

Why Your Mother Told You to “Eat Your Beans”

by

Maurice Bennink

Michigan State University, USA

Studies reported over the past 30 years show that your mother was very wise when she instructed you to eat your beans. It was fairly common knowledge that dry beans are an excellent source of protein, dietary fiber, and several minerals and vitamins. Besides being a nutritious food, numerous studies indicate that incorporating beans into the diet could aid in the prevention and/or management of chronic diseases such as diabetes, heart disease and certain types of cancer. Very recent studies indicate that eating a mineral/vitamin fortified food containing beans increases the immune status (CD4 cell count) of HIV positive children.

Dietary factors and life styles that promote excess glucose in the blood (hyperglycemia), excess insulin in the blood (hyperinsulinemia), and excess body fat also promote development of several chronic diseases including Type 2 diabetes, cardiovascular diseases, and cancer at several sites in the body. Hyperglycemia, hyperinsulinemia, and excess body fat are simply markers for a milieu of changes – hormones, growth factors, inflammatory products, oxidative stress, to name a few – that contribute to development of these chronic diseases. The extent to which different foods or meals raise blood glucose depends on the glycemic index and the quantity of carbohydrate consumed. Eating foods with a low glycemic index and rich in dietary fiber (such as beans) will help prevent hyperglycemia, hyperinsulinemia, and excess body fat and indirectly will help prevent the development of these chronic diseases.

Epidemiologic and animal studies show that eating beans will help prevent the development of colon cancer. But, we do not know exactly how beans inhibit colon cancer or what the cancer inhibiting agents are. Data from recent studies addressing these questions will be discussed.

We performed two nutrition intervention studies in HIV positive children in Africa. In the first study, the children (ages 2-15) were not receiving anti-retroviral drugs. Providing a mineral/vitamin fortified food containing beans reduced classical signs of malnutrition and slowly increased the number of immune cells that are destroyed by the virus. In the second study, HIV positive children (ages 6 to 15 years) were fed a supplement similar to the first study. In contrast to the first study, all of the children in the second study were receiving anti-retroviral drugs. Eating the bean fortified supplement reduced the need to treat the children with second line anti-retroviral drugs compared to a group eating a similar mineral/vitamin fortified cereal product without beans. Thus, both studies demonstrated that eating beans will help mitigate some of the adverse consequences of HIV.

“Common Dry Beans” are far from “common” and are unequivocally something you should eat daily. Despite their nutritional value, bean consumption in most industrialized countries is very low and bean consumption decreases as annual income increases in developing countries. “How do we get non-bean consumers to eat beans?” and “how do we get current bean consumers to continue eating beans?” are two key questions. It will take a concerted effort from the bean industry and health professionals to answer these questions.