

JANUARY 2012 • FACTS

# Omega-3 Separating Fact from Hype

## Separating fact from hype

There's been a lot of talk about omega-3 and fish oil supplements lately. The talk can make you think fish oil is good for everything, and everyone should be getting lots of it. Before you start taking large amounts of fish oil, it's important to sort out what's known and what's unknown. Here are some things you need to know.

### The basics

- Fish and fish oil contain omega-3 fatty acids, including the 2 most important types: EPA and DHA.
- Alpha-linolenic acid is the type of omega-3 found in plant-based foods.
- Omega-3 is important to our health.
- We have to get omega-3 from food, since our body does not make it.

### How much is enough?

The Institute of Medicine has not yet made a recommendation. However, other organizations have. The American Heart Association recommends an average of<sup>1</sup>:

- 0.4 to 0.5 g (400 to 500 mg) of EPA+DHA per day for people *without* coronary heart disease
- 1 g of EPA+DHA per day for people *with* coronary heart disease
- 2 to 4 g EPA+DHA per day for people who need to lower their triglyceride level

You can get an average of 400 to 500 mg per day by eating oily fish at least 2 times a week (that is, a total of 6 to 8 oz per week). Oily fish include salmon, sardines, herring, mackerel, halibut, and tuna.

People who don't eat fish can get 1.5 to 3 g of alpha-linolenic acid each day from plant-based foods such as walnuts, flaxseed, soybeans/tofu, and green leafy vegetables.<sup>1</sup> However, scientists don't know if the omega-3 found in plant-based foods has the same health benefits as the omega-3 found in fish.



## How much omega-3 is too much?

That can be different for each person. It depends on whether you have certain health conditions. It also depends on your body's response to omega-3. The risk of side effects increases with increasing amounts of omega-3. Risk is highest when people get more than 3 g per day. Possible side effects include:

- Upset stomach
- Fishy aftertaste
- Belching with a fishy smell
- A small increase in LDL cholesterol (the "bad" cholesterol)
- High blood sugar
- Increased risk of bleeding and bruising

People who take more than an average of 400 to 500 mg per day should talk with their doctor about the risks. Also, consider staying away from fried fish. The oils and heat used for frying the fish may counteract the benefits of the omega-3 in the fish. They may also increase your risk of heart disease.

## Should I take omega-3 supplements?

It's better to get your omega-3 from food if you can. Nutrients are usually absorbed better from food than from supplements. Also, food has other ingredients that may be important. These will be lacking in the supplements. But, if your doctor recommends the higher amounts, you might need to get at least some of it from a supplement. Be sure to talk with your doctor about this.

Some people are afraid to eat fish because they know fish might contain mercury, polychlorinated biphenyl (PCB), and other environmental contaminants. Mercury is of greatest concern for pregnant women, women who are breastfeeding, and young children. The Environmental Protection Agency and the U.S. Food and Drug Administration have published recommendations for these women and children<sup>2</sup>:

- Don't eat shark, swordfish, mackerel, or tilefish. They have higher levels of mercury.
- It's OK to eat up to 2 servings (12 oz for adults) a week of fish with lower mercury levels. These include shrimp, canned light tuna, salmon, pollack, and catfish.
- Limit intake of albacore tuna to 1 serving (6 oz for adults) per week.
- Talk with your local Fish and Game Department about contaminants in fish from your local lakes, rivers, and oceans. If they don't have information for you, limit intake of these fish to 1 serving (6 oz for adults) per week and don't eat any other fish that week.

## Is it possible to have my blood tested for omega-3?

Quest Diagnostics offers a blood test called the Omega-3 Index. This test can be used to test your blood for omega-3 and some other fatty acids. The results can help your doctor

- Find out if your omega-3 blood levels are low, normal, or high
- Find out if you are at risk for cardiovascular disease due to a low EPA level
- Find out if your level of omega-3 is increasing as expected during omega-3 treatment

Talk with your doctor if you are interested in this test.

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## What's omega-3 really good for?

Scientists have studied the impact of omega-3 on many things. In some cases, there's good evidence to support the use of omega-3. In other cases, the evidence is weak, inconsistent, or lacking. Although many studies have been done, more are needed. The information below will help you sort out what we really know about omega-3.

Medical Condition	Effective	Not Effective	Unclear
Asthma			X
Bipolar disorder			X
Brain function			X
Cancer			X
Cardiovascular disease	X		
Cyclosporine toxicity	X		
Dementia/Alzheimer's disease			X
Depression			X
Diabetes		X	
High blood pressure	X		
High triglyceride level	X		
Inflammatory bowel disease			X
Kidney disease			X
Macular degeneration			X
Menstrual pain			X
Multiple sclerosis			X
Organ transplantation			X
Osteoporosis			X
Parkinson's disease		X	
Rheumatoid arthritis*	X		
Schizophrenia			X
Stroke			X
Systemic lupus erythematosus			X

\*Reduce morning stiffness, joint tenderness.

## Additional Information

You can find more information about omega-3 at these websites:

- Agency for Healthcare Research and Quality (AHRQ): <http://www.ahrq.gov/clinic/epcindex.htm#dietsup>
- WebMD: <http://www.webmd.com/vitamins-supplements/ingredientmono-993-FISH%20OIL.aspx?activeIngredientId=993&activeIngredientName=FISH%20OIL>
- Mayo Clinic: [mayoclinic.com/health/fish-oil/NS\\_patient-fishoil](http://mayoclinic.com/health/fish-oil/NS_patient-fishoil)

## References

1. Kris-Etherton PM, Harris WS, Appel LJ. Fish consumption, fish oil, omega-3 fatty acids, and cardiovascular disease. *Circulation*. 2002;106:2747-2757.
2. What you need to know about mercury in fish and shellfish. U.S. Department of Health and Human Services website. <http://www.fda.gov/food/foodsafety/product-specificinformation/seafood/foodbornepathogenscontaminants/methylmercury/ucm115662.htm>. Published March 2004. Accessed November 29, 2011.