

ANTI-INFLAMMATORY Diet GUIDE

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What is inflammation, and why should you care?

THE GOOD, THE BAD, AND THE UGLY OF INFLAMMATION



THE GOOD: If you cut your finger or sprain your ankle, you want your body to be able to produce inflammation. An acute inflammatory response is vital to a healthy body and necessary for healing from an injury and fighting foreign invaders.

Let's take spraining an ankle as an example. When you sprain your ankle, the joint typically gets warm, red, swollen, and painful, and you probably have to stay off it for a bit, maybe even using crutches. Although it can be unpleasant and annoying, inflammation is your body's brilliant way of helping you heal. The warmth and swelling are

created by an influx of blood carrying specialized proteins to clean up debris, fight infection, and heal damaged tissue. The swelling and increased pain prevent you from using and further damaging the joint, thus allowing the injury to properly heal. The acute inflammatory response usually lasts minutes to several hours to a few days.

THE BAD: Inflammation turns bad when the acute inflammatory response doesn't shut off and becomes chronic and systemic. In a healthy system, a destruction process tidily ends the acute immune response; when this process isn't turned off or completed, the immune system begins to break down healthy tissue and wreaks havoc on the body. This ongoing onslaught of inflammatory chemicals sabotages our health over time, prematurely ages us, damages DNA, and keeps us from feeling our best. This can last for months or years. Issues like allergies, asthma, and various "itis" conditions rear their heads, including arthritis, sinusitis, tendonitis, and dermatitis, to name a few.

THE UGLY: If chronic inflammation persists long enough, we develop a serious disease process. Underlying every chronic disease condition is **inflammation**. We're talking about the big ones—type II diabetes, obesity, heart disease, COPD (Chronic Obstructive Pulmonary Disease), Alzheimer's, cancer, chronic fatigue syndrome, and autoimmune disorders (e.g., celiac disease, rheumatoid arthritis, Hashimoto's thyroiditis). The list goes on and on.

Nobody wants to feel bad or experience chronic disease conditions and their associated maladies.

To **avoid** inflammatory diseases and symptoms, we must **avoid** the things that **cause** and **trigger** chronic inflammation.

After all, it's much easier to prevent disease than it is to cure it!

What causes chronic inflammation?

Diet and lifestyle factors play a key role in the development and exacerbation of chronic inflammation. From a dietary perspective, inflammation comes largely from poor-quality foods loaded with chemicals, preservatives, toxic oils, gut-irritating foods, and sugar. And it just so happens these foods make up the majority of what everyone is eating—AKA the Standard American Diet (SAD). The SAD is a **pro-inflammatory diet**—it creates chronic inflammation.

To build a healthy immune system that properly regulates the inflammatory response, we must provide our bodies with the key nutrients it needs to do so.

When we feed our bodies toxic foods and deprive it of essential nutrients, inflammation becomes chronic in nature. The inflammatory response fails to shut off, becomes chronic, and can even begin malfunctioning by targeting healthy body tissues (AKA autoimmunity).

Remember that **underlying every disease is chronic inflammation**.

To avoid disease, we must ditch pro-inflammatory foods and focus on foods and lifestyle factors that promote a healthy body and immune system.



Which foods are inflammatory?

SUGAR AND PROCESSED FOODS

ALL SUGAR and processed foods create inflammation. If you did just one thing to optimize your health and avoid chronic inflammation, cutting out sugar and processed foods should be number one.

According to **Dr. Robert Lustig**, sugar is toxic to our bodies and a key player in the epidemics of obesity, heart disease, diabetes, and some cancers—all inflammatory diseases. We highly recommend watching Dr. Lustig's **video** to get a better understanding of the dangers of sugar.

The archenemy of health, processed foods typically contain multiple components that create the “perfect storm” of inflammation: **sugar**, **refined grains**, and **hydrogenated vegetable oils** (we will address the latter two below).

Remove **all sugar** from your diet. Ditch the processed and packaged foods, which contain ridiculous amounts of chemicals and artificial substances that aren’t even food! Toss the candy, crackers, chips, cookies, sodas, fruit juices, frozen dinners, soy foods, and condiments laden with scary additives and flavorings.

INFLAMMATORY OILS AND FATS

WESTERN DIETS are high in inflammatory fats and oils, including industrial seed vegetable oils such as canola oil, safflower oil, soybean oil, corn oil, cottonseed oil, and trans fats derived from partial hydrogenation.



These industrial seed oils are an unhealthy source of omega-6 fatty acids. They are found in processed foods, frozen foods, salad dressings, margarine, non-dairy creamers, and fast foods.

Even most restaurants cook with them because they are cheap.

Ironically, these fats have conventionally been promoted as “heart-healthy.” They are quite the contrary. Incredibly inflammatory, industrial seed oils are often bleached, deodorized, and highly processed using caustic chemicals that form free radicals. The end result is a cheap, highly toxic substance.

Trans fats are produced when industrial seed oils (naturally liquid at room temperature) undergo a process called partial hydrogenation, which creates a substance that is solid at room temperature. Trans fats are used in processed and packaged foods as a cheap way of extending shelf life. There is no safe consumption level for trans fats, which damage immunity, hormone function, insulin metabolism, and tissue repair; promote weight gain; and are linked to heart disease.

Omega-3 to Omega-6 Imbalance

AN IMBALANCE of anti-inflammatory and pro-inflammatory fats can cause chronic inflammation. We typically consume way more omega-6 fatty acids (building blocks of pro-inflammatory substances) in our modern diets than omega-3 fatty acids (building blocks of anti-inflammatory compounds), producing a net **inflammatory** effect. As mentioned earlier, the large consumption of industrial seed oils (omega-6 fatty acids) is a major contributing factor to this imbalance.

WE NEED both omega-3 and omega-6 essential fatty acids for a healthy body. Omega-3 fatty acids can be obtained from foods such as salmon and other cold-water fish. Industrial seed oils (**bad**) and nuts/seeds (**good**) are examples of foods containing high levels of omega-6 fatty acids. These essential fatty acids must be obtained from food because our bodies cannot generate them on their own. We need balance, however, as well as quality food sources. We don't want to get omega-6 fatty acids from industrial seed oils.

Our ancestors typically ate a diet ranging from a ratio of 1:1 to 1:4 omega-3 to omega-6 fatty acids. In Western diets, we usually see a ratio of 1:20 to 1:30—largely due to consumption of toxic industrial seed oils.

To avoid inflammation, you must nix all industrial seed vegetable oils and trans fats! Improve your omega-3 to omega-6 ratio by consuming more omega-3 fatty acids in the form of wild-caught fish, grass-fed meats, and pastured eggs. Avoid fast food and processed/packaged foods at all costs and learn which fats and oils are safe to cook with (see our **Anti-Inflammatory Guide to Fats**).

CONVENTIONAL DAIRY

WE RECOMMEND you cut out conventional dairy products to reduce and avoid inflammation. The milk you buy at the store is typically pasteurized and homogenized to give it a longer shelf life and kill pathogens. This process not only kills the beneficial

bacteria and enzymes that help us digest the milk properly, but it also destroys many valuable nutrients. Even scarier, conventional dairy purchased from the grocery store usually comes from cows pumped with antibiotics and hormones, which subsequently find their way into the milk and ultimately our bodies.

People are often intolerant of or allergic to the proteins found in dairy. Food allergies and sensitivities are key culprits in chronic inflammation and should be taken seriously.

For these reasons, conventional dairy can be quite irritating to the gut and inflammatory in nature. This is why we recommend avoiding them entirely.

Note: *If you do wish to include dairy in your diet, we suggest you consume raw dairy in its whole, original state. Including or excluding raw dairy is a gray area and highly dependent on individual circumstances. A complete food, raw milk is entirely different from processed, pasteurized milk. Raw milk's enzymes, nutrients, and proteins are*



still intact, making it more easily digestible and beneficial for the body. Raw milk contains anti-inflammatory and immune-enhancing constituents. Many report significant health benefits after adding raw dairy to their diets—especially raw fermented dairy such as yogurt and kefir. Raw dairy may not be right or health-supportive for everyone, though. We recommend doing your own research to decide whether it is right for you.

they pass almost entirely intact into the bloodstream (where they don't belong). This creates an opening that allows other foreign pathogens and unwanted food particles to also enter the bloodstream, thus invoking an immune response and chronic inflammation if left unresolved. This situation is often referred to as “leaky gut” and can be a huge source of inflammation and a gateway to chronic disease conditions such as autoimmune disorders.



Our gut lining (intestinal barrier) constitutes at least 70 percent of our immune system. Essential to helping us break down and use nutrients from food, the gut lining neutralizes, kills, and removes toxins before they enter our bloodstream. Maintaining a healthy digestive system

is key to decreasing inflammation and avoiding disease.

GRAINS

GRAINS, ESPECIALLY the abundance of refined and gluten-containing grains in our modern diet, can be a major source of systemic inflammation. Eating large quantities of grains spikes our insulin levels. Doing this consistently leads to insulin resistance—a well-known culprit in inflammatory diseases.

Grains also contain problematic proteins called lectins, which can severely compromise the gut's integrity as

Eliminate grains from your diet, especially gluten-containing grains. This means ditching bread, cereal, pasta, and so on. You can get all the wonderful vitamins, minerals, and nutrients grains claim to offer and more from vegetables and fruits while **avoiding** grains' insulin-spiking, gut-irritating, and inflammatory properties.



NIGHTSHADES (FOR SOME)

NIGHTSHADES MAY be a source of inflammation and pain for some people. A group of foods in the Solanaceae family, nightshades include tomatoes, potatoes, eggplant, goji berries, bell peppers, and hot peppers (including chili peppers, cayenne pepper, and paprika). These are common, often overconsumed staples in our Western diets.

According to naturopathic doctor **Garett Smith**, nightshades are a calcinogenic plant, which means that when they are eaten, they can cause calcification of soft tissues. He proposes this process of calcification may be a culprit in the development of osteoarthritis. Nightshades also contain solanine and other glycoalkaloids—toxic substances used by these plants as defense mechanisms. Glycoalkaloids inhibit the breakdown of acetylcholine. Excess levels of acetylcholine cause prolonged muscle contraction, which is why people may experience muscle/joint stiffness. Sensitivity or excess consumption of these glycoalkaloids may adversely affect muscle, nerve, and gastrointestinal function.

Avoidance of nightshades is worth mentioning here because some people—especially those with arthritis; joint and muscle pain/stiffness; GERD or heartburn; and autoimmune conditions—have reported significant relief or even abolishment of pain and symptoms by doing so. If you suffer from any of these conditions or have chronic pain and have tried various therapies with marginal to no relief,



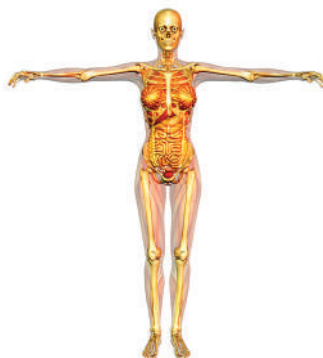
we highly suggest eliminating nightshades from your diet for at least six weeks to three months. After this time period, try adding nightshades back in for breakfast, lunch, and dinner. See how you feel after adding them back over the next couple of days. Oftentimes, eliminating foods for a significant period of time and then adding them back helps you assess how your body is tolerating them.

LIFESTYLE FACTORS

DIET CAN be a major source of inflammation, but there are other important lifestyle factors and triggers to consider as well. **Jack Challem**, author of *The Inflammation Syndrome*, states:

“The causes of inflammation are often related to dietary imbalances or deficiencies, which prime the immune system for a powerful and chronic inflammatory reaction.”

He describes triggers as factors that exacerbate the inflammatory response once the body is already primed. The list below is a list of triggers that can play a role in chronic inflammation and are involved in the experience of negative physical, mental, or emotional symptoms. It is important to work on addressing these factors (in conjunction with diet) to decrease your risk for developing or ridding the body of chronic inflammation.



- ◆ *infections*
- ◆ *physical injury (injuries not fully healed may be the result of low-grade inflammation from a pro-inflammatory diet)*
- ◆ *allergies/food sensitivities*
- ◆ *overuse of antibiotics, NSAIDs, other drugs*
- ◆ *smoking and tobacco*
- ◆ *being overweight (fat cells secrete inflammatory chemicals such as interleukin-6 and CRP)*
- ◆ *environmental toxins*
- ◆ *chronic stress*
- ◆ *sleep deprivation*
- ◆ *leaky gut*

How can you tell if you're inflamed?

YOU MIGHT be asking yourself, "How do I know if I am inflamed?" Good question. If you have been eating the Standard American Diet for any number of years, you likely have some degree of inflammation and the symptoms that go along with it.

Disease doesn't happen overnight. Even though people are often shocked when diagnosed with diseases like cancer, diabetes, or multiple sclerosis, that disease has usually been manifesting for years. When negative symptoms arise like the ones listed below, they are **warning** signs that your body is no longer functioning in a state of **ease**.

Ongoing, unresolved joint pain (or any of these symptoms that persist) is a **red flag** alerting you to investigate what is going on—**not** a prompt to find the quickest way to make the symptoms go away (e.g., popping pills) and then forgetting about it.

SUBJECTIVE MARKERS OF CHRONIC INFLAMMATION

- ◆ *constant fatigue and low energy*
- ◆ *generalized swelling or water retention*
- ◆ *ongoing, unresolved pains (joint/muscle pain)*
- ◆ *high levels of emotional stress*
- ◆ *skin irritations, rashes*
- ◆ *allergies, asthma, nasal congestion*
- ◆ *high blood pressure*
- ◆ *ulcers or GI upset*
- ◆ *excess weight, especially around the waist*

We recommend you take the Inflammation Syndrome Quiz in [**The Inflammation Syndrome**](#) for deeper insight into whether you may be suffering from chronic inflammation.

OBJECTIVE MEASURES OF INFLAMMATION

THERE ARE objective measures doctors and health practitioners use to detect inflammation in the body. Below is a list of tests you may wish to talk to your health practitioner about if you suspect you are inflamed, are experiencing any negative symptoms, or wish to incorporate it into a routine evaluation of health.

- ◆ *Elevated High Sensitivity C-Reactive Protein (Hs-CRP)*
- ◆ *High ESR Erythrocyte Sedimentation Rate*
- ◆ *High Levels of Homocysteine*
- ◆ *Elevated Ferritin in the Blood*
- ◆ *Elevated HDL*
- ◆ *Elevated Blood Glucose*
- ◆ *Elevated Interleukin-6*

How do you avoid chronic inflammation?

INFLAMMATION IS an underlying issue in all forms of chronic disease. Scientists and researchers are hard at work creating anti-inflammatory drugs to combat this issue. But is that the best and healthiest strategy? How about asking why we have **the** inflammation in the first place? How about getting to the root of the problem—and correcting it?

To avoid, reduce, or eliminate chronic inflammation, you **must** address **diet** and **lifestyle** factors.

Addressing diet is **essential** to “putting out the fire” of chronic inflam-

mation. We’ve already outlined many pro-inflammatory foods present in the Standard American Diet.

We want to **avoid** these foods: sugar, processed foods, industrial seed oils, trans fats, conventional dairy, and grains.

Focusing on foods that maximize nutrition and minimize toxicity will dramatically reduce inflammation in the body.



The Anti-Inflammatory Diet

EAT REAL, **fresh, whole food** (as close to nature as possible).

Eat high-quality animal protein.

Eat grass-fed meat, wild-caught fish, pastured eggs, and organ meats. Quality matters! Look for the words “organic,” “grass-fed,” “pastured,” or “pasture-raised.” The omega-3 fatty acid profile is much higher in meat and eggs from animals raised on pasture. More nutrient-dense, these foods generally do not contain hormones or antibiotics (it’s always smart to confirm this). Grain-fed animals have a much higher omega-6 fatty acid profile and likely have been injected with hormones and antibiotics if they are not organic.

Eat plenty of healthy fats and use safe oils for cooking. Check out our **Anti-Inflammatory Guide to Fats** to get the details. It is crucial that you cook with and consume the healthy fats while avoiding the toxic ones!



Eat a variety of organic veggies and fruits. As many as 9 out of 10 Americans fail to eat adequate amounts of vegetables and fruits. These foods provide antioxidants and other anti-inflammatory nutrients that help reduce and prevent inflammation. Choose organic if possible to avoid exposure to toxic pesticides and herbicides. Eat every color of the rainbow to get the variety of vitamins and phytonutrients your body needs.

Consume some nuts and seeds. Buy raw nuts and seeds with no added ingredients. Eat nuts and seeds in small quantities as snacks or toppings on salad or fruit. They are high in omega-6 fatty acids and can be gut-irritating for some, but they provide excellent nutrients. Soak and dehydrate prior to eating to maximize nutrient bioavailability and digestion. We recommend not overeating nuts and seeds.

Incorporate fermented foods. As you've learned, at least 70 percent of our immune system resides in our gut. Fermented foods help us maintain a healthy balance of gut bacteria, critical regulators of our immune systems and inflammation. Examples of fermented foods include sauerkraut, kimchi, and beet kvass.

Make bone broth. A super-healing elixir, homemade bone broth helps fight and reduce inflammation. Homemade broth contains chondroitin sulphates and glucosamine, which are extracted by cooking bones for long periods of time. These constituents are well-known for reducing joint pain and inflammation. The gelatin found in bone broth helps heal and seal a leaky gut, which can be a major source of inflammation. Other amino acids found in broth (e.g., glycine, proline, and arginine) are also anti-inflammatory in nature.

Use fresh spices and herbs to flavor food. Many fresh spices and herbs have anti-inflammatory effects and make real food taste even yummier. Use turmeric, ginger, and cinnamon liberally in your diet as these spices are anti-inflammatory in nature and have antioxidant, immune-boosting properties.

Implement anti-inflammatory lifestyle factors and healing strategies.

Get plenty of sleep. Attempt to get 8–10 hours of sleep every night. Lack of sleep negatively affects the body's ability to control inflammation. Inflammatory disease conditions such as obesity, heart disease, and diabetes are correlated with lack of sleep.

Get some sun. Enjoy moderate, safe sun exposure to absorb adequate vitamin D (or supplement if necessary). Low vitamin D levels have been linked to various inflammatory diseases.

Reduce stress.

Implement healthy strategies to manage mental and emotional stress (e.g., exercising, spending time in nature, deep meditation, breathing techniques, Certified Pure Therapeutic Grade essential oils, and doing things you enjoy). Chronic stress negatively impacts your hormones and the inflammatory response.

Practice gratitude and a positive outlook. Being grateful and having a positive outlook can protect against stress and inflammation. Be thankful, surround yourself with an uplifting environment and people, meditate/pray, and spend time in nature to boost your spirits.

Exercise. Engage in consistent exercise to reduce stress and avoid chronic disease. Prolonged sitting and sedentary behavior increase your risk for inflammatory disease conditions such as obesity, type II diabetes, and heart disease. On the flip side, avoid overtraining as this, too, can cause or exacerbate chronic inflammation.

Heal your gut.*

Eradicate infections.*

Balance hormones.*

Remove food sensitivities.*



If you have symptoms of chronic inflammation or a chronic inflammatory disease, addressing diet and lifestyle factors is **essential but isn't always enough. Often-times, there are hidden internal sources of stress that cause and exacerbate inflammation,*

which can keep you from fully healing. For example, a leaky or permeable gut, low-grade infections (including parasites), hormone imbalances, and food sensitivities are common culprits associated with inflammatory diseases and symptoms. We recommend you seek out a qualified holistic health practitioner educated in functional medicine to assist you with identifying and addressing these issues. The following links and databases can help you with your search.

- ◆ [**Functional Diagnostic Nutrition**](#)
- ◆ [**Functional Medicine Doctors**](#)
- ◆ [**Paleo Physicians Network**](#)

What can you expect when you follow an anti-inflammatory diet?

FEELING BETTER!

Many people report a reduction in joint pain, skin issues, brain fog, allergies, and symptoms associated with inflammation. Some say they have reduced or gotten rid of their medications entirely (we recommend working with a medical doctor to titrate off medications). People often report feeling better and losing weight—who doesn't want that? Excess weight creates inflammation, and therefore any healthy weight loss can help you on your path to optimal health.

MORE TIME AND EFFORT

Eating this way takes more time and effort than the SAD, but the payoff is well worth it! Carve out time in your routine for meal preparation, shopping, and cooking. Seek out quality sources of meat, fish, eggs, vegetables, and fruits. We recommend checking out your local **Farmers Market** to get the most deliciously fresh, nutrient-dense, and healthy foods—all while supporting your local farmers!

Need More Help?

OUR ANTI-INFLAMMATORY dietary suggestions are similar to a Primal or Paleolithic Diet. If you'd like in-depth information on how to integrate this way of eating into your life, check out this comprehensive e-book on the **30-day Paleo challenge**.

SUPPLEMENTS AND COMPOUNDS

FOLLOWING IS a list of compounds and supplements known or suggested to decrease inflammation. It may be beneficial to include some of these in your supplement regimen. This is merely a list to help you initiate further inquiry. The intent of this section is to give people ideas about supplements and compounds that may be helpful, but we are not advising implementing them all. Most importantly, do not try to figure out a regimen on your own as many supplements interact with prescription medications or other supplements. We recommend working with a holistic health practitioner to find a program that works for you.

- ◆ *fish oil, omega-3 fatty acids (EPA/DHA)*
- ◆ *gamma linolenic acid*
- ◆ *B complex*
- ◆ *vitamin D3*
- ◆ *vitamin E*
- ◆ *vitamin C*
- ◆ *CoQ10 or ubiquinol*
- ◆ *curcumin (found in turmeric)*
- ◆ *quercetin*
- ◆ *selenium*
- ◆ *N acetyl cysteine*
- ◆ *alpha li-poic acid*
- ◆ *boswelvia, frankincense, and other medicinal-grade essential oils**



*We personally use doTERRA's Certified Pure Therapeutic Grade oils for their anti-inflammatory, disease-preventative, and healing benefits. Go [here](#) to view a list of anti-inflammatory oils. For more information on how to get these oils, email oilsandinspiration@gmail.com.

Resources

Diet

- ◆ [Eat Fat, Lose Fat](#), by [Dr. Mary Enig](#) and [Sally Fallon Morell](#)
- ◆ [Foods That Can Cause or Heal Pain](#), by [Pati Chandler](#)
- ◆ [Inflammation and Disease Prevention Foods](#), by [Raymond Francis](#)
- ◆ [The Inflammation Syndrome](#), by [Jack Challem](#)
- ◆ [The Inflammatory Effects of Nightshades](#), by [Garrett Smith](#), NMD
- ◆ [Potato Glycoalkaloids Adversely Affect Intestinal Permeability](#)

[and Aggravate Inflammatory Bowel Disease](#)

- ◆ [Stopping Inflammation: Relieving the Cause of Degenerative Disease](#), by [Nancy Appleton](#), PhD

Lifestyle

- ◆ [Effects of Physical Exercise on Inflammatory Markers of Atherosclerosis](#)
- ◆ [The Inflammatory Consequences of Psychologic Stress: Relationship to Insulin Resistance, Obesity, Atherosclerosis, and Diabetes Mellitus, Type II](#)
- ◆ [Lights Out: Sleep, Sugar, and Survival](#), by [T.S. Wiley](#) with [Bent Formby](#), PhD
- ◆ [Maintenance of a Positive Outlook During Acute Stress Protects Against Pro-Inflammatory Reactivity and Future Depressive Symptoms](#)
- ◆ [Sleep Loss and Inflammation](#)
- ◆ [Vitamin D Inhibits Inflammatory Gene Signalling](#)

