

Featured Topic:
Omega-3, Peptides and Phospholipids
(4 slides)

Terry Talks Nutrition

IMPROVING THE HEALTH OF AMERICA

New recommendations on fish consumption

- The Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) have issued **new recommendations on eating fish for pregnant women**
- FDA has found that 50% of pregnant women **eat less than 2 oz of fish** a week
- Fish is a source omega-3 fatty acids (EPA/DHA) which are vital for the baby's developing brain
- FDA notes that **ALL fish contain mercury** which can be harmful to the brain and nervous system
- FDA and EPA have classified fish as better, good, or "avoid" based on potential for contamination (see next page)

Chart available on FDA website at FDA.gov

Best Choices <small>EAT 2 TO 3 SERVINGS A WEEK</small>			OR	Good Choices <small>EAT 1 SERVING A WEEK</small>		
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	Pickerel	Squid		Mahi mahi/dolphinfish	Striped bass (ocean)	
Cod	Plaice	Tilapia		Choices to Avoid <small>HIGHEST MERCURY LEVELS</small>		
Crab	Pollock	Trout, freshwater				
Crawfish	Salmon	Tuna, canned light (includes skipjack)		King mackerel	Shark	Tilefish (Gulf of Mexico)
Flounder	Sardine	Whitefish		Marlin	Swordfish	Tuna, bigeye
Haddock		Whiting		Orange roughy		
Hake						

*Some fish caught by family and friends, such as larger 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



Is fish OIL a better choice than fish?

- Fish oil can be contaminated with mercury and other toxins, just like fish
- Omega-3 in fish oil is carried on triglycerides (a type of fat)
 - inefficient carriers so high dosage level required
 - high levels of triglycerides themselves are considered a risk for heart disease
 - triglycerides make the oil unstable and rancid
- Fish oil is highly processed
 - frozen for transport, thawed, and subjected to high heat, pressing, chemical solvents, and distillation
 - processing and unstable oil causes “fish burps”
 - likely to cause inflammation and damage, not relieve it

Best choice: phospholipid omega-3 from salmon head

- From the head - not the body of the fish where the toxins are concentrated - very clean and pure and safe for everyone, including pregnant women
- Omega-3 bound to phospholipids, not triglycerides
 - 2:1 ratio of DHA to EPA – DHA especially important for developing babies
 - Efficient transport; well-absorbed – allows for smaller dosage
 - Phospholipids are very healthy for the body, especially the brain
- Also a source of peptides, which have health benefits in their own right
 - Play a role in reducing anxiety, heart disease, inflammation and more
- Minimal processing – no heat, pressing or chemical solvents
- Solid form – not an oil – so no problems with rancidity, or need to swallow spoonful of oil

Listener Question

Terry Talks Nutrition

IMPROVING THE HEALTH OF AMERICA

Ask Terry

Dear Terry:

Lately, I need to get up in the night to use the bathroom. My doctor says I have an enlarged prostate but it is not prostate cancer. He says he can give me medication but I would rather try something else first. What would you suggest?

H.B.

Madison, WI

Calorie Reduction Extends Your Life (1 slide)

Terry Talks Nutrition

IMPROVING THE HEALTH OF AMERICA

Cut back on calories and extend your life

- Researchers say that cutting down on the amount you eat could help you live up to 18 years longer
- Experts looked at two separate studies in an animal model (monkeys, whose DNA is 93% identical to humans)
- Adult male animals receiving **30% fewer** calories **lived up to 2 years** longer; adult females **lived up to 6 years** longer
- Translating these results to humans equals an increased lifespan of almost 18 years

Four Hidden Causes of Diabetes

from Bottom Line Health
(4 slides)

Terry Talks Nutrition

IMPROVING THE HEALTH OF AMERICA

In addition to a carb-rich diet, these factors also play a role in developing insulin resistance...

1. **Ectopic fat** – fat that gets deposited where it shouldn't be, especially in the liver and muscles.
 - interferes with insulin's ability to manage glucose, leading to insulin resistance
 - Even people who aren't overweight can have a genetic tendency to develop ectopic fat

ANSWER: take care of your liver

- **Curcumin** has been shown to stop the damage and cellular changes that lead to fatty liver
 - Curcumin is also a treatment for diabetes and metabolic syndrome
- **Milk thistle** is extraordinarily powerful at protecting and healing the liver
- **Sesamin** from sesame seed displaces toxins before they can bind to the liver and is very liver-protective

2. Inflammation – chronic inflammation (associated with obesity, poor diets, pollution, etc) causes cells to produce inflammatory compounds that trigger insulin resistance

- A study of people who developed diabetes after a kidney transplant found that for every 25% increase in inflammation (tumor necrosis factor alpha), risk of diabetes doubled

ANSWER: stop inflammation with curcumin

- Curcumin acts on multiple inflammation pathways
- In an animal model, curcumin reduced tumor necrosis factor alpha-induced inflammation by almost **50%**

- 3. Mitochondrial dysfunction** – the mitochondria are the “batteries” of the cells, and naturally produce free radicals as part of their activity.
- If the body lacks antioxidants to neutralize these free radicals, the mitochondria work less efficiently
 - Less efficient mitochondria can lead to less insulin production and increased insulin resistance

ANSWER: curcumin and ubiquinol.

- In an animal model of diabetes, curcumin prevented mitochondrial dysfunction, and **reduced increased free radical levels in the cells to near normal** levels
- Ubiquinol is the active form of Coenzyme Q10, and one of the most important cellular antioxidants

4. **Stress.** A study in the Netherlands found that people who had experienced a recent stressful event (divorce, death of a family member) were 1.2 times more likely to develop diabetes
- Stressed people are more likely to be overweight and eat poor diets
 - Stress raises cortisol levels; cortisol increases insulin resistance and can cause the liver to make too much glucose

ANSWER: Ashwagandha and Rhodiola.

- Both herbs are able to reduce cortisol: ashwagandha shown in a clinical study to reduce cortisol levels by almost 30%
- In a clinical study of people with chronic stress, ashwagandha use was associated with a 75% reduction in anxiety score, and 64% reduction in stress score