

Gaia Garden

HERBALS

2672 West Broadway, Vancouver, BC. V6K 2G3 Tel: (604) 734-4372 Fax: (604) 734-4376
Granville Island Market 1689 Johnston St., Van., BC. V6H 3R9 Tel: (604) 689-4372
Email: gaiagarden@telus.net
www.gaiagarden.com

FISH, YOUR HEALTH AND THE ENVIRONMENT

Fish contains the important omega 3 fatty acids called eicosapentanoic acid (EPA), a powerful anti-inflammatory and anti-coagulant, and docosahexanoic acid (DHA) that is essential for proper brain development and brain function. A healthy body can manufacture EPA and DHA from other omega 3 fats such as are found in flax, walnut and canola oil and in dark green, leafy vegetables. However, this is carried out in several stages, each one enzyme controlled and subject to disruption by many factors, and for this reason most health practitioners recommend eating fish 3 – 5 times weekly.

Factors that adversely influence EPA and DHA production

- Chronic exposure to adrenalin and cortisol (chronic stress, caffeine, television, anxiety etc)
- Aging
- Low protein intake
- Tobacco
- Environmental pollution and toxins
- Many recreational and prescription drugs
- Large intake of glucose
- Inadequate B6, magnesium and zinc in the diet
- Presence of excessive saturated fats in diet
- Presence of trans-fatty acids (processed / cooked fats and oils) in the diet
- Atopic tendency (asthma, hay fever, eczema in the family)
- Diabetes
- Consumption of alcohol
- Ionizing radiation

Many of our rivers and oceans are contaminated with mercury and industrial toxins and these can find their way into fish. The larger the fish the higher the load of mercury because they eat smaller fish and so concentrate the toxin. Shark, swordfish, King mackerel, tuna, marlin and tilefish are the worst affected. These fish should be eaten not more than twice per month. Shellfish generally have the lowest mercury levels but because they are filter feeders they may concentrate other toxins and should also be restricted to not more than twice a month. Many industrial pollutants concentrate in fat so broiling, grilling or baking fish on a rack to allow fat to drip off may be helpful in reducing toxin exposure.

Many fish have been over-harvested and wild stocks are fast diminishing. Atlantic cod, for example, is banned from commercial fishing due to loss of numbers. Some fish are now farmed but this is generating many other problems. Fish kept in captivity in overcrowded cages and denied the opportunity to swim freely, are subject to many diseases such as fungal infections, sea lice and bacterial infections. To prevent these diseases the fish are routinely given anti-fungals

and anti-biotics as well as growth hormones to cause them to gain weight faster and other hormones to prevent them maturing sexually and mating in the cages. Farmed fish are fed corn and other grains as well as eating almost their own weight in other fish and fish by-products, which are taken from the wild. Lack of normal swimming patterns and normal diet cause the flesh of farmed fish to be discolored and coloring agents are used, especially in salmon. Farmed fish can pass disease to wild fish nearby and can escape the cages and breed with wild fish thereby introducing weak genes and further aggravating the loss of wild fish.

EATING FISH SAFELY

<u>Species</u>	<u>mercury status</u>	<u>environmental status</u>
Salmon	Not significant	Avoid farmed salmon. Choose coho, chinook and sockeye for most good oils.
Halibut	Moderate to high levels in Pacific and Atlantic fish	Atlantic halibut is endangered so choose Pacific sources
Red snapper	Moderate to high levels	A threatened species, best avoided
Rainbow trout	Fresh water species have more mercury than ocean trout	Often farmed – check labels
Tuna	Moderate to high levels	Bluefin has been over-harvested. Choose yellowfin, albacore and bigeye.
Crab	Dungeness has more mercury than blue crab	Alaskan king crab is over harvested and endangered.
Shrimp	Very low levels	Trap-caught spot shrimp and Northern shrimp from Newfoundland are least likely to catch other marine wildlife.
Oysters	Very low levels	Disease in the Eastern oyster beds is limiting supply. Choose Pacific and European varieties.

Sources: US Food and Drug Administration Center for Food Safety and Applied Nutrition, Office of Seafood; Environmental Defense Fund at www.environmentaldefense.org