

Breaking News on Supplements & Nutrition - Europe

Previous page : [Pinto beans, beans good for your heart](#)

Pinto beans, beans good for your heart

By Stephen Daniells

24/10/2007- **The childhood favourite of 'beans, beans good for your heart' is backed by science, according to a new study showing that daily consumption of pinto beans may cut cholesterol.**

A study with 80 adults showed that daily consumption of the beans for 12 weeks led to cholesterol reductions of eight per cent in healthy people, and four per cent in people with symptoms that could lead to metabolic syndrome (MetS), wrote US researchers in this month's issue of the *Journal of Nutrition*.

Metabolic syndrome (MetS) is a condition characterised by central obesity, hypertension, and disturbed glucose and insulin metabolism. The syndrome has been linked to increased risks of both type-2 diabetes and CVD.

Fifteen per cent of adult Europeans are estimated to be affected by MetS, while the US statistic is estimated to be a whopping 32 per cent.

However, no change in colorectal cancer risk was observed, despite previous suggestions that the beans may beneficially change the chemistry of the colon by increasing the formation of short-chain fatty acids.

"This study provides evidence that bean consumption can improve lipid profiles associated with cardiovascular disease, but does not clearly confer health benefits related to colon cancer risk," wrote lead author John Finley from Pennsylvania-based A.M. Todd.

Finley, in collaboration with researchers from Brainerd Veterans Administration Clinic and the USDA's Agricultural Research Service, recruited 40 adults with premetabolic syndrome (pre-MetS) and 40 healthy, and randomly assigned them to consume either a daily bean serving containing 130 grams of dried, cooked pinto beans, or chicken soup for 12 weeks.

The researchers report that eating the beans was associated with an eight per cent reduction in total cholesterol levels among the healthy controls, and by four per cent in the pre-MetS group.

Moreover, LDL (bad) cholesterol levels were reduced in both the pre-MetS and control groups, while no changes in triglycerides, VLDL cholesterol, or glucose were observed. HDL (so-called good cholesterol) levels were also reduced, a result that could not be explained by the authors.

"Taken alone, these data are intriguing, but put into the context of many previous reports of the lipid-modulating properties of dry bean consumption they show a pattern of substantial health benefits," wrote the authors.

In terms of the chemistry of the colon and measured in the presence of various resistant starch substrates, the researchers stated that propionic acid production increased when comparing levels at the end of intervention period to those measured at the start.

"Although the change in propionate was modest, it may be physiologically significant, because the cholesterol-lowering properties of propionate are well characterised," they stated.

"Propionate, unlike acetate, is not a substrate for lipogenesis and increased propionate production has been reported to inhibit fatty acid synthesis."

Production of butyric acid was observed to decrease only when cornstarch was used the substrate, they added.

Butyrate can help to control the growth and overall metabolic activity of the colonic cells, and contribute towards an improved intestinal health and consequently a reduced risk of digestive disorders.

In all volunteers, regardless of metabolic syndrome status, fecal production of isovaleric and isobutyric acids from cornstarch decreased by as much as 50 per cent as a result of bean consumption.

"This study adds to a growing and convincing body of evidence that adding dry beans to the diet in quantities of at least 100 g/d changes lipid profiles in a manner associated with decreased risk of CVD," concluded the researchers.

Source: *Journal of Nutrition*

November 2007, Volume 137, Pages 2391-2398

"Pinto Bean Consumption Changes SCFA Profiles in Fecal Fermentations, Bacterial Populations of the Lower Bowel, and Lipid Profiles in Blood of Humans"

Authors: J.W. Finley, J.B. Burrell and P.G. Reeves

Copyright - Unless otherwise stated all contents of this web site are © 2000/2007 – Decision News Media SAS – All Rights Reserved. For permission to reproduce any contents of this web site, please email our Syndication department: [contact our Syndication department](#). Full details for the use of materials on this site can be found in the [Terms & Conditions](#).

[contact the editor](#)

[Print](#)