



## Natural Ways to Decrease Inflammation GatorMD.com

Chronic inflammation is a common issue in modern society. Renovating your daily choices from the grocery cart, to makeup bag can have a significant effect on your immune system. As you move from a stressful life that is full of fast food, preservatives and toxins to a more balanced existence filled with organic nourishment, relaxation, and conscious living, you will start to notice significant changes and your body healing and rebuilding.

### **What Is Inflammation?**

Acute inflammation is your body's natural and helpful immune response to damage to the tissues and stressful situations. When you fall and scrape your knee, the cut swells, reddens, and becomes inflamed. Your body sends blood cells to the site to repair the tissue. In this situation, inflammation is your friend. Chronic inflammation is your body's confused and damaging immune response to a myriad of environmental, physical, and mental triggers, which stem from a poor diet, toxic chemicals, and chronic stress.

Imagine that your body is a bucket with a hole in the bottom that is slowly filling with water and emptying out of the bottom. The water is a symbol for the inflammation in your body. If water flows in slowly, the body can handle it and water flows out the bottom and the bucket never overflows. But if there is too much water (inflammation) pouring in, the bucket can overflow and cause symptoms. Our goal with inflammation management is to decrease the baseline inflammation (water in the bucket), so we have more of a buffer for when inflammation increases. When your body hits an inflammatory overload, your defense system can get so overwhelmed and confused that it literally doesn't know the difference between the invader and you. As a result, your well-meaning immune system turns on itself, destroying healthy cells and tissue.

*Chronic inflammation is triggered by numerous factors including:*

- Poor dietary choices: processed foods, non-organic animal products, unhealthy fats, alcohol
- Gut health issues
- Toxins
- Food allergies
- Chronic infections (bacteria, viruses, yeast, parasites)
- Stress and exhaustion
- Sedentary lifestyle

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## The Results of Chronic Inflammation

Over time, inflammation wears out your immune system, leading to chronic diseases and other health issues including auto-immune conditions, cardiovascular disease, asthma, cancer, celiac, allergies, leaky gut, arthritis, and mental disorders. Unfortunately, in mainstream medicine, these challenges are often only treated with only drugs and surgery, which may provide temporary relief from the symptoms, but do not treat the root cause of the problem. In addition, these drugs may have side effects that add to your health problems.

Could it be that many of the pills in your cabinet are just Band-Aids and that the key to health lies in your daily diet and lifestyle choices? That's certainly what I've found to be true in a majority of the cases. The integrative practitioners I know often help their patients identify and address their health issues by looking at the way they lead their lives and do not jump quickly to medication. Sometimes medication is warranted, but often times, with a few simple lifestyle tweaks, major changes in health can develop over time. Don't underestimate the value of lifestyle. Those with poor eating and exercise habits often develop Type 2 diabetes. Turn those habits around and we see that disease disappear.

### Lets look through the many branches of the healing tree for inflammation.

#### **Branch #1- Identify and address food allergies**

You could be fighting a losing battle if you're ignoring potential food sensitivities and/or infections. If your body is working to cope and fight these challenges every day, you can bet that you're stoking the fires of inflammation on a regular basis. Gluten, soy, dairy, eggs, and yeast are common food allergens that might be distracting your immune system every time you sit down for a meal. These allergies can be identified with a blood test. Ask your doctor about testing for food allergies. Become a symptoms detective. Only you can determine how you feel when you eat, which is where an elimination diet comes in handy. While following the elimination approach, you remove all common allergens from your diet and then slowly reintroduce them, one by one.

#### **Branch #2 - Infection**

Another possibility worth exploring is chronic infection (bacteria, viruses, yeast, parasites). These guys could be hiding out in your body just under the radar and dragging your immune system down. You have a couple options for testing including look at your bloodwork and/or your poop.

#### **Branch #3 - Gut Health**

Focus on gut health. Your gut holds approximately 60 to 70 percent of your immune system, so it stands to reason that it would be a great place to reduce chronic inflammation. And if your gut is in bad shape, you can only imagine that your immune system is in some serious trouble.

Functional medicine has developed a very effective protocol to heal and protect your gut: the 4R system. The name comes from the four key steps: Remove, Restore, Reincubate, and Repair.

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### Remove

The first step is to remove anything that disrupts the environment of your GI tract or contributes to your leaky gut. You remove inflammatory foods, including gluten, grains, legumes, dairy, sugar, nightshade vegetables, and eggs, as well as processed foods, additives, and preservatives. You also remove alcohol, caffeine, and as many medications as possible, because these are likely to stress or irritate your gut. Finally, you'll remove intestinal infections such as bacteria, yeast, and parasites if applicable.

### Restore and Reinoculate

Once the bad is out, it's time to bring back the good. In this step, you restore the essential ingredients for proper digestion and absorption that might have been depleted by diet, medications, disease, or aging. Adding back in digestive enzymes in supplement form can be one key component of this step. Without these enzymes, you don't digest your food properly, which stresses your digestive system and leaves you undernourished. Reinoculate with Healthy Bacteria. Probiotic capsules and powders that replenish your army of friendly bacteria so it can protect you from the world around you — and from yourself..

### Finally REPAIR the Gut

There are a number of supplements that can be used to help repair the intestinal tract lining. One of the best is L-Glutamine, since this is the preferred food source of the cells of the small intestine. Others include omega 3, Licorice root, aloe vera, Slippery Elm Bark, Vitamins A, C and zinc.

## **Branch #4 - Food**

### Anti-Inflammatory Foods Can Transform Your Health

In a 2014 study on diet and IBD, 33 percent of the patients in the study opted against the proposed anti-inflammatory diet. Nearly all of the patients who participated and consumed anti-inflammatory foods found enough relief that they were able to discontinue or decrease the dose of at least one of their medications.

Standard American diets (appropriately called SAD) are never touted as exemplary, but when talking about inflammation, it becomes vitally important to rethink our typical patterns. To move toward an anti-inflammatory diet, we primarily move away from the abundance of overly processed, unbalanced diets of the West and toward the ancient eating patterns of the Mediterranean. A Mediterranean diet comprises plenty of fresh fruits and vegetables, minimal red meat, no chemicals or additives, and an abundance of omega-3 foods.

As we look into the anti-inflammatory components of certain foods and herbs, we can see how this kind of diet is linked with lowered inflammation. Fresh produce will flood your body with the vitamins, minerals, cancer-fighting phytochemicals, antioxidants, and fiber it needs to recover from chronic inflammation.

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Anti-Inflammatory Foods Include:

- green leafy vegetables, such as spinach, kale, and collards
- nuts like almonds and walnuts
- fatty fish like salmon, mackerel, tuna, and sardines
- fruits such as strawberries, blueberries, cherries, and oranges
- Ghee

#### *Turmeric*

Turmeric's primary compound, curcumin, is its active anti-inflammatory component. Touted in Ayurvedic (Indian Medicine) for its effects against inflammation, turmeric's health benefits prove invaluable in an anti-inflammatory diet. Curcumin is among the most potent anti-inflammatory and anti-proliferative agents in the world. The journal *Oncogene* published the results of a study that evaluated several anti-inflammatory compounds. It found that aspirin and ibuprofen are less potent than curcumin. Due to its high anti-inflammatory properties, turmeric is highly effective at helping people manage various forms of arthritis and other rheumatologic diseases.

#### *Green Leafy Vegetables*

Fruits and vegetables are rich in antioxidants that restore cellular health, as well as anti-inflammatory flavonoids. If you struggle to consume added portions of green leafy vegetables, try making a daily smoothie.

#### *Broccoli*

The poster vegetable for healthy eating, it's no secret that broccoli is a valuable addition to any diet. For an anti-inflammatory diet, it's invaluable. Broccoli is high in both potassium and magnesium. Broccoli is an antioxidant powerhouse, with key vitamins, flavonoids and carotenoids.

#### *Celery*

Benefits of celery include both antioxidant and anti-inflammatory abilities that help improve blood pressure and cholesterol levels, as well as prevent heart disease. Celery seeds, which can be found either in whole seed form, extract form or ground-up, have impressive health benefits on their own, as they help to lower inflammation and to fight bacterial infections. It's an excellent source of potassium, as well as antioxidants and vitamins.

#### *Beets*

A marker of a food chock-full of antioxidants is its deep color, and beets are a prime example. In the case of beets, the antioxidant betalain gives them their signature color and is an excellent anti-inflammatory. Beets also contain quite a bit of magnesium, and a magnesium deficiency is strongly linked with inflammatory conditions.

#### *Blueberries*

One antioxidant in particular stands out as an especially strong anti-inflammatory, and that's

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quercetin. Found in citrus, olive oil and dark-colored berries, quercetin is a flavonoid (a beneficial phytonutrient that's prevalent in fresh foods) that fights inflammation and even cancer.

### *Pineapple*

Usually, when it's packaged in supplement form, quercetin is often paired with bromelain, a digestive enzyme that's one of the benefits of pineapple. After being used for years as part of an anti-inflammatory foods protocol, bromelain is observed to have immune-modulating abilities, that is, it helps regulate the immune response. The other benefits of pineapple are due to its high supply of vitamin C, vitamin B1, potassium and manganese.

### *Salmon*

Salmon is an excellent source of essential fatty acids, and considered one of the best omega-3 foods. Omega-3s are some of the most potent anti-inflammatory substances, showing consistent relief of inflammation and reduction of the need for anti-inflammatory medications. The source of fish and meat among anti-inflammatory foods is a vital component. One of the dangers of farmed fish is it doesn't have the same nutrients as wild-caught salmon and often contains significantly more toxins.

### *Bone broth*

Bone broths contain minerals in forms that your body can easily absorb including calcium, magnesium, phosphorus, silicon, sulphur and others. They contain chondroitin sulphates and glucosamine, the compounds sold as pricey supplements to reduce inflammation, arthritis and joint pain. When my patients suffer from leaky gut syndrome, I ask them to consume a lot of bone broth as it contains collagen and the amino acids proline and glycine that can help heal leaky gut and the damaged cell walls of the inflamed gut.

### *Walnuts*

They are also omega-3-rich and can be added to green leafy salads drizzled with olive oil for a satisfying anti-inflammatory meal.

### *Coconut oil*

Lipids create strong anti-inflammatory compounds and fight free radicals with its high levels of antioxidants. Coconut oil uses include topical and oral preparations.

### *Chia seeds*

Chia seeds offer both omega-3 and omega-6. Chia seeds are an antioxidant, anti-inflammatory powerhouse, containing essential fatty acids alpha-linolenic and linoleic acid, mucin, strontium, vitamins A, B, E, and D, and minerals including sulphur, iron, iodine, magnesium, manganese, niacin, thiamine. Chia seeds' ability to reverse inflammation, regulate cholesterol and lower blood pressure make it extremely beneficial to consume for heart health.

### *Flaxseeds*

An excellent source of omega-3s and phytonutrients, flaxseeds benefits include being packed

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with antioxidants. Lignans are unique fiber-related polyphenols that provide us with antioxidant benefits for anti-aging, hormone balance and cellular health. Polyphenols support the growth of probiotics in the gut and may also help eliminate yeast and candida in the body.

#### *Ginger*

Used fresh, dried, or in supplement form and extracts, ginger is another immune modulator that helps reduce inflammation caused by overactive immune responses.

Ayurvedic medicine has praised ginger's ability to boost the immune system. Ginger is said to be so effective at warming the body, it can help break down the accumulation of toxins in your organs. It's also known to cleanse the lymphatic system, our body's sewage system.

#### *Green Tea*

Green tea has natural substances called catechins that fight free radicals and help the body detoxify itself.

#### *Water*

Drinking more water is a great step toward a healthier metabolism. However, since tap water can sometimes contain inflammatory chemicals, running your H<sub>2</sub>O through a good filter such as reverse-osmosis can help ensure that water is all you're guzzling.

### Inflammatory Foods to Avoid

Try to avoid or limit these foods as much as possible:

- Refined carbohydrates, such as white bread, pasta, bagels and pastries
- French fries, pizza and other fried foods
- Soda, juice and other sugar-sweetened beverages
- Non-organic red meat (burgers, steaks) and processed meat (hot dogs, sausage)
- Margarine, shortening, and lard

Saturated and trans fatty acids, processed foods, cause inflammation and increase risk factors for obesity, diabetes and heart conditions. When you cook meat at super-hot temperatures, it forms heterocyclic amines (HCAs) and polycyclic aromatic hydrocarbons (PAHs), inflammatory chemicals that some experts think may increase your odds of getting cancer. When cooking meat on direct-heat sources (think: the grill or stove), keep the temps under 300° F to minimize the formation of these chemicals.

Simple, refined sugars and carbohydrates are more inflammation-causing culprits. Limiting refined grains is an important factor in an anti-inflammatory diet. Whole grains should replace the refined carbohydrates, as truly whole grains are important sources of nutrition. Fermenting the grains as sourdough allows the nutrients to be broken down and better available to the body. Boycott any sweetened beverages. Diet or regular, it doesn't matter. People who regularly consume beverages that

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are sweetened with high-fructose corn syrup and artificial sweeteners tend to have elevated levels of insulin in the body that can contribute to inflammation.

#### *DON'T EAT WHAT YOU CAN'T PRONOUNCE*

Check your food labels for any odd ingredients. They're usually filled with inflammatory compounds. Likewise, forgo any artificially colored foods and beverages. If it is mass-produced in a factory, it is generally an inflammatory food. Try to eat only foods that are organic and that have been picked or caught and never processed. If it has been on a commercial, it's probably not healthy.

#### **Branch #5 - Physical Activity**

Establishing a regular routine of physical activity can help prevent systemic inflammation from building up or returning. Your body needs at least 30-60 minutes of moderate physical activity a day to operate at its finest. Get your sweat on!

#### **Branch #6 - Yoga**

While regular exercise does the body good, between tough workouts, squeeze in some restorative yoga poses. You'll especially appreciate this yoga for pain relief and stress reduction.

#### **Branch #7 - Sleep and Relaxation**

A stressed out mind comes with a stressed-out body. And while you may not be able to control your homework or the news, making self-care a priority can go a long way toward easing stress and, in turn, inflammation. Every day, take some time to do something that restores, rather than drains, you. Turn off the constant borage of scary, anxiety provoking news stories.

Make sure you obtain adequate sleep. Your body is hard at work repairing and restoring your glorious cells while you sleep. You need at least 8 hours to fully recharge your batteries. If you're cutting corners in the snooze department, you're cheating your immune system, which means it needs to kick into high gear in an effort to keep you well. Stress goes hand in hand with a lack of sleep and a laundry list of demands from daily life. Unfortunately, when you're stressed out all the time, you're also producing more of the hormone cortisol, inflammation's best friend. It stands to reason that you can easily reduce chronic inflammation by focusing on stress reduction, whether it's through more sleep, yoga, meditation, long walks, less technology, or a much needed vacation.

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