

# THE HEALTH NUGGET



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## Fabulous Frijoles

**H**ave you had your frijoles today? Chances are you avoided them for fear of experiencing intestinal gas. While beans are blamed for the internal combustion, oligosaccharides are the responsible element in the beans for creating the cacophony.

Oligosaccharides are sugars that are considered a partially non-digestible carbohydrate. Amounts that escape digestion in the small intestine enter the large intestine where microbes seize upon them as a source of nutrition. The resulting gas is a byproduct of the digestive, fermentation process of these sugars by the bacteria.

Reducing the risk of intestinal gas from bean consumption can be as simple as cooking them yourself. Soak dry beans in water for at least 8 hours. Discarding the water and rinsing them well before cooking washes away some of the complex sugars, making them less volatile, shortens cooking time, and maximizes nutritional value. Cook until very tender. Undercooked beans cause gas in larger amounts.

According to research conducted in India, adding garlic and ginger to a cooking pot of beans can reduce gas-producing properties.<sup>1</sup> Split peas, lima beans, and lentils are considered gentler beans and Anasazi beans are said to contain 75% less of the gas-causing carbohydrates than pinto beans. Gradually but persistently adding beans to your diet, over a period of several weeks, will decrease disturbance and acclimate the body to beans, reducing emissions.

Are beans really worth it? Well, judge for yourself.

Beans, peas, and lentils, otherwise known as legumes, are a major source of complex carbohydrates, fiber, protein, and minerals such as iron,

potassium, magnesium, and zinc. In addition, they are low in fat and very affordable.

Beans are an excellent source of molybdenum, a trace mineral that makes enzymes functional. One cup of black beans provides 172% of the daily allowance.

It is reported that in Linxian, a northern region of China, cancer of the esophagus and stomach are 10 times higher than the average in China and 100 times higher than the average in the United States. In the molybdenum deficient soil, nitrates are converted into nitrosamines—potential carcinogens. Adding molybdenum to the soil may help reduce the risk by limiting exposure to nitrosamines.<sup>2</sup>

Vitamin C and enzymes also help detoxify nitrosamine, although they need the molybdenum to function. It is believed that these “can help reduce the levels of this carcinogenic chemical [nitrosamine]. . . . It is also possible that molybdenum can help protect the body from nitrosamine formation after consumption of foods high in nitrates or nitrites, such as lunch meats.”<sup>3</sup>

Abbreviated as InsP5, inositol pentakisphosphate, a natural compound found in legumes “has been identified by scientists as a potent agent for fighting cancer.” Research suggests that diets high in this substance have the ability to inhibit the growth of tumors and could help to prevent cancer.<sup>4</sup>

Laboratory rats fed pinto beans experienced a 50% reduction in colon cancer compared to casein (milk protein) fed rats.<sup>5</sup> Data extracted from 41 countries “found a significant inverse relationship between bean consumption and morbidity due to breast, prostate, and colon cancer.”<sup>6</sup>

Beans are also an excellent source of soluble fiber that, in the stomach, forms a gel, slowing down the metabolism of carbohydrates. This prevents blood sugar levels from rising too rapidly after a meal.

Beans also have heart disease preventing powers. Consuming beans reduces both total and LDL cholesterol. Beans are high in both soluble and insoluble fiber that contribute to heart disease prevention, as well as preventing digestive disorders, like constipation, irritable bowel syndrome, and diverticulosis.

The significant amount of folate that beans supply is another contributor to the prevention of heart disease. Folate helps lower levels of homocysteine. "Elevated blood levels of homocysteine are an independent risk factor for heart attack, stroke, or peripheral vascular disease, and are found in between 20-40% of patients with heart disease. . . . Just one cup of cooked black beans provides 64% of the DV [daily value] for folate."<sup>7</sup>

In a study that examined food intake patterns and risk of death from coronary heart disease, researchers followed more than 16,000 middle-aged men from different areas of the world for 25 years. When researchers analyzed the data in relation to the risk of death from heart disease, they found that a higher consumption of legumes was associated with an incredible 82% reduction in risk!<sup>8</sup>

Beans are rich in antioxidants. Research published in the *Journal of Agriculture and Food Chemistry* indicates that black beans are as rich in antioxidant compounds called anthocyanins as grapes and cranberries.<sup>9</sup> The darker the bean is, the higher its level of antioxidant activity.

Amazingly, the more beans you eat, the less you weigh! "Adults who eat beans weigh 6.6 pounds less yet eat 199 more daily calories than adults who don't eat beans. Similar results were found for teenage bean eaters who consume 335 more daily calories but weigh 7.3 pounds less than non-bean-eating teens."<sup>10</sup> Bean eaters consumed less total fat

and saturated fat and fiber intake was one-third higher than those who snub beans.

In the food guide pyramid, the USDA placed beans in two categories: vegetable, since they are a plant based food with vitamins and minerals, and in the protein group, because they are a good source of protein. "The Dietary Guidelines for Americans 2005 recommends that Americans triple their current intake of beans from one to three cups per week."<sup>11</sup>

Often I have heard it said that Daniel's smarts were due to his food choices. He requested "pulse to eat" and water to drink rather than partake of the king's food (see Daniel 1:12). As a result, when the king tested them in all matters of wisdom and understanding, he found Daniel to be 10 times better than all the learned men of his empire. Pulse is another word for legumes or beans. After all I have learned about beans, my conclusion is that Daniel was smart before he requested pulse and water. That's why he chose to eat them.

<sup>1</sup> Colorado State University. "Cooking Dried Beans—Tips for Preventing Gas." The Recipe Link. 9 March 2006. <<http://www.recipealink.com/mf/0/76133>>.

<sup>2</sup> Jane Higdon, Ph.D. "Molybdenum." Linus Pauling Institute, Oregon State University. July 2001. <<http://lpi.oregonstate.edu/infocenter/minerals/molybdenum/>>.

<sup>3</sup> Haas, Elson, MD., and Levin, Buck.. "Staying Healthy with Nutrition." 2006 <[http://books.google.com/book?id=yuaSjvZr3ikC&pg=PA201&lpg=PA201&dq=molybdenum+staying+healthy+with+nutrition&source=web&ots=qfYs\\_IDZeU&sig=F4UpQbHHgBxKqxjkeirq\\_xPwmy4&chl=en&sa=X&oi=book\\_result&resnum=1&ct=result#PPA201,M1](http://books.google.com/book?id=yuaSjvZr3ikC&pg=PA201&lpg=PA201&dq=molybdenum+staying+healthy+with+nutrition&source=web&ots=qfYs_IDZeU&sig=F4UpQbHHgBxKqxjkeirq_xPwmy4&chl=en&sa=X&oi=book_result&resnum=1&ct=result#PPA201,M1)>.

<sup>4</sup> Lister, Sam. "A diet rich in beans may mean more protection against cancer." The Times. 15 September 2005 <<http://www.timesonline.co.uk/tol/news/uk/article566680.ece>>.

<sup>5</sup> Bennik, Maurice. "Eat Beans for Good Health." Food Science and Human Nutrition Michigan State University. <<http://www.css.msu.edu/bic/pdf/nutrition.pdf>>.

<sup>6</sup> Ibid.

<sup>7</sup> The George Mateljan Foundation. "Black Beans." The World's Healthiest Foods. <<http://www.whfoods.com/genpage.php?tname=foodspice&dbid=2>>.

<sup>8</sup> The George Mateljan Foundation. "Black Beans." The World's Healthiest Foods. <<http://www.whfoods.com/genpage.php?tname=foodspice&dbid=52>>.

<sup>9</sup> The George Mateljan Foundation. "Black Beans." The World's Healthiest Foods. <<http://www.whfoods.com/genpage.php?tname=foodspice&dbid=2>>.

<sup>10</sup> "Research Shows Adults and Teens Who Eat Beans Weigh Less." News Rx. April 21, 2006. <<http://lifeextensionvitamins.stores.yahoo.net/reshadandtew.html>>.

<sup>11</sup> Ibid.

