

# Reducing Your Risk for Arthritis: The Power of Food<sup>1</sup>

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## Overview of Arthritis

Arthritis is the swelling or tenderness of the joints. One in five adults or 53.2 million adults within the United States have been diagnosed with some type of arthritis from 2019-2021: degenerative, such as osteoarthritis; inflammatory, such as rheumatoid; infectious; or metabolic (Barbour et al. 2017; Fallon et al. 2023).

Arthritis can happen because of genetics and aging, but other factors, such as diet and lifestyle, may contribute to arthritis. This publication describes the modifiable factors contributing to arthritis and tips to reduce risk for arthritis.

## Factors Contributing to Arthritis

### Weight

The more body weight you carry, the higher your risk is for developing osteoarthritis. Extra body weight puts more pressure on your joints. This causes arthritis to develop and makes the pain of arthritis worse. Losing weight reduces your risk for arthritis and improves existing arthritis pain and function (Kolasinski et al. 2020).

### Dietary Habits

Consuming low amounts of fruits and vegetables may increase your risk for arthritis. Fruits and vegetables contain antioxidants, which reduce inflammation that occurs dependent on the arthritis type (Antinoro 2017). Additionally, methods of processing (e.g., frying, trans-fat processing, increased sugar in low-fat foods) can induce an inflammatory response in the body and potentially exacerbate an arthritis-related inflammatory condition (Gioia et al. 2020; Weaver et al. 2014).

### Lifestyle Habits

Staying active is important when you have arthritis. Diet change and exercise alone both improve arthritis pain and physical function, but the combination of both leads to large reductions in pain and improvement in quality of life (Messier et al. 2013).

## Reducing Your Risk for Arthritis

### Start Simple

Set a goal each week to make small changes towards health, such as:

- Choose at least 1 piece of fruit daily for a week.

- Cook at least 1 meal prepared with beans, vegetables, and whole grains this week.
- Take a 15-minute walk after work this week.

## Eat More Fruits, Vegetables, Beans/Lentils and Whole Grains

**These foods are:**

- High in vitamins, minerals, and antioxidants that help reduce swelling or tenderness in joints.

## Get Active

The food you eat is one of the most important factors affecting your arthritis, but exercise is also important to your joint health.

- **Be as active as your health allows.** Work towards 30 minutes of physical activity 5 days a week.
- **Start low and go slow.** Start with low-impact aerobic activities like walking, biking, swimming, or water aerobics.
- Muscle strengthening exercises include **lifting weights, working with a resistance band, and yoga**. Aim to do strengthening exercises that target all muscle groups at least 2 days per week.

## Be Kind to Yourself

- Take some time for yourself every day, even if just for 10 minutes!
- Sleep for at least 7 hours per day.
- If you consume alcohol, have 1 drink or less per day for women and 2 drinks or less per day for men.
- Avoid use of and exposure to tobacco products.
- Reduce stress as much as you can.

## Setting Yourself Up for Success

- Use the suggested recipes in this publication for ideas and inspiration for healthy eating.
- Start making changes with a friend or family member! It can be helpful to have support.
- Ask for help from a health professional such as a registered dietitian to help make those positive changes.

In summary, there are 4 types of arthritis—degenerative, inflammatory, infectious, and metabolic. Excessive weight increases one's risk for osteoarthritis due to the pressure on joints. Additionally, consuming more

processed products and less fruits, vegetables, and whole grains contributes to an arthritis-related inflammatory response. Thus, eating healthier and being physically active for most days of the week will help one lose weight to reduce their risk for arthritis.

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## Tables

Table 1. Recipe Ideas for Lunch/Dinner

<b>Carrot, Tomato, and Spinach Quinoa Pilaf with Ground Turkey</b>	<b>Whole Wheat Rotini Pasta Salad</b>
<p><i>Prep time:</i> 20 minutes  <i>Cook time:</i> 40 minutes  <i>Servings:</i> 5</p>	<p><i>Prep time:</i> 20 minutes  <i>Cook time:</i> 10 minutes  <i>Servings:</i> 6</p>
<p><b>Ingredients</b></p> <p>2 tbsp + 2 tsp olive oil            1 cup quinoa            ½ onion, chopped            2 cups water            2 tbsp chicken-flavored bouillon (low-sodium preferred)            1 tsp ground black pepper            1 tsp ground thyme            1 carrot, chopped            1 tomato, chopped            1 cup baby spinach            1 lb ground turkey            1 14.5-ounce can low-sodium black beans, rinsed and drained</p>	<p><b>Ingredients</b></p> <p>1 12-ounce box whole wheat rotini pasta            ¼ cup apple cider vinegar            ¼ cup olive oil            ¼ cup crumbled feta cheese, to taste            6 leaves fresh basil, chopped            Black pepper to taste            1 bunch asparagus, trimmed and chopped            3 tomatoes, chopped            2 large carrots, chopped            1 bunch green onions            4 cloves garlic, minced</p>
<p><b>Preparation</b></p> <p>Heat 2 teaspoons olive oil in a saucepan over medium heat; stir in onion and cook until translucent, about 5 minutes. Reduce heat to medium-low, stir quinoa in with the onion, and cook, stirring constantly, until the quinoa is lightly toasted, about 2 minutes.</p> <p>Pour water into the saucepan; add bouillon granules, black pepper, and thyme. Bring the liquid to a boil, place a cover on the saucepan, reduce heat to low, and cook at a simmer until the quinoa softens, about 5 minutes.</p> <p>Stir carrot into the quinoa mixture, replace cover, and continue to cook at a simmer until water is completely absorbed, about 10 more minutes.</p> <p>Remove saucepan from heat. Stir tomato and baby spinach into the quinoa mixture until the spinach wilts, about 2 minutes.</p> <p>Heat 2 tablespoons olive oil in large skillet over medium-high heat. Cook and stir turkey in the hot skillet until browned and crumbly, 5 to 7 minutes; drain and discard grease. Reduce heat to medium-low. Stir black beans in with the turkey; cook and stir until the beans are hot, 2 to 3 minutes; add the quinoa mixture, stir, and cook until heated through, about 5 minutes more.</p>	<p><b>Preparation</b> Bring a large pot with lightly salted water to a rolling boil. Cook rotini at a boil until the pasta is cooked yet slightly firm to the bite, about 8 minutes; drain.</p> <p>Rinse the pasta with cold water until completely chilled; drain completely.</p> <p>While the pasta cooks, whisk the apple cider vinegar and olive oil together in a large bowl until blended. Stir feta cheese, basil, salt, and black pepper into the vinaigrette.</p> <p>Fold the asparagus, tomatoes, carrots, green onions, and garlic into the vinaigrette to coat evenly.</p> <p>Stir the cooled pasta into the vegetable mixture; toss until evenly mixed.</p>

Table 2. Recipe Ideas—Snack and Dessert

Sweet Potato Hummus	Healthy Chunky Monkey Ice Cream
<p><i>Prep time:</i> 20 minutes  <i>Cook time:</i> 45–60 minutes  <i>Servings:</i> 20</p>	<p><i>Prep time:</i> 5–10 minutes  <i>Cook time:</i> 0 minutes  <i>Servings:</i> 2</p>
<p><b>Ingredients</b>                      3 sweet potatoes (medium)                      1 15-ounce can garbanzo beans, drained (reserve liquid) and rinsed                      2 tablespoons olive oil                      2 tablespoons tahini                      2 tablespoons lemon juice                      ½ tsp lemon zest                      ¼ tsp ground cumin                      ¼ tsp ground coriander                      ¼ tsp ground pepper                      Blender or food processor</p>	<p><b>Ingredients</b>                      • 2 frozen bananas, chopped                      • 1 tbsp milk                      • 1 tbsp peanut butter                      • ½ ounce dark chocolate, chopped</p>
<p><b>Preparation</b>                      Preheat oven to 400°F. Poke holes in sweet potatoes with a fork.                      Roast sweet potatoes in preheated oven until soft, about 45–50 minutes; let cool. Cut sweet potatoes in half lengthwise.                      Combine garbanzo beans and olive oil in a blender or food processor and pulse several times to mash. Scoop flesh out of sweet potato peels and add to the blender; pulse to combine.                      Add tahini, lemon juice, lemon zest, cumin, coriander, pepper, and salt to mixture; blend until smooth, adding reserved garbanzo bean liquid as needed to make a smooth, creamy hummus.</p>	<p><b>Preparation</b>                      Place chopped bananas in freezer overnight.                      Blend frozen bananas, milk, peanut butter, and chocolate until blender is smooth (or slightly chunky).</p>

Table 3. Use this handy grocery list for the above recipes

Fresh/Frozen Foods	Bottled/Canned/Dry Goods	From Your Pantry
Asparagus	Apple cider vinegar	Black pepper, ground
Bananas	Black beans, low-sodium canned	Coriander
Basil, fresh	Chicken-flavored bouillon, low-sodium	Cumin
Carrots	Dark chocolate chips	Thyme
Feta cheese	Garbanzo beans, low sodium canned	
Garlic	Olive oil	
Green onions	Peanut butter	
Lemon juice and zest	Quinoa	
Milk	Tahini	
Onion	Whole wheat pasta	
Spinach		
Sweet potatoes		
Tomatoes		
Turkey, ground		
Find more recipes at these websites: Arthritis Foundation <a href="https://www.arthritis.org/living-with-arthritis/arthritis-diet/">https://www.arthritis.org/living-with-arthritis/arthritis-diet/</a> MyPlate Recipe Guides <a href="https://www.myplate.gov/myplate-kitchen/recipe-resources">https://www.myplate.gov/myplate-kitchen/recipe-resources</a>		

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