



Seafood Health Facts: Making Smart choices

Balancing the Benefits and Risks of Seafood Consumption

Resources for Healthcare Providers and Consumers

Overview of the Seafood Industry [1]

Overview

A wide variety of seafood products are available in the U.S. marketplace from many different sources. In the U.S., wild fish and shellfish are harvested by commercial fishermen in both near shore and open ocean waters, and in fresh water lakes or rivers. Farm raised (aquacultured) seafood products are raised both on land in ponds (catfish), or re-circulating tanks (tilapia and hybrid bass), and in near shore coastal waters (salmon and shellfish). These same methods are used to farm a wide variety of fish and shellfish in other countries around the world which are then imported into the U.S.

Once seafood products are harvested, they are generally processed or packaged for distribution to retail stores and restaurants. Wild fish and shellfish are unloaded from harvest vessels and farmed products are harvested from facilities then transported and packed for distribution to processing plants or wholesalers. Processors convert the whole fish or shellfish to various other product forms such as fresh fish fillets or steaks or other items such as frozen products, breaded fish portions, and canned or smoked products. Some of these products may be further converted by secondary processors to heat and serve or ready-to-eat products like seafood salads, entrees or other items. Wholesalers and foodservice distributors receive both raw and processed products from many different domestic and foreign sources and distribute them to retail stores and restaurants. Consumers purchase these products from retail stores for home consumption or at restaurants and other foodservice establishments.

Sources of Fish and Shellfish Consumed in the U.S.

The commercial seafood products consumed by Americans at home or in restaurants or other foodservice establishments primarily come from three different sources: U.S. commercial fisheries, U.S. aquaculture production, or imports brought into the U.S. from other countries. Seafood is also a unique food in that a large amount of fish and shellfish are harvested from the wild by individuals for recreational purposes and some of that harvest is also consumed. The following information provides an overview of the types of fish and shellfish that comes from these four different sources.

U.S. Commercial Fisheries

Commercial landings (edible and industrial) by U.S. fishermen at ports in the 50 states were 9.9 billion pounds or 4.5 million metric tons valued at \$5.4 billion in 2017—an increase of 344 million pounds (up by 3.6%) and an increase of \$110 million (up 2.1%) compared with 2016.

Over 50% of all U.S. landings were fish caught by in the Pacific Ocean within the Alaska region including groundfish like Pacific cod, flounders, hake, ocean perch, Alaska pollock, and rockfishes. Other important commercial Pacific Ocean species are salmon, halibut, Dungeness, King and Snow crab, tuna, and squid. In the Atlantic Ocean, some of the most economically important species include: scallops, lobster, clams, blue crab, oysters, and herring. Shrimp is an important fishery in the Gulf of Mexico and South Atlantic. Another important fishery is groundfish species caught by trawlers in the North Atlantic from Chesapeake Bay through New England that include: butterfish, Atlantic cod, cusk, haddock, hake, ocean perch, and Atlantic pollock. A variety of finfish species such as tuna, flounder, grouper, snapper and other reef fish are important fisheries in the South Atlantic and Gulf of Mexico. The menhaden fishery in the Mid-Atlantic and Gulf of Mexico is also important, but is not used for human food but for bait or conversion to fish oil and fish meal that is used in a variety of products.

U.S. Aquaculture Production

In 2016, estimated freshwater plus marine U.S. aquaculture production was 633.5 million pounds with a value of \$1.45 billion, an increase of 6.1 million pounds (1.0%) in volume and \$60.6 million (4.3%) in value from 2015. Pond raised catfish represents the most significant species of the total farm raised seafood products produced annually in the U.S. Other important domestically produced aquaculture food products in order of the quantity produced include: salmon, crawfish, trout, oysters, tilapia, striped bass, clams, shrimp, and mussels.

Imported Seafood Products

The total import value of edible and nonedible fishery products was \$38.4 billion in 2017—an increase of \$2.5 billion (7.0%) compared with 2016. Imports of edible fishery products (product weight) were 5.9 billion pounds valued at \$21.5 billion in 2017. Volume increased 92.8 million pounds (1.6%), while value increased by \$2.0 billion (10.4%) compared with 2016. Imports of nonedible (i.e., industrial) products were \$16.9 billion—an increase of \$473.9 million (2.9%) compared with 2016.

China is the largest producer of seafood products in the world, followed by India, Indonesia, Vietnam, and Bangladesh. Globally, carps (30.5 million metric tons), tilapias (5.9 million metric tons), and salmon (3.3 million metric tons) are the finfish species groups with the greatest production. Clams (5.6 million metric tons), oysters (5.6 million metric tons), and shrimp (5.2 million metric tons) are the shellfish species groups with the most production. Aquatic plant farming, primarily seaweed, also represents a significant sector of global aquaculture production (30.1 million metric tons, valued at 11.6 billion). Seaweed farming is just now establishing in the U.S. and shows promise to become an important contributor to future U.S. marine aquaculture production.

Recreational Fisheries in the U.S.

NOAA estimated 8.6 million marine recreational anglers made 202 million marine recreational fishing trips in the continental United States, Hawaii, and Puerto Rico in 2017. Alaska data are not available for the current year. The estimated total marine recreational catch was 1 billion fish, of which 64 percent was released alive. The estimated total weight of harvested catch was nearly 447 million pounds. The Atlantic coast accounted for the majority of trips (69%) and catch (nearly 62%). The Gulf coast accounted for 28 percent of trips, and more than 36 percent of the catch. The Pacific coast accounted for nearly 2 percent of trips, and over 1 percent of the catch. Nationally, most (nearly 56% in numbers of fish) of the recreational catch came from inland waters, more than 34 percent from state territorial seas, and more than 9 percent from the EEZ. The majority of Atlantic, Gulf and Pacific trips fished primarily in inland waters.

Seafood Processing

The processing sector of the seafood industry converts the whole fish or shellfish harvested by fishermen or produced by aquaculture operations in the U.S. or in other countries into the products that are sold at retail stores or restaurants. The National Marine Fisheries Service estimated the estimated value of the 2017 domestic production of edible and nonedible processed fishery products was \$12 billion, up 1.2 billion (10.8%) from 2016. The value of edible products was \$11 billion—up 1.1 billion (10.7%) compared with 2016. The value of industrial products was \$903.1 million in 2017—up 96.3 million (11.9%) from 2016. The annual U.S. production of raw (uncooked) fish fillets and steaks, including blocks, include a number of major species processed: Alaskan Pollock, salmon, cod, hake, flounders and haddock.

Primary processors generally convert whole fish into fish fillets, steaks or loins or shuck or cook raw shellfish or remove the edible meat. These edible portions are then packed in some way and distributed as fresh refrigerated products or are frozen prior to distribution to wholesalers or directly to retail stores or restaurants. Other processors pack these edible portions into cans or other containers and apply a heat process to eliminate microorganisms that could cause the product to spoil or cause foodborne illness. Canned products are treated to sterilize their contents and can be stored without refrigeration. Pasteurized products are heat treated in a way that eliminates most but not all microorganisms and must be stored under refrigeration. Other processes could include the use of high pressure, irradiation or other treatments to sterilize or pasteurize the seafood product.

Secondary processors convert fresh or frozen fish and shellfish products and other ingredients into the final products that are available in retail stores and restaurants. Examples of value added finished seafood products could include: smoked seafood products, sushi, seafood salads and sandwiches, and seafood entrees

or meals.

Seafood Wholesale and Distribution

There is a large network of wholesale and distribution businesses in the U.S. that purchase seafood products from a variety of different sources, store them, assemble the items into orders for customers, and deliver them. There are many variations to this basic business model. Some businesses specialize in specific types of products or products from a specific geographic area. Other businesses called “broadline” distributors buy and sell a full line of all types of products to meet their customers’ needs. Other businesses may focus on the unique needs of specific customers such as retail stores, restaurants, or institutional buyers with the military, prisons, schools or hospitals. This much needed commercial business network is responsible for sourcing, purchasing, transporting, storing and delivering the seafood products available in our Nation’s diverse markets.

Seafood Retail Stores

Fresh, frozen and processed seafood products are primarily available to consumers for home consumption from retail stores. It has been estimated that about one third of the seafood consumed in the U.S. is purchased at retail stores for home consumption. There are many different types of retail stores with different business strategies. Small independent stores often specialize in products caught by local fisherman but also supply popular items such as shrimp which may come from Asia. Large retail chains also offer a variety of products which may also include locally caught items and a variety of other products from other regions of the U.S. or the world. Although there is some variation in the availability of seafood across the U.S., in most areas there is a wide variety of choices for retail purchases of seafood products.

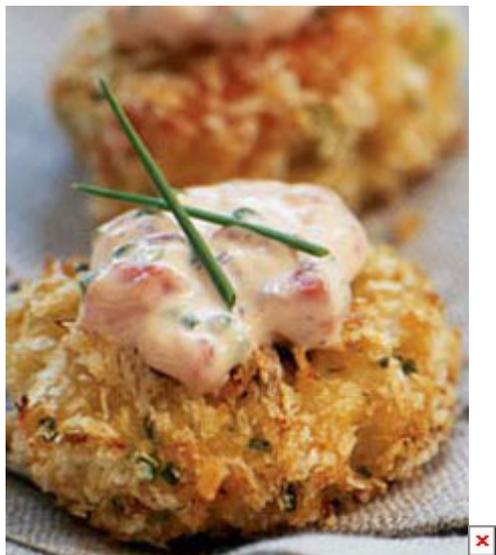
Restaurants and Foodservice

U.S. consumers spend about two thirds of their annual expenditures on seafood in restaurants, cafeterias or other types of foodservice businesses. Seafood is an important item on the menu for most foodservice operations and the selection varies depending on the type of consumer that is targeted and menu prices. Fish portions, breaded shrimp, clams and other items are served in a variety of chain restaurants because of their consistent cost and good value. Portion sizes are easy to control and they can be prepared quickly and consistently. Seafood is frequently used as an ingredient in pasta or rice dishes and in sandwiches, wraps, soups and other entrees in a variety of mid-priced restaurants. Fresh seafood is also widely available in restaurants that feature one or more chefs that use their skills to creatively prepare different local or specialty items depending on availability and demand.

References:

Seafood Supply and Commercial Fisheries Reference: National Marine Fisheries Service, 2017.
<https://www.fisheries.noaa.gov/resource/document/fisheries-united-states...> [2]

Sidebar Image:



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[2] <https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2017-report>