

## Module 9: Anti-inflammatory Nutritional Recommendations

*“I don't want people giving me electric can openers, I want to be able to do it myself, or have something else for dinner.” Julie Comer, RA Patient*

### What is the anti-inflammatory diet?

While there is no specific “diet” that people with arthritis or rheumatoid arthritis (RA) should follow, researchers have identified certain foods that can help control inflammation. Many of them are found in the so-called Mediterranean diet, which emphasizes fish, vegetables and olive oil, among other staples.

#### *Mediterranean Diet Benefits*

Studies confirm that eating foods commonly part of the Mediterranean diet can do the following:

- Lower blood pressure
- Protect against chronic conditions, ranging from cancer to stroke
- Help arthritis by curbing inflammation
- Benefit your joints as well as your heart
- Lead to weight loss, which can lessen joint pain

Below are key foods from the Mediterranean diet, and why they're so good for joint health.

#### *Fish*

Some types of fish are good sources of inflammation-fighting omega-3 fatty acids. Health authorities like the *American Heart Association* and the *Academy of Nutrition and Dietetics* recommend three to four ounces of fish, twice a week. Arthritis experts claim more is better.

A study of 727 postmenopausal women, published in the *Journal of Nutrition* in 2004, found those who had the highest consumption of omega-3s had lower levels of two inflammatory proteins: C-reactive protein (CRP) and interleukin-6. More recently, researchers have shown that taking fish oil supplements helps reduce joint swelling and pain, duration of morning stiffness, and disease activity among people who have rheumatoid arthritis (RA).

The best sources appear to be salmon, tuna, sardines, herring, anchovies, scallops and other cold-water fish. If you hate fish, you might consider a supplement. Studies show that taking 600 to 1,000 mg of fish oil daily eases joint stiffness, tenderness, pain and swelling.

#### *Nuts & Seeds*

José M. Ordovás, PhD, director of nutrition and genomics at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University in Boston explains that, “Multiple studies confirm the role of nuts in an anti-inflammatory diet,” explains. A study published in *The American Journal of Clinical Nutrition* in 2011 found that over a 15-year period, men and women who consumed the most nuts had a 51 percent lower risk of dying from an inflammatory disease (e.g., RA) compared with those who ate the fewest nuts. Another study published in *The Journal Circulation* in 2001 found that subjects with lower levels of vitamin B6 – found in most nuts – had higher levels of inflammatory markers.

It is suggested by some that we should consume 1.5 ounces of nuts daily (i.e., about a handful). Nuts are packed with inflammation-fighting monounsaturated fat. And though they’re relatively high in fat and calories, studies show noshing on nuts promotes weight loss because their protein, fiber and monounsaturated fats are satiating. Dr. Ordovás says, “Just keep in mind that more is not always better.” Best sources seem to be walnuts, pine nuts, pistachios and almonds.

### *Fruits & Veggies*

Fruits and vegetables are loaded with antioxidants. These potent chemicals act as the body’s natural defense system, helping to neutralize unstable molecules called free radicals that can damage cells. Research has shown that anthocyanins found in cherries and other red and purple fruits like strawberries, raspberries, blueberries and blackberries have an anti-inflammatory effect.

Citrus fruits like oranges, grapefruits and limes are rich in vitamin C. Research shows getting the right amount of that vitamin aids in preventing inflammatory arthritis and maintaining healthy joints. Other research suggests eating vitamin K-rich veggies like broccoli, spinach, lettuce, kale and cabbage dramatically reduces inflammatory markers in the blood. The darker or more brilliant the color, the more antioxidants it has. Good ones include blueberries, cherries, spinach, kale and broccoli. Aim for nine or more servings daily (one serving = one cup of most veggies or fruit or two cups of raw leafy greens).

### *Olive Oil*

Olive oil is loaded with heart-healthy fats, as well as oleocanthal, which has properties similar to nonsteroidal anti-inflammatory drugs (NSAIDs). Dr. Ordovás says, “Oleocanthal inhibits activity of COX enzymes, with a pharmacological action similar to ibuprofen.” Inhibiting these enzymes dampens the body’s inflammatory processes and reduces pain sensitivity.

Extra virgin olive oil goes through less refining and processing, so it retains more nutrients than standard varieties. Olive oil is not the only oil with health benefits. Avocado and safflower oils have shown cholesterol-lowering properties, while walnut oil has ten times the omega-3s as olive oil. Two to three tablespoons daily have been suggested.

### *Beans*

Beans are an excellent and inexpensive source of protein—about 15 grams per cup—which is important for muscle health, but they are also loaded with fiber and phytonutrients. In a 2012 study published in *The Journal of Food Composition and Analysis*, researchers analyzed the nutrient content of 10 common bean varieties, and identified a host of antioxidants and anti-inflammatory properties. Some experts believe then that these vegetables contain a potent nutrient mix that helps inhibit arthritis pain, by helping to lower CRP, an indicator of inflammation found in the blood.

Small red beans, red kidney beans and pinto beans rank among the U.S. Department of Agriculture's top four antioxidant-containing foods (wild blueberries are No. 2). About one cup, twice a week (or more), is often recommended.

Beans also contain solanine, however, which is a chemical that has been branded the culprit in arthritis pain. There's no scientific evidence to suggest that nightshades trigger arthritis flares, but many people report symptom relief when they *avoid* nightshade vegetables. So, if you notice that your arthritis pain flares after eating them, consider eliminating all nightshade vegetables from your diet for a few weeks to see if it makes a difference. Then, slowly add them back into your diet to see if symptoms worsen or stay the same.

### *Whole Grains*

Whole grains contain plenty of filling fiber, and can help to maintain a healthy weight. Some studies have also shown that fiber and fiber-rich foods can lower blood levels of CRP, an inflammatory marker. Foods made with the entire grain kernel, like whole-wheat flour, oatmeal, bulgur, brown rice and quinoa are the best sources. Some people may need to be careful about which whole grains they eat. Gluten, a protein found in wheat and other grains, has been linked to inflammation for people with gluten sensitivity disorders. A total of six ounces of grains per day can suffice, at least three of which should come from whole grains. One ounce of whole grain would be equal to ½ cup cooked brown rice or one slice of whole-wheat bread.

### *Nightshade Vegetables*

Nightshade vegetables, including eggplant, tomatoes, red bell peppers and potatoes, are disease-fighting powerhouses that boast maximum nutrition for minimal calories.

## **Foods to Avoid**

Sugar, Oil and Salt—SOS! While cutting down on these three ingredients may sound simple to you, they are the major culprits behind arthritic flare-ups. Most Americans living with arthritis lack the knowledge to control their symptoms through nutrition. For example, the *American Heart Association* suggests limiting added sugars to no more than 6 teaspoons (approximately 100 calories) for women, and 9 teaspoons (approximately 150 calories) for men. The Mayo Clinic suggests ingesting less than 2300 mg of sodium each day, which seems like a lot, until you realize that ½ teaspoon of salt contains 1200 mg.

The daily oil intake recommendations vary based on your gender, age and activity level. According to the United States Department of Agriculture (USDA), women age 19 to 30 years who exercise for less than 30 minutes each day should consume about 6 teaspoons of oils each day, and women above age 30 years need 5 teaspoons. In actuality, the average American is said to eat double or triple the amount of the daily recommendations which is a leading cause of flare-ups among a plethora of other health issues. Avoiding this trifecta is key to reducing inflammation and swelling throughout the body.

Inflammation is an immune response that is designed to protect our bodies from germs and injury. Throughout history, humans have been faced with diseases that were caused by germs. All of these diseases took over communities and ultimately destroyed societies of people. Dysentery, influenza, bubonic plague, smallpox and typhoid fever are just some of the diseases the world has seen (Elkaim, ???).

While most of these diseases have been eradicated, modern times reveal a new epidemic. Today there are illnesses and conditions that rob people of their quality of life, such as allergies, dementias, asthma, skin disorders, arthritis and more. These diseases that affect millions of people across the globe are not caused by germs, but rather, inflammation. In the last 20 years alone there has been a significant increase in degenerative conditions and diseases. Research has revealed that inflammation in Americans has rapidly increased, with no sign of stopping, due to improper diet. This is a problem that must be stopped, but it is up to you and me!

## **Foods to Embrace**

In 2011, the USDA replaced its food pyramid with a new icon for healthy eating called *MyPlate*. It was designed to provide an easier way for people to understand and create balanced meals. The MyPlate icon shows an image of a place setting with a plate and glass. The plate is divided into food group targets (vegetables, protein, fruits, and grain). Shifting to a plate-based approach nutrition encourages people to look at what's on their actual food plate. If your plate looks similar to the icon with lots of fruits and vegetables, then you are probably on the right track.

Since the USDA started its plate-based system, more specific and individualized ways to create the best healthy plate has become available. For instance, the *American Diabetes Association* recommends that half of your plate should be vegetables, one-fourth protein, and one-fourth grains, and emphasizes water as the beverage of choice. Small servings of fruit and fats, such as nuts, nut butters, seeds, avocados, and organic oils complete a healthy plate. To ensure adequate fiber intake, vegetables, fruits, whole grains, and beans should make up the bulk of the carbohydrates one is consuming. If one consumes dairy, one should choose lower fat or fat free options, and if dairy is out of the question, one can eat other calcium containing foods such as broccoli, kale, and almonds. Having a client speak to a registered dietitian or doctor about calcium supplementation may sometimes be warranted.

Tricia Silverman, a Registered Dietitian, adds the following: "One of the best things you can do to feel your best is to limit processed foods and foods prepared outside of your home. Making more of your own meals gives you more control over the ingredients. Eating more vegetables (including some raw veggies) and plant-based foods can help you feel better and live longer.

Aim to decrease red meat (e.g., pork, beef, lamb), and replace with some bean-based meals, such as lentils with brown rice and spinach (Silverman, 2019).”

To find out more about what foods to enjoy, click this link!

<https://jointsalive.com/video/index-arthritis.html?aid=59&campaign=arthritisintr-ad3&pl=arthritis%20foods%20to%20avoid%20mayo%20clinic&msclkid=d4df68fab706131650c736240ca27cb7>