

NUTRITION ACTION

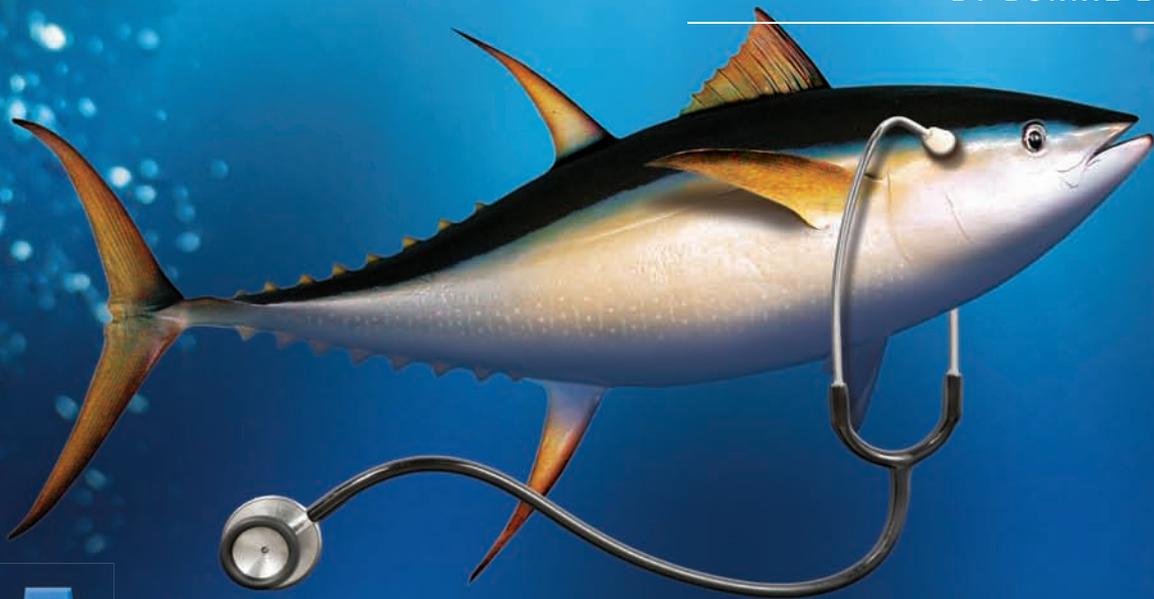
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HEALTH  LETTER™

OMEGA MEDICINE?

Is fish oil good for what ails you?

BY BONNIE LIEBMAN



A

t first, the omega-3 fats in fish oil were only supposed to prevent sudden death heart attacks.

But in the last few years, experts have looked at omega-3s and asthma, cancer, the aging brain, dementia, neurological diseases, diabetes, inflammatory bowel disease, rheumatoid arthritis, kidney disease, lupus, osteoporosis, eye health, mental health, and more.

So far, the evidence is too skimpy to say that omega-3s matter for most health problems other than heart disease. But the sheer number of potential benefits makes you wonder if you're getting enough.

"In the nutrition world, it's one of the biggest success stories in decades," says heart expert William Harris of the University of South Dakota. "The downsides are so minimal that the burden of proof for a benefit doesn't have to be that high."

But that doesn't justify the unfounded promises on some food and supplement labels, says Harris. "We don't want people hawking fish oil and raking in a lot of money based on sloppy data."

Here's the latest on what omega-3s can—and can't—do.

Continued on page 3.

OMEGA MEDICINE?



Is fish oil good for what ails you?

Beyers Smart! Yogurt claims to “boost your brain” and “helps support a healthy heart.” Silk Plus Omega-3 DHA Soy Milk “helps support heart, brain & eye health” (see “Omega-3 Madness,” p. 7).

USA Today called omega-3 fats “one of 2007’s hottest food additives.” Of course, you can also get them in pills or good old-fashioned fish.

Are omega-3s miracle fats or a money-making fad? Here’s the evidence so far.

Heart Disease

In Australia and Britain, government experts now advise healthy people to eat enough fish to get 400 to 600 milligrams a day of the long-chain omega-3 fats—DHA (docosahexaenoic acid) plus EPA (eicosapentaenoic acid).

Although the U.S. government has no similar recommendation, the American Heart Association advises people who have heart disease to take a daily supplement with 1,000 mg (1 gram) of DHA plus EPA. And it recommends that healthy people eat fish (preferably fatty fish like salmon) at least twice a week.

“I can’t think of a nutrient that’s more important for heart disease prevention than omega-3s,” says William Harris of the University of South Dakota’s Sanford School of Medicine. (Harris is a consultant to several companies that sell omega-3 pills.)

In most studies, people who report eating more fish are less likely to die of a heart attack than those who eat less fish. One meta-analysis pooled 13 studies that tracked more than 220,000 people for an average of 12 years.¹ Compared to people who ate no fish, “those who ate fish at least five times a week had a 40 percent lower risk of death from heart disease,” notes Harris.

At first, researchers found that fish eaters had a lower risk of *sudden death* heart attacks, which account for half of all deaths from cardiovascular disease. (Most other deaths are due to myocardial infarctions—heart attacks that occur when an

artery that brings oxygen to heart muscle gets blocked.)

Sudden death usually occurs when the ventricles—the major pumping chambers of the heart—lose their normal rhythm. Instead of one strong, synchronized heartbeat that pushes blood out of the heart, the heart muscle goes into ventricular fibrillation, a series of rapid, irregular, and unsynchronized contractions that are too weak to send blood throughout the body. Without a defibrillator to shock the heart back into rhythm, the person dies.

So scientists decided to test fish oil in people who had had a defibrillator implanted in their chest because they had episodes of ventricular fibrillation or ventricular tachycardia (fast heartbeat).

But in one European and one U.S. trial—involving a total of 600 people—patients who took fish oil (800 or 1,200 mg of DHA plus EPA a day) had no fewer episodes of ventricular fibrillation or tachycardia than those who took a placebo.^{2,3} And in the U.S. study, those fish oil takers who got their defibrillators because of tachycardia had *more* arrhythmias.³

Did those studies quash the theory that fish oil prevents arrhythmia? No, says

Harris. “Researchers have recognized that people with an ongoing fibrillation problem are not a good model to answer the question of whether omega-3s are good for general heart health.”

Most people who have a sudden death heart attack, he explains, “have a normal heart rhythm until a lack of oxygen throws them into ventricular fibrillation.”

In contrast, “people who need a defibrillator have structural heart disease or a heart that’s so damaged by a previous heart attack that they can easily flip into fibrillation. Their problem is not driven by lack of oxygen and blood flow but by electrical problems.”

Overall, he says, “these results don’t hurt the advance of omega-3s. They’re kind of a hiccup.”

What about trials that randomly assign people without defibrillators to take—or not take—fish oil?

The largest, an Italian study called GISSI, randomly assigned more than 11,000 people who had

recently suffered a heart attack to take either fish oil (850 mg of DHA plus EPA a day) or to see their doctor as usual. After 3½ years, the fish oil takers were half as likely to have died of a sudden death heart attack.⁴



Experts recommend two servings a week of fatty fish like salmon.



But the study wasn't top-notch. It didn't compare fish oil to a placebo so it wasn't double-blind—that is, both researchers and patients knew who was taking fish oil.

Several new studies are under way. "A bigger, double-blind, placebo-controlled study is being done in Europe," says Harris. "And GISSI is doing a trial to prevent heart failure in people who already have heart disease and a prevention trial in healthy people."

How might omega-3s make a difference? "We know that high doses of fish oil—about 3 or 4 grams a day—lower triglycerides," says Harris. But the dose used in GISSI wasn't high enough to do that.

Another possibility: "We found that omega-3s slowed heart rate by about five beats per minute," notes Harris. That could make irregular heartbeats (arrhythmias) less likely.

"If you polled most experts, they'd probably say that omega-3s work by reducing the risk of arrhythmia," says Harris.

He's not so optimistic about ALA (alpha-linolenic acid), a shorter-chain omega-3 fat that's found in flaxseed oil and, to a lesser extent, in soy and canola oils. A few studies have found that men who eat an average of 1,500 mg a day of ALA have twice the risk of advanced prostate cancer of men who average 700 mg a day.⁵

"There's a lack of convincing data that ALA reduces the risk of heart disease and a concern over prostate cancer," explains Harris. "So I'd say don't raise or lower your intake."

Cancer

It's too early to say whether omega-3 fats can lower the risk of some cancers. Some studies that track people for years find a lower risk in fish eaters, while others don't.

For example, in the European Prospective Investigation into Cancer and Nutrition (EPIC) study, which tracked more than 478,000 residents of 10 countries for an average of five years, those who consumed roughly 3 ounces of fish a day had a 30 percent lower risk of colorectal cancer than those who consumed only about a third of an ounce a day.⁶

But in studies that monitored anywhere

from 35,000 to 88,000 people for 6 to 14 years, those who ate more fish or omega-3 fats had no lower risk.⁷

"It's not surprising that these epidemiological studies are inconsistent," says Yong Q. Chen of the Wake Forest University School of Medicine in Winston-Salem, North Carolina. "Most studies don't have ways to verify how much omega-3 fats people actually eat."

The evidence for prostate cancer is also mixed. For example, in a study that followed 47,000 U.S. health professionals for 12 years, those who ate fish more than three times a week had a 45 percent lower risk of metastatic prostate cancer than those who ate fish less than twice a month.⁸ But some studies found no link at all.⁷

Still, researchers are chasing clues that might explain how omega-3s may influence cancer risk. For example, a recent study fed high or low levels of omega-3 fats (including DHA and EPA) to mice that are missing a gene—called *Pten*—that suppresses tumors.⁹

"*Pten* is a frequent abnormality in human prostate cancer," says Chen. "It's found in 30 percent of primary cancers and 70 percent of tumor metastases."

Omega-3s had no impact on mice that had the gene. But in mice without *Pten*—called *Pten*-knockout mice—the fats made the difference between life and death.

"On the low-omega-3 diet, only 10 percent of the *Pten*-knockout mice were alive after one year," says Chen. "But 60 percent survived on the high-omega-3 diet. It was astonishing."

In contrast, the *Pten*-knockout mice did poorly on a diet high in *omega-6* fats. "All of them died before 10 months of age," says Chen. "Omega-6 fats clearly made the cancers worse."

Omega-6s are the polyunsaturated fats like linoleic acid that are found in oils like soybean, corn, and cottonseed. Many researchers believe that our ratio of omega-6 to omega-3 fats is out of whack.

"It's not that omega-6 fats are bad," says Chen. "We can't survive without them. It's a question of balance."

Before industrialization, some 200 years ago, he says, we used to eat equal amounts of omega-6 and omega-3 fats. Now we eat far more omega-6s than omega-3s. Why? "Vegetable oils became readily available and most are concentrated in omega-6," says Chen.

Nor is Chen enthusiastic about ALA, the omega-3 fat in flax, soy, and canola oils. "DHA is highly concentrated in the sperm, eye, and brain," explains Chen. "The body can convert ALA to EPA or DHA, but it's very inefficient."

He recommends eating more fatty fish or taking fish oil. "What's the worst outcome?" he asks. "That it's good for your heart?"

Eye Disease

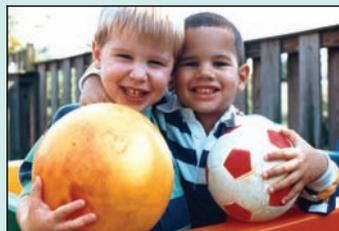
You don't have to look far to see why scientists think the omega-3 fat DHA may be good for eyes.

"Structurally, the retina is made of DHA," says Emily Chew, deputy director of the division of epidemiology and clinical research at the National Eye Institute in Bethesda, Maryland.

The most pressing question: Can omega-3 fats slow or prevent macular degeneration? When the macula (the center of the retina) withers, people lose their ability to see fine details and recognize faces. Macular degeneration is the leading cause of blindness in Americans over age 65.

In 2001, the Age-Related Eye Disease Study (AREDS) found that high doses of antioxidants—vitamin E, vitamin C, beta-carotene, and zinc—could slow the progress of macular degeneration.¹⁰

When the researchers later looked at differences in the diets of people as they entered the study, "we found that people who ate fish at least twice a week had almost a 50 percent reduction in the risk of



Here's what someone with normal vision would see.



The same scene viewed by someone with diabetic retinopathy.

Omegas by the Mouthful

advanced macular degeneration compared to people who never ate fish," says Chew.¹¹ "Other studies have shown a similar protective effect."

But something else about fish eaters may explain their healthier eyes. "We know that people who eat fish are more health-conscious, they take more vitamins, and they take care of their high blood pressure better," Chew explains. "So we can't be sure if omega-3s make a difference unless we do a randomized trial."

Studies on animals also suggest that DHA is a player. "DHA isn't just structurally important," says Chew. "It has a role in protecting against inflammation, and it may be important in the signaling that goes on when you see."

Last June, an animal study revealed a new function of DHA: it seems to protect the eye from retinopathy—the growth of abnormal blood vessels in the retina—which affects four million people with diabetes and babies born prematurely each year.

"People with retinopathy have closure of the blood vessels that are normally in the eye," says Chew. In an attempt to restore its oxygen supply, the eye grows new blood vessels, but they are abnormal, leaky, and overabundant.

The worst-case scenario: "The new blood vessels can hemorrhage and leave scar tissue," says Chew. "When the scar tissue contracts, it lifts the retina off, and a detached retina means a loss of vision."

So researchers fed either omega-3 or omega-6 fats to mice that had been deprived of oxygen.¹² In those fed omega-3s (DHA plus EPA), the area with blood vessel loss was 40 to 50 percent smaller, and the growth of abnormal blood vessels was 40 to 50 percent lower than in the omega-6-fed mice.

"Just a 2 percent change in diet caused a 50 percent reduction in the risk of eye disease," says Chew.

The findings suggest that omega-3s may

Here are some fish and other foods that contain DHA and EPA, the two most promising omega-3 fats. ALA (alpha-linolenic acid) isn't included. Shoot for about 500 mg a day of DHA plus EPA. *Brand-name foods are in italics.* Numbers are rounded to the nearest 10 mg.

Food

(6 oz. cooked for fish, unless noted)

DHA+EPA (mg)

Atlantic salmon, farmed	3,650
Atlantic salmon, wild	3,130
Coho salmon, farmed	2,180
Rainbow trout, farmed	1,960
Coho salmon, wild	1,800
Rainbow trout, wild	1,670
<i>King Oscar Sardines, in water (2.8 oz.)</i>	1,500
Swordfish	1,390
<i>Bumblebee Salmon—Red, Pink, or Blueback (3 oz.)</i>	1,200
Sardines, in tomato sauce (3 oz.)	1,190
Pacific oysters (3 oz.)	1,170
Mackerel, canned (3 oz.)	1,050
Pollock or whiting ¹	900
Flounder	850
Sole	850
Sardines, in vegetable oil, drained (3 oz.)	840
Halibut	790
Rockfish	750
Fish sticks (6)	680
Ocean perch	640
Scallops	620
Skipjack tuna, fresh	560
Pacific cod	470
Yellowfin tuna, fresh	470
Blue crab (3 oz.)	400

Food

(6 oz. cooked for fish, unless noted)

DHA+EPA (mg)

Catfish, wild	400
Haddock	400
<i>Chicken of the Sea Skinless Boneless Pink Salmon (3 oz.)</i>	370
Dungeness crab (3 oz.)	340
<i>StarKist Very Low Sodium Chunk White Albacore Tuna, in water (3 oz.)</i>	330
Catfish, farmed	300
Shrimp (3 oz.) or Atlantic cod	270
Clams (3 oz.)	240
<i>StarKist Low Sodium Chunk Light Tuna, in water (3 oz.)</i>	240
<i>StarKist or Chicken of the Sea Solid White Albacore Tuna, in water (3 oz.)¹</i>	240
<i>Smart Balance Omega plus Buttery Spread (1 Tbs.)</i>	160
<i>Land O Lakes Omega-3 Eggs (1)</i>	150*
<i>StarKist or Chicken of the Sea Chunk Light Tuna, in water (3 oz.)¹</i>	140
<i>Eggland's Best Grade A Large Eggs (1)</i>	130*
Lobster (3 oz.)	70
<i>Breyers Smart! DHA Omega-3 yogurt (6 oz.)</i>	30
<i>Horizon Organic DHA Omega-3 Milk (1 cup)</i>	30
<i>Silk Plus Omega-3 DHA Soy Milk (1 cup)</i>	30
Egg (1 large)	20

¹Average. *From independent lab analysis.

Sources: manufacturers, USDA, and independent lab analyses.

Chart compiled by Danielle Hazard.

also curb the more serious kind of macular degeneration. "If DHA keeps abnormal blood vessels from growing, it would also help curb wet macular degeneration, where blood vessels grow in a deeper part of the retina," says Chew.

But she stops short of recommending that people take fish oil to protect their vision. "The evidence is suggestive and compelling, but without a careful trial, we can't tell what's beneficial," she warns. "Some experts worry that if you give too much omega-3, the fatty acids might be oxidized."

Instead, she recommends that people eat a healthy diet that includes fish. And

anyone at risk for macular degeneration could join the National Eye Institute's new AREDS trial. It will test 500 mg of DHA plus EPA (along with lutein, zeaxanthin, vitamin C, vitamin E, beta-carotene, and zinc).

"In five years, we should have some results," Chew predicts. (To learn more, see www.nei.nih.gov/AREDS2 or call 877-AREDS-80.)

"We're looking for people with macular degeneration in one eye or large drusen in both," explains Chew. Drusen are yellow spots on the retina that are the hallmark of early macular degeneration.

Anyone with macular degeneration



would know that their vision was impaired. "But you can have good vision and not realize that you have drusen until you go to the doctor," says Chew.

What about other omega-3s? "EPA may also stop new blood vessel growth and may also be anti-inflammatory," says Chew. As for ALA, in studies on people, "we couldn't find evidence that it was protective for macular degeneration."

And so far, scientists haven't turned up much data showing that omega-3s prevent cataracts. "We haven't looked carefully," cautions Chew. "But I don't think it's a strong component or we would already be on it."

Memory

When researchers autopsy the brains of people with Alzheimer's disease, they find two abnormalities:

- indissoluble deposits of a protein called beta-amyloid, which strangle nerve cells and cut off communication with other cells, and
- tangles of a protein called tau, which make brain cells unable to transport messages to other cells.

So far, several research teams have fed DHA to animals. "We put these genes in the brain of a mouse and it will produce extra beta-amyloid or tau, but it's a simplistic form of the disease," says Frederic Calon of the Molecular Endocrinology and Oncology Research Centre at Laval University in Quebec.

"These genes come from a rare mutation found in humans," he explains.

"Most people have a complex combination of genes that cause the disease."

Nevertheless, the mice studies allow scientists to precisely manipulate diets and examine the animals' brains. And DHA has had an impact.

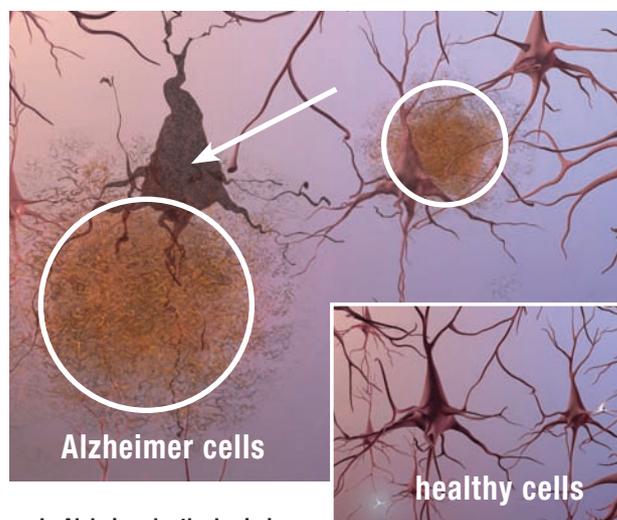
"Three main studies show that DHA was able to at least partly correct the markers of Alzheimer's in the animals' brains," says Calon.

It's not clear how DHA might make a difference. "There's a very high concentration of DHA in the brain, and it goes into the cell membranes," says Calon. "There it could change the membrane's fluidity or affect how cells communicate with each other and how a cell's components interact."

Unfortunately, DHA hasn't worked wonders in people who already have Alzheimer's. When Swedish scientists gave roughly 200 patients either DHA (1,700 mg) plus EPA (600 mg) or a placebo each day for six months, they found no difference in the patients' symptoms.¹³

But among the 32 patients with the mildest disease, test scores dropped less on DHA plus EPA than on the placebo. Overall, "the study was too small to answer the question," says Calon.

Other studies have tracked healthy people to see who ends up with a diagnosis of Alzheimer's or other dementias.¹⁴



In Alzheimer's, the brain is riddled with plaques of protein fragments (circles) and nerve cells killed by tangles (arrow).

"If you follow people for years, those with a low level of DHA in the blood have a higher risk of developing Alzheimer's," says Calon.

It's not just Alzheimer's that interests researchers. Some studies have found that scores on tests of memory or verbal fluency don't drop as much in healthy older people who consume more fish as in those who eat less.¹⁵

But studies that simply follow people aren't foolproof. "People who eat more fish may do more exercise or other things that lower their risk," says Calon.

Solid answers about DHA and the brain can only come from trials that randomly assign people to take either omega-3s or a placebo. For example, a U.S. trial is testing 2,000 mg a day of DHA (in divided doses) on 400 Alzheimer's patients.¹⁶ Another is testing whether 900 mg a day of DHA improves memory in 260 healthy people over age 55.¹⁷

But those studies are relatively small. "The bottom line is that we need large, state-of-the-art clinical trials," argues Calon. "The cost is only a fraction of the money spent around the world on mildly efficient palliative drugs for treatment of Alzheimer's disease like Aricept."

The Bottom Line

- So far, there's decent evidence that DHA and EPA—the omega-3 fats in fish oil—can reduce your risk of a heart attack, but not your risk of cancer, memory loss, or macular degeneration.
- Eat fatty fish like salmon twice a week. (Try canned salmon instead of tuna in sandwiches.) That would supply 500 to 1,000 mg a day of DHA plus EPA.
- If you're a vegetarian, look for foods or supplements with DHA from algal oil.
- If you have heart disease, follow the American Heart Association's advice to take 1,000 mg a day of DHA plus EPA from fish oil. If you have side effects like burping, try taking them at bedtime or ask your doctor for a prescription for pure fish oil.
- Taking more than 3,000 mg a day of DHA plus EPA may cause bleeding.

¹ *Circulation* 109: 2705, 2004.

² *J. Amer. Med. Assoc.* 293: 2884, 2005.

³ *J. Amer. Med. Assoc.* 295: 2613, 2006.

⁴ *Circulation* 105: 1897, 2002.

⁵ *Am. J. Clin. Nutr.* 80: 204, 2004.

⁶ *J. Natl. Cancer Inst.* 97: 906, 2005.

⁷ *J. Amer. Med. Assoc.* 295: 403, 2006.

⁸ *Cancer Epidemiol. Biomarkers Prev.* 12: 64, 2003.

⁹ *J. Clin. Invest.* 117: 1866, 2007. doi:10.1172/JCI31494.

¹⁰ *Arch. Ophthalmol.* 119: 1417, 2001.

¹¹ *Arch. Ophthalmol.* 125: 671, 2007.

¹² *Nature Med.* 13: 868, 2007.

¹³ *Arch. Neurol.* 63: 1402, 2006.

¹⁴ *Arch. Neurol.* 63: 1527, 1545, 2006.

¹⁵ *Arch. Neurol.* 62: 1849, 2005.

¹⁶ clinicaltrials.gov/ct/show/NCT00440050?order=2.

¹⁷ clinicaltrials.gov/ct/show/NCT00278135?order=1.

Omega-3 Madness

BY BONNIE LIEBMAN



Confusing But not Concise

“Supportive but not conclusive research shows that consumption of EPA and DHA omega-3 fatty acids may reduce the risk of coronary heart disease,” says the squished print on the back of StarKist Very Low Sodium Chunk White Albacore Tuna in Water. “One serving of white tuna in water provides 0.22 grams of EPA and DHA omega-3 fatty acids.”

A snazzy claim like that can only come from the way-off-Madison-Avenue writers at the Food and Drug Administration.

Few companies use the confusing FDA-approved health claim. (Even the FDA’s own studies show that it misleads consumers.)

Instead, most labels don’t mention heart disease. Bumble Bee Wild Alaska Sockeye Red Salmon simply says “contains 1.0 g Omega-3 fatty acids per serving.” Chicken of the Sea Pink Salmon labels say “heart healthy omega-3s.” That’s a “structure-or-function” claim that requires no approval because it doesn’t mention a disease. (Bet you didn’t notice.)

The (really) small print on Chicken’s back adds that the salmon “contains 245 mg of EPA and DHA combined per serving, which is 153% of the 160 mg Daily Value for a combination of EPA and DHA.” (Ignore all Daily Value claims. There are no DVs for EPA, DHA, or ALA, so companies are making up their own.)

Bottom line: Seafood is the best source of omega-3s, but levels (and serving sizes) vary. Bring your reading glasses.

Are omega-3s the latest mega-trend? You can find claims on everything from mayonnaise to margarine, eggs, cereal, milk, yogurt, cookies, frozen pizza, and (naturally) canned fish. You can even buy Iams Smart Puppy dog food with DHA (“just like babies, a puppy’s ability to learn depends upon healthy brain development”).

But not all omega-3s are created equal. It’s largely DHA and EPA, the long-chain omega-3 fats in fish oil, that are linked to a lower risk of heart disease and possibly cancer, Alzheimer’s, eye disorders, and other problems (see cover).

Yet many claims appear on foods that have ALA (alpha-linolenic acid), an omega-3 fat that may not prevent much of anything (and may *raise* the risk of prostate cancer). And some labels don’t say which omega-3s their food contains.

Here’s a sampling of tricks that can trip you up in the search for omega-3s.

Information compiled by Danielle Hazard.

Smart Marketing

Breyers is one of the first companies to add DHA to foods. And it comes from algae, not fish oil, which may appeal to vegetarians.

But calling a yogurt “Smart!” takes chutzpah. “Boost your brain,” says the front label. “DHA Omega-3 is an important brain nutrient that supports brain function and development,” says the lid. “DHA also supports a healthy heart,” it adds.

“Boost your brain”? Does that mean a higher IQ or SAT score? No worries about Alzheimer’s? The evidence that DHA can improve memory is still very uncertain. But claims with words like “support,” “maintain,” or “boost” don’t need evidence. Unfortunately, few people—outside of the FDA and food-industry marketers—know that.

Here’s the kicker: Breyers’ label doesn’t say how much DHA is in Smart! Yogurt. Is that because it’s so little? A 6-oz. container has just 32 mg of DHA—about as much as you’d get in $\frac{3}{4}$ teaspoon of salmon. (And the salmon has 20 mg of EPA to boot.)



Slick Silk

Like Breyers Smart! Yogurt, Silk Soymilk Plus Omega-3 DHA has added algae (algal oil, to be precise). And Silk also makes a no-evidence-needed claim (“Helps support heart, brain & eye health”).

But Silk pulls a fast one. On one panel, the carton says “400 mg of beneficial Omega-3,” implying that each cup has that much DHA. Only a few dedicated label readers will notice that Silk Plus also has flax oil, which contains ALA, the far-less-useful omega-3. And fewer may notice the tiny type on a side panel that whispers, “contains 32 mg of DHA per serving.”

Horizon Organic Lowfat Milk Plus DHA has the same 32 mg of DHA per cup—less than what’s in a bite of salmon. But you’d never know that from the label, which discloses no DHA numbers at all (“because we’re not required to,” the company told us). Hello, FDA. Anyone home?



Eggsaggeration

Omega-3 claims are all over the egg case, from brands like Land O Lakes to Eggland's Best, Gold Circle Farms, Full Spectrum Farms, Giving Nature, Safeway, and more. Clearly, producers are trying to counter the egg's reputation as a heart threat by giving their hens DHA-rich feed.

But omega-3s don't compensate for the 210 mg of cholesterol in each large egg yolk. (That doesn't mean you can't eat eggs. Just stick to no more than four yolks a week, as the American Heart Association recommends.)

And some omega claims are misleading. Land O Lakes Omega 3 Eggs, for example, contain "350 mg of omega-3 fatty acids per serving," according to the label. Yet our independent laboratory analysis found only 150 mg of DHA plus EPA in each egg. The remaining 200 mg was less-beneficial ALA.

At least some companies are more honest. Eggland's Best promises 100 mg of omega-3 on its label. Our lab test found 130 mg of DHA plus EPA.

Our favorite trick: Full Spectrum Farms boasts that its eggs have 30 mg of omega-3s. Yet an egg from a hen dining on ordinary feed has 20 mg of DHA plus EPA.



Bring Out the ALA?

"Naturally rich in Omega 3 ALA," says the label of Hellmann's Mayonnaise. "Contains 650 mg ALA per serving; 50% of the Daily Value of ALA (1,300 mg)." Likewise, Kraft Real Mayonnaise is a "natural source of 690 mg ALA Omega-3."

Since when did mayo have ALA?

It always has. Mayonnaise is largely soybean oil, which packs 925 milligrams of ALA per tablespoon. (Canola oil has 1,300 mg, while flaxseed oil has 7,250 mg.) Hellmann's Light Mayonnaise has 260 mg of ALA per tablespoon because it has more water than oil.

The question is: do you want more ALA? Like other unsaturated fats, it helps lower blood cholesterol. But experts disagree over whether it reduces the risk of heart disease. And some studies have found that men who eat an average of 1,500 mg a day of ALA have twice the risk of advanced prostate cancer of men who average 700 mg.

Bottom line: If you want the (potential) benefits of omega-3s, go for DHA and EPA. And until experts clarify the possible link with prostate cancer, men shouldn't go out of their way to get more ALA.

Women needn't worry about getting too much. And it's tough to get too little ALA, what with all the soybean and canola oil in the food supply.



Track the Flax

You'll find omega-3 claims on Quaker Take Heart oatmeal, Kashi TLC granola bars, Barilla Plus spaghetti, and a host of other cereals, pastas, frozen waffles, and other foods.

Some, like Kashi Mediterranean Pizza, make clear what they contain ("260 mg ALA—an Omega-3"). Others, like Kashi GOLEAN Crunch! Honey Almond Flax cereal, simply say "omega-3 500 mg." How do you know if it's ALA or DHA or EPA?

If the food is made with flaxseed or flax oil, odds are you're getting only ALA. Soybean or canola oil may also supply enough ALA to warrant a claim, but flax is a dead giveaway.

In fact, it's safe to assume that any omega-3 claim refers to ALA unless the label promises EPA and DHA (which should show up in the ingredients list as fish or fish oil) or just DHA (which shows up as algal oil).

Wouldn't it be helpful if the FDA required labels with claims to say *how much* of each omega-3 the food contained? Don't hold your breath.

Slippery Spread

Smart Balance is awash in omega-3s. From Omega Peanut Butter to

Omega Oatmeal, Omega Cooking Oil, and Omega Plus Light Mayonnaise, the brand is a regular omega-3 mart.

But only one Smart Balance item gets some of its omega-3s from a source other than the ALA in flax, canola, soybean, or other vegetable oils. A serving of Omega Plus Buttery Spread has "560 mg Omega-3's" and "contains natural plant sterols & fish oil," according to the big print on the front label.

Shoppers have to read the fine print on the side—there's no shortage—to find out that each tablespoon has only 160 mg of "Long-Chain Omega-3 (DHA, EPA)" along with 400 mg of "Short-Chain Omega-3 (ALA)."

There's nothing wrong with getting fish oil from a "buttery spread"...as long as you know that you're getting a dollop of ALA along with it.

