



## Whole Grains, Dietary Fiber, & Heart Health



Eating whole grains has been consistently linked to improved heart health. Whole grains, such as whole wheat, oats, and brown rice, are rich in fiber, vitamins, minerals, and antioxidants, all of which play key roles in maintaining cardiovascular health. The fiber found in whole grains helps lower cholesterol levels, particularly "bad" LDL cholesterol, which can reduce the risk of heart disease. Additionally, whole grains have been associated with lower blood pressure and reduced inflammation, both of which are important factors in maintaining a healthy heart. Including whole grains as part of a balanced diet can contribute to overall heart health and lower the risk of developing heart disease and related conditions.

### What is a whole grain?

Whole grains and refined grains are two types of grains that have different nutritional profiles and processing methods. Whole grains, such as whole wheat, brown rice, and oats, contain all parts of the grain kernel: the bran, germ, and endosperm. This means they retain important nutrients like fiber, vitamins, and minerals. On the other hand, refined grains, like white flour and white rice, have been processed to remove the bran and germ, leaving only the starchy endosperm. This process strips away much of the fiber and nutrients found in whole grains, making refined grains less nutritious. Choosing whole grains over refined grains can provide more health benefits, including improved digestion, better weight management, and reduced risk of chronic diseases like heart disease and type 2 diabetes.

### Benefits of whole grains

- Whole grains contain large amounts of insoluble fiber. This type of fiber cannot be completely digested by our GI system and thus aids in the digestive system's regularity. The increased "bulk" assists us in passing food through our large and small intestines more easily and efficiently!
- Dietary fiber also plays a role in our feeling of satiety. When certain fibers are digested, they release hormones and enzymes that tell our brains we are full, leading us to stop eating. The fermentation gasses released during digestion can also play a role in satiety by activating certain "stretch" receptors in our intestines.
- The overall feeling of satiety can play a role in weight loss, weight maintenance, and reducing over-consumption. These factors, when coupled with the other benefits of whole grains, can reduce our risk of cardiovascular disease.
- Whole grains that are rich in beta-glucans (oats, barley, sorghum, rye) can aid in lowering blood serum cholesterol levels. The soluble fiber (beta-glucan) binds to the free floating cholesterol and prevents it from being absorbed.
- When increasing dietary fiber, it is best to do so slowly over time. Increasing fiber intake too quickly can lead to gastrointestinal distress.
- Due to the fiber in whole grains being digested and broken down at a slower pace, consuming whole grains can also influence our blood sugar levels and insulin response. As food is broken down and digested, it begins to release glucose (sugar) into our bloodstream. The slower that process becomes, the more steady the sugar is released, negating blood sugar spikes. This is why diets rich in whole grains and fiber are associated with lower incidences of type 2 diabetes.

### How to Add More Whole Grains to Your Diet

- **Swap Refined Grains for Whole Grains:** Choose whole-wheat bread, pasta, and tortillas instead of white varieties.
- **Start with Breakfast:** Have oatmeal, whole-grain cereals, or whole-wheat toast in the morning.
- **Cook Whole Grains in Batches:** Make a large batch of quinoa, brown rice, or barley to add to meals throughout the week.
- **Get Creative with Snacks:** Opt for whole-grain crackers, popcorn, or whole-wheat pita bread with hummus.
- **Experiment with New Grains:** Try grains like farro, bulgur, or millet to add variety and excitement to your meals.