

Start the day off right with dairy

Milk with cereal can help reduce spikes in blood sugar, compared to cereal alone

By Mya Kidson

Milk has always been a great option to pair with cereal and it's not just because it's a delicious and convenient breakfast option — University of Guelph research shows that milk can help reduce spikes in blood sugar that follow a meal that is starchy and easily digestible like breakfast cereal.

University of Guelph food science Ph.D. student Bonnie Kung, her advisor Prof. Douglas Goff and their team found that the two milk proteins — casein and whey — can slow food digestion and absorption of nutrients. That ultimately delays the appearance of sugar in the bloodstream.

“The health-promoting properties of casein and whey are important to consider, especially when we are dealing with the increase in consumption of processed and simple carbohydrates such as



cereals and white bread,” says Goff. “These foods are easily digestible and lead to more dramatic spikes in blood sugar after consumption.”

Although the rise in blood sugar following a meal is normal, frequent spikes in blood sugar can lead

to the development of diseases such as type two diabetes.

That condition occurs when sugar builds up in the blood because there is a lack of sugar uptake into the body's cells due to cells not properly responding to insulin, the body's mechanism for lowering blood sugar to a healthy level. Insulin prevents the blood sugar levels from getting too high by sending the sugar to body tissues for use as energy.

Casein and whey have different effects on the body to delay blood sugar elevation after meals. Casein is a milk protein that, when subject to the stomach acid, increases the thickness of stomach contents. That slows the emptying process of these contents into the small intestine for the next stage of digestion and absorption.

For its part, whey is a milk protein that passes through the stomach much faster than casein and triggers a number of digestive hormones to help slow down the process of digestion and absorption. Milk doesn't only provide the body with protein — it's packed with 14 other essential nutrients that promote overall body health such as calcium to increase bone health. So for several reasons, it's ideal for breakfast.

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15 essential nutrients in milk

Calcium
Maintains strong and healthy bones



Protein
Building blocks for the body. Casein and whey reduce spikes in blood sugar

Vitamin D Strengthens bones and teeth

Also a good source of magnesium, phosphorus, vitamin A, vitamin B12, niacin, zinc, thiamin, riboflavin, selenium, potassium, vitamin B6 and pantothenic acid, all of which promote overall health.

Further information on the study can be accessed at doi.org/10.3168/jds.2018-14419

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