



THE MULTI-PHASE NUTRITION GUIDE TO ACHIEVE ⇒ YOUR ⇐ OPTIMAL BODY

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ACHIEVEMENT AWARD

Everyday Nutrition

Eat Right to Reach Your Goals

Let me start this chapter on nutrition with the hard honest truth: I don't like watching what I eat! The fact is, the stronger I get, the more I like to believe I am Superman, or even the Incredible Hulk—some superhuman creature who can eat food all day long without consequences. However, I am simply human, with human weaknesses. Food is my weakness. I can't get enough of it.

So, for me, nutrition is the most difficult part of my training. But I have learned that I can still love food—as long as I stick to a healthy, balanced, disease-fighting nutritional regimen, I can afford a few cheat days once in a while. Your mind is stronger than you think when it comes to disciplining yourself. When you look and feel healthy, despite your challenges, it becomes easier to stick to the program and maintain it as your lifestyle. If I can do this, you can, as well.

The goal of this chapter is to provide clear nutritional guidance, address inflammation in the body, examining how to control it through nutrition and lifestyle changes, and discuss how to overcome the typical struggles of sticking with a nutritional program.

INFLAMMATION

Inflammation is a protective response by the immune system to any type of bodily injury or infection. Inflammation is a healthy and necessary part of the immune response. It occurs when chemicals are released by your immune cells, producing swelling, redness, and pain. Initially, it is beneficial when, for example, you cut yourself and tissues need care and protection.

So what's all the fuss about? Problems occur when the immune system is triggered to release inflammatory chemicals in an ongoing and uncontrolled way. The resulting health problems can appear in any part of the body, triggering disease.

The word inflammation comes from the Latin *inflammare*, meaning “to ignite.” So just imagine a fire that burns uncontrollably, creating a path of destruction. More inflammation is created in response to the existing inflammation, unless the fire is put out. Certain conditions, such as asthma, allergies, arthritis, cardiovascular disease, and autoimmune disorders, have a clear inflammatory component.

It's widely accepted, however, that chronic, low-level inflammation—sometimes called “silent” inflammation—has now been linked with diseases ranging from heart disease, diabetes, digestive disorders, cancer, and depression to

Alzheimer's disease. Inflammation also appears to be a key factor in accelerating the aging process, including skin aging and other outward signs of aging. Low-level inflammation can also be a roadblock for weight loss.



Doctor's Note

We now think that one possible reason for the worsening of autoimmune diseases over a matter of decades is that the brain smolders with microscopic inflammation. This inflammation is undertreated, with at least some treatments, and requires stronger treatments or additional approaches. Although not well studied, diet may be one way to control some inflammation in autoimmune diseases.

NUTRITION AND AGING

Nutrition is a major part of the battle against aging and disease. It has multiple facets, from the foods you eat and the liquids you drink to the supplements and herbs you add to your diet plan. Although some inflammatory diseases have diet prescriptions—a cardiac diet, for example—there is no official diet prescription for aging and disease. However, this chapter includes common sense recommendations backed by scientific studies. In a 2015 groundbreaking study by Riccio and Rossana published in the journal *ASN Neuro*, researchers said that the Western-style diet—characterized by red meat, sugar-sweetened drinks, fried food, low fiber, and a lack of physical exercise—produces and encourages inflammation. “Eating this type of diet over the long term creates pro-inflammatory pathways and an imbalance of our gut microbiota, which in turn affects the immune system and the ongoing inflammation in our bodies,” explains Pelle.

The gut microbiota describes the microbe population living in our intestines. Our gut microbiota contains tens of trillions of microorganisms. Some are beneficial while others are harmful. Our bodies work closely with these unseen residents, trying to maintain a balance. Our nutritional intake, physical activity, medications, stress levels, and other factors, affect our gut microbial populations, which can have a huge effect on our health.

All disease begins in the gut. Hippocrates made this statement more than 2,000 years ago, and it is just as true today. It's worth noting that gut microbiota are being studied extensively and appear to be critically important in many areas of health.

Despite knowing there are elements we can control, many people with health issues do the opposite of what they should when it comes to nutrition. They may feel they are already limited, or too far from their ideal bodies, so why make the effort to eat right? Or maybe fatigue gets in the way. Just as exercise and a proper training system should be implemented with or without a health issue, so should a nutrition plan.

The good news is that exercise, combined with an anti-inflammatory diet and emphasis on probiotic foods, can help decrease the body's production of inflammatory substances and promote balance in the gut microbiota. When we take control of our lifestyle, we can affect the health of our cells, and the population of our gut microbiota, thereby altering our immune system and chronic inflammatory disease.

The OptimalBody approach to nutrition is a balanced method of fueling your body for maximum physical and mental strength. Poor nutrition depletes your body of strength and energy. Optimal nutrition propels your body forward to meet life's challenges and overcome its obstacles. The Optimal-Body approach combines movement and muscle toning with a diet of anti-inflammatory foods and supplements, ensuring positive results.



Doctor's Note

Diet is clearly important for people dealing with chronic conditions. We know that salt, and certain fats and spices, influence inflammation (as seen in animal studies). We know that vitamin D supplementation, or diets rich in vitamin D, is helpful in controlling inflammation activity. Many of my patients who start diets designed for MS feel better and seem to be more stable neurologically. Unfortunately, this is hard to study scientifically so we may never know how good any given diet is for autoimmune diseases.



Doctor's Note

For chronic conditions, diet not only affects disease activity but also its symptoms. Fatigue increases with high sugar, high-fat diets, as well as with alcohol. Foods rich in magnesium can help with spasticity and pain. Obesity is a significant problem for people with chronic conditions, and a good diet can help reduce weight to improve mobility and other weight associated symptoms.

ADDRESSING INFLAMMATION WITH DIET AND LIFESTYLE

We've established a link between disease and inflammation, and research suggesting a total diet and lifestyle approach is one of the best prescriptions for reducing inflammation and other risk factors for disease. This basic starting point allows our bodies to heal, repair, and rebuild.

One of the biggest factors that helps control inflammation is the food you eat. Certain foods promote inflammation, while others stop it. There is no one-size-fits-all anti-inflammatory diet. In a nutshell, to move toward an anti-inflammatory diet, we primarily move away from the overly processed Standard American Diet (appropriately called SAD), and move toward the ancient eating patterns of the Mediterranean diet.

A Mediterranean diet includes:

- ✓ Beans
- ✓ Fish
- ✓ Fresh fruits and vegetables
- ✓ Herbs
- ✓ Nuts and seeds
- ✓ Olive oil
- ✓ Whole grains
- Limited amounts of red meat and dairy
- ✗ No artificial chemicals



Doctor's Note

Neurologists believe that omega-3 fatty acids, found in many of the foods typical of the Mediterranean diet, help fight inflammation in the body.

Numerous resources promote anti-inflammatory eating, and each has its own spin. One noted expert is Andrew Weil, M.D., whose anti-inflammatory food pyramid is an excellent dietary guide. Our dietitian, Monica Pelle, R.D., adheres to similar recommendations in her lists of anti-inflammatory foods that follow. Her diet recommendations focus on plant-based foods, because phytochemicals—natural chemicals found in the plants—are believed to help reduce inflammation. Such anti-inflammatory foods can regulate the immune system and change the way inflammation affects our bodies and our lives.

Recommended Anti-Inflammatory Foods

The following information provides an excellent starting point for identifying anti-inflammatory foods and beverages to incorporate into your nutrition plan. Use this practical guide to create meal plans according to your tastes, tolerances, and preferences. There is a trial-and-error phase when trying new, healing foods. As you get the processed junk out, your palate will adapt. Most people come to crave real food as they eliminate inflammation-causing foods.

As with other lifestyle changes, an anti-inflammatory diet is not meant to be a short-term eating plan. Rather, it is an ideal nutritional foundation for every family member, every day. Thinking about it less as a special diet and more as a nutritious, family-friendly way of eating may help you integrate it into your routine more easily. The more anti-inflammatory choices you make, the more you help your body maintain optimum health.

In addition to influencing inflammation, this style of eating provides steady energy, vitamins, minerals, omega-3 fatty acids, dietary fiber, and protective phytonutrients. Good nutrition is crucial to the health and function of every cell in your body. We can see the connection and significance of both diet and exercise in the prevention or progression of disease.

Foods to Avoid

We've just looked at recommended foods that can help strengthen and heal your body. For best results on the OptimalBody program, also avoid foods that create barriers on your road to fitness. Those barriers may include inflammation, pain, fatigue, disease, dysfunction, mood swings, depression, anxiety, weight gain, and feelings of failure.

Remember, perfection is not necessary. Balance, not deprivation, is the goal. Consistently avoiding the foods on page 42 in favor of more energizing and healing foods will help you reach your goals.



Doctor's Note

There is no one best diet for chronic conditions. Try to find a healthy diet you enjoy that adds value to your quality of life. Many patients who modify their diet eliminate gluten or choose a Paleo diet. As long as you tolerate these changes and, hopefully, feel better as well, these are all fine diets.



Doctor's Note

Remember to balance all these issues and concepts when designing a diet for yourself. The most important thing to keep in mind is how good you feel over time on any particular diet.

Healing Anti-Inflammatory Foods

Food group and serving recommendations	Guidance	Suggested foods
<p>VEGETABLES</p> <p>Servings: On an anti-inflammatory meal plan, the majority of daily food servings comes from vegetables; a minimum of 4 to 5 servings per day.</p> <p>1 serving = 2 cups (142 g) leafy greens; ½ cup (~60 g, depending on the vegetable) of vegetables cooked, raw, or juiced</p>	<ul style="list-style-type: none">• Choose a wide range of colors.• Try to include raw servings daily.• Steam or boil green vegetables in a little water, but do not overcook to avoid losing vitamin content.• Eat cruciferous (cabbage family) vegetables regularly.• Eat plenty of green leafy vegetables.• Choose organic when possible. <p>Make note of the Dirty Dozen (most pesticide-contaminated foods) at www.ewg.org to determine which are best to buy organic.</p>	<p>Artichokes Asparagus Beets Bell peppers Broccoli Brussels sprouts Cabbage Carrots Cauliflower Celery Cucumbers Garlic Green beans Green leafy vegetables: dark green, leafy lettuce, swiss chard, spinach, kale, collard greens, bok choy, micro greens Jicama Mushrooms Onions Pumpkin Sea vegetables Shiitake mushrooms Squash Sugar snap peas Sweet potatoes Tomato Zucchini</p>

Food group and serving recommendations	Guidance	Suggested foods
<p>FRUITS</p> <p>Servings: 3 servings per day.</p> <p>1 serving = 1 medium piece; ½ cup [~75 g depending on the fruit] diced fruit; ¼ cup [grams vary] organic dried fruit with no added sugar</p>	<ul style="list-style-type: none"> • Choose a wide range of colors. • Choose fruits that are fresh and in season, or frozen. • Choose organic when possible. Make note of the Dirty Dozen (most pesticide-contaminated foods) at www.ewg.org to determine which are best to buy organic. • All fruits in this list are lower in glycemic load (how they raise blood sugar levels) than other fruits. 	<p>Apples</p> <p>Berries: blackberries, blueberries, boysenberries, cranberries, raspberries, strawberries</p> <p>Cherries</p> <p>Lemon</p> <p>Lime</p> <p>Oranges</p> <p>Pears</p> <p>Pineapple</p> <p>Pink grapefruit</p> <p>Pomegranate</p> <p>Red grapes</p>
<p>WHOLE GRAINS</p> <p>Servings: 3 to 5 servings per day.</p> <p>1 serving = ½ cup [~100 g depending on the grain] cooked grains</p> <p>Pasta: 2 to 3 servings per week; 1 pasta serving = ½ cup [~70 g]</p>	<ul style="list-style-type: none"> • A gluten-free diet may be beneficial. Not all whole grains listed are gluten-free. • Focus on grains (with a low glycemic load) that are less refined, less processed, high in fiber, slowly digested. • Reduce your consumption of foods made with wheat flour and sugar, especially bread and most packaged snack foods. • Eat more whole grains in which the grain is intact, such as brown rice. These are preferable to whole-wheat flour products, which have roughly the same glycemic index (blood sugar impact) as white flour products. • Cook pasta al dente and eat it in moderation. 	<p>Amaranth</p> <p>Barley</p> <p>Basmati rice</p> <p>Brown rice</p> <p>Buckwheat</p> <p>Millet</p> <p>Quinoa</p> <p>Spelt</p> <p>Steel-cut oats</p> <p>Wild rice</p>

Food group and serving recommendations	Guidance	Suggested foods
PROTEIN-RICH FOODS Meat, Poultry, Fish, and Eggs Servings: 2 to 6 servings per week; 1 serving = 4 oz (115 g) fish, turkey, or chicken	<ul style="list-style-type: none"> • Eat lean protein sources, such as chicken, and avoid red meat. • Decrease consumption of animal protein and balance it with vegetable protein. • Choose grass-fed lean meats that are free of preservatives, antibiotics, growth hormones, nitrates, or coloring. • Choose organic when possible. 	Albacore tuna (low-mercury brands available) Alaskan halibut Anchovies Herring Mackerel Omega-3-enriched eggs Sardines (packed in water or olive oil) Skinless chicken breast Skinless turkey breast Trout Wild salmon (canned, fresh, or frozen)
Beans and Legumes A note: Beans, legumes, and organic soy are not tolerated by everyone. Listen to your body. General recommendations for servings: Beans and legumes: 1 to 2 servings per day; 1 serving = ½ cup (~115 g) Organic soy: 1 to 2 servings per day, as tolerated; 1 serving = ½ cup (80 g) cooked edamame; ½ cup (126 g) tofu or tempeh; 1 oz (28 g) soy nuts	<ul style="list-style-type: none"> • These foods are a great way to eat more vegetable protein on a daily basis. • Eat them whole or puréed into spreads, such as hummus. • Choose organic whole soy foods. Avoid heavily processed soy. 	Beans: adzuki, black, cannellini, fava, garbanzo (chickpeas), kidney, lima, mung, navy, pinto Black-eyed peas Edamame (boiled soybeans) Soy (organic) Soy nuts Tempeh Tofu

Food group and serving recommendations	Guidance	Suggested foods
<p>HEALTHY FATS</p> <p>Servings: 5 to 7 servings per day; 1 serving = 1 teaspoon (5 ml) oil; 2 tablespoons (~about 16 g depending on the type of nut), nut butters, or seeds; 2 tablespoons (28 g) avocado</p>	<ul style="list-style-type: none"> • Ideally, choose nuts and seeds that are raw and unsalted. • Watch portion sizes to prevent weight gain. Consume daily. 	<p>Avocados</p> <p>Cold-pressed sesame oil</p> <p>Extra-virgin olive oil</p> <p>Nuts and nut butters (no sugar added): almonds, cashews, pecans, walnuts</p> <p>Organic expeller-pressed canola oil, coconut oil, grapeseed oil</p> <p>Seeds and butters (no sugar added): chia, flaxseed, hemp, pumpkin/pepita, sesame, sunflower</p>
<p>DAIRY AND NON-DAIRY ALTERNATIVES</p> <p>Servings: High-quality natural cheeses in moderation; 1 serving = 1 to 2 oz (28 to 55 g) per week; limit organic cow's milk to 1 to 2 cups (235 to 475 ml) per week. Some people do not tolerate cow's milk products at all.</p>	<ul style="list-style-type: none"> • Cut back on cow's milk dairy and try plant-based alternatives, such as unsweetened nut milks (almond, coconut, cashew). There are many recipes for homemade options; when purchasing from a store, avoid carrageenan on the ingredients list. • Small amounts of full-fat dairy are preferable to non-fat and low-fat alternatives. • Choose probiotic yogurts and non-dairy milks with no added sugar. 	<p>Goat's milk or sheep's milk feta</p> <p>Goat's milk yogurt</p> <p>Jarlsberg</p> <p>Manchego</p> <p>Organic plain probiotic yogurt</p> <p>Organic soy milk</p> <p>Parmesan</p> <p>Romano</p> <p>Swiss</p> <p>Unsweetened almond milk</p> <p>Unsweetened coconut milk</p> <p>Unsweetened kefir</p>

Food group and serving recommendations	Guidance	Suggested foods
HERBS AND SPICES Servings: Add to foods and beverages throughout the day in unlimited amounts.	<ul style="list-style-type: none">• Use a variety of herbs and spices to season food.• Replace salt, sugar, and added fat by boosting flavor.	Basil Chile peppers Chives Cilantro Cinnamon Citrus zest Curry powder Dill Ginger Mint Oregano Parsley Rosemary Thyme Turmeric
BEVERAGES Servings: Tea: 2 to 4 cups (475 to 946 ml each) per day Alcohol: to 1 to 2 glasses (5 to 10 oz or 150 to 285 ml each) per day Daily fluid intake: To estimate general daily fluid goals, divide your body weight in pounds (kg) by 2. For example, a 150-lb (68 kg) person = 75 oz [2.2 L] of fluids.	<ul style="list-style-type: none">• Drink tea instead of coffee.• If you drink alcohol, limit it; if you don't drink alcohol now, avoid picking up the habit.• Drink filtered water throughout the day.• Choose glass or stainless steel water bottles over plastic. Plastic's chemicals migrate into foods and beverages.	Bone broth Chicory root coffee Fresh squeezed lemon or lime in water Good-quality white, green, or oolong tea Kombucha with less than ½ teaspoon of sugar per serving Organic red wine (if you choose to drink alcohol) Other beneficial teas: cinnamon, ginger, licorice, peppermint, roasted dandelion root Plain filtered water Sparkling water, such as Pellegrino

Food group and serving recommendations	Guidance	Suggested foods
<p>SWEET TREATS</p> <p>Servings: Enjoy plain dark chocolate in moderation, 1 oz (28 g) a few times per week; stevia in unlimited quantities; and xylitol, as tolerated.</p> <p>Some people are sensitive to loose stools with xylitol and others eat it daily without problem. Listen to your body.</p> <p>Use natural sweeteners sparingly. They are not required as part of a healthy diet and contribute to inflammation, but are preferable to refined sugars.</p>	<ul style="list-style-type: none">• Experiment with natural sweeteners, such as coconut palm sugar, lucuma powder, raw honey, and Medjool dates. Even these are inflammatory, but preferable to regular sugar.• For zero-calorie sweetness, avoid artificial sweeteners and choose sweeteners, such as stevia and xylitol. Stevia is the gold standard for natural non-caloric sweeteners. Some people are sensitive to xylitol and may experience loose stools.• Choose naturally sweet desserts.	<p>Non-GMO xylitol</p> <p>Plain, dark chocolate (minimum 70% cocoa content)</p> <p>Stevia</p>

Food group and serving recommendations	Guidance	Suggested foods
PROBIOTIC FOODS Servings: Consuming probiotic-rich foods daily is a good practice. Consider: 1 cup (230 g) yogurt ½ cup (83 g) tempeh ½ cup (120 ml) kefir ¼ cup (36 g) sauerkraut or fermented vegetables 1 cup (8 oz or 235 ml) chicory root coffee 1 cup (8 oz or 235 ml) kombucha	<ul style="list-style-type: none"> • Probiotic foods repopulate your gut microbiota with beneficial bacteria, crowd out candida (yeast), restore stomach acidity, and boost your immune system. • Avoid yogurts that claim to be probiotic but don't list the specific strains of bacteria on the packaging. • Buy the “raw” or “unpasteurized” forms of sauerkraut and kimchi, otherwise, the beneficial bacteria are destroyed in processing. Health food stores often sell these items. • Some probiotics contain prebiotics, non-digestible foods that feed the probiotics. Inulin is one example. Chicory coffee is also a good source of inulin, as well as being caffeine free. 	Homemade fermented vegetables Kimchi Organic tempeh Plain organic yogurt Sauerkraut Unsweetened kefir
SUPPLEMENTS	<ul style="list-style-type: none"> • The majority of nutritional needs are best met consuming fresh, whole-some foods. • Nutritional gaps can be filled with high-quality supplements. • Supplements are not an alternative to a healthy diet. You should still maintain a variety and balance. 	Common daily needs are: Anti-inflammatory substances, such as turmeric and ginger Coenzyme Q ₁₀ Fish oil for omega-3s (both EPA and DHA) Key antioxidants Multivitamin/multi-mineral Probiotics Vitamin D ₃

Foods to Limit or Avoid

Guidance	Avoid these foods
Minimize processed foods and refined grains.	Bread, chips, corn chips, and products made with white flour, such as bagels, crackers, and pretzels, french fries, pizza, white pasta, white rice
Minimize saturated fats and trans fats because they damage the cells that line blood vessels.	Cream, ice cream, high-fat cheeses, and fried foods; margarine, vegetable shortening, and all products listing them as ingredients
Limit processed and high-fat meats.	Non-grass-fed beef, fast food, hot dogs, lamb, lunch meats, pork, sausages
Avoid sugary foods and beverages.	Candy, corn syrup, pastries, presweetened cereals, sodas, sweetened beverages
Avoid inflammatory foods.	As a general rule, if it contains refined flour or sugar, or is a high-fat meat, it will be pro-inflammatory.



Doctor’s Note

- A sugar crash can also strongly influence fatigue, which is an especially common symptom in chronic conditions.
- Sugary drinks, such as sodas, are important to avoid because they are calorie rich, highly inflammatory, and drastically promote weight gain in the long term

An Important Note on Sugar

Sugar can be one of the most significant barriers for eating right to reach your goals. Consuming sugar, especially processed sugar, lights an immediate inflammatory fire in your body. A growing body of scientific evidence reveals sugar’s contribution to obesity, diabetes, heart disease, stroke, high blood pressure, high cholesterol and triglycerides, cancer, candida, inflammation throughout the body, mood swings, and as a threat to the immune system. It also affects your gut microbiota by feeding yeast and crowding out good bacteria. A 2014 study published in the *Journal of the American Medical Association (JAMA)* showed that too much added sugar in your diet can significantly increase your risk of dying from cardiovascular disease.

Another study found that eating high-glycemic foods (foods that raise blood sugar quickly) can create a sharp crash in blood sugar levels that leads to overeating at the next meal. And here's the mind-blower: Researchers noticed that the rapid drop in blood sugar lit up the region of the brain connected to addictive behaviors. This gives credibility to the idea that we can develop an actual addiction to sugar-laden foods. Because of sugar's huge impact on heart health, the American Heart Association (AHA) has set guidelines for its intake. AHA recommends the following for added sugars:

- **No more than 6 teaspoons (24 g) or 100 calories a day for women**
- **No more than 9 teaspoons (36 g) or 150 calories a day for men**

What counts as added sugar? Added sugars are sugars and syrups added to foods or beverages when they're processed or prepared. Added sugars contribute additional calories and zero nutrients to food. Naturally occurring sugars are found in certain foods, such as fruit (fructose) and milk (lactose).

Most American adults consume about 22 teaspoons (88 g) of added sugar a day. That's two to four times the AHA-recommended daily intake! Sugar-sweetened beverages are the largest source of added sugars in the American diet. A can of regular soda packs about 9 teaspoons (about 35 g) of added sugars—an entire day's worth of added sugar. Other major sources are candy, cookies, ice cream, sweetened yogurt, and cereals. Therefore, keeping tabs on your sugar consumption is an important part of a healthy lifestyle.

Many people consume much more sugar than they realize. Next time you eat a packaged food, check the nutrition facts panel. The line for sugars contains both the natural and added types as total grams of sugar. The format for this label hasn't changed in twenty years, but it may be changing soon, making added sugars easier to detect.

To tell whether a processed food contains added sugars, look at the list of ingredients. Sugar has many other names:

- **Ingredients ending in “-ose,” such as maltose, dextrose, or sucrose**
- **Barley malt**
- **Cane juice**
- **Cane sugar, beet sugar, or raw sugar**
- **Corn sweetener, corn syrup, or high-fructose corn syrup**
- **Fruit juice concentrate**
- **Molasses**
- **Sugar cane syrup**

For sugar alternatives, we tend to seek out synthetic artificial sweeteners, such as aspartame and Splenda. These synthetically produced alternatives will only harm your health. The good news is there are plenty of natural sugar alternatives. With the exception of stevia, these lower-glycemic sweeteners still count as sugar intake, so moderation is needed. Following are some of the most beneficial natural sugars you can find.

Stevia: An herb native to South America, stevia is 300 times sweeter than sugar. It has zero calories and no glycemic impact. This is my number one pick for a healthy sweetener. You can purchase both organic liquid and powder stevia from most stores now. You can use it to sweeten your coffee, tea, and smoothies. If baking with stevia, it's best to use a recipe that's actually written to use stevia rather than regular sugar. Allow your palate time to adjust to it. It's worth it!

Coconut palm sugar: Produced from the sap of the coconut palm tree, coconut sugar is nutritious and has a lower score on the glycemic index. It tastes similar to brown sugar but is slightly richer. You can substitute coconut sugar for traditional sugar.

Raw honey: Always opt for raw honey to ensure you are getting all of its valuable nutrients and enzymes. Raw and local honey is also good for seasonal allergies. There is nothing beneficial about processed honey.

Lucuma powder: Touted as a superfood, it has a uniquely sweet and maple-like taste. It's perfect for sweetening beverages, smoothies, yogurt, granola, pudding, or homemade ice cream, as well as for baking cakes, cookies, and pies.

Medjool dates: These can be used to sweeten smoothies, and for cooking and baking for a touch of sweetness. Additionally they pack fiber, potassium, magnesium, B vitamins, calcium, and phosphorous.

To manage your sugar intake, follow these suggestions:

- **Experiment with natural sweeteners to find one you like.**
- **Reduce or eliminate soda, sports and energy drinks, as well as enhanced waters, sweetened teas, and sugary coffee drinks.**
- **Cut back on the amount of sugar added to things you eat or drink regularly, such as cereal, coffee, or tea.**
- **Avoid adding sugar to cereal or oatmeal; try fresh fruit [oranges, cherries, or strawberries] instead.**
- **Avoid adding sugar in recipes; use extracts, such as almond, vanilla, orange, or lemon.**
- **Enhance foods with spices instead of sugar. Try allspice, cinnamon, ginger, or nutmeg.**
- **Buy fresh fruits or fruits canned in water or natural juice; avoid fruit canned in syrup.**

With all these natural sugar alternatives readily available, it's getting easier to reduce total sugar intake while still enjoying tasty, healthier options. The keys to success are to monitor how much sugar you consume and switching to healthier options when you do enjoy a sweet treat—in moderation.

LIVING AN ANTI-INFLAMMATORY LIFESTYLE

Small, gradual changes are typically easier for the body to adapt to, more sustainable, and can make you less likely to revert to your old ways. So, rather than trying to adopt all these suggestions overnight, think about how you can adopt this lifestyle one step at a time.

What we eat and drink either feeds disease or fights it.

Healthy lifestyle habits that help reduce inflammation include:

- **Exercising regularly.** Physical exercise influences the quality of life and may stimulate the production of anti-inflammatory cytokines. A 2015 study by P.D. Lopinzi published in the journal *Physiology & Behavior* showed that establishing a daily routine of moderate to vigorous physical activity is better at reducing inflammation than intermittent movement throughout the week.
- **Not smoking.** The effects of cigarette smoking on the immune system are far reaching and complex. Smoking not only creates inflammation but also suppresses the immune system.
- **Reducing toxin load.** This means reducing chemicals we're exposed to both by what we put on, and in, our bodies. To help, use only natural cleaning products, eat whole foods without added preservatives, try therapeutic essential oils, and reduce the plastics you eat and drink from.

Maintaining a healthy weight. Fat cells produce inflammatory chemicals at a rate far greater than other cells. Having a high body mass index before age 20 is associated with increased risk for autoimmune disease in both men and women.

- **Minimizing stress.** This even includes managing hurt feelings. A 2001 study (Slavich et al.) published in the *Proceedings of the National Academy of Sciences of the United States of America*, showed social stresses, such as feeling rejected, increased inflammatory markers in people.
- **Getting quality sleep.** People who sleep poorly or do not get enough sleep have higher levels of inflammation.
- **Consuming an anti-inflammatory diet.** What we eat and drink either feeds disease or fights it.

In summary, our goal is to make the OptimalBody approach to nutrition a style of eating and living that is realistic and sustainable. It's common to have days when you eat a combination of inflammatory and anti-inflammatory foods. It's nearly impossible to avoid all inflammatory foods all the time. The primary goal is to bring your diet into balance. Take the first steps: Decrease the foods that contribute to disease and increase the healing foods so the overall effect of your diet is anti-inflammatory. To accomplish this, meal planning and food forethought are needed. It takes energy to plan, shop, and prepare the foods your body needs. Keeping a well-stocked fridge and pantry help make it easier. When you avoid those foods known to make you feel tired, sick, and mentally low, you'll feel empowered to take control.

MEAL PLANNING

Now that you know which foods to enjoy and which foods to avoid, you can begin to build your meal plan. Being told what to eat at every meal won't empower you to gain the skills to manage a healthy diet properly. The people who are most successful with healthy eating over the long term go through the process of finding pleasure in the foods that lead them to health. The journey is exciting and rewarding.

Fuel your journey, and you will
reach your destination.

Take it one step at a time, one meal at a time. Use your journal or mobile app to document what works for you and what doesn't. The app can also help you see whether you're hitting your personal nutritional targets. Look online: There are meal-planning websites to help organize your weekly plans and countless recipes available. Fitness tracker logging apps or online tools, such as MyFitnessPal (MyFitnessPal.com), can help with portion sizes appropriate for your body and are backed by health professionals and nutritionists. Eat regular meals (especially breakfast) and snacks throughout the day to maintain blood sugar levels and stimulate metabolism. And remember, proper nutrition is a must on your road to fitness. You can't outwork a poor diet. Fuel your journey, and you will reach your destination.

Sample Meal Plan for an Anti-inflammatory Diet

Day 1	Day 2	Day 3
Breakfast Super greens smoothie: blend frozen berries, organic kale, water, and vegetarian protein powder	Breakfast Spinach and mushroom frittata	Breakfast Oatmeal: old-fashioned oats, cinnamon, walnuts, and almond milk
Lunch Asian bowl: brown rice, vegetables, and chicken	Lunch Tuna salad on whole-grain bread with apple slices	Lunch Lentil soup, mixed greens salad, and flax crackers
Dinner Turkey chili and muffin made with almond flour	Dinner Wild salmon, quinoa, sautéed zucchini, and garlic	Dinner Stuffed bell peppers (stuffed with quinoa and grass-fed ground beef)
Snack Organic Greek yogurt with sunflower seeds	Snack Carrots and hummus; dark chocolate (70 percent cocoa)	Snack Organic celery and apple slices with almond butter
Beverage In addition to filtered water, roasted dandelion root tea	Beverage In addition to filtered water, ginger lemonade (made with freshly grated ginger and lemon juice and sweetened with stevia)	Beverage In addition to filtered water, green tea

Eating Before and After Exercise

Nutrition plays an important role in your exercise performance. Without adequate carbohydrates and fluid, you'll quickly become fatigued. Protein rebuilds muscles. Without these three fundamental elements, plus adequate vitamins and minerals, you will struggle to tap into your potential. If you have a poor diet, expect poor performance. Poor nutrition can also lead to injury and poor recovery, both of which can hinder your ability to continue your fitness plan.

Our bodies are like machines in some ways: Put quality fuel into the engine, and it will be primed for excellent performance. However, if you put lesser-quality fuel into the engine, performance can suffer. That's why you need to pay close attention to when and what you're eating before, during, and after a workout.

Nutrition plays an important role
in your exercise performance.

As with all nutrition plans, there are several variables to consider. Portions and percentages of foods needed vary based on gender, body weight, and intensity, type, and length of your workout. Whether you choose a meal or snack before and after a workout largely depends on your plan for the day. With a little preparation and planning, optimum results can be achieved. With the following guidelines, you can customize a plan that works best for you. As always, reach for additional support as needed. A registered dietitian can help you develop a structured plan based on your unique needs. With so many aspects out of our control, nutrition is a performance variable you can control. Take advantage of it!

Make the Most of Your Workout

Pre-Workout Meal Guidelines

- Choose easily digested carbohydrates and low-fat foods for quicker digestion.
- Avoid starting a workout when you're starved or stuffed.
- Pay attention to whole foods, they are an important energy source. Avoid processed foods.
- Eat thirty to sixty minutes before beginning a cardio workout, and eat 75 to 100 percent carbohydrates.
- Eat one to two hours before beginning a strength-training workout, and eat 75 percent carbs and 25 percent protein.
- Eat carbs thirty to sixty minutes prior to workouts that contain both strength-training and cardio. Eat protein within two hours prior.
- Drink plenty of water for proper hydration.

Pre-Workout Fuel Ideas

- Banana and coconut milk
- Carrots and hummus
- Dried fruit with no added sugar or preservatives
- Greek yogurt and fruit
- Hardboiled egg and slice of whole-grain toast
- Oatmeal with apples
- Organic unsweetened applesauce with cinnamon
- Roasted sweet potatoes
- Super green smoothie with fruit, greens, and protein powder
- Whole-grain cereal and almond milk
- Whole-grain waffle with berries

Ideas during Workout

- Water
- Organic fruit juice diluted in water

Guidelines during Workout

- Drink plenty of water, at least 4 oz (120 ml) for every twenty minutes of exercise. Perspiration and exertion deplete the body of fluids necessary for optimal performance and lead to dehydration.
- There is no need to replace carbohydrates during a workout unless the exercise lasts more than ninety minutes and is hard and continuous. When this happens, drink 100 percent fruit juice diluted in water to provide fuel and water to the muscles being exercised.

Post-Workout Meal Guidelines

The longer we wait to eat something, the longer it takes to recover. The enzymes that help the body resynthesize muscle glycogen and build muscle are most active in that first fifteen minutes after a workout. Realistically, the goal is to eat within a one-hour post-workout window.

- **Eat quality protein (10 to 20 grams) within fifteen to thirty minutes after working out.** Whole foods are best, but healthy bars and shakes are an easy option.
- **Strength workout: Protein and carbs repair muscles and replenish glycogen stores.**
- **Cardio workout: Replace glycogen (stored carbohydrates) lost during workout with complex carbohydrates, such as sweet potatoes, brown rice, quinoa, or oatmeal.**
- **Rehydrate with fluids.** The average workout does not demand the extra calories and electrolytes in sports drinks, not to mention artificial coloring and junky sweeteners. Coconut water is a great alternative to sports drinks for electrolyte balance.

Post-Workout Recovery Meal Ideas

- **Bean burrito:** organic corn tortilla filled with black beans, Greek yogurt, and salsa
- **Hummus and whole-grain crackers**
- **Organic edamame**
- **Protein bar:** 10 to 20 grams of protein, fewer than 5 grams of sugar
- **Protein pancakes:** lots of recipes out there for all diets
- **Protein shake:** blend one scoop protein powder, one banana, and 8 ounces (235 ml) water
- **Sandwich:** chicken; turkey; peanut butter and jelly; egg; salmon or tuna on whole-grain bread with veggies
- **Spinach and feta egg scramble**
- **Stir-fried chicken and vegetables over brown rice or quinoa**
- **Super green smoothie with protein powder**
- **Veggie omelet and slice of whole-grain toast**

One of the best tips I can give you is never start a workout on an empty stomach, especially in the morning. It's a common practice for people to wake up early, skip breakfast, and jump right on the treadmill. You're not doing yourself any favors by going in empty. Training on an empty stomach, or in a state of fasting, can cause you to lose muscle you have worked so hard to create. The benefits of eating before exercise, particularly carbs and protein, far outweigh any perceived benefits from fasting. Having these substances available as fuel will limit protein loss and thus maintain muscle mass, increase performance, and help the body use more fat after the workout.

HEALTHY EATING ON A BUDGET

Motivation, energy, and strength are not the only potential barriers on your road to fitness. Financial barriers are a common reality, especially if you've had several medical issues. A healthy diet can be more expensive. Fish and fresh fruits and vegetables can be particularly pricey. However, eating healthy on a budget is possible with the right approach. It would be unwise to skimp on the very investment that guarantees a great return. My grandmother used to say, "You can pay at the grocery store, or you can pay at the doctor's office." She was proof of the preventive effects a healthy diet can have and the value of investing in fresh, wholesome food—not to mention your own nutrition and wellness. Follow these tips for eating healthy on a budget:

- Cook several portions of a dish and freeze some. This also saves you the effort of preparing meals every day.
- Use frozen fruits and vegetables; they are often cheaper than fresh produce and are smart nutritional choices.
- Buy fresh fruit and vegetables in season, when they are usually cheaper.
- Plan some vegetarian meals. Beans and lentils are cheaper than meat.
- Choose canned wild salmon as it is an affordable protein and source of omega-3 fatty acids.
- Cut down on sugary drinks, junk food, and alcohol to make room in your budget for more quality food purchases.
- Map out your weekly meals ahead of time. Food in the trash equals money in the trash. Before you buy more food, take stock of what you have on hand and plan meals around that. Planning ahead will also help you eat out less—a big money and health saver.

Meal planning, dieting, healthy eating, and smart nutrition all boil down to one thing: a philosophy combined with a program. Willpower alone does not guarantee success. Living a lifestyle that includes a nutritionally sound regimen brings you that much closer to your goals. Having a disability that complicates your life or is burdensome adds another dimension to your plan, but it does not make it impossible. I'm living proof! The OptimalBody nutritional methodology works because it puts all the mechanisms in place for you to succeed. Once you make the decision to change the course of your disability to one that you control, following the sound guidance to a healthier OptimalBody lifestyle will be as normal as showering each day. You can do this!

MUST-HAVE MIND-SETS FOR LONG-TERM SUCCESS

Now that you know which foods can support your success, let's look at the food-related mind-sets that need to accompany these foods. Whether we're trying to eat healthier, get fit, lose weight, or change any other behavior, we need to attach a mind-set to it. The mind-set with which you approach your diet will determine whether your journey is filled with success or roadblocks. Developing a long-term healthy lifestyle is hard enough, so remove unnecessary roadblocks from the start.

Set Your Mind for Success

- Kick negative thoughts to the curb, and instead, think about the possibilities ahead.
- Ditch perfection.
- Learn to fish.
- Reach out for support.
- Find pleasure in the foods that lead you to health.

Let's start by kicking a few self-defeating thoughts to the curb. Negative mind-sets will not help you achieve a healthier lifestyle. Replace negative thinking with thoughts that will help you stay the course. Think about possibility, capability, and your potential for achieving what you set your mind to. These thoughts will help you tap into your motivation and inspiration. When you combine positive mind-sets and a sense of what's realistic in your life, you get tremendous potential for a strategy that you can actually be successful with for the long run.

Think about possibility, capability, and your potential for achieving what you set your mind to.

Let's look at some additional must-have mind-sets that are crucial as you embark on the OptimalBody approach to nutrition.

Must-Have Mind-Sets about Nutrition

Avoid Negative Mind-Sets	Replace Negative Thoughts with Positive, Empowering Thoughts
<ul style="list-style-type: none">• "I don't have the time, money, or energy to prepare healthy food on a regular basis."• "I don't like food that's good for me."• "I've tried diets before, and I couldn't stick with them."	<ul style="list-style-type: none">• "I can and will learn how to change my diet."• "My health is important enough to keep trying."• "I can find a way, or I can find an excuse. I choose to find a way."

Ditch Perfection

Perfectionism is one of the greatest barriers to long-term behavior change. Perfectionist mind-sets tend to be all or nothing—on a diet or off a diet, deprivation or excess, perfection or failure. These extremes do not help you because life is a series of progressions and regressions. Smooth times and chaotic times. You'll go on vacation, celebrate holidays, eat treats, get sick, juggle family emergencies, and more. Expect the unexpected while you work to improve your health.

Maintaining a healthy diet is a life-long process, and being prepared for the ups and downs is crucial to success. Just remember, this process is designed to train your brain and

your body for balance. Patiently keep pressing the reset button. You're not trying to be perfect. Rather, you're trying to make progress. Keep repeating this mantra, "Progress, not perfection." Give yourself a pat on the back for making even the smallest step toward balance, and then make another step each day.

Learn to Fish

"Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime" is a well-known Chinese proverb. Many people think they want the fish—in other words, someone to tell them exactly what and how much to eat daily. But there are several flaws in that approach. It's

not a sustainable practice to follow daily eating instructions, and you won't "learn to fish" in the process. Any nutrition approach that is centered on your best interests is designed to empower you, to create a sense of capability and ownership. With self-knowledge and personal responsibility, you'll be able to assess where you are on the path and where you need to go when challenges arise.

Statements from someone learning to fish, someone taking control of their own nutrition plan, sound like this:

- "I found a great mobile app for meal planning."
- "I researched some recipes that support my nutrition goals."
- "I tossed out all the junk food that is not supporting my health."
- "I figured out a realistic way to divide the grocery shopping, cooking, and cleanup in my family."

Statements such as these are telltale signs that people are taking ownership of the way they feed themselves and becoming problem solvers. Taking ownership can be overwhelming when you don't know where to start, or you're not feeling well physically or mentally. The good news is that improving your nutrition does not have to be a solo journey.

Reach Out for Support

As you begin your road to fitness or even along the way, never be afraid to ask for support. There are endless support streams to tap into.

Health professionals: Don't be afraid to get short- or long-term support from health professionals. Investing in your wellness with an expert can be life changing. In my own wellness journey, I've worked with holistic health practitioners, including acupuncturists, chiropractors, massage therapists, dietitians, and naturopaths. Investing in the right help can actually save you money in the long term. Look for practitioners who want to teach you to empower yourself.



Doctor's Note

Neurologists know a lot about medicines and how to manage chronic conditions medically, but not as much about diets. Seek the counsel of dietitians, other people with chronic conditions, support groups, and people close to you to determine what diet you think is best for you. Break diets down to what you specifically want: a diet to help with reducing relapse risk or symptoms, such as fatigue, pain, sensory problems, or immobility.

Friends, family, community, and employers: Enlist people you can lean on when you need encouragement for healthy eating. They don't need to share your goals. Instead, they can simply cheer you on, ask you for progress updates, or encourage you to talk about how you're feeling today. You can also engage in online communities for extra support, accountability, and guidance from others going through a similar process. Social media is a great way to find support, motivation, and inspiration from like-minded people. And it's free! Instagram, Pinterest, and Facebook all have great resources for recipes, people passionate about health, and attractive food photos that can inspire you to try something new. Your employer, and even health insurance provider, may offer free coaching from health professionals. Employee Assistance Programs are highly underutilized in the workplace, but they are very common support tools offered by employers. When you start to investigate the lines of support in your benefits package, you may be surprised at the support tools you have at your fingertips.

Support yourself: We can all be our own worst enemy. A lot of that is related to our mind-set. The goal is to avoid self-sabotage to the extent possible. Avoid the failure syndrome trap. This syndrome is typically caused by a harsh judgment of your “mistakes” and the subsequent stream of negative feelings you experience: anger, despair, hopelessness, and numbness. These negative feelings can lead to avoidance. I’ll do something about it—tomorrow. This prevents action for problem solving today. Confront challenges as they arise, even if you take only a small step.

Find Pleasure in Healthy Foods

Most people can do anything for the short term. They can white-knuckle it through restrictive diets, desperately awaiting the day they’re over. Our biggest challenge is to find pleasure consistently in the choices that lead us to nutritional balance. Only when we find pleasure in balancing our nutritional needs does it become likely we will maintain these healthy habits for a lifetime. Some of the most delicious foods on the planet are good for you. Sometimes it’s a matter of training your palate; other times it’s a matter of training your mind.

A key reason for failure is that we embark on dietary changes that deprive us of all our likes. We see the process as all or nothing—and deprivation always leads to excess. A better strategy is to make adjustments over time, as opposed to eliminating everything overnight. Make room for treats and old favorites, as well as healthier alternatives you may like even better. For example, my family switched from refined wheat pasta to brown rice pasta and never missed it. I’ve experimented with almond flour and made some of the best muffins and cookies I’ve ever had. The possibilities are endless.

A friend once shared her observation that any time she feels like she can’t stop eating a food, she knows it’s a fake food.

Those processed foods loaded with fat, salt, refined sugars and carbs, artificial sweeteners, and other chemicals that are actually designed for addiction, engineered to trick your brain into wanting more. Though we do receive short-term pleasure from eating lots of these foods, they are the same substances that make us fat, sick, and unhappy, zapping our body of the necessary strength and energy needed to overcome our daily challenges. The healthier your overall diet becomes, the stronger and wiser your taste buds become. It takes time to retrain your brain and taste buds. I’ve found that when you detox the junk out of your diet, the cravings subside and your palate can heal. The good news is that our bodies are naturally inclined to find satisfaction in foods that sustain life and make us healthy. Find pleasure in the foods that nourish you. And if you haven’t found them yet, keep looking. They do exist.

Admittedly, change can be difficult, and new foods don’t always taste good on the first bite. So, keep this question in mind: Do I consistently find pleasure in my healthy food choices? If yes, chances for long-term success are excellent. If no, there is still work to do. Setbacks are normal; when you feel your motivation to keep eating well weaken, go back to your positive mind-set and press the reset button. With the proper mind-set, your OptimalBody approach to nutrition becomes clearer.

After reading this chapter, I hope you have a better understanding of how inflammation affects your body, the steps you can take to reduce it and balance the health of your gut, and the tools and mind-sets needed to stick with these changes.