## **NUTRITION BITES**



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# Fiber Fundamentals: Supporting Digestion, Energy, and Wellness

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Most of us aren't getting enough fiber and it's affecting our health in more ways than we realize. An estimated 95% of American adults and children are not meeting their daily fiber requirements, based on NHANES survey data from 2013–2018. Less than one in 10 Americans eat enough fiber, largely due

to the overconsumption of ultra-processed foods. These highly palatable foods are low in fiber and displace other fiber-rich food sources in the diet.

Adequate fiber intake has been associated with many health benefits. This includes lowering cholesterol levels, improving blood glucose levels, decreasing inflammation, improving digestive health including bowel regularity, promoting the gut microbiome, and lowering the risk of cancer.

Fiber is a carbohydrate found mostly in plant foods that the body is unable to break down or digest. There are two types of fiber: soluble and insoluble. Their differences are based on how they react in water. Soluble fiber dissolves in water and forms a gel-like substance. This can slow digestion, help regulate blood glucose levels, and aid in lowering cholesterol levels. Some foods containing soluble fiber are oats, bran, lentils, beans, bananas, apples, and carrots.

Insoluble fiber does not dissolve in water and aids in digestion by adding bulk to stools. Food sources of insoluble fiber include whole grains, nuts, seeds, and raw fruits and vegetables with skins. Many foods contain a combination of soluble and insoluble fiber, making it easy to maximize the benefits of fiber.



### Cardiovascular Health: How Fiber Supports a Stronger Heart

Soluble fiber may help keep the body from absorbing cholesterol from other foods. This can help lower the "bad" cholesterol known as LDL in the blood. Consuming high-fiber foods may also help lower blood pressure and reduce inflammation in the body, which can contribute to atherosclerosis and lead to heart attacks or strokes.

## **Blood Glucose Control: Fiber's Role in Steadying Blood Sugar**

Consuming fiber can help slow how quickly glucose from food is broken down and absorbed into the bloodstream. This helps prevent spikes in blood glucose levels. A diet rich in fiber can also help improve insulin sensitivity. All of these



benefits can support better blood glucose management for those with diabetes or prediabetes and may even help reduce the risk of developing type 2 diabetes.

## Digestive Health: Keeping Things Moving and the Gut Thriving

Fiber is crucial for preventing constipation, promoting regular bowel movements, and maintaining a healthy gut microbiome. It adds bulk and softens stools, helping them move more efficiently through the intestines. This promotes regularity and reduces the risk of conditions such as hemorrhoids and diverticulitis.

Fiber—particularly soluble fiber—acts like a prebiotic, providing fuel for the "good" bacteria in the gut. When beneficial bacteria thrive, there's less room for harmful bacteria to grow. This is believed to be one way the gut microbiome contributes to a stronger immune system.

## Lowering Risk of Cancer: Small Dietary Shifts, Big Protective Benefits

A high-fiber diet can lower the risk for many types of cancer, including colon and breast cancer. Fiber works in multiple ways to reduce this risk. For example, its anti-inflammatory effects help protect cells in the colon from becoming cancerous.

Because fiber helps food move more quickly through the intestines, it can reduce the exposure and absorption of harmful compounds found in some foods. When fiber ferments in the colon, it produces metabolites that may boost the immune system's anti-cancer activity. A high-fiber diet can also support weight management, which is another important factor in reducing cancer risk.

These are only a few of the ways that fiber can be beneficial to overall health and the processes that fiber assists within the body can be complex.

#### Minimum Fiber Intake Recommendations

Women <50 years old:	25 grams
Women >50 years old:	21 grams
Men <50 years old:	38 grams
Men >50 years old:	30 grams

Take time to consider fiber sources at each meal and snack. With a little planning it is possible to meet or exceed the daily fiber recommendations. Consider adding beans

to salads and soups. Sprinkle nuts, fruit and ground flax seed on oatmeal, yogurt or whole grain cereals. Choose whole wheat breads, crackers and brown rice. Choose whole fruits over juices, which do not contain fiber. When increasing fiber in the diet start slowly and gradually increase over time. Adding too much fiber too quickly can cause bloating and abdominal discomfort, causing many to remove fiber from their diet due to fear of poor tolerance. Use the suggestions below to help plan high fiber meals and snacks.

#### **High-Fiber Meal and Snack Ideas**

#### **Breakfast**

- Oatmeal with 1 tablespoon peanut butter, 2 tablespoons ground flaxseed, and strawberries (10 grams of fiber)
- Whole wheat tortilla with black beans, scrambled eggs or tofu, spinach, and salsa (10 grams of fiber)
- Whole wheat toast with smashed avocado and hemp seeds or pumpkin seeds (10 grams of fiber)

#### **Lunch and Dinner**

- Chickpea and quinoa power salad made with chickpeas, cooked quinoa, spinach, cherry tomatoes, cucumber, olive oil, and lemon juice (14 grams of fiber)
- Vegetable and bean chili with kidney beans, black beans, tomatoes, onion, and bell pepper (12–15 grams of fiber)
- Vegetable sandwich with hummus, spinach, tomato, cucumber, avocado (or other combination of vegetables) on whole wheat bread (10–14 grams of fiber)
- Stuffed pepper with brown rice, black beans, corn, tomatoes, and cheese (8–12 grams of fiber)
- Chickpea and sweet potato curry with coconut milk, spinach, and curry spices (13 grams of fiber)

#### **Snacks**

- Apple or banana with peanut butter (6 grams of fiber)
- Popcorn, air-popped (3.5 grams of fiber per 3-cup serving)
- Raspberries with almonds and dark chocolate chips (11 grams of fiber)
- Vegetables with hummus (7 grams of fiber)
- Energy bites made with dates, oats, and chia seeds (3–5 grams of fiber per bite)
- Roasted chickpeas (6 grams of fiber per ½ cup)
- Greek yogurt with ground flaxseed and berries (7 grams of fiber)

By focusing on fiber intake, individuals are more likely to consume a healthier, more balanced diet that is low in ultra-processed foods—positively impacting overall health.



# Featured Recipe Mediterranean Hummus Bowl

Adapted from Feel Good Foodie

Servings: 4



#### **INGREDIENTS**

1 cup cooked quinoa

2 cups baby spinach

1/2 cup sliced red onion

1/2 pint cherry tomatoes, quartered

1/2 English cucumber, sliced

1 cup canned chickpeas, rinsed

1/2 cup pitted olives

Hummus (store-bought or homemade)

Chopped parsley, for serving (optional)

Extra virgin olive oil, for serving (optional)

#### **INSTRUCTIONS**

- 1. If making hummus from scratch, prepare it before assembling the bowls.
- Portion quinoa, baby spinach, red onion, cherry tomatoes, cucumber, chickpeas, and olives into bowls as desired. Ingredients yield four servings.
- **3. Spoon** hummus into each bowl; it will act like a dressing for the vegetables. **Top** with chopped parsley and a drizzle of extra virgin olive oil, if desired.

