

Peas, Beans, Lentils and Cardiovascular Disease

The 2005 Dietary Guidelines for Americans, developed by the USDA, recommend eating three cups of legumes per week, including beans, peas, lentils and chickpeas.

Research has shown that diets including beans and other pulses in your diet may reduce risk of heart disease and certain cancers.

Pulses are a great fit for a healthy eating pattern as recommended by the USDA's food pyramid (My Pyramid) and Canada's Food Guide to Healthy Eating.



Alberta Pulse Growers
220, 5904B - 50 Street
Leduc, AB. T9E 6J4
PH: 1-877-550-9398
Email: office@pulse.ab.ca

Canada
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- Cardiovascular disease (CVD) is the leading cause of death in industrialized countries and accounts for nearly 30 per cent of all deaths worldwide each year.¹
- Regular consumption of pulses (beans, peas, lentils, chickpeas) can contribute to reduced serum cholesterol and triglycerides^{2,3} - two major risk factors for CVD. This has been consistently demonstrated in clinical research over the last four decades.
- Eating pulses regularly may also reduce the risk of heart disease via favorable effects on blood pressure, blood glucose and insulin moderation, and the likelihood of obesity.²
- Pulses contain protein, complex carbohydrates (soluble dietary fibre, resistant starch, oligosaccharides), and folate, as well as antioxidants and other phytochemicals that support a heart healthy diet.^{2,4}
- Pulses are extremely low in fat and low in sodium, are virtually free of saturated fatty acids and contain no cholesterol.⁴
- Pulses are rich in dietary fibre, including soluble fibre which can slow the absorption of lipids and lower blood cholesterol. Soluble dietary fibre can

also increase fecal bile acid excretion, resulting in reduced intestinal absorption of fat and cholesterol.⁵

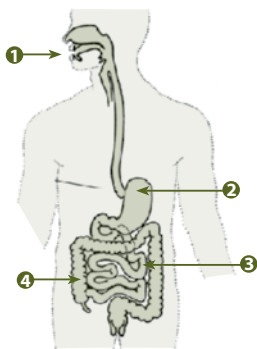
- Pulses are an excellent source of the B vitamin folate. A one cup serving of pulses provides, on average, more than half the current recommended daily allowance (RDA).⁶ Adequate folate intake has been found to reduce elevated blood homocysteine, a risk factor for CVD.⁷

REFERENCES:

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FIBRE DIGESTION FOR HEALTH BENEFITS

- 1 Mouth**
Fibres require increased chewing which slows energy intake
- 2 Stomach**
Fibres absorb water, swell, and form gels which delay stomach emptying and increase satiety
- 3 Small Intestine**
 - Fibres slow nutrient absorption (e.g. fat), decrease the rise in blood sugar and insulin, regulate gut hormones and increase satiety
 - Fibres bind to bile acids that contain cholesterol and fat so these nutrients are not absorbed from the small intestine but continue on to the large intestine for excretion. As a result, the liver uses cholesterol present in the body to make new bile acids. Both actions can reduce blood cholesterol.
- 4 Large Intestine**
 - Insoluble fibres absorb water, increase fecal bulk, eliminate harmful bacteria present in the colon and promote laxation.
 - Soluble fibres are fermented to short chain fatty acids (SCFAs) by colonic bacteria. The growth of good bacteria and production of certain SCFAs can reduce blood lipid and glucose levels and improve immunity.



TOTAL DIETARY FIBRE*

	Fibre (grams)	Percent Daily Value**
Navy Bean	19.1	76%
Split Pea	16.3	65%
Lentil	15.6	62%
Pinto Bean	15.4	62%
Chickpea	12.5	50%
Bran Flakes	7.1	28%
Whole wheat spaghetti	6.3	25%
Whole wheat bread	3.8	15%

*Amount in 1 cup cooked, except for Bran Flakes (1 cup dry) and whole wheat bread (2 slices)
**Recommended daily value = 25 grams fibre/day

For more information and recipes, visit:
www.pulse.ab.ca or www.pulsecanada.com



CHICKPEAS

BEANS

PEAS

LENTILS