

# Foods and Arthritis

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Millions of people suffer from painful and swollen joints caused by arthritis. Unfortunately, health care providers often don't discuss diet change with patients who have arthritis. This is likely because older research, which tested diets with dairy products, oil, poultry, or meat, showed little benefit.<sup>1,2</sup> Current research shows that foods can play a substantial role in arthritis.

## Different Types of Arthritis

**Osteoarthritis** is a gradual loss of cartilage and overgrowth of bone in the joints, especially the knees, hips, spine, and fingers. More than 32.5 million Americans suffer from osteoarthritis, and risk increases with age.<sup>3</sup> The condition usually develops gradually and can cause pain and stiffness.

**Rheumatoid arthritis (RA)**, which affects more than 1.3 million Americans, is a more aggressive form of arthritis.<sup>4</sup> It is an autoimmune disease that causes painful, inflamed joints and can result in permanent damage. RA is one of medicine's mysteries. The disease does not appear in medical reports until the early 1800s, and some suspect that a virus or bacterium may play a role by setting off an autoimmune reaction. Certain genes can also make people more likely to develop RA.

## The Role of Diet

**Diet and RA.** While not all research has found a connection, multiple studies show that dietary changes can help relieve RA symptoms.<sup>5</sup> For example, one study looked at the effects of a very-low-fat vegan diet on people with RA. After only four weeks, people had less morning stiffness, RA pain, joint tenderness, and joint swelling.<sup>6</sup> A recent study published in the *Journal of Lifestyle Medicine* confirms that a low-fat plant-based diet improves joint pain in patients with RA.<sup>7</sup>



Lastly, in the Plants for Joints randomized control trial, individuals who followed a 16-week lifestyle program based on a whole food, plant-based diet, physical activity, and stress management were found to have improved symptoms of RA, greater weight loss, and lower cholesterol compared with those in the control group.<sup>8</sup>

Weight loss can also help. Studies have shown that people with RA who are overweight tend to have worse outcomes than those who are at a healthy weight.<sup>9,10</sup> In fact, one study found that overweight people with RA who lost 11 or more pounds were

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three times more likely to have improvement in their disease than those who lost less than 11 pounds.<sup>11</sup>

Finally, research suggests that certain foods can trigger RA symptoms in some people.<sup>12</sup> Animal products like meat, eggs, and dairy appear to be common triggers. Some healthy foods can be triggers too, however, such as citrus, tomatoes, and corn, to name a few.<sup>13</sup> Not everyone will have food triggers, though, and when present, the exact foods that trigger symptoms are often unique to that person.<sup>13</sup> That is, one person's trigger foods could be eaten by someone else with no problems.

**Diet and osteoarthritis.** People with osteoarthritis can also benefit from dietary changes. Research on more than 6,000 people revealed that the more fiber people ate, the less likely they were to have osteoarthritis symptoms.<sup>14,15</sup> For overweight people, weight loss can also help with osteoarthritis. A 2015 study found that people eating a whole food, plant-based diet significantly decreased their osteoarthritis pain—in just two weeks. By the end of the six-week study, they reported more energy and better physical functioning, too.<sup>16</sup> These findings were confirmed in the Plants for Joints study. Participants with osteoarthritis who followed a plant-based diet had decreased pain and stiffness and improved physical function.<sup>8</sup>

## How Might Plant-Based Diets Help?

Vegan diets are often lower in fat and have a healthier fat profile than diets containing animal products. For example, fruits, vegetables, whole grains, and beans typically have a healthful ratio of omega-6 and omega-3 fats. Vegan diets are also generally low in saturated fat, and rich in antioxidants and phytochemicals, which help to manage inflammation and reduce the odds of developing arthritis.<sup>17</sup>

Another potential problem with diets containing animal products is that meat can supply an overload of iron. Too much iron triggers production of dangerous free radicals—basically causing “rusting” inside the body. Excess free radicals can damage joints and contribute to heart disease and cancer.<sup>18</sup>

Vegetables and beans, on the other hand, contain ample iron, but in a form the body absorbs only when needed. Moreover, fruits and vegetables like citrus fruits, peppers, and leafy greens contain antioxidants like vitamins C and E, to keep free radicals in check.

## Food Triggers for Arthritis

Specific foods may contribute to joint pain for some, particularly for those with RA.<sup>12</sup>

If you’d like to find out if any foods trigger your arthritis pain, here’s how to get started. For two weeks:

- Enjoy an abundance of foods from the pain-safe list.
- Avoid the common triggers completely.
- Foods that are not on either list can be eaten freely.

If your diet change makes your pain disappear or improve, the next step is to find out which foods are your triggers. To do this, simply reintroduce the eliminated foods one at a time, every two days, to see whether any symptoms result. If a food triggers symptoms for you, wait until your symptoms improve before trying the next food. Animal products are best left permanently off your plate.

### Pain-Safe Foods

Pain-safe foods virtually never contribute to arthritis, headaches, or other painful conditions.<sup>19</sup> These include:

Oats	Cooked green vegetables such as artichokes, asparagus, broccoli, Brussels sprouts, spinach, and kale
Quinoa	
Rice	Cooked yellow and orange vegetables such as carrots, zucchini, and squashes
Buckwheat	
Millet	Cooked or dried noncitrus fruits such as pears, apricots, blueberries, and plums
Lentils	

### Possible Pain Triggers

Common food triggers can cause pain in susceptible people. Certain drinks and additives are also common triggers, including alcoholic beverages (especially red wine), caffeinated drinks (coffee, tea, and colas), monosodium glutamate (MSG), aspartame (NutraSweet), and nitrites (processed meat such as hot dogs and bacon).

Here are some common food triggers.<sup>19-22</sup>

Meat, dairy, and eggs	Oats
Wheat, barley, and rye	Sugar (cane)
Corn	Apples
Nuts and peanuts	Onions
Soy	Celery
Citrus fruits	Chickpeas
Chocolate	Bananas
Nightshade vegetables: tomatoes, white potatoes, peppers (except black pepper), and eggplant	Sweet potatoes
	Nutritional yeast

**One important note:** If you suspect wheat or gluten may be triggering your symptoms, please check with your health care provider about whether you should be screened for celiac disease before eliminating gluten-containing foods from your diet.

## Other Approaches

The first line of defense in arthritis is a lower-fat, plant-based diet with plenty of fruits and vegetables, a vitamin B12 supplement, and medications as prescribed by your health care provider.

However, some studies suggest that supplementing with the omega-3 fats DHA and EPA may help people with RA. If you wish to try omega-3s, look for a vegan DHA/EPA supplement (made from algae) with no more than 2 grams of DHA/EPA combined. High omega-3 intakes can increase bleeding risk and interact with some medications, so check with your health care provider before using.<sup>23</sup>

Small studies also suggest that curcumin, found in turmeric, may help ease osteoarthritis pain. Until more research is available, season food such as chili, soup, and curries with turmeric instead of using supplements.<sup>24</sup> Be sure to add a pinch of black pepper if you like it. It can help you absorb more curcumin from the turmeric.

This fact sheet is not intended as a comprehensive program for arthritis. If you have arthritis, please consult with your health care provider about which interventions are appropriate for you.

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