Dynamic Chiropractic

NUTRITION / DETOXIFICATION

Omega-3 Fatty Acids in Seafood

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In my practice, I have noticed a growing number of patients who are aware that omega-3 fatty acids are beneficial for their hearts. Many have been advised to consume more omega-3 fatty acids. Unfortunately, few know which types of food, other than salmon, are the best sources. My vegetarian patients are always surprised to hear that vegetable sources of omega-3 fatty acids (alpha-linolenic acid, aka ALA) are poorly converted to their bioactive cousins, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). In optimal conditions, humans convert no more than 15 percent of ALA

to EPA/DHA.¹ Age, obesity, genetics and the typical Western diet reduce this conversion, which is

predominantly to EPA. ALA to DHA conversion is under 4 percent.²

Vegetable Sources of Omega	a-3		
Fatty Acids as Alpha-Linoler	nic Acid (ALA)		
Source (1 Tbsp)	ALA	EPA/DHA*	
Flaxseed oil	7,000 mg	160 mg	
Canola oil	1,600 mg	160 mg	
Walnut oil	1,400 mg	140 mg	
Soy oil	1,000 mg	100 mg	
Flax seeds	2,000 mg	200 mg	
Walnuts	600 mg	60 mg	
*Using an average of 10 percent conversion ability.			

While the cardioprotective effects (especially EPA) of omega-3 fatty acids garner most of the press,

there is growing evidence that they enhance brain function (especially DHA) from birth to death.^{3,4,5,6} Mozaffarian and Rimm reviewed numerous trials and concluded that omega-3 intake of at least 250 mg/day for low-risk groups and 500-1,000 mg/day for higher risk individuals reduces overall mortality

by 17 percent, and death from heart problems by 36 percent.⁷

The perfect food for hearts and minds does have a downside. In the past few years, researchers have begun to take note of rising levels of mercury, polychlorinated biphenyls (PCBs), and dioxins. In my next article, I will address the topic of chemical contamination in seafood in greater detail. The general consensus is that the lives lengthened by the reduction of heart disease in people who consume omega-3 fatty acids from seafood is much greater than the lives lost from cancer caused by high levels of contamination in food from the sea.

References

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Omega-3 Levels in Seafood ^{7,8}	
Seafood	ΕΡΔ/ DΗΔ**
Anchovies	2.050 mg
Colden Bass	2,000 mg
Atlantic	900 mg
Culf of Movico	000 mg
Blackfich	400 mg
Catfieh	400 mg
Formod	200 mg
Wild	200 mg
Clame	200 mg
Cod	S00 mg
Alashan	200 mg
AldSKdll	250 mg
Audituc	250 mg
FdUIIU Plack	1 900 mg
DidUK	1,000 llig
	100 m a
Dungeness	400 mg
Killy Smore	400 mg
SIIUW	500 mg
Hallbut Learning	500 mg
Atlantia	2 000 m a
Audituc	2,000 mg
FdUIIU Lebator	2,100 mg
LODSIEI	100 llig
Atlantic	1 200 mg
Ving	1,200 mg
Nily Mahi Mahi	400 mg
Mussols	100 mg
Ovetore	ooo iiig
Fastorn	700 mg
Pacific	1 400 mg
Pollock (Alaskan)	1,400 mg
Rockfish	400 mg
Salmon (canned)	100 mg
Sockeve (red)	
Pink	1 400 mg
Salmon (farmed)	1 100 mg
Salmon (wild)	2 650 mg
Atlantic	1 400 mg
Chum	800 mg
Coho	1.100 mg
King Chinook	1.700 mg
Pink	1 300 mg
Sockeve (red)	1.200 mg
Sardines	1.000 mg
Scallons	350 mg
Shark	700 mg
Shrimp	300 mg
Snapper	300 mg
Sole	500 mg
Swordfish	800 mg
Trout (Rainbow)	5
Farmed	1,100 mg
Wild	1,100 mg
Tuna	-
Albacore	850 mg
White (Skipjack)	250 mg

*USDA serving size tends to vary. In this table, the numbers are calculated based on 3.5 ounces (100 grams). This is not a uniform serving size; for example, a serving of sardines is only 2 ounces, while a serving of salmon is 6 ounces (according to the U.S. Department of Agriculture). **Rounded to the nearest 50 mg. The levels of omega-3 fatty acids in seafood can vary by up to 300 percent. This is due to the type of food the fish consume, along with the location, age and season they are caught. Human influences, including processing, storage, packaging and cooking, can also affect the amount of omega-3 fatty acids in a given serving of fish.

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