



# Your Complete Guide to **Anti-Inflammatory Foods**

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# What's Inside

*one*

**What is inflammation?**

*two*

**Anti-inflammatory Diet**

*three*

**List of Anti-inflammatory Foods**

*four*

**Pantry List**



## What is inflammation?

You may have heard of “inflammation” and how good or bad it is. In reality, there are two types of inflammation, a “good” kind and a “bad” kind.

There are two kinds of inflammation: acute and chronic. Acute inflammation is short-lived. It’s like a flaming fire that produces the painful, red, hot, swollen symptoms described above. When inflammation is acute it’s usually at high levels in a small localized area in response to an infection or some kind of damage to the body. It’s necessary for proper healing and injury repair.



When your cells detect an infection or damage they send out warning signals to call over your immune system to help out. Your immune system sends over many types of white blood cells to help fight off invading germs [bacteria/viruses/pathogens] and clean up damage so you can heal.

Symptoms of acute inflammation may need short-term treatment such as pain relievers or cold compresses. More serious symptoms like fever, severe pain, or shortness of breath may need medical attention. In general, acute inflammation goes away after the damage is healed, often within days or even hours. Acute inflammation is the “good” kind of inflammation because it does an essential job and then quiets itself down.

Chronic inflammation is different. It’s more of the slow-burning and smoldering type of fire. This type of inflammation can exist throughout your whole body at lower levels. This means that the symptoms aren’t localized to one particular area that needs it. Instead, they can appear gradually, and can last much longer—months or even years. This is the “bad” kind of inflammation.

*“For chronic low-grade inflammation not caused by a defined illness, lifestyle changes are the mainstay of both prevention and treatment,” says Harvard Health.*

## What is inflammation?

Chronic inflammation is often invisible without immediate or serious symptoms, but over the long-term it's been linked to many chronic diseases such as:

- Acne, eczema, and psoriasis
- Allergies and asthma
- Autoimmune diseases (arthritis, type 1 diabetes, multiple sclerosis, lupus)
- Cancer
- Chronic pain
- Gastrointestinal disorders (Crohn's disease, ulcerative colitis)
- Heart disease and stroke
- Lung diseases (emphysema)
- Mental illnesses (anxiety, depression)
- Metabolic diseases (type 2 diabetes)
- Neurodegenerative diseases (Alzheimer's, Parkinson's)

How does chronic inflammation begin? It may start acutely—from an infection or injury—and then instead of shutting off, it becomes persistent. Chronic low-grade inflammation can also occur with exposure to chemicals (e.g., tobacco) or radiation, consuming an unhealthy diet or too much alcohol, not being very physically active, feeling stressed or socially isolated, and having excess weight.

Now that we see that inflammation underlies so many of our medical conditions, here's what to do to put out those slow-burning, smoldering fires.

Studies show that reducing inflammation can reduce the risk of several of these conditions, including heart disease and cancer. There are medications used to help lower inflammation to treat some of these diseases such as corticosteroids, immunosuppressants, and biologics. However, there are also several lifestyle changes—including a healthy diet—that can be very helpful to prevent and scale down inflammation to reduce its many damaging effects on the body.

# Determining if Foods are Anti-Inflammatory

Researchers reviewed 1,900 studies to determine the relationship between certain food parameters and 6 inflammatory biomarkers in the body. As a result they developed an evidence-based, validated tool called the Dietary Inflammatory Index.

















Each food parameter was given a weighted score based on quantity AND quality of studies (scale: -1 to +1)

- + if pro-inflammatory
- 0 if neutral
- - if anti-inflammatory

## Dietary Inflammatory Index













Food parameter	Weighted number of articles	Raw inflammatory effect score*	Overall inflammatory effect score†
Alcohol (g)	417	-0.278	-0.278
Vitamin B <sub>12</sub> (µg)	122	0.205	0.106
Vitamin B <sub>6</sub> (mg)	227	-0.379	-0.365
β-Carotene (µg)	401	-0.584	-0.584
Caffeine (g)	209	-0.124	-0.110
Carbohydrate (g)	211	0.109	0.097
Cholesterol (mg)	75	0.347	0.110
Energy (kcal)	245	0.180	0.180
Eugenol (mg)	38	-0.868	-0.140
Total fat (g)	443	0.298	0.298
Fibre (g)	261	-0.663	-0.663
Folic acid (µg)	217	-0.207	-0.190
Garlic (g)	277	-0.412	-0.412
Ginger (g)	182	-0.588	-0.453
Fe (mg)	619	0.032	0.032
Mg (mg)	351	-0.484	-0.484
MUFA (g)	106	-0.019	-0.009
Niacin (mg)	58	-1.000	-0.246
n-3 Fatty acids (g)	2588	-0.436	-0.436
n-6 Fatty acids (g)	924	-0.159	-0.159
Onion (g)	145	-0.490	-0.301
Protein (g)	102	0.049	0.021
PUFA (g)	4002	-0.337	-0.337
Riboflavin (mg)	22	-0.727	-0.068
Saffron (g)	33	-1.000	-0.140
Saturated fat (g)	205	0.429	0.373

# Anti-inflammatory Food Compounds













Flavones	Isoflavones	Flavonols	Flavanols
herbs chili peppers	beans soy	garlic, onion broccoli	cocoa, tea red wine, grapes
			
			
			
			



# Anti-inflammatory Food Compounds

Beta-carotene	Vitamin E	Vitamin C
carrots sweet potato butternut squash cantaloupe	nuts seeds wheat germ spinach	citrus fruits red bell pepper cruciferous veggies strawberries
   	   	   

# Anti-inflammatory Food Compounds

Omega -3s	Herbs & Spices	Fiber
salmon anchovies walnuts flax & chia seed	turmeric cinnamon ginger basil	fruits & veggies whole grains nuts & seeds
   	   	   



# *Anti-Inflammatory Diet*

## **The Anti-Inflammatory diet emphasizes:**

1. Fiber, fruits, vegetables and whole grains
2. Spices + Herbs
3. Healthy Fats, including Omega-3 fatty acids



## **Tips for Following an Anti-Inflammatory Eating Pattern**

1. Increase your intake of fruits and vegetables, whole grains (brown rice, oats, bran), nuts (almonds), seeds, fish, poultry, legumes (beans, lentils), and healthy oils (olive oil)
2. Pay particular attention to foods high in antioxidant polyphenols, including colorful plants such as berries, cherries, plums, red grapes, avocados, onions, carrots, beets, turmeric, green tea, and dark green leafy vegetables like spinach and kale
3. Omega-3 fats can help to reduce pain and clear up inflammation and are found in salmon, trout, mackerel, soy, walnuts, and flax
4. High fiber foods (whole grains, vegetables, fruits, legumes) encourage friendly gut microbes to help reduce inflammation
5. Avoid charring foods when cooking at high temperatures
6. Limit inflammatory foods such as red and processed meats (lunch meats, hot dogs, hamburgers), fried foods (fries), unhealthy fats (shortening, lard), sugary foods and drinks (sodas, candy, sports drinks), refined carbohydrates (white bread, cookies, pie), and ultra-processed foods (microwaveable dinners, dehydrated soups)

# stock your pantry

## BEANS & WHOLE GRAINS

- Black Beans\*
- Cannellini Beans\*
- Kidney Beans\*
- Navy Beans\*
- Pinto Beans\*
- Lentils (all varieties)
- Quinoa, Bulgur
- Oatmeal
- Brown rice, Farro, Millet

## NUTS & SEEDS

- Nut Butters (peanut, almond, sun, etc)
- Almonds, raw & unsalted
- Walnuts, raw & unsalted
- Pecans, raw & unsalted
- Peanuts, raw & unsalted
- Sunflower Seeds, raw & unsalted
- Pepitas (pumpkin seeds)
- Chia Seeds
- Flax Seeds

## SHELF-STABLE MILK ALTERNATIVES

- Unsweetened Almond Milk
- Unsweetened Soy Milk
- Unsweetened Oat Milk

## BROTH , VEGETABLES, & PROTEIN

- Low Sodium Vegetable Broth
- Low Sodium Canned Tomato Products
- Canned tuna, salmon, anchovies

*\*low-sodium canned and dried*

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resources

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# stock your pantry, cont'd...

## OILS & VINEGARS

- Balsamic Vinegar
- Red Wine Vinegar
- Apple Cider Vinegar
- Sherry Vinegar
- Extra Virgin Olive Oil
- Avocado Oil
- Sunflower Oil
- Safflower Oil



## SPICES & HERBS

- Black Pepper
- Garlic Powder
- Onion Powder
- Ground Ginger
- Cinnamon
- Cayenne
- Paprika  
(sweet & smoked)
- Oregano
- Chili Flakes
- Ground Cumin
- Ground Nutmeg
- Ground Cloves
- Bay Leaves
- Curry Powder
- Turmeric Powder



## FLAVOR BOOSTERS

- Nutritional Yeast
- Dijon Mustard
- Hot Sauce
- Honey
- Maple Syrup
- Low-Sodium Soy Sauce
- Garlic
- Onions
- Tomato Paste

