NUTRITION NOTES

INCLUDING PULSES IN A DIABETES-FRIENDLY DIET CAN HAVE A POSITIVE EFFECT ON BLOOD GLUCOSE LEVELS

By Debra McLennan, RD, APG Food and Nutrition Coordinator

November is Diabetes Awareness Month. Did you know that pulses can have a positive impact in the dietary management of diabetes? Food plays a key role in the management of diabetes and reducing the risk of heart attack and stroke. Food composition and mealtime planning play an important part in managing blood glucose, one of the key principles in diabetes management. Including pulses as part of the recommended diabetes-friendly eating habits can have a positive effect on blood glucose levels, satiety, protein and fibre intake.

Lentil Bacon Kimchi Frittata

Dietary Recommendations

The 2018 Clinical Practice Guidelines from Diabetes Canada include a number of key messages for people with diabetes. There's a role for pulses in five of the key nutrition messages that recommend: 1) replacing high glycemic index (GI) carbohydrates with low GI carbohydrates in mixed meals; 2) consistency in spacing and intake of carbohydrates and in spacing and regularity in meal consumption; 3) paying attention to the carbohydrate quality and quantity; 4) include low GI foods such as legumes, whole grains, and fruit and vegetables; and 5) choose lean animal proteins – select more vegetable protein.

Why Pulses?

Pulses contain fibre and healthy complex carbohydrates like oligosaccharides, slowly digestible and resistant starches. Pulses have both soluble and insoluble fibre that can have a positive effect on blood glucose levels, bowel regularity and improve cholesterol levels. Oligosaccharides and resistant starch are types of complex carbohydrates that are not absorbed during digestion in the small intestine and have similar beneficial health effects as fibre, such as improved gut digestion and blood glucose management. Slowly digestible starch is digested completely in the gut, but at a slower rate, which can also have a beneficial effect on managing blood glucose. The carbohydrates in pulses can help with blood sugar control, protect from heart disease and stroke, and may help with weight management because they help you feel full longer.

Pulses are also a source of healthy plant-based protein. Pulses contain an average of eight grams of protein

per 1/2 cup cooked serving. Adding pulses to meals and snacks is definitely a diabetes-friendly way to include more plant-based protein. For those who are intimidated with cooking dry pulses, canned pulses offer ready-to-eat convenience, and they are just as nutritious as their dry counterparts. No salt added varieties are readily available for those who are concerned with sodium intake.

It's this combination of complex carbohydrates, fibre and protein that give pulses a low GI rating. The GI ranges from 39 for chickpeas, 42 for lentils, 45 for split peas and 43-55 for beans; a food with a GI of 55 or less is considered a low GI food. Including pulses in meals and snacks can help promote better blood glucose control, especially if they are replacing low fibre, high starch foods.

Meal timing and consistency in carbohydrate content of meals is another cornerstone in the dietary management of diabetes. Three meals per day at regular, consistent times and trying to eat the same amount of food, especially carbohydrate, at each meal helps to control blood glucose levels. It is also recommended to space meals no more than six hours apart. Snacks can also provide consistency in daily carbohydrate intake and stability in blood glucose levels for those longer periods between meals in the afternoon and evening. On average, a 1/2 cup cooked pulses provides 23 grams total carbohydrate (which includes fibre), eight grams fibre plus eight grams of protein. They are a great combination of healthy carbohydrates, fibre and protein, all in one delicious package!

Pulses for Meals & Snacks

It's quite easy to add pulses to any meal or snack! Amp up your breakfast game with red split lentils. They only take five to seven minutes to cook, and you can use them in our Red Lentil Overnight Oats, Carrot Granola or add two to four tablespoons to your favourite smoothie, no one will know they are there!

For lunch, add 1/4 to 1/2 cup of cooked yellow split peas or chickpeas to any soup or salad to boost the protein, fibre and complex carbohydrates. Change up your salad routine with our refreshing Rainbow Salad in a Jar featuring yellow split peas and green lentils. Another delicious lunch idea is to add chopped white beans like Great Northern beans or white kidney beans to your tuna, chicken or egg salad sandwiches. Other recipes that you "cook once and eat twice" that are great lunch options are our Bean & Veggie Frittata or Lentil, Bacon and Kimchi Frittata.

There are endless possibilities for pulses at supper time! Pulses in casseroles and stews like our Gardener's Pie, Jambalaya with Pinto Beans or Slow Cooker Three Bean Beef Chili add filling fibre and protein to these family friendly recipes. Burgers anyone? You'll love our Beet & Split Pea Garden Burger or Black Bean Burger! Adding lentils and chopped chickpeas to store bought pasta sauce is another easy and delicious way to bring pulses to the dinner table; check out our Marinara Sauce Plus recipe for inspiration!

Adding some protein and fibre is a must at snack time, the perfect time to include pulses since they are a delicious source of both! Our recipes on the next page for Rockin' Roasted Pulses are the perfect snack-to-go, or great additions to salads, soups or even granola. Salsa is another quick and easy snack idea. Add black beans, pinto beans or lentils to your favourite store-bought brand of salsa or try making it from scratch with our Lentil Salsa or Black Bean Pico De Gallo recipes.

Pulses are unique in their combination of protein, fibre and healthy complex carbohydrates that can positively contribute to the dietary management of diabetes. Including pulses in meals and snacks can help to manage blood glucose levels which in turn can help reduce the risk of developing diabetes-related complications. Good news for pulses and people with diabetes!

This article is a general overview of the role of pulses and diabetes. Please consult your healthcare team or registered dietitian if you have any specific questions or want individualized recommendations regarding the inclusion of pulses in your meal plan if you have diabetes.

Looking for pulse recipe inspiration? Check out the Alberta Pulse website www.albertapulse.com/recipe/ 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.

References:

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3) Ramdath, D., Renwick, S., Duncan, A. The role of pulses in the dietary management of diabetes. *Can J Diabetes*. 2016 Aug;40(4):355-63. https://pubmed.ncbi.nlm.nih.gov/27497151/