

## Beans Just May Be the Magical Fruit

Researchers at the University of Guelph say there may be some truth to the old rhyme about “beans, beans, the magical fruit.” The results of a recent study demonstrate that eating 1 cup (250 mL) of canned beans a day can significantly decrease the risk of cardiovascular disease (CVD) in adults with elevated low-density lipoprotein (LDL) cholesterol, which is the “bad” kind of cholesterol that collects in your blood vessels.

The study compared blood samples from 73 adults with high levels of LDL who ate beans in 1/2 cup (125 mL) and 1 cup (250 mL) amounts daily over a four-week period against those who ate white rice instead.

Principal investigator Dr. Alison Duncan says that eating one cup of beans per day of multiple varieties including black, navy, pinto, dark red kidney, and white kidney beans, reduced total cholesterol by 5% and LDL cholesterol by 8%.

High cholesterol is one of the leading contributors to CVD. Eating a daily cup of beans, which are nutrient-dense and packed with fibre, protein, and micronutrients also lowered the risk of heart disease by 7% in adults who took part in the study. Cardiovascular diseases are one of the leading causes of death for men and women in North America, according to data from the American Heart Association and Health Canada.

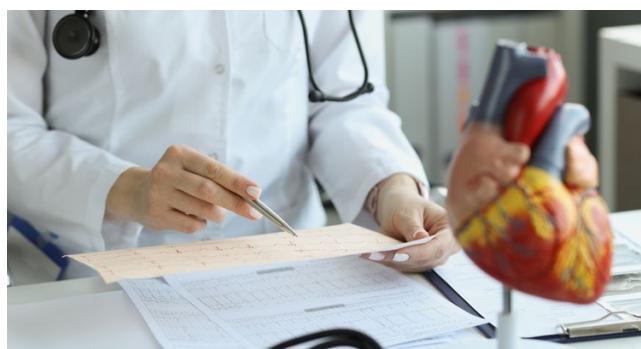
“These results are significant and important because they provide high-quality scientific evidence for a feasible dietary strategy,” she says. “This is good news for consumers since incorporating more beans into diets is relatively approachable. Canned beans are affordable, accessible, versatile, and practical.”

This is positive news for bean growers too. Health plays a role in driving consumer trends—especially where food is concerned—and the evidence gathered in this study may lead to Health Canada approval for health claims on labels and packaging that could lead to consumer purchasing more pulses.

Dr. Duncan says her research and the health attributes it highlights could also positively impact domestic and export demand for Canadian bean crops.

“Greater public understanding about the healthy attributes of beans may lead plant breeders to develop bean varieties that emphasize these attributes while complementing desirable agronomic traits. Farmers can use this understanding to grow bean varieties that respond to future needs and trends in bean marketing.”

Future studies will look at better understanding the impact of the amount and variety of beans consumed. The results of this project also pave the way for future research into other pulses and their ability to improve human health.



### High cholesterol is one of the leading contributors to cardiovascular disease.

Source: H\_Ko

“For example, future studies could examine if different varieties of lentil decrease cancer risk due to their ability to promote a healthier gut bacterial profile, or studies could examine how pea protein could be used in food products to increase fibre and protein content and reduce heart disease risk.”

Dr. Duncan says she is proud of the strong link her research establishes between agriculture and health. “Bean growers should also be proud of their role in improving the cardiovascular health of Canadians.”

#### Project

A bean efficacy study: A dose response study to investigate the cholesterol-lowering effects of beans

#### Industry Funder

Manitoba Pulse and Soybean Growers, Ontario Bean Growers

#### Project Cost

\$815,375

#### Project Completion Date

March 31, 2023