



NUTRITION NOTES

PULSES: PROVEN TO KEEP YOUR HEART PUMPING!



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Pulses are a great source of important nutrients like protein, fibre, vitamins and minerals. They are low in total fat and saturated fat and do not contain cholesterol. Not only do they taste great and are good for the environment, but they are good for our hearts too!

Cardiovascular disease (CVD) is the second leading cause of death in Canada. In the simplest terms, CVD is a term that covers diseases of both the heart and blood vessels in the body and also refers to the buildup

of plaque in the arteries of the heart that could potentially lead to heart failure, heart attack or death. According to the Public Health Agency of Canada, about one in 12 adult Canadians aged 20 and over live with a diagnosis of heart disease: that's about 2.4 million people.¹

There are several risk factors associated with CVD, some we can control and others we can't control. Risk factors beyond our control include family history, increasing age and gender (men have a higher risk

of CVD than women). Risk factors we can control are related to lifestyle and include unhealthy diet, physical inactivity, unhealthy weight and excessive alcohol and drug abuse, according to the Heart and Stroke Foundation². There are also health conditions like high blood pressure, high cholesterol and diabetes that are risk factors for CVD.

The good news is that pulses can play a role in reducing the risk of CVD. Including pulses as part of a healthy diet can have a favourable

effect on cholesterol levels, blood glucose levels and blood pressure. They can also satisfy hunger and help to manage body weight.

Numerous studies with pulses and CVD over the past 20 years have shown that eating pulses anywhere from daily to four times a week can significantly reduce total blood cholesterol levels, as well as low density lipoprotein (LDL) cholesterol (the bad cholesterol) which can reduce the risk of heart attack and stroke. Back in 2001, Bazzano et al.³ reported a 22% lower risk of heart disease in people eating legumes (included soy and pulses) at least 4 times a week versus those who ate legumes less than once a week. In 2005, Kabagambe et al.⁴ found in their study with individuals who had survived a first heart attack that there was a 38% lower risk of heart attack when 86 g (1/3 cup) of beans per day were consumed. Then in 2009, Bazzano et al. were one of the first researchers to look specifically at pulses and CVD⁵. Previous meta-analyses had focused on soy, finding that soy intake significantly reduces total cholesterol, LDL cholesterol and triglycerides while increasing HDL cholesterol (the good cholesterol). The meta-analysis of randomized controlled studies that Bazzano et al. published in 2011 looked specifically at pulses and their effect on CVD and found that pulses (aka non-soy legumes) decrease total and LDL cholesterol. Fast forward to 2014 and another systematic review and meta-analysis of randomized controlled trials by Canadians Ha and Sievenpiper⁶ further suggested that pulse intake

of 130 g (1 cup) per day reduces LDL cholesterol levels. This is in addition to the reduction in LDL cholesterol that would be seen with following a heart healthy diet that includes 20-25 grams per day of fibre and less than 10% of energy from saturated fat. In an updated systemic review and meta-analysis, Vigiouliouk et al.⁷ in 2019 found that a pulse intake of 80.9 g (1/3 cup) per day was associated with a reduction in CVD, hypertension and obesity.

It's safe to say that pulses play an integral part in a heart healthy diet and can help reduce key risk factors to decrease the incidence of heart attack and stroke. A healthy diet can help improve cholesterol levels, reduce blood pressure, manage body weight and control blood sugar. The Heart and Stroke Foundation provides information on their website about Canada's Food Guide and the DASH (Dietary Approaches to Stop Hypertension) diet in their Get Healthy/Healthy Eating section. The focus of both eating guidelines is vegetables, fruit, whole grains and protein choices like nuts, seeds, beans, lean meats, poultry, fish and low-fat dairy foods. The DASH diet is low in saturated fat, sugar and salt.

Following either guideline leads to lower saturated fat and cholesterol intake and higher fibre intake, both of which have beneficial effects on CVD. This is where pulses contribute to heart health and risk reduction. Pulses are an excellent source of total fibre and soluble fibre. Fibre can limit the absorption of fats in the intestine and lower cholesterol levels in the blood. Studies have

associated higher intakes of total fibre and soluble fibre with lower incidences of heart disease events. Pulses are also low in total fat and saturated fat and do not have any cholesterol, right in line with dietary recommendations for heart health. Other heart-healthy components of pulses include folate, antioxidants like tannins, flavonoids and polyphenols in their seed coats and other phytochemicals like polyphenols, phytates and saponins which all contribute to reducing CVD risk.

The evidence continues to build indicating that consumption of 63 to 130 g (1/3 to 1 cup) of pulses daily can lead to a reduction in LDL cholesterol and total cholesterol levels. Further research is needed to provide more strength to the current information we have and to identify the component(s) in pulses or the mechanism of action that produces this heart healthy effect. It is also important to determine if pulse fractions exhibit the same effects as whole pulses. Pulse nutrition research has come a long way, but there is still much to learn about this nutritious and environmentally friendly crop!

Looking for pulse recipe inspiration? Check out our Pasta e Fagioli recipe on page 31 and our website www.albertapulse.com for great ways to use pulses everyday!

Do you have a question about pulse nutrition? I would love to hear from you! You can contact me at dmclennan@albertapulse.com or (780) 986-9398 ext. 109.

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