fiber can be found only in plants, we need to look to fruits, vegetables, whole grains, nuts, seeds, beans, peas, and lentils for our fiber sources.

To better understand how fiber works in our bodies, we first need to understand the two types of fiber we eat: soluble and insoluble.

**Soluble fiber** (which means it dissolves in water) is found in (among other sources) beans, peas, lentils, oats, nuts, seeds, apples, citrus fruits, and carrots. This type of fiber is linked to lowering LDL cholesterol, reducing the risk of heart disease, achieving a healthy weight, maintaining bowel health, and improving blood sugar control for those managing diabetes (National Institutes of Health [NIH], n.d.).

**Insoluble fiber** (which means it does not dissolve in water) keeps our bowels working regularly (preventing constipation), increases a feeling of fullness, and lowers the risk of diverticular disease (NIH, n.d.). Sources of insoluble fiber include whole grains like barley and bulgur, nuts, seeds, beans, potatoes, zucchini, dark leafy vegetables, tomatoes, and grapes.

Most plant-based foods, such as oats and beans, contain both soluble and insoluble fiber. By eating a variety of plant-based foods, you can better guarantee that you get the health benefits that each form provides (NIH, n.d.).

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**Why Fiber?**

According to the U.S. Department of Agriculture (USDA, n.d.) guide MyPlate, a healthy eating pattern at every age can promote good health and lead to a longer and healthier life. So, if you knew that there was a type of food that could improve heart and colon health, help maintain a healthy weight, help manage diabetes, and prevent chronic disease, wouldn't you be interested? Well, look no further than fiber, something you likely include already in your everyday meals. But are you consuming enough? According to the Dietary Guidelines for Americans, 2020–2025, most adults should consume approximately 22–34 grams of fiber per day (USDA and U.S. Department of Health and Human Services [HHS], 2020). Let's take a closer look at what kinds of fiber you should include and how you can meet (or even exceed) these numbers.

**What Is Fiber?**

Dietary fiber, also known as roughage or bulk, is a form of plant-based carbohydrate that comes from the parts of the plant your body can't digest or absorb. And because dietary fiber can be found only in plants, we need to look to fruits, vegetables, whole grains, nuts, seeds, beans, peas, and lentils for our fiber sources.

To better understand how fiber works in our bodies, we first need to understand the two types of fiber we eat: soluble and insoluble.

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Most plant-based foods, such as oats and beans, contain both soluble and insoluble fiber. By eating a variety of plant-based foods, you can better guarantee that you get the health benefits that each form provides (NIH, n.d.).
**Fiber’s Role in Digestion**

In addition to helping to maintain bowel and heart health, fiber can play an important role in weight management (NIH, n.d.). High-fiber foods are more filling; therefore, by including more fiber in your meal preparation, you will likely consume less food and feel satisfied longer. High-fiber foods can also take longer to eat (because of the time spent chewing), which will give your brain the time to catch up to your body’s signal that you are full. Further, cup for cup, foods high in fiber tend to have fewer calories than low-fiber food, which can help control weight.

Finally, evidence shows that eating foods high in fiber may be linked to a lower risk of colon cancer and colon polyps (NIH, n.d.).

**Whole or Minimally Processed Foods**

Plant-based foods in their whole form are the best sources of fiber and are also naturally rich in vitamins, minerals, and other beneficial nutrients. For example, edible seeds and the skin of fruits and vegetables provide fiber. On the other hand, peeled, juiced, or seeded fruits and vegetables (such as tomatoes and cucumbers) provide less nutritional benefit.

Similarly, refined grains—such as white bread, white pasta, white rice, and sugary cereals—are low in fiber. The refining process or milling removes the outer layer (the bran) and the germ, leaving only the endosperm. While milling gives the grains a finer texture, it removes fiber and nutrients, lowering their content of both. Refined grains have B vitamins and iron added after the milling to enrich them, but they still lack fiber.

So, in short, aim to eat foods in as close to their whole form as possible for the most health benefits.

**Adding Fiber to Your Diet**

So, now that you have a better understanding of all of the ways fiber can benefit you, how can you find more ways to include it in your shopping and meal planning?

**Shopping**

The best way to get more fiber in your diet is to choose whole grains and other higher-fiber foods over refined grains and other low-fiber foods. Here is some advice when shopping for high-fiber foods:

**In general:**
- Use the Nutrition Facts label when you shop to compare the fiber content of foods.
- Stick to whole or minimally processed plant foods when possible.

**For fruits and vegetables:**
- Buy only as much fresh produce as you can use before it spoils.
- Keep a variety of frozen vegetables (without sauces and butter) and fruits (without added sugars) in your freezer.
- Remember that canned fruits and vegetables (including pineapple and tomatoes) last longer than fresh and are a quick and low-cost addition to meals.

**For protein:**
- Beans, peas, and lentils cost less than a similar amount of other protein foods. Each of these foods is available in various forms (including dried, canned, or frozen).
- Keep your pantry stocked with a variety of nuts and seeds to add to your meals and snacks.

**For whole grains:**
- Look for bread that lists 100% whole wheat on the package (or whole-wheat flour or another whole grain as the first ingredient on the ingredient list).
- Choose whole-grain pasta instead of pasta made with white flour.
- Instead of white rice, select brown rice. Better yet, try different grains like quinoa, bulgur, farro, and barley to add variety to your meals.
- Regardless of what you shop for, though, the key phrase to remember is “choose whole grains.” MyPlate recommends that we consume at least half of all grains as whole grains (USDA, n.d.). For most of us, that ends up being about 3 ounces (or ounce equivalents) or more of whole grains per day.

**Meal Preparation**

For breakfast, consider whole-grain options for cereal and bread (instead of their refined counterparts or other bakery treats) that contain 3 grams or more of fiber per serving. Look at the ingredient list to be sure the whole grain (such as whole wheat, whole oats, and whole corn) is first on the list.
Add a few tablespoons of wheat bran or chopped walnuts or almonds to your favorite cereal for an added boost.

At **lunch**, top your salad with toasted nuts or seeds instead of croutons.

For **snacks**, concentrate on eating high-fiber foods. Fresh fruits, raw vegetables, popcorn, and whole-grain crackers are all good options. Nuts, seeds, or dried fruits are also healthy, high-fiber options but are also higher in calories.

When **baking**, use whole-grain flour for at least half of the flour called for in the recipe. Look for muffin, cake, and cookie recipes that use wheat bran and whole-grain ingredients like oats to boost the fiber content of baked goods.

For **dinner**, beans, peas, and lentils in soups, stews, salads, and chili offer protein choices that add fiber to your diet. Also consider adding vegetables to these meals or any other entree. For example, add frozen mixed vegetables, fresh spinach, or canned tomatoes to a pasta or rice dish.

And finally, eat enough **fruits and vegetables**. The current daily recommendation is to eat about 4½ cups of vegetables and fruits each day (USDA, n.d.). Set a goal of filling half your plate with (or eating at least 1½ cups of) fruits and vegetables at each meal. Fruits and vegetables are rich in fiber and loaded with vitamins and minerals.

**Easy Does It!**

If your fiber intake has been low, gradually add dietary fiber to avoid discomfort. This allows the natural bacteria in your digestive system to adjust to the change. To balance the fiber, increase the amount of water you are drinking. The water will help the fiber more easily make its way through your stomach and digestive system without distress. Take your time so your body can adjust to your new eating pattern.

**How Much Fiber Do We Need Each Day?**

Eat 14 grams of fiber for every 1,000 calories consumed (FDA, n.d.). Therefore:

<table>
<thead>
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<th>Age 2–8</th>
<th>Age 9–13</th>
<th>Age 14+ Females</th>
<th>Age 14+ Males</th>
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(USDA & HHS, 2020)

**Examine Your Choices**

<table>
<thead>
<tr>
<th>Food</th>
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<th>What to Choose</th>
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<tr>
<td>Bread Cereal</td>
<td>Enriched White Bread</td>
<td>100% Whole-Wheat Bread</td>
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<td>Oatmeal or Shredded</td>
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**References:**


Written by **Nancy Routch**, RD, LDN, Extension Educator, Cumberland County and **Dori Owczarzak**, MS, RD, LDN, Extension Educator, Washington County, 2023

Based on the 2011 publication, Fiber: More Than Something to Chew On!, originally written by **Nancy Yergin**, Former Extension Educator, Forest County.
Bean Burritos  Makes 5 Servings, Serving Size: 2 Burritos

When preparing this recipe, start with clean countertops and utensils. Wash hands with soap and water. Wash the whole, fresh produce by rinsing the lettuce and gently rubbing the onions under cold, running water. Prewashed, packaged items do not require further washing.

Ingredients

1½ cups cooked pinto beans or 1 (15-ounce) can of no salt added pinto beans, drained and rinsed
1 Tablespoon canola oil
Ten 7-inch white or yellow corn tortillas
1 cup shredded reduced-fat cheddar cheese
½ cup chopped onion
Chopped lettuce (optional)
Salsa or taco sauce (optional)

Directions

1. Mash beans.
2. Add canola oil to a small frying pan over low heat.
3. Add beans to the frying pan and simmer and stir until heated.
4. Meanwhile, following the package directions, heat the tortillas until warm and soft.
5. Spread about 2 Tablespoons of beans on each tortilla.
6. Add cheese and onions. Add lettuce and salsa or taco sauce if desired.
   Fold one side of the tortilla about 1 inch and then roll it.

Nutrition Facts

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*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.