The Quest for the Anti-Inflammatory Diet

“Inflammation” seems to be quite the buzzword these days, with multiple dietary plans claiming to protect cells and organs from low-level chronic inflammation, which some studies have linked to heart disease, cancer, arthritis, and other common health problems. Some dietary plans claim that whole categories of foods are “pro-inflammatory” (cause inflammation) and encourage followers to avoid ALL grains, ALL legumes, ALL dairy, while others blame certain foods or certain compounds in foods (“don’t eat eggs, or anything with gluten or lectins”) for an inflammatory response. What isn’t clear among these popular elimination diet plans (Whole 30, AIP, Keto) is how inflammation was measured or studied leading to the development of these complicated and sometimes contradictory food lists.

Enter the DII, the Dietary Inflammation Index. It is a scientifically developed tool developed by researchers who screened around 6,000 studies that have examined the relationship between specific foods/nutrients/food components and six commonly studied inflammatory markers in the blood. The researchers generated a list of 45 nutrients and whole foods that have an evidence-based impact on inflammation (i.e. there are research studies that demonstrate each food’s/nutrient’s effect on inflammatory markers in the blood). Each of the 45 nutrients/foods has been assigned a score based on the number and quality of the research studies that show a pro-inflammatory or anti-inflammatory effect. Negative scores reflect an anti-inflammatory effect. Positive scores reflect a pro-inflammatory effect. And zero (or close to zero) scores have a neutral effect.

Among the more anti-inflammatory nutrients/foods in the DII include flavones (pigments found in red and purple foods like eggplants, peppers, and tomatoes), isoflavones (found in soy products), beta-carotene (found in orange vegetables like carrots, winter squash and pumpkin), flavonols (found in onions, kale, broccoli, apples, and berries), omega 3 fatty acids (found in fish, flax, walnuts, chia seeds) vitamin C (found in citrus fruits, kiwi, strawberries, papaya, colored peppers and potatoes), fiber (found in whole grains, fruits, vegetables) as well as green and black tea and the spices, turmeric, saffron, and ginger.

Foods/nutrients on the more inflammatory end of the index included total fat, and specifically saturated fat (the kind of fat in most animal products like butter, lard, tallow, fatty cuts of beef, pork, poultry, full-fat dairy), and trans fat (found in any product with “partially hydrogenated oil” in the ingredient list and generally in commercially fried foods, packaged baked and fried goods and snack foods).

For personalized information on foods that you consume and how they fit into a general anti-inflammatory dietary pattern, you can download an app that was developed by the researchers behind the DII. You’ll start by completing a “screening tool” of 25 questions and then have the option for more detailed analysis of your own eating habits. It’ free – look for it in the app store – DII Screener.
The DII can give us an idea of what foods/nutrients/food components may have an anti-inflammatory effect on our bodies, but it doesn’t necessarily provide suggestions about quantities of such foods; nor does it provide information about potential risks or appropriate dosages of supplements of such food components. These foods (and food components) must be consumed in the context of a healthy dietary pattern and healthy lifestyle overall to potentially have the greatest anti-inflammatory effect. And while the DII items are linked to evidence-based anti-inflammatory effects, the truth is that there still isn’t enough clinical evidence to create a one-and-only-tried-and-true “anti-inflammatory” diet. While it seems relatively clear that the foods we eat can have an effect on inflammatory markers in the blood, what’s less obvious (at this point, anyway) is that the correlation between foods/nutrients and lower inflammation markers proves that that these foods/nutrients can prevent these chronic, inflammation-related diseases and/or relieve their symptoms.

The good news is that most of the foods that turn up as “anti-inflammatory” on the DII are foods that you’ve already heard are “good for you”. If you’re interested in trying an anti-inflammatory diet using the best evidence we have to date, you’ll want to start by eating a wide variety whole plant-based foods; include plenty of colorful fruits and vegetables (carrots, tomatoes, leafy greens, berries, sweet potatoes, etc). Include a variety of whole grains too – whole wheat, amaranth, barley, brown rice, buckwheat, corn, rye, oats, etc. Use an assortment of non-sodium seasonings for an extra-boost of anti-inflammatory potential – turmeric, garlic, saffron, ginger, cinnamon, cumin, parsley, sage, etc. Be sure to use healthy fats – like those found in avocados, nuts, salmon, tuna, mackerel, and sardines; and use vegetable oils for cooking – olive, canola, soybean, and corn. And sip on coffee, green tea and black tea – as these contain anti-inflammatory chemicals as well. If you have other questions about diet and inflammation, or any other nutrition-related matter, be sure to set up a nutrition assessment with Campus Recreation’s registered dietitian nutritionist, Annie Bell. Appointments are individualized to address your needs, questions, and concerns and last about an hour – oh, and they’re free! Follow the prompts here to register:
https://campusrec.utsa.edu/nutritionregistration

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