

Benefits of Eating Seafood

- The American Heart Association recommends eating a variety of fish and shellfish at least twice a week because it is an excellent source of protein, is low in saturated fat, and a good source of omega-3 fatty acids.
- Omega-3 fatty acids such as DHA and EPA found in fish and shellfish can contribute to a healthy heart and proper children's growth and development.
- Virginia seafood such as mackerel, oysters, blue crab, and rockfish are excellent sources of omega-3 fatty acids. See chart below for other fish and shellfish.

Eat at least two servings of Virginia Seafood per week. If eating more than 2 servings, eat a variety of seafood to maximize on their health benefits and reduce risk. Frozen and canned fish are good choices when fresh fish is not available.

Levels of Omega-3 Fatty Acids in Some Virginia Seafood.

Product	Grams per 3 oz. serving				
Mackerel, Atlantic, King	1.025-2.2				
Rockfish	0.38				
Bluefish	0.85 - 1.2				
Catfish	0.15-0.20				
Flounder	0.43				
Herring	1.71-1.81				
Crab Meat	0.34-0.40				
Scallops	0.17				
Oysters	0.37-1.17				
Sea Trout	0.03				
Clams	0.24				
Croaker	0.2				
White Perch	0.3				
Herring Oil	11.4				
Menhaden Oil	20.6				

Eating Raw Seafood

- Eating raw seafood carries a higher food safety risk than eating it thoroughly cooked. Eat raw fish that has been previously frozen so that parasites that may be present are killed.
- People such as pregnant women, young children, older adults, and people with chronic illness should not eat raw or partially cooked fish and shellfish, such as oysters. Also, avoid refrigerated types of smoked seafood except in cooked recipes.

Seafood Storage Guide

Fish, Fillets, Steaks	Purchased frozen; maintained frozen	Purchased fresh; frozen at home	Purchased fresh or thawed; maintained in refrigerator		
Lean					
Flounder	10-12 mos.	6-8 mos.	1-1 ½ days		
White Perch, Sea Trout, Rockfish (Striped Bass), Croaker, Spot	8-9 mos.	4 mos.	1-2 days		
Shellfish					
Blue Crab, Soft-shell crab- live	N/A*	N/A*	1-2 days**		
Soft-shell crabs (frozen)	6-9 mos.	4-6 mos.	2 days		
Blue Crabmeat- fresh	N/A*	4 mos.	5-7 days		
Blue Crabmeat pasteurized	N/A*	N/A*	6 mos. (use 2-3 days after opening)		
Scallops	9 mos.	5 mos.	4 days		
Oysters live	N/A*	N/A*	7-10 days		
Oysters- shucked	N/A*	N/A*	4-7 days		
Clams-live	N/A*	N/A*	2-3 days		
Clams-shucked	N/A*	N/A*	5 days		
Smoked Fish			•		
Herring	N/A*	2 mos.	3-4 days		

Source: National Fisheries Institute N/A*-not applicable or not advised **recommended cooking the day of purchase.

Information taken from Virginia Cooperative Extension publication, Safe and Nutritious Seafood in Virginia, VCE 348-961 and Fresh and Frozen Seafood Selecting and Serving it Safely, FDA, www.cfsan.fda.gov

Created in conjunction with Virginia Marine Products Board www.virginiaseafood.org

Virginia Seafood

Handling - Safety - Health

The waters of the Chesapeake Bay are the nation's largest and most biologically diverse estuary, yielding more seafood than any of the 840 other estuaries in our land. Add to that some 416 million pounds of finfish and shellfish caught from our rivers, coastal and Atlantic waters.

You don't have to look too far to find a great variety of fresh seafood in Virginia such as flounder, mackerel, croaker and striped bass, bluefish, oysters, clams, scallops, blue crabs and soft-shell crabs to name a few.

Selecting it

- Purchase from stores and markets with a history of providing safe products.
- The area should look and smell clean and employees are knowledgeable about seafood.
- Buy only raw seafood that is properly refrigerated or properly iced
- Seafood should smell fresh, not fishy, sour or ammonia-like.
- Keep seafood refrigerated after purchased by placing it in a cooler with ice or ice packs to keep the seafood cold for your trip home.
- Fresh and frozen seafood are labeled with their country of origin. Use this information to guide you in your seafood selection.



How much to buy:

Seafood Type Serving per Person

Whole Fish $\frac{1}{2}$ lb - 1 lb. Fillets 5 - 7 ozs. Steaks 6 - 8 ozs. Oysters, Clams $\frac{1}{2}$ dozen Scallops 6 - 8 ozs.

Fresh Whole Fish and Fish Fillets

- Fish eyes should be clear and bulge slightly, flesh is firm and shiny and the gills are bright red or pink and free of slime. The skin is shiny with scales that adhere tightly.
- Fish has no discoloration or darkening around the edges and gills.
- Fillets are firm and elastic with no browning around the edges. The flesh is translucent with no bruising or reddening.
- Smell is fresh, not sour, fishy, or ammonia-like.
- Flesh that "springs back" when pressed is a sign or freshness.

Frozen Seafood

- The quality and safety of frozen seafood is comparable to fresh seafood.
- Buy frozen crab cakes, soft-shell crabs, clams or oysters, with no signs of freezer burn discoloration on the surface.
- Don't buy if package is open, torn or crushed or has signs of ice crystal or thawing.
- "Fresh Frozen" indicates that the seafood was frozen while fresh. "Previously Frozen" means that the fresh seafood was frozen and thawed for retail sale.



Shellfish

- Shells of live clams and oysters are moist and tightly closed. Do not purchase live shellfish with cracked shells or shells that will not close when tapped.
- Live blue crabs and soft shell crabs will show some movement.
- · Scallops firm, with a sweet smell.

Storing it

- Store fresh seafood in refrigerator and consume within two days of purchase. Keep refrigerator between 33° and 40° F to maximize freshness of seafood.
- Wrap seafood in plastic wrap and place in a plastic bag and cover with ice. Empty melted ice regularly and replenish ice as needed.
- Store live shellfish in a shallow container (not airtight) lined with moistened paper towels. Discard shells that are not closed or don't close when tapped.
- When freezing fresh seafood, package in freezer bag or wrap to prevent freezer burn.
- Store cooked crabmeat in a moisture-proof bag or airtight container.
- Follow the use-by-date on the package.

Thawing it

- Check package for thawing instructions.
- Thaw gradually by placing it in the refrigerator overnight.
- Thaw quickly by placing it in a sealed plastic bag and immerse in cold water.
- Thaw by microwaving it on the "defrost" setting and stop the defrost cycle while the fish is still icy but pliable. **Cook immediately.**

Preparing it

- Wash hands thoroughly before and after handling raw seafood.
- Keep raw seafood separate from cooked and ready-to-eat food.
- Marinate seafood in the refrigerator. Discard marinade after use.
- Clean and sanitize kitchen counters, cutting boards, equipment, and utensils before and after preparing seafood.

Cooking it

 Most seafood should be cooked to an internal temperature of 145° F. If you don't have a food thermometer, there are other ways to determine whether seafood is done.

- Fish: The flesh should be opaque and separate easily. If you cooked the fish in the microwave, check it in more than one spot to help ensure doneness.
- Live Blue Crabs: When using a home steaming pot, cook for 25-35 minutes after rapid steam comes from under lid.
- Shucked scallops, clams and oysters: flesh turns milky white or opaque and firm. Edges of oysters will curl.
- Clams and Oysters in the shell: Watch for the point at which their shells open, which means they're done. Throw out the ones that don't open.
- Removing the skin and surface fat before cooking can lower the amount of certain chemical contaminants in the fish.

FDA Information on Seafood Consumption for Moms and Moms-to-Be
If you are pregnant, nursing your child, or thinking about becoming pregnant,
eat a variety of fish but avoid consuming fish with high methyl mercury

eat a variety of fish but avoid consuming fish with high methyl mercury content. This substance can be found in certain fish, and it can harm an unborn child's developing nervous system if eaten regularly.

- **Do eat** 12 ounces (two average meals) a week of a variety of fish that are lower in mercury such as: shrimp, canned light tuna, salmon, Pollock, catfish, clams, oysters.
- **Do not eat:** shark, swordfish, king mackerel, and tilefish. These fish have higher levels of mercury.

Local Catch:

Be sure to check local fish advisories about the safety of fish caught by family and friends in your local rivers and coastal area. Limit your local caught fish consumption to one 6-ounce meal per week if no advice is available.

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mackerel, Atlantic	-	-	-	-	*							-
Black Sea Bass	*	*	*	*	*	*	*	*	*	*	*	->-
Blue Crab	*	8	**	*	*	*	*	*	*	*	**	*
Bluefish			*	*	*	*	*	*	*	*	>	×
Catfish			-	-	-	-	-	-	-	-	-	-
Clams	2	8	2	2	8	8	8	8	3	3	0	2
Croaker			-	-	-	-	-	-	-	-	-4	
Flounder	•	•	•		•		•	•		-		
Oysters	ற	ற	ற	ற	ற	ற	ற	ற	ற	ற	ற	ற
Scallops	*	*	*	*	*	*	*	*	*	*	*	*
Scup	>	>	>	>	>							
Sea Trout (grey)	*	*	1	*	*	*	**	*	*	**	*	***
Shad/Shad Roe		-	*	*	5							
Soft Shell Crab				18	*	*	**	**	%			
Spanish Mackerel					>	>	-	-	>	>		
Spot				-	*	*	-	*	-	-	-4	
Striped Bass	-	-	-	-	-	-	-	-	-	-	-	-