

Eating Fish: What Pregnant Women and Parents Should Know

January 2017

FDA and EPA have issued advice regarding eating fish. This advice is geared toward helping women who are pregnant or may become pregnant - as well as breastfeeding mothers and parents of young children - make informed choices when it comes to fish that is healthy and safe to eat.

The advice includes a **chart** that makes it easier than ever to choose dozens of healthy and safe options, and a set of **frequently asked questions & answers**.

To learn more and download materials, visit us at www.fda.gov/fishadvice and www.epa.gov/fishadvice.

Chart

Advice About Eating Fish

What Pregnant Women & Parents Should Know

Fish and other protein-rich foods have nutrients that can help your child's growth and development.

For women of childbearing age (about 16-49 years old), especially pregnant and breastfeeding women, and for parents and caregivers of young children.

- Eat 2 to 3 servings of fish a week from the "Best Choices" list OR 1 serving from the "Good Choices" list.
- Eat a variety of fish.
- Serve 1 to 2 servings of fish a week to children, starting at age 2.
- If you eat fish caught by family or friends, check for fish advisories. If there is no advisory, eat only one serving and no other fish that week.*

Use this chart!

You can use this chart to help you choose which fish to eat, and how often to eat them, based on their mercury levels. The "Best Choices" have the lowest levels of mercury.

What is a serving?



For an adult
4 ounces



For children,
ages 4 to 7
2 ounces

To find out, use the palm of your hand!

Best Choices EAT 2 TO 3 SERVINGS A WEEK			OR	Good Choices EAT 1 SERVING A WEEK		
Anchovy	Herring	Scallop		Bluefish	Monkfish	Tilefish (Atlantic Ocean)
Atlantic croaker	Lobster, American and spiny	Shad		Buffalofish	Rockfish	Tuna, albacore/white tuna, canned and fresh/frozen
Atlantic mackerel	Mullet	Shrimp		Carp	Sablefish	Tuna, yellowfin
Black sea bass	Oyster	Skate		Chilean sea bass/Patagonian toothfish	Sheepshead	Weakfish/seatrout
Butterfish	Pacific chub mackerel	Smelt		Grouper	Snapper	White croaker/Pacific croaker
Catfish	Perch, freshwater and ocean	Sole		Halibut	Spanish mackerel	
Clam	Pickorel	Squid		Mahi mahi/dolphinfish	Striped bass (ocean)	
Cod	Plaice	Tilapia				
Crab	Pollock	Trout, freshwater				
Crawfish	Salmon	Tuna, canned light (includes skipjack)				
Flounder	Sardine	Whitefish				
Haddock		Whiting				
Hake						
Choices to Avoid HIGHEST MERCURY LEVELS						
				King mackerel	Shark	Tilefish (Gulf of Mexico)
				Marlin	Swordfish	Tuna, bigeye
				Orange roughy		

*Some fish caught by family and friends, such as large carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

www.FDA.gov/fishadvice
www.EPA.gov/fishadvice



Questions & Answers

I. USING THE CHART

1. How do I use the chart?

Fish are a high quality protein source, and lower mercury fish are a good choice for everyone. This advice is specifically for women who are pregnant, might become pregnant or are breastfeeding, and for young children, but everyone can follow this advice.

Use the chart to help you choose which fish to eat each week. Eating a variety of fish is better for you and your child than eating the same type every time.

You can eat 2 to 3 servings a week of fish in the “Best Choices” category, based on a serving size of four ounces, in the context of a total healthy diet.

You can eat 1 serving a week of fish in the “Good Choices” category.

You should not eat fish in the “Choices to Avoid” category or feed them to young children. However, if you do, eat fish with lower mercury levels in the following weeks.

2. How did you decide which fish went in each category?

We took a cautious and highly protective approach in determining which fish belonged in each category. We calculated how many servings the average pregnant woman could eat in a week using information on mercury content of each fish type from FDA’s database for commercial fish and other sources. If she could eat that fish at least three times a week, then we listed it in the “Best Choices” category. If she could eat that fish only once a week, or twice but not three times a week, then we listed it in the “Good Choices” category. If she could not eat a serving of that fish once a week, then we listed the fish in the “Choices to Avoid” category.

For more information, please see our [technical page](#).

3. How can some fish be in more than one category?

There are different types (or species) of tuna, such as albacore, bigeye, and yellowfin. Some types of tuna that are bigger or live longer tend to have higher mercury levels, and that is why they are in different categories. So, canned light tuna is in the “Best Choices” category. Albacore (or white) tuna and yellowfin tuna are in the “Good Choices” category, and bigeye tuna is in the “Choices to Avoid.” In addition, fish of the same species that are caught in different geographic locations can vary in mercury content. For example, tilefish are in two categories because tilefish in the Gulf of Mexico have higher mercury levels than those in the Atlantic Ocean.

4. Why are some fish not on the chart?

If you are looking for a species of fish that is not on the chart, such as mussels, that means we did not have enough reliable mercury data to include it. We plan to update the website as we get more data.

5. How can I find out more details on the mercury levels in fish?

Go to our more detailed, sortable [table](#) that shows the average mercury levels in commercial fish.

II. SERVINGS

1. What is a serving?

For adults, a typical serving is 4 ounces of fish, measured before cooking. Our advice is to eat 2 to 3 servings of a variety of cooked fish, or about 8 to 12 ounces, in a week.

2. How can I tell how much 4 ounces is?

Four ounces is about the size and thickness of an adult's palm.



For an adult
4 ounces



For children,
ages 4 to 7
2 ounces

3. What happens if I eat less fish than the 2 to 3 servings a week you recommend?

You could miss out on the high quality protein, minerals and vitamins present in fish that are beneficial to overall health. Simply try to eat the recommended amount from a variety of fish in the following weeks. Our advice is provided as a general guideline for how much fish to eat weekly.

4. What happens if I eat more than 3 servings of fish in a week?

Try to vary the fish you eat. If you eat more than 3 servings in a week and some include fish with higher mercury levels, try to eat fish with lower mercury levels in the following weeks.

5. Should I make any changes to the advice based on my weight?

The advice provided here is intended as a general guideline. Women who weigh less than the average (165 pounds) may wish to eat smaller portions or to eat two servings of fish a week instead of three.

III. CHILDREN

1. Should children eat fish and if so, how much?

Yes, fish, like other protein-rich foods, is good for a child's growth and development. We recommend serving fish to children 1 to 2 times per week from a variety of fish, but the portion sizes should be smaller than adult portions and right for your child's age and total calorie needs. On average, a serving size is about 1 ounce for children ages 2-3 years, 2 ounces for children ages 4-7 years, 3 ounces for children ages 8-10 years and 4 ounces for children 11 years and older. For more information, please see our [technical page](#). Also read Q&A VI.2 and Q&A VII.1 for information on children and tuna and fish caught by family and friends.

2. At what age can I start giving my child fish?

Parents can feed fish to young children, but should not feed fish to children younger than 6 months of age. Because fish, and particularly shellfish, are regarded as major potential allergens, parents feeding fish to their children for the first time should monitor for signs of an [allergic reaction](#) before feeding a second time.

IV. NUTRIENTS IN FISH

1. What nutrients are in fish and why are they good for you?

Most fish are an excellent source of high quality protein. Fish are also important sources of selenium, zinc, iodine, iron, and other minerals needed by the body. Fish are natural sources of many B vitamins, and oily fish provide vitamins A and D. Studies with pregnant women have found that the nutritional benefits of fish, like other protein-rich foods, are important for their children's growth and development during pregnancy and childhood. Most fish are low in fat, and most of the fat that is present in fish is healthy polyunsaturated fat. The polyunsaturated omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are also present in many types of fish. Research is still underway to determine the health benefits of omega-3 fatty acids.

2. Can I get the same benefits from omega-3 supplements than from eating fish?

Omega-3 supplements do not provide protein, vitamins, or minerals. Taking omega-3 supplements instead of eating fish means that you would be missing out on the high quality protein, minerals, and vitamins present in fish that are beneficial to overall health. The research is still underway on the [health benefits of omega-3 supplements](#).

V. CONTAMINANTS IN FISH

1. What are mercury and methylmercury?

Mercury is an element that occurs naturally in the environment and is also released to the environment through many types of human activity. It can collect in streams, lakes, and oceans and is turned into methylmercury in the water or sediment. It is this type of mercury that is present in fish. Methylmercury can be harmful to the brain and nervous system if a person is exposed to too much of it over time.

2. Is there methylmercury in all fish?

Nearly all fish contain at least traces of methylmercury. Fish absorb methylmercury from the food they eat. It tends to build up more in some types of fish than others, especially in larger fish that eat other fish and those fish that live longer.

3. Should I not eat fish during pregnancy in order to avoid mercury?

No, fish can contribute to a healthy diet before and during pregnancy and while breastfeeding. Studies with pregnant women have found that the nutritional benefits of fish, like other protein-rich foods, are important for their child's growth and development during pregnancy and childhood. This is especially true when the fish is lower in mercury. Most people eat less than the recommended amount of fish, both in general and during pregnancy. A [2005 FDA survey](#) found pregnant women typically ate only 2 ounces of fish a week. The chart in this advice shows which fish are the best choices for women who are pregnant, might become pregnant, or are breastfeeding, or for young children.

4. Can cleaning or preparing (e.g., cooking) my fish reduce the amount of mercury that might be present?

No. Mercury is found throughout the tissue in fish, so cleaning or cooking will not reduce the amount of mercury. The way to reduce the amount of mercury is to eat the fish shown on the chart identified as the "Best Choices."

For fish purchased whole in stores please see additional information in the response to Question V.6.

5. Should I be concerned if I eat one serving of the fish listed in the “Choices to Avoid” category?

No, but going forward, choose from fish from the “Best Choices” or “Good Choices” categories. Just try to avoid eating the “Choices to Avoid” fish or feeding them to children. We recommend you eat a variety of fish from the “Best Choices” and “Good Choices” categories on the chart.

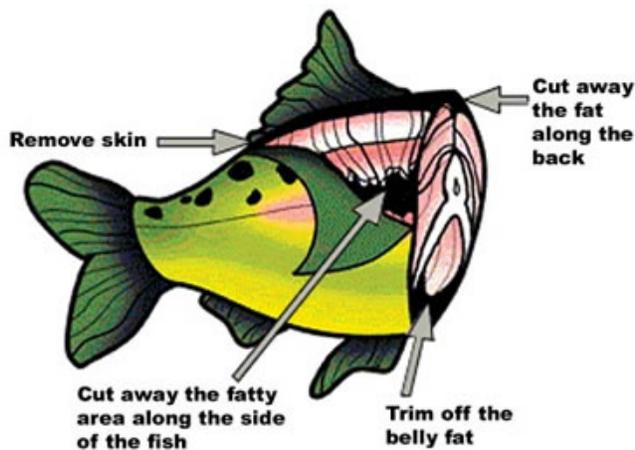
6. Are there other contaminants in fish?

Yes, however, FDA has found that the levels of other contaminants in commercial fish generally do not raise human health concerns. For many years, FDA has sampled and tested commercial seafood for pesticides and industrial chemicals as well as other heavy metals besides mercury and the results are available on FDA’s website:

- [Pesticide Program Residue Monitoring](#)
- [Total Diet Study Analytical Results](#)

Levels of other contaminants vary by location and fish species. State and local health departments or fish and game agencies provide advice on other contaminants, such as polychlorinated biphenyls (PCBs) in fish from particular bodies of water. People who catch their own fish for recreation or as a source of protein in their diets should check for fish advisories for both fresh and marine waters.

It is a good idea to remove skin, fat, and internal organs where other types of harmful pollutants may accumulate for fish you and your friends catch before you cook these fish. This is particularly true because fish from some local waters may be more likely to contain other contaminants.



And remember - eat a variety of fish, not just the same type every time you eat fish. There are plenty of fish shown on the chart to choose from, so there are fish for every taste.

VI. WHAT ABOUT TUNA?

1. What is the difference between albacore (white) tuna and canned light tuna?

Albacore, or white tuna, is larger and lives longer than the fish generally used in canned light tuna. Meanwhile, canned light tuna can be a mix of a variety of generally smaller tuna species, most often skipjack.

2. I eat a lot of tuna, especially canned light tuna because it is particularly affordable. Is this okay?

Yes. Canned light tuna is in the “Best Choices” category and it is fine to eat 2 to 3 servings per week. We recommend that you eat a variety of fish. You may wish to try other affordable fish in the “Best

Choices” category such as canned salmon or sardines, frozen fish, or fresh fish that are at a reduced price.

3. I eat a lot of tuna, but prefer to eat albacore tuna. Is this okay?

Albacore tuna, also known as white tuna, typically contains three times more mercury than canned light tuna. You can eat albacore or any of the other fish from the “Good Choices” category once a week.

VII. FISH CAUGHT BY FAMILY AND FRIENDS

1. What if I eat fish caught by family and friends?

When eating fish you or others have caught, pay attention to fish advisories on those water bodies. There are waters where there may have been little or no monitoring and, therefore, the extent of potential mercury contamination is unknown. If advice isn’t available, you should limit your consumption of that fish to one serving per week and not eat any other fish that week. Adults should eat no more than 6 ounces that week, children under the age of six should limit their consumption of these fish to 1 to 2 ounces per week, and older children (ages six to twelve) should limit their consumption to 2 to 3 ounces per week. Again, neither adults nor children should eat other fish that week.

2. Where do I get information about the safety of fish caught by family or friends?

Check the applicable fishing regulations booklet or website for information about recreationally caught fish. Local, state, and tribal health departments and fish and game agencies also have information about advisories for consuming fish in their jurisdiction. Also see [EPA’s website for fish consumption advisories](#).

VIII. ADDITIONAL TIPS FOR EATING FISH

1. How does eating 2 to 3 servings of fish a week fit within a healthy eating pattern?

The [2015-2020 Dietary Guidelines for Americans](#) recommend increasing the amount of fish, and to choose a variety of fish lower in mercury. Fish should be eaten in place of other protein sources, such as some meat and poultry. This may also mean paying attention to how the fish are prepared. Broiled fish, for example, typically contain fewer calories than fried fish and can be healthier in other ways as well. Sodium and cholesterol content from the fish or from the cooking process should also be considered as with other aspects of healthy eating. If you are uncertain about what the right number of calories is for you, please visit www.choosemyplate.gov for information regarding appropriate caloric intake (specific information available at [My Weight Manager](#)). If you want more information, we recommend that you consult a nutritionist or your physician.

2. Is it true that pregnant women and young children should avoid raw fish?

Yes. The [2015-2020 Dietary Guidelines for Americans](#) and FDA recommend that pregnant women and young children should only eat foods with fish, meat, poultry, or eggs that have been cooked to safe internal temperatures to protect against microbes that might be in those foods. This includes raw fish served as part of sushi or sashimi (Japanese-style foods) that are available in many restaurants and food stores. Pregnant women and young children often have weaker immune systems and are more at risk for foodborne illnesses.

3. What if I cannot or do not eat fish? Will my baby be okay?

Fish is one source of high quality protein, minerals and vitamins that are beneficial to overall health. You can have a healthy baby even if you don’t eat fish.

4. I'm a woman who could have children but I'm not pregnant. Why should I follow this advice?

If you could become pregnant in the next year, we encourage you to begin following this advice now. Eating 2 to 3 servings of a variety of fish a week along with other protein-rich foods can help your child's growth and development, and following the recommendations for how often to eat the various fish types is also important. That's because mercury in fish can accumulate in your body over time. While mercury is removed from the body naturally, the process can take several months. So, following this advice before pregnancy can benefit the developing child, especially during the important first trimester.

5. What advice do you have about eating fish for people who are not pregnant, will not become pregnant, or are not breastfeeding?

Fish are a high quality protein source, and lower mercury fish are a good choice for everyone. This advice is specifically for women who are pregnant, might become pregnant or are breastfeeding, and for young children, but everyone can follow this advice.

6. Does this advice consider fishery sustainability issues?

No. This advice focuses on the benefits of fish consumption and the number of fish meals per week that could be eaten based on mercury levels in fish. This advice does not reflect concerns about fishery sustainability issues. For more information, see the National Oceanic and Atmospheric Administration's website at <http://www.fishwatch.gov>.

IX. REFERENCES

2015-2020 [Dietary Guidelines for Americans](https://health.gov/dietaryguidelines/2015/guidelines/), available at <https://health.gov/dietaryguidelines/2015/guidelines/>