



# Seafood Health Facts: Making Smart choices

## Balancing the Benefits and Risks of Seafood Consumption

### *Resources for Healthcare Providers and Consumers*

## Seafood Nutrition Overview [1]

### Dietary Advice

Although no single food alone can make a person healthy, good eating habits based on moderation and variety can help to maintain and even improve health. Because of the nutrients found in seafood, current dietary guidelines from the U.S. Department of Health and Human Services and the U.S. Department of Agriculture recommend that Americans increase their seafood intake to twice a week.

### Calories

Seafood is considered to be a low calorie food when compared to other protein-rich foods such as meat and poultry. Most lean or lower fat species of fish, such as cod, flounder, and sole, contain 100 calories or less per 3 ounce cooked portion, and even the fattier fish like mackerel, herring, and salmon contain approximately 200 calories or less in a 3 ounce cooked serving. With seafood, you can consume fewer calories to meet your daily protein needs. This is one reason why seafood is a good choice for diets designed to help you lose or maintain an ideal weight.

### Protein

Seafood contains a high-quality protein that includes all of the essential amino acids for human health, making it a complete protein source. A 3 ounce cooked serving of most fish or shellfish provides about one-third of the average daily recommended amount of protein. The protein in seafood is also easier to digest because it has less connective tissue than red meats and poultry. This is one reason why fish muscle is so fragile, and why it flakes when cooked and can be eaten without further cutting or slicing. For certain groups of people such as the elderly who may have difficulty chewing or digesting their food, seafood can be a good choice to help them obtain their daily protein needs.

### Fat

Seafood is considered to be low in both total fat and saturated fat. Current dietary recommendations suggest that we reduce our total fat intake to less than 30 percent of the calories that we eat, and that we limit our intake of saturated fat. Lean fish have significantly less fat than other protein-rich foods, and most kinds of fish and shellfish contain less than 5 percent total fat. Even the fattiest fish have a fat content similar to lean meats, and contain less fat than most ground beef, some processed meats, and the fattiest (skin and dark meat) portions of some poultry products. Higher fat fish such as mackerel, herring and King salmon have about 15% total fat.

To get a general idea of the fat content of most fish species, look at the color of the flesh. The leanest species such as cod and flounder have a white or lighter color, and fattier fish such as salmon, herring, and mackerel usually have a much darker color. The fat content of fish and shellfish can vary depending on when and where they are caught and other factors. To assist you in comparing common seafood choices the following table groups a variety of fish and shellfish according to their average amount of total fat and percent calories from fat.

#### **Fat Content in a 3 ounce cooked Serving of Common Types of Fish and Shellfish**

High Fat (10 grams or more)	Herring, Mackerel, Sardines, Salmon (Atlantic, Coho, Sockeye and Chinook)
Medium Fat (5 to 10 grams)	Bluefish, Catfish, Rainbow trout, Swordfish

Low Fat (2 to 5 grams)	Tilapia, Halibut, Mussels, Ocean perch, Oysters, Pacific rockfish, Salmon (Chum, Pink)
Very Low Fat (less than 2 grams)	Crab, Clams, Cod, Flounder/sole, Haddock, Hake, Lobster, Mahi-mahi, Pollock, Scallops, Shrimp, Tuna

When evaluating a food, it's important to consider both the total amount of fat and the kind of fat that it contains. The two major kinds of fat are the saturated fats (usually solid at room temperature like butter or lard) and unsaturated fats (usually liquid at room temperature like vegetable oils). Monounsaturated and polyunsaturated fats are two types of unsaturated fat. Current dietary recommendations suggest that we decrease the amount of saturated fat and increase the proportion of unsaturated fat in our diet. A large proportion of the fat in seafood is unsaturated, and seafood contains a unique kind of polyunsaturated fat, called omega-3 fatty acids, which can provide additional health benefits. Because of the amount and kind of fat in seafood it can be a good choice to help you follow current dietary recommendations.

### The Omega-3 advantage

There is a significant amount of scientific evidence that suggests that omega-3 fatty acids may play a role in reducing the risk of heart disease, which is the leading cause of death in most Western countries. Researchers have found that omega-3 fatty acids can make blood less likely to clot and block blood vessels, and that consuming omega-3s may also decrease levels of some blood fats and possibly cholesterol. Possible relationships between omega-3 fatty acids and other disorders such as cancer, arthritis, and asthma are also currently being studied.

Omega-3 fatty acids are found almost exclusively in aquatic organisms, although smaller amounts can be found in some plants and plant oils. Seafood is considered the best dietary source of omega-3 fatty acids. All fish and shellfish contain some omega-3s but the amount can vary. Generally, fattier fish contain more omega-3 fatty acids than leaner fish, but the amount can vary from one type of fish or shellfish to another. To view a Table that compares the levels of omega-3 fatty acids in seafood products [click here](#) [2].

### Cholesterol

Most animal foods including seafood contain some cholesterol. Current dietary recommendations suggest that we reduce our cholesterol intake to less than 300 milligrams per day. Almost all types of fish and shellfish contain well under 100 milligrams of cholesterol per 3 ounce cooked serving, and many of the leaner types of fish have less than 60 milligrams. For many years it was thought that most shellfish contained high levels of cholesterol, but this has been proven to be untrue. Earlier methods for measuring cholesterol were found to produce artificially high results because other sterols in addition to cholesterol frequently found in shellfish were also being measured. We now know that most shellfish contain less than 100 milligrams of cholesterol per 3 ounce cooked serving. Shrimp contain somewhat higher amounts of cholesterol, with 170 milligrams per 3 ounce cooked serving, and squid is the only seafood that has a significantly elevated cholesterol content which averages almost 400 milligrams per 3 ounce cooked portion. Fish roe, caviar, the internal organs of fish (such as livers), the tomalley of lobsters, and the mustard of crabs can contain high amounts of cholesterol.

### Sodium

Current dietary recommendations suggest that we use salt and sodium only in moderation because for some people reducing their sodium intake can decrease risks associated with high blood pressure. The current recommended limit for daily sodium intake is less than 2,300 milligrams for the general adult population and higher risk groups would benefit by further reducing their sodium intake to 1,500 milligrams per day. Fish are naturally low in sodium and even those species with the highest sodium levels contain less than 100 milligrams per 3 ounce cooked portion. Most shellfish generally have more sodium, ranging from 100 to 500 milligrams per 3 ounce cooked serving. Some processed or frozen seafood products may contain significantly higher sodium levels. Products that are brine frozen such as crab legs may contain as much as 800 to 1000 milligrams of sodium per serving, and other products such as surimi or imitation shellfish products, smoked fish, and some canned products that have salt added during processing may also contain higher amounts of sodium. It's a good idea to carefully read ingredient or nutritional labels for processed products to determine their sodium content. To view a Table that compares the nutrient content including sodium levels in different

types of seafood products [click here](#) [3].

## Vitamins and Minerals

Seafood is generally considered to be a reasonable but not a particularly rich source of vitamins. Fish have levels of B vitamins that are similar to many other protein-rich foods. Fattier fish like mackerel and herring can be a good source of Vitamin D and Vitamin A. Most types of seafood are a reasonable source of minerals such as phosphorus, potassium, and selenium. Canned fish such as salmon and sardines that contain bones which are softened during the canning process can be a good source of calcium, but most fish flesh doesn't provide a significant amount of calcium. Some shellfish, such as clams and oysters, are a good source of iron, zinc, magnesium, copper, iodine, and other trace minerals. Most fish contain moderate to small amounts of these minerals.

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[1]  
<https://www.seafoodhealthfacts.org/seafood-nutrition/patients-and-consumers/seafood-nutrition-overview>

[2]  
<https://www.seafoodhealthfacts.org/seafood-nutrition/patients-and-consumers/omega-3-epadha-levels-common-fish-and-shellfish>

[3]  
<https://www.seafoodhealthfacts.org/seafood-nutrition/patients-and-consumers/seafood-preparation-and-nutrition>