 times higher than in the dark meat of chicken, but far less than in eggs.

Because shellfish contain very little saturated fat, they are no longer excluded from typical low cholesterol diets.

News You Can Use

How much seafood should we eat? A Dutch study published in May 1985 in *The New England Journal of Medicine* concluded that "the consumption of as little as one or two fish dishes a week may be of preventive value in relation to coronary heart disease." These findings were echoed by scientists who gathered at a two-day conference on seafood and health in November 1985. They agreed that eating several seafood meals a week is a good way to cut your risk of heart disease. "I have no qualms about the American public eating three or even four meals of fish a week," said Dr. William Castelli, director of the Framingham Heart Study. This landmark study established the risk factors for heart disease.

Grilled Seafood Salad

- 1⅓ pounds boneless and skinless fillets or steaks, cut into 1½-inch cubes, such as halibut, monkfish or shark
- ½ cup lemon juice
- 1 tablespoon olive oil
- ⅛ rounded teaspoon dried oregano
- ¼ rounded teaspoon dried mint
- 1½ teaspoons minced garlic
- 1-2 red onions, cut into wedges
- 2 cups EACH torn fresh spinach and romaine
- Cherry tomatoes (optional)

Rinse fish with cold water; pat dry with paper towels. Combine lemon juice, olive oil, oregano, mint and garlic. Place fish chunks in glass or ceramic bowl; top with marinade mixture. Marinate in refrigerator for at least 30 minutes. Drain fish, reserving marinade. Skewer fish, alternating red onion and fish chunks. Grill approximately 10 minutes, basting and turning frequently. While fish is grilling, heat marinade in small saucepan over fire. Serve skewers on bed of romaine and spinach. Top with warm marinade/dressing. Garnish with cherry tomatoes. Makes 4 servings. Serve with a loaf of crusty French bread and fresh fruit.

* Reduce overall fat consumption from approximately 40% to 30% of total calorie intake.

* Further reduced fat consumption from approximately 30% to 10% of total calorie intake.

* Reduce cholesterol consumption to no more than 300 milligrams a day.

Mustard-Dill Basted Fish

- 1 $\frac{1}{3}$ pounds steak or fillets, such as bluefish, salmon or swordfish
- 1 teaspoon minced garlic
- 1 tablespoon olive oil
- 1 $\frac{1}{2}$ teaspoon Dijon mustard
- $\frac{1}{8}$ teaspoon dried dill
- 4 $\frac{1}{2}$ tablespoons lemon juice

Rinse fish with cold water; pat dry with paper towels. Set aside. In small saucepan, over low heat, saute garlic in oil briefly to release flavor. Stir in mustard, dill, and lemon juice; remove from heat; Place fish on well-greased broiler pan; baste with mustard-dill mixture. Broil 4-5 inches from source of heat for 10 minutes per inch of fish, measured at its thickest point. Baste frequently, and turn halfway through cooking time. Makes 4 servings.

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