

THE NUTRITIONAL FOUNDATION

HOW TO REDUCE INFLAMMATION WITH DIET & SUPPLEMENTATION



ANABOLIC LABORATORIES

Pharmaceutical Made Nutritional Products Since 1924



HOW MANY FACTORS APPLY TO YOU?

INFLAMING VS. DEFLAMING



SIGNS & SYMPTOMS	
<input type="checkbox"/>	I have chronic aches and pains, such as: back pain, neck pain, headaches, or general muscle and/or joint soreness.
<input type="checkbox"/>	I am overweight.
<input type="checkbox"/>	It is hard for me to lose weight/fat.
<input type="checkbox"/>	I can grab too much fat around my waist.
<input type="checkbox"/>	I do not exercise regularly.
<input type="checkbox"/>	I don't feel well when I exercise.
<input type="checkbox"/>	I have difficulty recovering from moderate to light exercise.
<input type="checkbox"/>	I am mentally lethargic and feel rundown and depressed more than I would like.
<input type="checkbox"/>	I look old and/or feel old for my age.
<input type="checkbox"/>	My skin looks old and is sagging.
<input type="checkbox"/>	I suffer from one or more of the following: Frequent cold symptoms, frequent flu symptoms, frequent allergies, arthritis, fibromyalgia, chronic fatigue syndrome, sinusitis, acne, asthma, digestive conditions, dysmenorrhea, endometriosis, Alzheimer's disease, Parkinson's disease, multiple sclerosis, cancer, heart disease, osteoporosis, hypertension, depression, the insulin resistance syndrome (pre-diabetes), or diabetes.

DIETARY FACTORS	
<input type="checkbox"/>	I regularly take anti-inflammatory or anti-pain medications, such as ibuprofen, aspirin, or Tylenol®, or similar prescription drugs.
<input type="checkbox"/>	I regularly eat refined sugar including table sugar, desserts, soda, sweetened drinks, etc.
<input type="checkbox"/>	I regularly eat grain products such as white bread, whole wheat bread, pasta, cereal, pretzels, crackers, and any other product made with grains or flours from grains, which includes most desserts and packaged snacks.
<input type="checkbox"/>	I regularly eat partially hydrogenated oils (trans fats) found in most margarines, deep fried foods (French fries, etc.) and most packaged foods.
<input type="checkbox"/>	I regularly eat corn oil, safflower oil, sunflower oil, cottonseed oil, soybean oil, peanut oil and foods with oils such as mayonnaise, tartar sauce, margarine, and nearly all salad dressings.
<input type="checkbox"/>	I regularly eat meat and eggs from grain-fed animals. (regular supermarket brands)
<input type="checkbox"/>	I regularly drink or eat dairy products in greater than condiment size.
<input type="checkbox"/>	I regularly consume soy or soy products or eat them in place of fruits and vegetables.

As you most likely discovered by completing the previous page's survey, we all suffer from inflammation issues to varying degrees. Each of us needs to focus on reducing our individual inflammation issues and diet is the foundation to reducing inflammation or "deflaming".

This booklet will outline a no-nonsense approach to healthy, anti-inflammatory eating that will help you to avoid unhealthy, pro-inflammatory foods that are inflaming.¹⁻⁶

PRO-INFLAMMATORY FOODS

- **All Grains and Grain Products:** Including white bread, whole wheat bread, pasta, cereal, pretzels, crackers and any other product made with grains or flours from grains. This also includes most desserts and packaged foods.
- **Partially Hydrogenated Oils (trans fats):** found in margarine, deep fried foods (french fries, etc.) and most packaged foods.
- **Seed and Legume Oils** (inaccurately called vegetable oils) Corn oil, safflower oil, sunflower oil, cottonseed oil, peanut oil, soybean oil and foods made with these oils such as mayonnaise, tartar sauce, margarine, salad dressings and many packaged foods. These oils/foods contain extremely high levels of inflammatory omega-6 fatty acids.
- **Soda and Sugar**
- **Dairy and Soy:** when consumed as staples
- **Meat and Eggs:** from grain fed animals

ANTI-INFLAMMATORY FOODS

- **All Fruits and Vegetables:** eaten raw or lightly cooked.
- **Red and Sweet Potatoes:** eaten with protein such as eggs, fish, meat or fowl.
- **Fresh Fish:** avoid farm-raised tilapia, catfish, basa and bronzini they have elevated levels of inflammatory omega-6 fatty acids.
- **Meat, Chicken, Eggs from Grass-Fed Animals:** Eatwild.com is a website that lists producers of grass-fed animals. Do the best you can to get lean cuts of regular meats otherwise.
- **Wild Game:** including Deer, Elk, etc. Animals that feed on vegetation in the wild.
- **Anti-Inflammatory Omega-3 Eggs and/or Egg Whites**
- **Raw Nuts:** such as almonds, cashews, walnuts, hazelnuts, pistachios, Brazil nuts, and macadamia nuts.
- **Spices:** such as ginger, turmeric, garlic, dill, oregano, coriander, fennel, red chili pepper, basil, rosemary, etc. If you wish, you can add a little sea salt.
- **Oils & Fats:** moderate amounts of organic butter, coconut oil and extra virgin olive oil. Butter from grass fed cows is also a healthy choice.
- **Salad Dressing Choices:** an example is extra virgin olive oil, balsamic vinegar or lemon juice, mustard, along with spices.
- **Beverages:** water, organic green tea, and if you choose to drink alcohol, red wine and stout beer are the best choices.



CALCULATE YOUR BODY MASS INDEX

Body Mass Index (BMI) is a standardized ratio of weight to height, and is often used as a general health indicator.

Your BMI can be calculated by dividing your weight (in kilograms) by the square of your height (in meters)

Underweight = <18.5

Normal weight = 18.5-24.9

Overweight = 25-29.9

Obesity = BMI of 30 or greater

For a FREE online BMI calculator you can visit www.nhlbissupport.com/bmi



DISEASE vs. HEALTH

It can be frustrating and depressing to discover that so many foods are pro-inflammatory, leaving you wondering what to eat. More depressing is suffering from many of the numerous diseases and conditions associated with inflammation: chronic pain, arthritis, fibromyalgia, chronic fatigue syndrome, sinusitis, allergies, acne, asthma, digestive conditions, flu symptoms, dysmenorrhea, endometriosis, Alzheimer's disease, Parkinson's disease, multiple sclerosis, cancer, heart disease, osteoporosis, hypertension, depression, insulin resistance syndrome (pre-diabetes), and diabetes.

In reality, "everything in moderation" is a poor term when referring to diet. With every bite, we either increase or reduce inflammation. If you are fortunate and have "good" genes, you may handle pro-inflammatory foods better than your family members or friends. The problem is most inflammatory diseases develop slowly and without symptoms until it is too late. We need to be careful about consuming pro-inflammatory foods and not take for granted what appears to be current good health. The fewer inflammatory foods we eat, the less inflammation we will have.

WHY DO GRAINS INFLAME? : A BRIEF HISTORY

Consider the fact that grains have been consumed for a short period of man's time on earth. The use of grain products for food existed for a brief 10,000 years out of the 2 million years in the history of early and modern man. Grains, refined sugar, partially hydrogenated fats, vegetable & seed oils as well as other foods were not consumed. Humans are genetically adapted to eat fruit, vegetables, nuts, fish, fowl and meat; foods not related to any chronic disease.⁷ Our genetic code is not that different from our predecessors but our food definitely is. After grains were adopted as a staple food that replaced animal proteins a number of negative health outcomes occurred including the following:

- Increased infant mortality
- Reduced lifespan
- Increases in infectious diseases
- Increase in iron deficiency anemia
- Increased number of dental cavities and enamel defects
- Increased osteoporosis, osteomalacia and other bone mineral disorders

GLUTEN - Many different biochemical components make grains inflammatory. The most notorious is a protein called gluten, which is found in wheat, rye, barley, barley malt, semolina, spelt, kamut, and cous cous. Gluten may cause many symptoms and conditions ranging from Celiac (a disabling digestive disease) to more common conditions such as headaches.⁷ Researchers randomly selected 200 disease-free individuals to assess anti-gluten antibody levels. 15% of the subjects were severely effected by gluten and suffered from headaches, chronic fatigue, regular digestive complaints, anemic changes and showed no signs of having celiac disease.⁸

LECTIN - All grains and legumes (beans, lentils, soy) contain sugar proteins known as lectins that can cause digestive system inflammation.⁹ Lectins are absorbed through digestion and bind to the surface of many different types of cells in the body. While details are not known, researchers state that, "there is now abundant evidence that lectins can cause disease in man and animals," such as arthritis, glomerulonephritis, psoriasis, multiple sclerosis, retinitis, cataracts, congenital malformations, infertility, allergies and autoimmune problems.¹⁰

PROBLEMS WITH GRAINS - As you may know, calcium is important for bone health. Grains contain phytic acid which is known to reduce the absorption of calcium, magnesium, iron and zinc. Grains also promote the pH of our body to become more acidic, which is known to be inflammatory. Finally, grains contain higher amounts of fatty acid biochemicals called omega-6 fatty acids which cause inflammation.⁷ This is in contrast to fatty acid biochemicals called omega-3 fatty acids which are prevalent in fish and green vegetables that reduce inflammation.

TWO SIDES TO A "HEALTH FOOD" - Are you wondering why grains are heavily promoted as good for us? First, whole grains do contain nutrients and fiber which are healthy and anti-inflammatory. Unfortunately, these benefits most likely do not outweigh the problems with grains previously discussed. We can obtain the nutrients and fiber required by eating good meats, fruits, vegetables, nuts and using supplements wisely. Second, from an economic standpoint, grains are inexpensive and profitable to store and manufacture. This is why they are found everywhere in fast foods, snacks, easy to prepare meals, packaged foods, etc.

A BASIC PLAN FOR HEALTH

You will have to make a choice regarding foods, will they be pro-inflammatory or anti-inflammatory foods? If you do not have symptoms and feel wonderful, you need to decide if you want to risk regularly consuming pro-inflammatory foods that are known to cause significant health problems and disease. If you do suffer from any of the conditions previously mentioned, you may wish to see if

pro-inflammatory foods are a cause. Commit to discovering how your health is influenced by the consumption of pro-inflammatory foods. Commit to at least 1 month of anti-inflammatory eating. Within a week to a month you are likely to feel a difference and know for sure how food affects your health. If you are very inflamed you may need 2-3 months.

HEALTHY MEAL SUGGESTIONS



BREAKFAST

Omega-3 eggs or plain egg white omelet with vegetables or scrambled. A small portion of sautéed potatoes can be added. It is best to use organic virgin coconut oil for cooking eggs and potatoes; olive oil is the next best option.

If you wish to have oatmeal or grits, add a couple of tablespoons of ground up chia seeds, raisins or berries and use a little organic heavy cream.

Meal shake with your favorite fruit(s) such as banana, blueberries, etc., egg white or other low sugar protein powder.

Other additions can be coconut with raw nuts. Make sure to use water for blending.



LUNCH & DINNER

Chicken, fish or steak Caesar or garden salad without croutons is a meal with appropriate portions of vegetables and proteins. This meal can be changed many different ways for variety.

Italian marinara sauce, favorite protein with vegetables instead of pasta noodles.

When you feel like you have room for dessert, eat more vegetables or wait to see if you are indeed still hungry. If so, have your favorite fruit or a healthy dessert.

Soups with healthy broths, stocked with vegetables & healthy meats instead of pasta noodles & rice.



SNACKS & DESSERTS

1-2 tbsp of organic heavy cream over frozen cherries, blueberries or other fruit.

1-2 tbsp of organic heavy cream over a combination of dried coconut, dates, raisins and raw nuts.

Dark chocolate, raisins along with raw almonds, or other recommended nuts.

Fruits alone or as a fruit salad.

Recommended nuts with organic yogurt, dark chocolate shavings & chia seeds.

Fruit shake blends frozen into popsicle sticks for the kids.

In a nutshell, your basic anti-inflammatory plan is to eat mostly fruits, vegetables, nuts, fish, chicken and healthy meat. Drink plenty of clean water and appropriately exercise as much as you can. In addition to diet and exercise, nutritional supplements can be helpful. In this booklet 4 Essential Supplements are described, as well as additional supportive supplements. The supplements function to improve cellular energy function, prevent free radical activity, and reduce inflammation.



1. Seaman DR. The diet-induced pro-inflammatory state: a cause of chronic pain and other degenerative diseases? *J Manipulative Physiol Ther* 2002; 25(3):168-79
2. Seaman DR. Nutritional considerations for inflammation and pain. In: Liebensohn CL. Editor: Rehabilitation of the spine: a practitioners manual. 2nd ed. Philadelphia: Lippincott Williams & Wilkins; 2006: p.728-740
3. Cordain L. The paleodiet. New York: John Wiley & Sons; 2002
4. Cordain L, Eaton SB, Anthony Sebastian A, Mann N, Lindeberg S, Watkins BA, O'Keefe JH, Brand-Miller J. Origins and evolution of the western diet: Health implications for the 21st century. *Am J Clin Nutr* 2005;81:341-54.
5. Simopoulos AP. Essential fatty acids in health and chronic disease. *Am J Clin Nutr* 1999; 70(3 Suppl):560S-569S
6. Simopoulos AP. Omega-3 fatty acids in inflammation and autoimmune diseases. *J Am Coll Nutr* 2002; 21(6):495-505
7. Cordain L. Cereal grains: humanity's double-edged sword. *World Rev Nutr Diet* 1999; 84:19-73
8. Amason JA, Gudjonsson H, Freysdottir J, Jonsdottir I, Valdimarsson H. Do adults with high gliadin antibody concentrations have subclinical gluten intolerance? *Gut* 1992; 33:194-197
9. Cordain L, Toohy L, Smith MJ, Hickey MS. Modulation of immune function by dietary lectins in rheumatoid arthritis. *Brit J Nutr* 2000; 83:207-17
10. Freed DLJ. Lectins in food: their importance in health and disease. *J Nutr Med* 1991; 2:45-64



NUTRITIONAL SUPPORT FOR THE ANTI-INFLAMMATORY DIET

4 ESSENTIAL SUPPLEMENTS

IN 30 ON-THE-GO PACKS

Research continually supports the need to bolster a healthy diet with nutritional supplements to promote health and prevent disease. Inflammation reduction, antioxidant protection and

cellular health are mechanisms of many supplement products. The following supplements are recommended to promote a healthy inflammatory response and support specific nutritional needs.

MULTIVITAMIN AND MINERALS – The modern diet is known to be deficient in numerous micronutrients. Supplementation with a multivitamin/mineral can help address many of these deficiencies. Low micronutrient intake may accelerate the aging process and promote the diseases of aging and other chronic diseases. Use of a multivitamin is thought by many authorities to be a wise preventive strategy in addition to a healthy diet. Iron should be taken only by those who have an iron deficiency.¹

VITAMIN D3 – We derive virtually no vitamin D from the diet, as we are supposed to get vitamin D from the sun. Most Americans are chronically deficient in vitamin D. Sunscreen with an SPF of 8 reduces vitamin D production by 95%. Deficiency in this essential vitamin promotes a chronic inflammatory state and has been associated with many negative issues related to bone, cardiovascular, mental and immune system health. Vitamin D deficiency is also strongly related to the expression of pain.²

EPA/DHA FROM FISH OIL – Supplementing with omega-3 fatty acids (EPA/DHA) addresses the deficiency of omega-3's in the modern diet and helps balance our ratio of omega-6 to omega-3 fatty acids. Adequate omega-3 intake helps to balance inflammatory activity and promote health. Adequate levels of omega-3 fatty acids help to promote joint and bone health, mental/emotional health, heart health, proper blood sugar regulation, nervous system health, and skin and eye health.³

CLINICAL MAGNESIUM – Magnesium is chronically deficient in the modern diet, which promotes a chronic inflammatory state. Magnesium plays a role in over 300 bodily enzymatic reactions, which is why magnesium deficiencies are associated with very diverse clinical manifestations, even sudden death. Magnesium is critical for cardiovascular health, cellular energy production (ATP), neurological health, glucose metabolism, calcium transport, nerve signal conduction, and the maintenance of joint and bone health.^{4,5}

IN ADDITION TO THE 4 ESSENTIAL SUPPLEMENTS WE RECOMMEND THESE PRODUCTS



DIGESTIVE SUPPORT

The use of natural bacteria in supplement form may be beneficial to maintaining a healthy digestive tract.

PROBIOTIC COMPLETE
Contains the beneficial intestinal bacteria (probiotics) Lactobacillus acidophilus and Bifidobacterium lactis. Supplementation with probiotics reduces intestinal inflammation and prevents harmful bacteria from damaging the digestive system. Less intestinal inflammation is thought to benefit the body in general.

DIGESTIVE COMPLETE
Contains digestive enzymes that can assist in proper digestion and assimilation of food.



PAIN & INFLAMMATION

PRO-ENZ™
Contains extracts of ginger, turmeric, boswellia, rosemary, lemon bioflavonoids, and the enzyme bromelain. Research has demonstrated that each helps to reduce chronic inflammation, which helps to promote health and reduce chronic disease expression.

ZYMAIN®
Helps to reduce inflammation after strains/sprains or an acute flare-up of neck or back pain. Zymain contains proteolytic enzymes that help degrade the proteins that can be produced in excess after an acute injury.

SALIZAIN™
Contains white willow bark extract at the amount recommended by the American College of Physicians and the American Pain Society for the treatment of pain.



ANTIOXIDANTS

Contrary to popular belief, the best antioxidant and anti-aging supplements are coenzyme Q10, lipoic acid, and acetyl-L-carnitine.

COENZYME Q10 (CoQ10)
A "spark plug" for energy production in our cells, and as we age levels dramatically decrease. CoQ10 is unique because, in addition to producing cell energy, it also functions as an antioxidant to protect our cells. CoQ10 also plays an anti-aging role in skeletal muscle gene expression.

ALPHA LIPOIC ACID (ALA)
Vital ALA 300 provides 300 mg of ALA to improve energy production and provide potent antioxidant protection. ALA also combats inflammation and improves blood sugar regulation.



JOINT & BONE SUPPORT

GLUCOSAMINE & CHONDROITIN SULFATE
A growing body of research demonstrates that supplemental glucosamine/chondroitin improves joint health. They are the building blocks of joints and connective tissues and also have anti-inflammatory activities.

K2-D3
Ultra K2-D3 provides the recommended amount of vitamins K2 and a liberal amount of vitamin D3, the preferred form of vitamin D. These vitamins are specific for calcium metabolism, bone health and density retention.

NUTRA CAL 1:1
Nutra Cal 1:1 contains optimal amounts of four key nutrients needed for bone health: calcium, magnesium, vitamin D and boron. That ratio of calcium to magnesium is 1:1. If more calcium is needed, add Osatate®.

1. Ames BN. Low micronutrient intake may accelerate the degenerative diseases of aging through allocation of scarce micronutrients by triage. Proc Natl Acad Sci. 2006; 103(47):17589-94.
2. Cannell JJ, Hollis BW. Use of vitamin D in clinical practice. Alt Med Rev. 2008;13(1): 6-20.
3. Simopoulos AT. The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases. Exp Biol Med. 2008; 233:674-88.
4. Ford ES, Mokdad AH. Dietary magnesium intake in a national sample of US adults. J Nutr. 2003; 133(9):2879-82.
5. Bar-Dayyan Y, Shoenfield Y. Magnesium fortification of water. A possible step forward in preventive medicine? Ann Med Interne (Paris). 1997;148(6):440-4.



† These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.



Why Your Doctor Recommends Nutritional Supplements from Anabolic Laboratories



Anabolic Laboratories nutritional products exceed required standards for manufacturing nutritional supplements. Founded in 1924, Anabolic Laboratories combines its expertise in pharmaceutical, Rx nutritional and nutritional supplements manufacturing to formulate and develop products utilizing many of the same cGMP's (Good Manufacturing Practices) mandated by the USFDA (United States Food and Drug Administration) for prescription and over the counter (OTC) pharmaceutical products.



ANABOLIC LABORATORIES

Pharmaceutical Made Nutritional Products **Since 1924**



AnabolicLabs.com

[3100-0002-LL]

This document is published by Anabolic Laboratories, LLC ©2011
† These statements have not been evaluated by the Food and Drug Administration.
These products are not intended to diagnose, treat, cure or prevent any disease.

