

# Beans: the Ideal Carbohydrate **Beans are nutritionally unique.**



Beans and other legumes (such as lentils and split peas) are the ideal starchy food. When many people think of high-fiber, starch-containing foods, they think of whole grains, which are healthful foods, but beans are nutritionally superior. Beans and other legumes have uniquely high levels of fiber and resistant starch, carbohydrates that are not broken down by our digestive system. Though indigestible, these carbohydrates have a number of valuable health effects. First, because they are indigestible they reduce the total number of calories that can be absorbed from beans. Fiber and resistant starch also limit the glycemic (blood sugar raising) effects of beans. Finally, when resistant starch and some fibers reach the colon, they act as food for our healthy gut bacteria, which then ferment it into anti-cancer compounds in the colon.

## **Beans help prevent diabetes and weight gain.**

Since the fiber and resistant starch in beans and other legumes keep their glycemic load low, they are great foods for preventing or reversing diabetes. A study on 64,000 women followed for 4 years found that high intake of legumes were associated with a 38% decreased risk of diabetes.<sup>1</sup> Also, a recent clinical study found that type 2 diabetics who followed a legume-rich diet had enhanced improvements in fasting glucose, HbA1c, body weight, cholesterol, triglycerides and blood pressure compared to a whole grain-rich diet.<sup>2</sup> Since beans are high-nutrient, high-fiber, and low-calorie, you can eat them in large quantities without the danger of weight gain. The high fiber and resistant starch content of beans also makes them very satiating, allowing you to feel full longer and stave off food cravings; these properties make beans an effective weight loss tool. Those who regularly eat beans have greater intakes of minerals and fiber, have lower blood pressure, and are less likely to be overweight than those that don't consume beans.<sup>3</sup>

## **Beans protect against colon cancer.**

Colon cancer is the 3rd most common cancer in the United States, and diet is a key contributor to colon cancer risk.<sup>4,5</sup> The cells lining the intestinal tract come into direct contact with the foods we eat; the substances contained in our food can therefore have significant effects on the cells of the colon. Numerous studies have found decreased risk of colorectal adenomas and cancers in those who consume beans and other legumes regularly.<sup>6-8</sup> For example, a six-year study of over 32,000 people found that those who ate legumes at least twice a week had a 50% reduction in colon cancer risk.<sup>9</sup> So imagine the protection we could achieve by eating beans daily! As mentioned earlier, the fiber and resistant starch in beans pass into the large intestine where bacteria ferment them into short chain fatty acids such as butyrate, which have a number of cancer-preventive actions in the colon, such as halting cancer cell growth and increasing the production of detoxification enzymes.<sup>10-12</sup>

Beans protect against several other cancers too, not just colon cancer. High intake of total legumes (not just soybeans) is associated with a decreased risk of breast cancer.<sup>13</sup> A study of the relationship between legume intake and all cancers also found that consuming beans and lentils decreased risk of cancers of the oral cavity, pharynx, esophagus, larynx, digestive tract, and kidney.<sup>6</sup>

## **Eat beans daily.**

I recommend eating at least one cup of beans, lentils, or split peas every day. Have them on your salad for lunch, in soups and stews, or blended into dips for raw vegetables. They can be flavored and spiced in lots of interesting ways, and there is a huge variety of beans to choose from; chickpeas, black-eyed peas, black beans, lima beans, pinto beans, lentils, red kidney beans, soybeans, cannellini beans, split peas, and more. Dried beans and legumes are very economical, but if using canned beans for convenience, be sure to choose no salt added varieties, preferably packaged in BPA-free cans.

If beans are a relatively new food for you, make sure to chew them very well to minimize gas and bloating. Start out with a small quantity and gradually increase the amount as your digestive tract adapts. Over time, you will build up the beneficial bacteria that help to digest beans.