



[CHAPTER 2]
Give Yourself An
Oil Change

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Now that we have conquered our carbs, it is time to move on to the next all-powerful dietary directive—doing your fats right. Consuming the right fats while avoiding the wrong fats remains one of the most powerful nutritional avenues to guard your health and maximize your wellness. In the pages that follow, I am going to teach you how to figure out your fats, and the health dividends you can expect to reap are simply sensational. What's more—succeeding in this essential healthy eating strategy is as simple as giving yourself an oil change.

The science is now very clear—when it comes to dietary fat and health, it's not so much the amount of fat that really matters, but rather, the type of fat. Some fats are positively, demonstrably great for you, while others are positively, demonstrably bad for you. Please forget the “low-fat” dogma that was so heavily promoted and popularized in the 80s and 90s and wake up and taste the 21st century. Recommending low-fat diets is an archaic oversimplification of the scientific facts and throws the proverbial baby out with the bath water. Additionally, if you restrict fats to a “low-fat” level, you will naturally be consuming more carbs. Given that the wrong carbs totally dominate our food environments—low-fat diets can be particularly perilous. So, have your fat and eat it too—just be sure it's the right fat!

This should be welcome news for those who consider eating one of life's greatest sources of pleasure. After all, it is largely fat that gives food its flavor and wonderful mouth feel. I want you to fully experience the sensory joys of eating while simultaneously improving your health. Learning how to do your fats right will give you this tasty and healthy opportunity. The name of the game is identifying and eliminating (or restricting) the bad fats while identifying and incorporating the good fats.

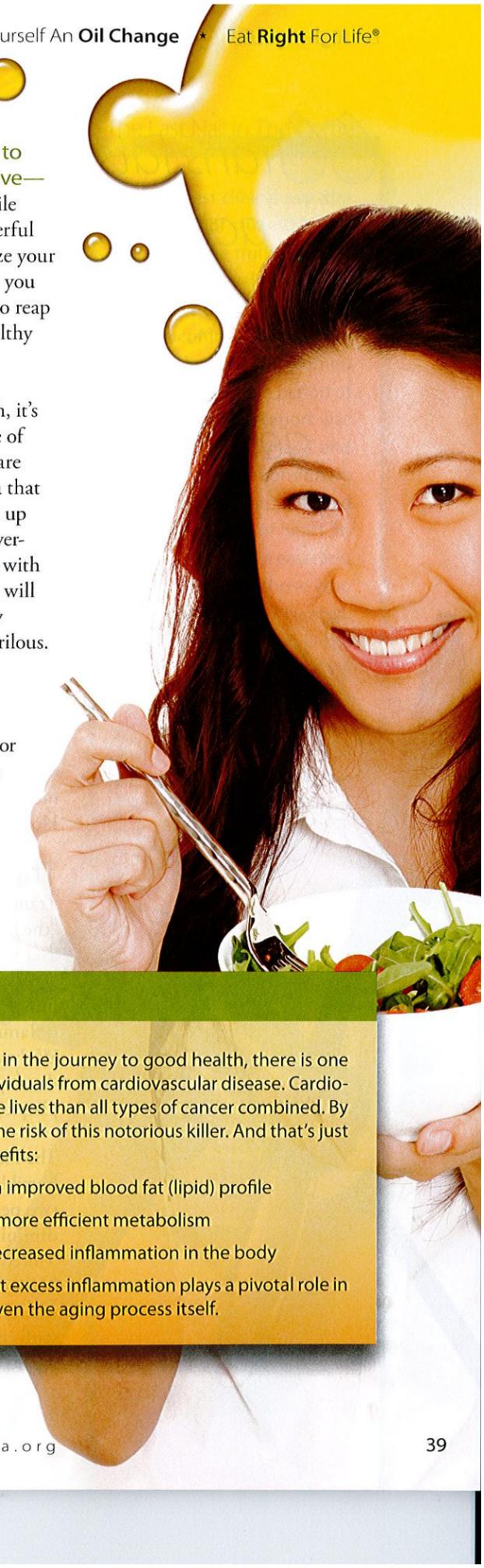
The Heart Of This Strategy

If you are curious why this particular nutritional strategy dominates in the journey to good health, there is one simple and straightforward answer: It helps prevent and protect individuals from cardiovascular disease. Cardiovascular disease remains America's single biggest killer—taking more lives than all types of cancer combined. By choosing the right fats and avoiding the wrong ones, you can slash the risk of this notorious killer. And that's just the beginning. Doing your fats right also provides the following benefits:

- Improved neurologic and mental health
- Protection from some cancers
- Decreased risk of type 2 diabetes
- An improved blood fat (lipid) profile
- A more efficient metabolism
- Decreased inflammation in the body

I get especially excited about the last bullet, as we now recognize that excess inflammation plays a pivotal role in the development and progression of almost all chronic diseases—even the aging process itself.

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“Trans fats are actually man-made, factory-generated fats.”



The Good, The Bad & The Hungry: How To Leverage The Right Fats To Satisfy Your Cravings And Improve Your Health

There are essentially two categories of bad, unhealthy fats and two categories of good, healthy fats. As mentioned earlier, the key to doing your fats right is recognizing where the bad fats lurk, and eliminating them from your diet. And for the good fats—knowing what foods provide them, and bringing them into your diet. The remainder of this chapter will provide detailed information and strategies that will allow you to succeed with this. Let’s go ahead and get the bad guys out of the way first.

THE TWO BAD FATS Bad Fat #1: Trans Fats

Simply put, trans fats are poisons. They are truly toxic substances and represent the unhealthiest ingredient in our food supply. Think of them as the food equivalent of tobacco. There is no known safe limit for any amount of this sinister, noxious agent. I urge you to strive for a zero tolerance policy when it comes to trans fats.

Trans fats are actually man-made, factory-generated fats. They are produced from a modern food technology process known as hydrogenation. During this chemical process, liquid vegetable oils are infused with hydrogen to create a fat that is solid at room temperature—like the transformation of soybean oil into stick margarine. This process is beneficial to the food industry because it improves shelf-life and provides cheaper raw ingredients. However, it is a disaster for our health on a number of fronts.

The Toll Trans Fats Take On Our Bodies

Trans fats provide a quadruple insult to your arteries, (what I like to call “the rivers of life”) clogging them more readily than any other ingredient ever identified in our food supply. Specifically, trans fats elevate LDL (bad) cholesterol, lower HDL (good) cholesterol, elevate triglycerides (another unhealthy blood fat) and directly incite arterial inflammation. And excess inflammation is especially detrimental when it occurs within the arteries. We have recently learned that inflammation is involved in virtually all developing stages of heart disease—from the initial build up of arterial plaque to the consummate heart attack.

The Harvard-based Nurses’ Health Study offers great insight on just how horrible trans fats are for the “rivers of life.” Subjects who substituted a mere two percent of their daily calories from trans fat with a healthier form of fat diminished their risk of cardiovascular disease by a whopping 53 percent. Moreover, a second report from this same study found that subjects with the highest trans fat content in their red blood cells (a marker for how much is consumed) were three times more likely to develop heart disease than those with the lowest levels.

Unfortunately, the heart and arteries are not the only victims when it comes to the detrimental effects of trans fats. A growing number of studies have linked these structurally bizarre fats to type 2 diabetes, metabolic syndrome and insulin resistance. Insulin resistance is the metabolic precursor to both metabolic syndrome and type 2 diabetes and a major contributor in the current obesity epidemic. Furthermore, a study conducted by researchers at Wake Forest University found that laboratory monkeys fed an experimental diet laden in trans fats (eight percent of their total calories) had higher blood sugar levels, more insulin resistance and gained significantly more weight, especially belly fat (the deadly type) than another group of monkeys fed the exact same diet and calories without the trans fats.

Finally, there is preliminary evidence that trans fats may even have a negative impact on our intelligence. A study conducted at the Medical University of South Carolina reported that rats fed a diet composed of 10 percent hydrogenated coconut oil (a common form of trans fat) made many more errors in navigating a series of mazes (a standard measure of cognitive function in rats) than the control group of rats fed the same diet without trans fats.

How To Eliminate Trans Fats

Thankfully, it is easier than ever to rid your diet of trans fats. This man-made fat is only found in three basic categories of foods:

- Processed foods made with partially hydrogenated oils
- Stick margarine
- Shortening

To avoid processed foods that contain trans fats, you need to do your due diligence with labels. Fortunately, a new regulation passed in January of 2006 mandated that all processed foods must list trans fats as part of the standard nutrition facts labeling. So, simply scan packaged food’s “Nutrition Facts” label for trans fats. If any amount other than “0” is listed, don’t even consider putting it in your grocery cart, much less your mouth! You can also double check for trans fats by reading the ingredient list for the words “partially hydrogenated oil.” If you see these words in the ingredients, some level of trans fats is present—so beware.

Processed foods most likely to contain trans fats include the following:

- Baked goods, especially sweets like cakes and cookies
- Crackers
- Fried fast foods
- Chips
- Popcorn

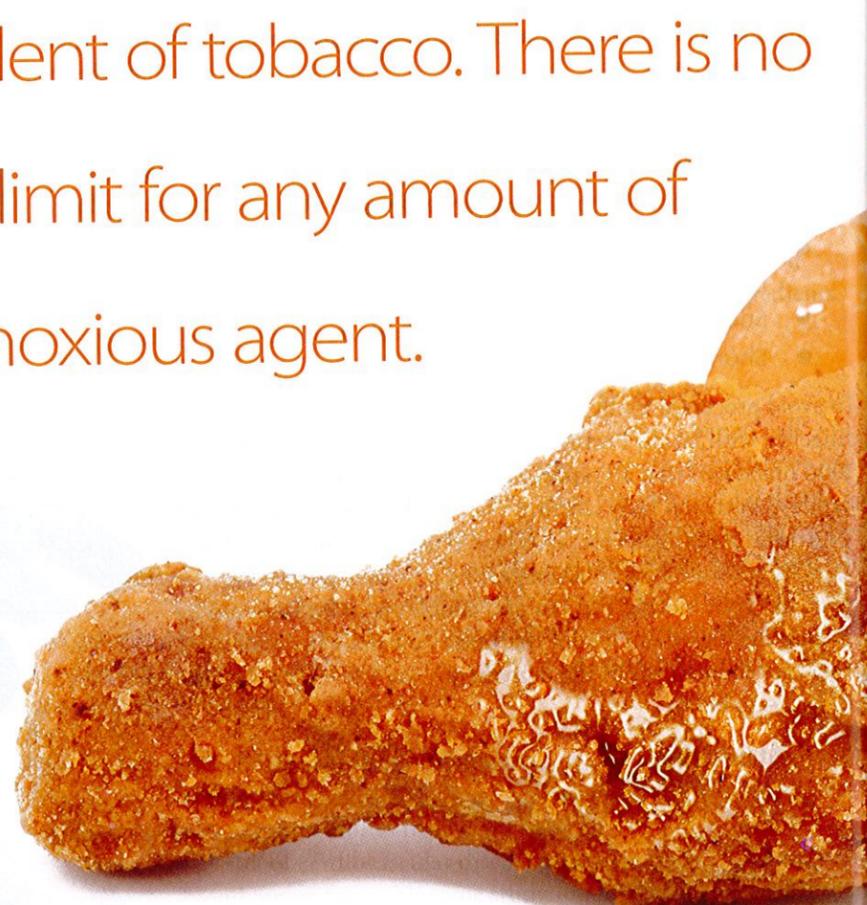
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The Last Nail In The Coffin For Low-Fat Diets

The largest clinical trial (the only kind of study that can really tell the truth) ever undertaken to evaluate low-fat diets put the proverbial nail in the coffin. This study followed over 49,000 women ages 50 to 75 for a period of eight years. The report was dubbed “revolutionary” and found that those consuming a low-fat diet experienced the same levels of heart attacks, strokes, breast and colon cancer as those who ate whatever they wanted. Interestingly, women in the study who chose to decrease their trans fat or saturated fat intake did experience a significant reduction in cardiovascular disease. Remember, it’s the type of fat in your diet that really matters.



Simply put, trans fats are poisons. They are truly toxic substances and represent the unhealthiest ingredient in our food supply. Think of them as the food equivalent of tobacco. There is no known safe limit for any amount of this sinister, noxious agent.



"Knowing what trans fats can do in the body— even looking at these foods can scare me!"



Beware Of The "New" Trans Fat!

Many food producers are removing trans fats from their foods and replacing them with "interesterified" fats. Emerging data has found that these fats may be even worse for us than trans fats. To identify foods that contain interesterified fats, look for "fully hydrogenated oil" in the ingredients list.



INGREDIENTS:
ROASTED PEANUTS,
SUGAR, MOLASSES,
FULLY HYDROGENATED
OILS, MONO- AND
DIGLYCERIDES, SALT

It's especially important to note that some fast food chains and restaurants continue to fry in hydrogenated oils that contain trans fats. It's really best to forgo any restaurant fried foods unless you are sure it was prepared in a trans fat-free frying medium. The great news, however, is that since the trans fat labeling requirements were instituted, there has been a 75 percent reduction of trans fats in processed foods. The food industry has recognized that there is growing public awareness of the dangers of trans fats and that there are suitable, healthy replacements for this toxic substance.

Bad Fat #2: Saturated Fat

Saturated fat is the second type of bad, unhealthy fat. It's easy to remember what saturated fats are and where they're found if you think in terms of "four-legged fats." Meaning, the fats in four-legged animals, namely cows, pigs and sheep, are largely of this variety and can be found in red meat, whole dairy products (whole milk, full-fat cheese, cream etc.) and butter.

Like trans fats, these fats can clog your arteries. Indeed, saturated fats hinder the flow in "the rivers of life" by increasing your bad cholesterol levels. These four-legged fats slow the clearance of LDL (bad) cholesterol particles from the blood, and if that wasn't bad enough, saturated fats then directly stimulate the liver to make more of these particles. If you are among the 53 percent of adult Americans with an unhealthy cholesterol level, please make note that it is the saturated fat in your diet that is primarily raising your bad cholesterol levels. Relatively speaking, the cholesterol in your diet has a minimal impact.

Along with elevating artery-clogging bad cholesterol, saturated fats have been shown to impair the function of HDL (good) cholesterol particles. A recent study from the *Journal of the American College of Cardiology* added to previous evidence that even a single meal high in saturated fat can immediately impede normal blood flow. Investigators fed study subjects a meal comprised of 90 percent saturated fat and observed that it interfered with HDL (good) cholesterol's important job of shielding the inner lining of arteries from damaging inflammation. Ultimately, blood flow was diminished and clotting tendency increased. For someone with underlying heart disease, this scenario could be deadly.

Additional Effects Of Saturated Fat

The health risks of consuming saturated fat may not end within the arteries. In addition to the link between saturated fat, cholesterol and increased cardiovascular risk, eating high amounts of saturated fat has been linked to several chronic conditions, including type 2 diabetes, abdominal obesity, colon and pancreatic cancer, Alzheimer's disease and age-related vision loss.

There is also some new, intriguing science that demonstrates how saturated fats affect the brain and appetite. For example, when scientists infused palmitic acid—a specific type of saturated fat found in dairy and beef—

into lab animals, their brains sent signals to ignore appetite-suppressing hormones. Moreover, this effect was immediate and lasted for three days. Simple translation—cheese, fatty beef, butter and whole milk may literally change your brain chemistry, making you more likely to overeat for up to three days. Maybe you've noticed being exceptionally hungry on the Monday and Tuesday after a weekend bender of fatty food—this is a prime example of saturated fats at work.

How To Keep Saturated Fats At A Safe Level

Although saturated fats can have adverse effects, they are not "toxic" molecules like trans fats and are safe to consume in low amounts. It is easy to keep your saturated fat intake to acceptable levels if you adhere to the following three guidelines:

1. **Limit red meat to two servings or less per week.** Red meat includes beef, pork and lamb. Be especially vigilant in limiting fatty cuts of red meat like hamburger and processed varieties like bacon, hot dogs and sausage.
2. **Restrict whole dairy products.** This includes whole milk, full-fat cheeses, cream, cream cheese, ice cream, and sour cream. Instead, choose low-fat, reduced fat, skim and fat-free varieties.
3. **Use butter sparingly.** Opt for buttery-tasting spreads like Smart Balance or better yet, extra virgin olive oil.

Be sure to check the label to ensure that it lists '0' grams of trans fat and is free of 'partially hydrogenated oil.'

A Quick & Easy Alternative For Margarine

In lieu of stick margarine, which is packed with trans fats, you can choose from a delicious array of "tubbed" spreads like Smart Balance. Whatever alternative you choose, be sure to check the label to ensure that it lists "0" grams of trans fat and is free of "partially hydrogenated oil."



An Exception To The Rule: **Coconut Oil**

Although coconut oil is a heavily saturated fat, it is an obvious exception to the saturated fat, four-legged animal rule. Coconut oil is different. Recent studies have indicated that coconut oil may actually have beneficial effects on blood fats. Coconut oil is uniquely high in shorter chains of saturated fatty acids, known as medium chain triglycerides. These shorter fatty acids appear to boost levels of good (HDL) cholesterol. Although definitive, long-term data on coconut oil and its impact on cardiovascular risk are not yet available, I'm comfortable telling you that coconut and coconut oil can be included in moderation as part of your quest to Eat Right For Life®. If you like it, enjoy shredded coconut in your granola or coconut milk in your Indian cuisine. When I very occasionally fry my chicken, I always use coconut oil as my frying medium. It stands up very well to very high heat and produces a wonderful crisp, finished product.



The Two Good Fats

Now that we have cleared your cupboards, shopping carts and ultimately your mouths of the wrong fats, we can replace them with the right ones. Indeed, including good fats in your diet can truly promote good health. The two good, healthy fats are the monounsaturated and omega-3 class of fats. The very best science available undeniably suggests that the majority of your daily fat calories come from these fats. Let's delve right into the tasty monounsaturated fats first.

Good Fat #1: Monounsaturated Fat

Monounsaturated fats are plant-based fats that remain liquid at room temperature. They can be found in olive oil, canola oil, avocados, nuts and seeds. When you include monounsaturated fats in your diet, you are literally guarding and improving your health. Just as you feel great about downing a plate of steamed veggies, you can feel just as empowered when you add monounsaturated fats to your diet.

The Big Benefits Of Monounsaturated Fats

So just how do these special fats improve and protect your health? In a nutshell (pun intended), they are the polar opposite of bad fats. Just as we learned how bad fats can clog your "rivers of life" and impair metabolism, monounsaturated fats can actually improve the health of your arteries and boost metabolism.

Monounsaturated fats help protect your heart. In fact, these fats can lower bad (LDL) cholesterol levels, lower triglyceride levels and in some cases even elevate HDL (good) cholesterol levels. Monounsaturated fats also offer some protection against insulin resistance, which can translate to a more efficient metabolism and protection from type 2 diabetes.

I know from working with thousands of patients that viewing certain high fat foods as healthy can be a challenge. After all, this is certainly a rapid departure from what many of us have heard for the past three decades. To further convince you and send you on your monounsaturated way, here is a bit more about the healthy goodness monounsaturated fats can provide, and how you can easily incorporate them into your daily diet.

Excellent Sources Of Monounsaturated Fats

EXTRA VIRGIN OLIVE OIL

There is perhaps no other regional diet so powerfully and consistently linked to good health than the Mediterranean diet. Those enjoying this delicious and healthy fare usually live longer and have a lower occurrence of chronic diseases, including cardiovascular disease, Alzheimer's, type 2 diabetes, arthritis, autoimmune disease, some cancers and depression. Of course, olive oil plays a starring role in Mediterranean cuisine. Aside from housing the highest concentration of heart-healthy monounsaturated fatty acids, olive

oil is also teeming with beneficial plant compounds called polyphenols. Polyphenols are potent antioxidant and anti-inflammatory compounds that exhibit truly eye-popping benefits in many lab tests. Preliminary findings show that polyphenols can help fight cancer, lower blood pressure, relieve pain and prevent blood clots. Although these laboratory findings have yet to be fully validated, it is now widely accepted that consuming foods with powerful antioxidant and anti-inflammatory properties is highly beneficial to your health. I consider extra virgin olive oil the healthiest oil you can eat because of its rich supply of heart-healthy monounsaturated fats and polyphenols.

The healthiest way to include olive oil in your diet is to use the "extra virgin" variety (EVOO). Extra virgin signifies that the oil has been obtained through gentle pressing of the olives as opposed to heat and chemical extraction. This process preserves its rich supply of polyphenols. Use EVOO in foods prepared or served cold, at room temperature or with low heat, like pan sautéing. Olive oil has a relatively low smoke point, (410° F) which means that if it is exposed to high heat (grilling, frying, broiling) its fatty acids become oxidized and transform into highly reactive, toxic molecules, called free radicals.

Quick Tips

Enjoy extra virgin olive oil in your salad dressings, dip your bread in it, drizzle it on your vegetables and pasta dishes after cooking or use a bit of it in your skillet before stir-steaming or gently sautéing your veggies over low heat.

CANOLA OIL

Canola oil, the other monounsaturated oil, is a relatively tasteless oil derived from rapeseeds. Canola oil provides a nice dose of omega-3 fats along with monounsaturated fats. This dynamic duo likely accounts for the truly remarkable results from the famed Lyon Heart Study. In 1988, French researchers took 605 adult survivors of a first heart attack and put half of them on the standard American Heart Association's "Heart Healthy Diet" and the other half on a special "Mediterranean Diet." The Mediterranean diet group included a specially formulated Canola oil-based spread as the primary fat. The study was initially intended to last for five years, but was halted after just two because of the profound benefits noted in the Mediterranean diet group. Those who followed this plan reduced their risk of death from any form of cardiovascular disease, including heart attack, stroke and heart failure by 76 percent.

Quick Tips

I recommend canola oil for dishes in which the high flavor of EVOO is not desired. For baking and high heat cooking, it's best to use "refined" also known as "high heat" canola oil, as standard canola oil has a lower smoke point and will oxidize readily when exposed to higher temps just as olive oil does.

The New Skinny On **Olive Oil**

I consider extra virgin olive oil a superstar food, and a fascinating study in the October 2008 issue of *Cell Metabolism* provided yet another reason to make EVOO the oil of choice: appetite control. Olive oil is uniquely high in a specific type of monounsaturated fat called oleic acid. In this study, scientists infused oleic acid directly into the gastrointestinal tract of laboratory rats and found that it triggered the release of potent appetite-suppressive neurochemicals, which ultimately quiet the brain's hunger center. The laboratory rats that received the oleic acid ate less than the control rats that were not given the oleic acid. A similar report in *Gastroenterology* noted the same findings and also found that oleic acid delayed stomach emptying, giving rise to a prolonged sense of fullness. You can leverage olive oil's potential to quiet your inner cookie monster by incorporating the oil into your appetizers—try tossing a little extra virgin olive oil vinaigrette in your salad.

Discover more tips and tricks like these by watching a free video on my website:

www.DrAnnWellness.com

Dr. Ann's
Pumpkin Seeds Tip

One of my favorite snacks is toasted pumpkin seeds. I'm always surprised by how few people have tried this delicious and super nutritious snack. You can buy fresh pumpkin seeds in bulk at most grocery stores (note: the seeds will be green). Simply lay them on a baking sheet, mist with canola pan spray and salt lightly, if desired. Roast for a few minutes at 375 degrees until golden brown.



AVOCADOS

Avocados are exploding with life-preserving nutrients. I am always amazed by the number of people who consider avocados unhealthy or fattening. The reality is that this fruit is actually a true wonder food. In fact, avocados are included on the top 20 "most potent antioxidant foods" list. This unique fatty fruit provides a hefty dose of heart-healthy and metabolism-boosting monounsaturated fats that come along with a generous dose of fiber, vitamin E, B vitamins and special cholesterol-lowering plant agents called phytosterols. This unique package of nutritional attributes renders avocados extremely valuable for heart and brain health. Avocados are the quintessential brain food, so get smart and go guacamole!

Quick Tips

Avocados are a great addition to your salads. You can try mashing them and using them as a replacement for mayo on your sandwiches. Sliced or diced avocados with a little lemon and pepper are also delicious all by themselves.

NUTS

When it comes to life-saving performance, nuts score a perfect ten. They provide healthy vegetable protein, a rich supply of minerals, including magnesium, selenium and zinc, all forms of vitamin E, B vitamins, antioxidants and fiber, along with cholesterol-lowering phytosterols. They are also a superb source of the amino acid arginine, which provides the building block for the body's production of nitric oxide—the all important universal artery opener.

According to a number of powerful studies, including the Seventh Day Adventist Study and the Nurses' Health Study, consuming a small handful (about one ounce) of nuts five or more days a week can reduce the risk of death from cardiovascular disease by 30 to 50 percent. This is quite impressive considering that most prescription drugs only provide a 25 to 30 percent risk reduction (and they don't taste nearly as good!).

Concerns about weight gain from eating nuts regularly are completely unfounded. In fact, nuts are being studied as a possible "functional food" for weight loss. Cultures whose indigenous diets include nuts as a staple are leaner than their non-nut eating counterparts. And clinical studies back this up. With the exception of those who are allergic, I tell everyone—even those who need to lose weight—to include a small handful (about one ounce) of nuts in their daily diet.

In addition to pleasing your taste buds and protecting your heart, consuming nuts has been associated with a reduced risk of type 2 diabetes, vision preservation and longevity. *The Journal of the American Medical Association* reported that women who consumed an ounce of nuts at least five times a week were 27 percent less likely to develop diabetes versus those who rarely ate nuts. *The Archives of Ophthalmology* reported that

consuming as little as an ounce of nuts a week reduced the risk of age-related macular degeneration, a leading cause of adult blindness, by about 40 percent.

Quick Tips

You can choose from a variety of nutritious and tasty nuts, including cashews, walnuts, pecans, hazelnuts, almonds, Brazil nuts, macadamias, pistachios and chestnuts. Strive for variety as they each have unique nutritional features. For example, Brazil nuts are loaded with cancer-fighting selenium; walnuts are a great source of omega-3 fats; almonds are high in the potent antioxidant gamma tocopherol; cashews are loaded with copper and magnesium. Have them as your standard 4:00 PM snack. Throw them into your salads, top your oatmeal or morning cereal with a few or spread your whole grain bagel with some almond butter.

SEEDS

Like nuts, seeds provide a comprehensive and dense package of health-boosting nutrients and heart-healthy fats. Pumpkin seeds, sunflower seeds, sesame seeds and flax seeds can enhance the flavor of your meals or stand alone as a tasty snack. Furthermore, any oils derived from both nuts and seeds offer similar health benefits. Cooking with sesame seed oil, walnut oil and the like are not only healthy, but can also add interesting flavor to your dishes. Sesame seed oil and grape seed oil are great for high-heat cooking like stir-frying.

A Prescription For
Pistachios

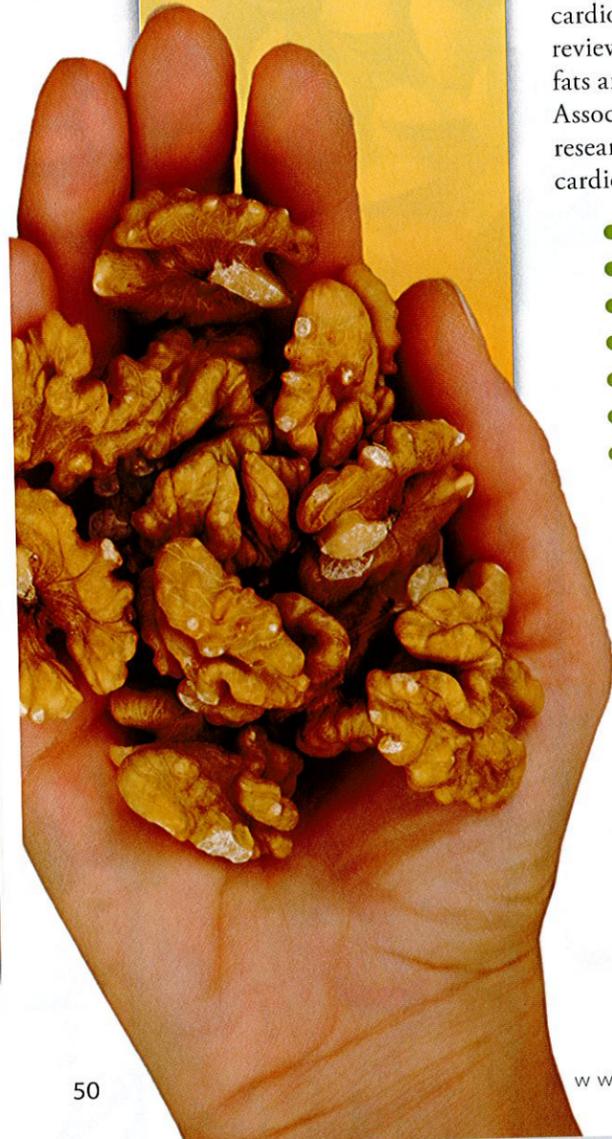
Studies have repeatedly shown that nuts provide powerful cardiovascular protection. Although scientific evidence is firmly established for almonds and walnuts, studies on pistachios have been lacking. However, thanks to a clinical trial in the September 2008 issue of the *American Journal of Clinical Nutrition*, pistachios can now join the ranks as a heart-healthy food. In this study, scientists provided one, two or no dose (one dose = one small handful) of daily pistachios to three groups on equal calorie diets and measured the impact on their cholesterol levels. Those consuming the one and two doses of pistachios had a nine percent and 12 percent reduction in LDL (bad) cholesterol levels when compared to the no-pistachio control group after four weeks.

The study's authors concluded it was pistachios' unique "package" of nutrients and bioactive factors that were largely responsible for the results. Pistachios are an excellent source of healthy fats and are loaded with powerful antioxidants. Compared with other nuts, pistachios are the very best source of phytosterols (nature's cholesterol-lowering drug), potassium, vitamin B6, beta-carotene and lutein/zeaxanthin.



Don't Get Too Nutty: Portion Control Is Key

Just as nuts and seeds are dense in nutrients, they are also dense in calories. Eat nuts or seeds daily, but limit your indulgence to one ounce—this is about 20 almonds or 12 pecan halves or roughly a nice handful. For those who are concerned about calorie intake, you can now buy pre-packaged, single one-ounce servings of nuts that give you “built in” portion control.



Good Fat #2: Omega-3 Fats

There are few nutritional topics that ignite my passion and enthusiasm more than the subject of omega-3 fats. Not only are these fats essential, but a flood of new data from the past two decades has revealed that they also have dazzling health benefits. Omega-3 fats are one of the most powerful weapons in our nutritional arsenal to defend against chronic diseases. However, as a result of modern food technology and agricultural practices, the availability of this fat in the standard American diet has dramatically diminished. Diets with insufficient amounts of omega-3 fats have been linked to several health conditions, including heart attacks, depression, arthritis, Alzheimer's, macular degeneration, autoimmune diseases, allergies and asthma. Conversely, higher intakes of omega-3 fats have been associated with protection from many of these same diseases.

The Big Benefits Of Omega-3 Fats

While monounsaturated fats like olive oil and canola oil are great for protecting your heart, omega-3 fats are hands-down heart health superstars. Hundreds of medical studies have demonstrated the powerful cardio-protective features of omega-3 fats. A powerful, comprehensive review of all published studies on the relationship between omega-3 fats and cardiovascular disease was published in the American Heart Association's Journal, *Circulation*. Based on this thorough evaluation, researchers determined that omega-3 fats provide seven separate cardiovascular benefits. These benefits include the following:

- Reduced progression of atherosclerotic plaque
- Reduced risk of arrhythmia and sudden death
- Lowered triglycerides levels
- Reduced blood clotting tendency
- Lowered blood pressure
- Enhanced arterial health
- Reduced arterial inflammation

Best of all: There are no dangerous side effects or prescription drug costs that accompany these benefits—all you have to do is simply eat tasty, omega-3 rich foods!

In addition to pleasing your taste buds and protecting your heart, consuming nuts has been associated with a reduced risk of type 2 diabetes, vision preservation and longevity.

Omega-3 Fats: Then & Now

For our hunter/gatherer ancestors, omega-3 fats were plentiful throughout all areas of the food chain from tender green vegetation to fish to fowl and even large mammals like buffalo. In fact, paleo-anthropologists have quantified that our ancient predecessors consumed 5,000 to 6,000 milligrams of omega-3 fats a day. That is about 50 times more than the current average American intake!

The only good news in this tragic story is that omega-3 fats are left in so few foods that you can quickly and easily memorize the list:

- Oily fish: salmon, tuna, mackerel, sardines, herring and lake trout
- Walnuts
- Wheat germ
- Small leafy greens
- Whole soy foods
- Omega-3-fortified eggs
- Canola oil
- Flax seeds
- Oysters

Keep in mind that seafood and omega-3 eggs are the only omega-3 foods that can provide the biologically active forms, DHA and EPA. These two specific omega-3 fatty acids play direct roles in the regulation of our bodily processes. DHA and EPA are frequently referred to as the “long-chained omega-3 fats.” Omega-3 eggs and seafood, especially oily fish, are the best food sources for this amazing fat.

Omega-3 & Heart Health

The scientific evidence supporting the cardiovascular benefits of omega-3 fats, DHA and EPA is so compelling that the FDA now allows food companies that provide products containing these fats to make claims on their package labels, promoting the heart-healthy benefits they can provide. As a result, more food manufacturers are spiking products like organic milk, salad dressings, margarine spreads and juices with DHA and EPA. Although every little bit helps, please know that the amounts of DHA and EPA in these “fortified” foods is typically much less than what you get in foods that provide them naturally like oily fish. For example, there are 100 mgs in some fortified milks, while there are 2,000 mgs in a two-ounce serving of salmon.

Omega-3 & Brain Power

The ancient Greek philosopher and physician Hippocrates was dead-on when he proclaimed, “What's good for the heart is likely good for the brain.” If you take the human brain and remove all of its water, about 60 percent of what's left (known as the “dry weight” of the brain), is actually fat. However, the fat in our brains is nothing like the fat sitting on our hips and thighs, but rather a vital, structural, bioactive fat that plays a crucial role in all aspects of brain function (focus, memory, mood, etc). And it just so happens that the special fat that makes up the majority of the unique fatty architecture of our brains is none other than omega-3, specifically DHA. Think of DHA as your brain's most prized and highest quality building material. I like to refer to DHA as the “Fairy God Mother Fat” because it makes so many of our health dreams come true.

(Continued on page 54)

Heart Felt News For Fish Oil

The Journal of American Cardiology recently gave omega-3 fats, DHA and EPA a glowing endorsement. After an exhaustive review of studies that included thousands of subjects, cardiovascular experts concluded that the data is “tremendous and compelling” that omega-3 fats in oily fish and fish oil supplements provide heart protection on several different fronts. Those who benefit most from omega-3's heart-healthy magic are patients with established cardiovascular (CV) disease who can enjoy up to a 30 percent reduction in CV-related death. The data also support heart benefits for healthy individuals too. The best dietary sources of DHA and EPA are salmon, herring, mackerel, sardines, lake trout and oysters. Fish oil supplements are also a simple and convenient option. However, it's always a good idea to check with your healthcare provider before taking supplements. To learn more about fish oil supplements and omega-3 fats, watch free video clips on my website:

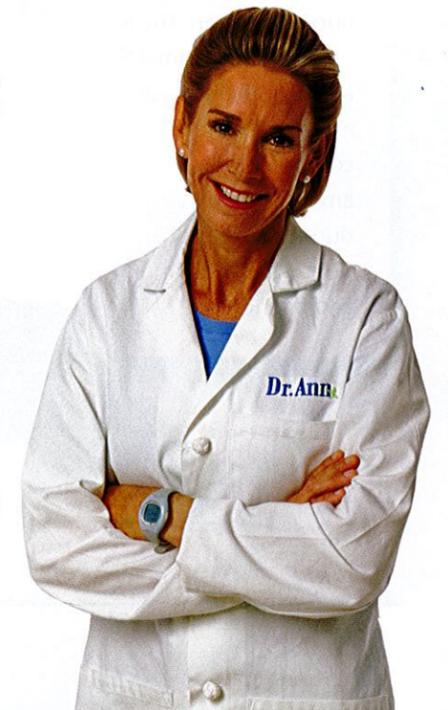
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Omega-3 Fats—
“fats that you can love,
that love you back.”

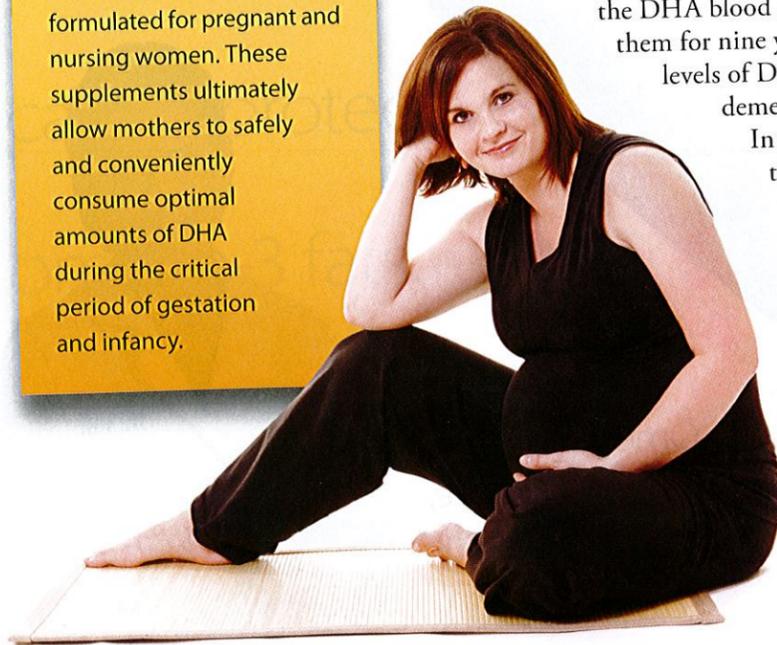


Pregnant Women Take Note:

Omega-3s Are Essential

The majority of the solid structure of the brain is formed in-utero, so perhaps there is no more critical time for getting optimal amounts of omega-3 fats than during fetal development. A report in the *American Journal of Clinical Nutrition* adds to other study findings that prenatal intakes of omega-3 fats via a mother's diet may boost her baby's brain power. In this particular study, 9-month-olds whose mothers had eaten DHA-fortified snack bars during pregnancy did much better on problem-solving tests compared to babies whose mothers had not eaten the DHA bars.

There are now algae-based DHA supplements available that have been specifically formulated for pregnant and nursing women. These supplements ultimately allow mothers to safely and conveniently consume optimal amounts of DHA during the critical period of gestation and infancy.



Considering the critical role that omega-3 fats play in brain health, and knowing that our intakes have so greatly diminished, it shouldn't really be a surprise that mental health disorders and degenerative neurologic diseases have substantially increased over the past 75 years. Repeated epidemiologic studies have shown a clear and consistent relationship between rates of depression and fish consumption. The residents of Japan are a brilliant example. Because fish and other omega-3 foods like soy beans are a dietary staple, the traditional Japanese diet contains about 10 to 15 times more omega-3 fats than the standard American diet. As such, Japan's rate of depression is about one-tenth the rate in the U.S. Further, a major review of published research looking at the relationship between depression and dietary levels of omega-3 fats found a significant antidepressant effect from this class of fats.

This "happy fat" appears especially important in both optimizing and preserving cognitive function. Indeed, the anatomic equivalent of learning is the formation of new neuronal communication centers known as synapses, which connect brain cells to one another. Think of the synapse as the lynchpin of learning. During the learning process, brain cells literally sprout or grow new connections called dendrites that deliver the learned information at the level of the synapse to the receiving cell. Dendrites are composed largely of DHA. Brains deprived of DHA are compromised in forming optimal nerve cell connections and thus learning.

A rapidly growing number of studies are shedding light on the fundamental role omega-3 fats (specifically DHA) provide for helping maintain intellectual capacities and protecting from the ravages of Alzheimer's and other forms of dementia. As part of the famed Framingham Heart Study, researchers collected data on the DHA blood levels in 899 adults. After following them for nine years, the people with the highest blood levels of DHA were 47 percent less likely to develop dementia versus those with lowest levels.

In this particular study, those who had the highest DHA blood levels reported they ate fish two to three times a week. A second report found that healthy elderly men who ate the most fish had a slower decline in cognitive function than those who did not eat fish.

Moreover, a provocative laboratory study conducted by researchers at LSU made history when they were able to identify just how DHA protects the brain from Alzheimer's

and dementia. They discovered that DHA actually reduces the brain's build up of damaging Alzheimer's plaques, by conversion to a substance called neuroprotectin D1. This protective agent, aptly referred to as the "golden brick," shields the brain from inflammation and oxidation, which can ultimately lead to Alzheimer's. Compared to normal brains, the LSU researchers found that some areas of Alzheimer's brains had 25 times less neuroprotectin D1.

Omega-3 & Our Overall Health

Let me give you one final reason to buy into omega-3 fats, and to buy in quickly: broad spectrum disease protection. It is now widely accepted that inflammation plays a pivotal role in the development of most chronic diseases. Heart disease and inflammation have long been tied, but we can now link excessive inflammation with high blood pressure, metabolic syndrome, type 2 diabetes, obesity, many cancers, Alzheimer's, Parkinson's, autoimmune conditions, allergies, asthma and even the aging process itself. Omega-3 fats are ferocious inflammation fighters. In fact, they are the building blocks for almost all of the body's innate anti-inflammatory substances. If you do not maintain optimal amounts of omega-3 fats, DHA and EPA, your body simply won't be able to effectively counter the damaging effects of excess inflammation. Therefore, eating omega-3-rich foods is one of the most effective strategies to keep your body's anti-inflammatory machinery in good working order.

Most nutrition experts agree that the average American diet is deficient in this critical essential nutrient. It's even been reported that DHA levels in the breast milk of U.S. women were lower than any other country except the Sudan. An additional study revealed that omega-3 fats couldn't even be detected in 20 percent of the study's participants. A few years back, I attended a conference at Columbia University that convened the world's experts on omega-3 fats and health. Joseph Hibbeln MD, a NIH-based renowned expert in omega-3 fats and brain health, was posed this question after his presentation: "What percentage of Americans do you think get enough omega-3 fats for optimal brain function?" His answer: "Perhaps two to three percent."

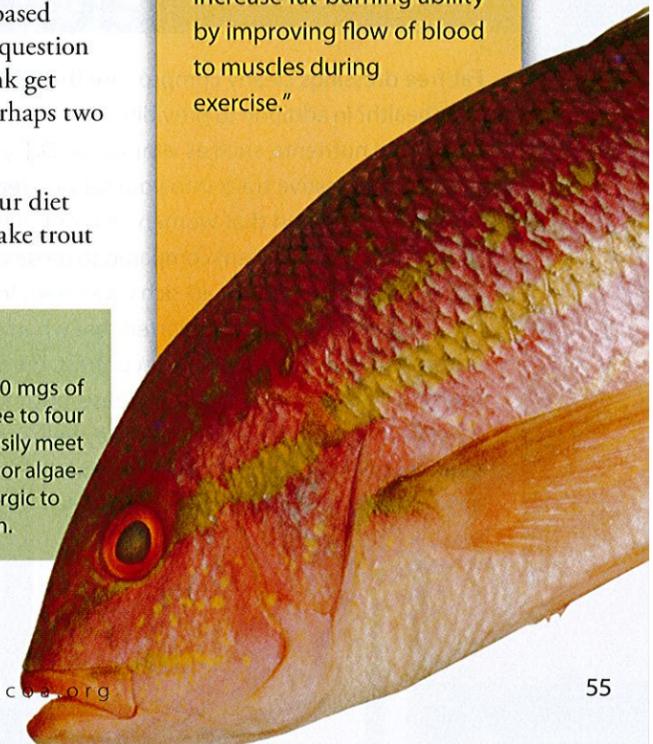
Bottom line: include omega-3 fats, especially DHA and EPA in your diet regularly. The richest food sources are oily fish like salmon, tuna, lake trout and sardines.

Quick Tips

Most nutrition experts, myself included, recommend 500 mgs to 1,000 mgs of omega-3 fats, DHA and EPA daily. (I prefer 1,000 mgs/day) If you eat three to four servings of oily fish a week, along with a few omega-3 eggs, you should easily meet this recommendation. If this is difficult or impossible for you to do, fish oil or algae-based DHA supplements are a convenient option. For those who are allergic to fish, algae-based DHA supplements like "Life's" brand are the best option.

Omega-3 Fats Can Help You Get Lean!

It sounds too good to be true, but emerging science suggests that omega-3 fats can help us lose weight. University of South Australia researchers divided 68 people who were obese or overweight into four groups. One group took daily fish oil (a supplement form of omega-3), the second sunflower oil (no omega-3), the third fish oil plus exercise and the fourth sunflower oil plus exercise. The group that exercised and took the fish oil lost an average of four-and-a-half pounds by the end of the three-month study. The sunflower oil group that exercised lost no weight as did the other groups that did not exercise. The lead researcher reported that "the omega-3 fats found in the fish oil likely increase fat-burning ability by improving flow of blood to muscles during exercise."





Forgo "Fat-Free" Salad Dressings

Fat-free dressings clearly compromise the taste of your salad, but did you know that they can also compromise your health? In addition to providing flavor and texture, fats also act as a vehicle, transporting critically important, fat soluble nutrients, such as vitamins A, D, E and K. Fats also carry antioxidant phytochemicals like carotenoids from your digestive track into your bloodstream. With that in mind, it wasn't too surprising when the Harvard Nurse's Study found that women who put oil and vinegar on their daily salad slashed their risk of dying from a heart attack by 50 percent compared to those who used fat-free dressings. A second study had subjects consume a large salad with carotenoid-rich vegetables topped with fat-free dressing, reduced-fat dressing or full-fat dressing. The lead investigator reported that when people ate the salads with fat-free dressing there was virtually no absorption of the carotenoids. In contrast, both of the dressings containing fat led to increased blood carotenoid levels. Carotenoids are a class of disease-busting antioxidants that constitute one of the most powerful nutritional defenses plant foods can provide. They help prevent cancers, keep the cells that line our arteries functioning well, guard eyesight and protect our skin from the damaging effects of sunlight. Take full advantage of carotenoids by eating salads topped with dressing made with a healthy fat base (extra virgin olive oil is my top pick).

I hope by now you are feeling informed, educated and motivated to do your fats right! I know this was a lot of information, so the following *Do Your Fats Right Plan Of Action* can help you remember and incorporate all of the necessary steps required for success.

PLAN OF ACTION

Do your fats right.

1. GET THE TRANS FAT OUT COMPLETELY!

- Avoid stick margarine, shortening (Crisco) and foods containing partially hydrogenated oils (found in processed foods and fried fast foods).
- Only buy trans fat-free margarine spreads.
- Check nutrition labels: Look for "0" grams of trans fats on the nutrition facts label, and as a double check, scan the ingredients list—if you see "partially hydrogenated oil" listed, don't eat it!
- Do not eat fried fast foods—fries, burgers, chicken, fish, etc.

2. MINIMIZE SATURATED FAT

- Keep saturated fats to safe and healthy levels by abiding to the following:
 1. Limit red meat (beef, pork, lamb) to two servings or less per week. Consume the lean cuts (filet, tenderloin, etc.) when you do.
 2. Use butter sparingly. Enjoy trans fat-free margarine spreads (like Smart Balance) or extra virgin olive oil instead.
 3. Always choose reduced-fat, low-fat or non-fat varieties of dairy products over their full-fat counterparts.
- If you enjoy cheese and do not have a cholesterol problem, use the highly flavored cheeses (parmesan, feta, goat) or the less fatty cheeses (part-skim mozzarella and reduced fat cheeses) in moderation.
- Use low-fat or non-fat, Greek-style plain yogurt as a substitute for sour cream or cream cheese.
- Limit dairy-based desserts. Ice cream is divine, but should be an occasional treat. If you love it, treat yourself once a week and know that some (ex: Ben & Jerry's) are much worse than others in regards to saturated fat content. I love Breyer's Light, Edy's Light, and Purely Decadent Coconut Milk ice creams.

3. CONSUME MONOUNSATURATED FATS AS YOUR MAIN FATS

- Use extra virgin olive oil or canola oil in food preparation—walnut oil, other nut oils and seed oils like sesame oil are also acceptable if called for in recipes. For cooking at high temps, use "high-heat" canola oil. For stir-frying, use grape seed or sesame seed oil.
- Consume nuts and seeds daily. Strive for a small handful (about an ounce) a day.
- Incorporate peanut butter, other nut-based butters and tahini (sesame paste); they are all excellent sources of monounsaturated fats.
- Enjoy avocados regularly—they are great for you!

4. GET THE OMEGA-3 FATS IN!

- Eat three or more servings of oily fish a week—salmon, tuna, sardines, herring, mackerel and lake trout.
- Enjoy walnuts, whole soy foods, ground flaxseeds, chia seeds, hemp seeds, wheat germ, canola oil, omega-3 eggs and dark leafy greens for additional omega-3 fats.
- Limit eggs to less than five a week if you are diabetic or have a cholesterol issue.

