

All About Fiber

A new study suggests that people who eat a lot of fiber every day might be less likely to die prematurely from a range of illnesses—including heart disease, cancer, and infection.* Fiber may help prevent against disease in a number of ways. One researcher states that “fiber could help with maintaining normal bowel bacteria. Some studies say that if you eat different foods, they affect bacteria in the bowel and it could be related to different diseases.”* In addition, fiber attaches itself to potential cancer-causing agents, increasing the likelihood that they will be eliminated from the body.

Fiber and cancer

Colon cancer is rare among people with a diet low in meat and rich in high-fiber foods. No one knows exactly how fiber may protect against this cancer, but there are several likely mechanisms. It may move intestinal contents faster through the bowel, thus decreasing the length of time the bowel wall is exposed to potential carcinogens. And fiber may dilute carcinogens as well or possibly bind or inactivate them in some way.

Finding fiber in food

Fiber is not a single substance. Rather, it is an enormous group of widely different chemical substances with varied physical properties. Fiber is divided into two basic types—soluble and insoluble. Foods differ in the type and amount of fiber they contain, but all types of fiber have two things in common: they are found only in plant foods and they are resistant to human digestive enzymes (that is, they pass through the digestive tract without being completely broken down).

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* **Dietary Fiber Intake and Mortality in the NIH-AARP Diet and Health Study;** Yikung Park, Amy F. Subar, Albert Hollenbeck and Arthur Schatzkin; *Arch Intern Med.* 2011; 0(2001) : 2011181-8.



Soluble Fiber

Soluble fiber is a soft fiber that dissolves in water. It helps to lower blood cholesterol and control blood sugars. Best sources of water-soluble fiber are oat bran, oatmeal, apples, strawberries, citrus fruits, barley and legumes such as dried peas, beans, and lentils.

Insoluble Fiber

Insoluble fiber does not dissolve in water. It helps prevent constipation and keep the digestive system healthy, and lowers the risk of certain cancers.

Best sources of water-insoluble fiber are wheat bran, whole grain foods like whole wheat bread, vegetables, fruits and legumes such as dried peas, beans, and lentils.



Female youth and adults, and children over 4 years, should aim for at least 25 grams of fiber per day. Male youth and adults should aim for at least 38 grams of fiber per day.

Fiber-rich foods

You can find fiber all around you. Here are some fiber rich foods and some ideas on how to incorporate more fiber into your life.

Instead of this:	Try this:
Plain bagel (1 gram fiber)	Bran muffin (3 grams fiber)
Chicken noodle soup (1 g)	Bean soup (6 g)
Baguette slice (1 g)	Whole-grain roll (2 g)
1 cup white rice (1 g)	1 cup brown rice (3 g)
1 cup corn flakes (1 g)	1 cup bran flakes (7.5 g)
1 cup apple juice (0 g)	1 cup orange juice, fresh with pulp (2 g)
1 ounce potato chips (1 g)	3 cups popcorn (3 g)

Need to boost your fiber intake?

1. Start your day with a fiber-rich cereal: bran flakes, oatmeal or a high fiber cereal. Top it off with a scoop of raisins, a sliced banana or some orange sections.
3. Take a high-fiber bran or oatmeal muffin to lunch. It's even better if it contains fruit like apples, apricots, raisins or dates.
4. Fiber-boost your salads with carrots, apple slices, dried fruit, raw broccoli and cauliflower pieces, chickpeas (garbanzo beans), kidney beans or All-Bran buds.
5. Choose whole grain breads as often as possible. Look for 3–4 grams of fiber per slice.
6. Load up your plate with extra vegetables.
7. Work some beans and peas into your meals; try split pea soup, baked beans, three-bean salad or chili.
8. Try hummus (chickpea spread) in a pita pocket.
9. Boost the fiber in casseroles and mixed dishes by tossing in a handful of oat bran, wheat bran or a crunchy high-fiber cereal. Try a new “exotic” grain like quinoa, amaranth, bulgur, or wheatberries. Most are as simple to fix as rice, yet packed with fiber and flavor.
10. Snack on fiber-filled fruits: pears, raspberries, apples, oranges, nectarines and bananas. Add 1–2 tbsp ground flaxseed to yogurt for a healthy snack.

Remember:

- * Increase the fiber in your diet slowly. Eat fiber often to reduce gas and bloating.
- * Drink at least six to eight cups of fluids such as water, juice, milk or soup each day. Fiber holds fluid, which keeps stools soft.
- * Eat regular meals and snacks to keep food moving through your bowel.
- * Establish a routine and allow enough time for bowel movements.
- * Exercise—physical activity promotes regular bowel function.

Hearty Vegan Slow-Cooker Chili

This slow-cooked vegan chili is jam-packed with colorful peppers, zucchini, three kinds of beans, and spices.




Ingredients:

- 1 tablespoon olive oil
- 1 green bell pepper, chopped
- 1 red bell pepper, chopped
- 1 yellow bell pepper, chopped
- 2 onions, chopped
- 4 cloves garlic, minced
- 1 (10 ounce) package frozen chopped spinach, thawed and drained
- 1 cup frozen corn kernels, thawed
- 1 zucchini, chopped
- 1 yellow squash, chopped
- 6 tablespoons chili powder
- 1 tablespoon ground cumin
- 1 tablespoon dried oregano
- 1 tablespoon dried parsley
- 1/2 teaspoon salt
- 1/2 teaspoon ground black pepper
- 2 (14.5 ounce) cans diced tomatoes with juice
- 1 (15 ounce) can black beans, rinsed and drained
- 1 (15 ounce) can garbanzo beans, drained
- 1 (15 ounce) can kidney beans, rinsed and drained
- 2 (6 ounce) cans tomato paste
- 1 (8 ounce) can tomato sauce, or more if needed
- 1 cup vegetable broth, or more if needed

Directions:

1. Heat olive oil in a large skillet over medium heat, and cook the green, red, and yellow bell peppers, onions, and garlic until the onions start to brown, 8 to 10 minutes. Place the mixture into a slow cooker. Stir in spinach, corn, zucchini, yellow squash, chili powder, cumin, oregano, parsley, salt, black pepper, tomatoes, black beans, garbanzo beans, kidney beans, and tomato paste until thoroughly mixed. Pour the tomato sauce and vegetable broth over the ingredients.
2. Set the cooker on Low, and cook until all vegetables are tender, 4 to 5 hours. Check seasoning; if chili is too thick, add more tomato sauce and vegetable broth to desired thickness. Cook an additional 1 to 2 hours to blend the flavors.

<p><i>Nutrition Information</i> Calories: 156</p> <p><i>Amount Per Serving</i> Total Fat: 2.4g Cholesterol: 0mg Sodium: 709mg Total Carbs: 28.8g Dietary Fiber: 8.9g Protein: 7.8g</p>	<p><i>Prep Time:</i> 45 Minutes <i>Cook Time:</i> 5 Hours 10 Minutes <i>Ready In:</i> 5 Hours 55 Minutes <i>Servings:</i> 15</p> 
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Your KCCC Oncology Dietitian, Carrie Michel

Carrie is a Registered Dietitian who also is a nationally certified specialist in the area of oncology. She has provided nutrition support and counseling to oncology patients throughout all stages of treatment. She has also worked with radiation therapy patients and survivorship programs, and assisted with fatigue management programs. Carrie has experience in the areas of wellness, group nutritional programs, managing complex patient nutritional deficits and much more.



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