Dairy May Reduce Some Disease Risk

Lengthy research has focused on how diet plays a role in the development of chronic conditions, including heart disease, diabetes, high blood pressure, and obesity. Evidence shows that certain components of the diet, such as saturated fat, trans fat, added sugar, and sodium are hefty contributors to increasing one's risk of disease. In recent years, dairy has been under attack due to its saturated fat content. The following is a summary of the latest research on dairy consumption and its role in disease prevention.

Dairy Can Improve Cholesterol Levels

Dairy products are great sources for high-quality protein, fortified vitamins A and D, and minerals such as calcium, magnesium, and potassium. However as mentioned earlier, they also contain saturated fat, which we are told to limit in the latest dietary guidelines. The relationship between saturated fat from dairy and heart disease grew more complex as studies have shown that calcium can improve blood cholesterol profiles. One mechanism for how this occurs in the body is through increased excretion of fat. In other words, less fat is absorbed by the body to contribute to cholesterol levels. To assess whether reduced-fat milk or cheese-based diets, containing similar amounts of calcium, affect cholesterol differently, 15 healthy men (age 18-50) were randomized into either a milk-based diet, cheese-based diet, or nondairy control diet. The effects of a milk or cheese-based dietary intervention did not differ. Both experienced lower increases in total cholesterol and LDL-cholesterol ("bad cholesterol") compared to the control diet. In addition, increased fat excretion was seen in both intervention diets, but not in the control diet.

The American Journal of Clinical Nutrition. 2014 May;99:984-91 (Soerensen KV et al.)

Reduce Heart Disease Risk with Dairy

To determine the relationship between heart disease risk and dairy intake, data was taken from a survey administered to 1,352 participants by the Observation of Cardiovascular Risk Factors in Luxembourg study. Researchers evaluated participants' risk through a total cardiovascular health score (CHS). The CHS is on a scale of 0-8 and was determined by the number of health metrics they had ideal values for, such as BMI and physical activity. They found that those who consumed five or more servings a week of full-fat milk, yogurt, and cheese had a significantly higher CHS than those who consumed these products less frequently. This positive relationship was also observed with total dairy intake, but not total low-fat dairy intake. This evidence supports the notion that having dairy products every day can be an important part of a healthy lifestyle.

Nutrition Research. 2014 Dec;34(12):1036-44 (Crichton GE et al.)

Yogurt May Reduce Risk of Type 2 Diabetes

Another part of the puzzle to consider is whether fermented dairy products, such as yogurt, aged cheese, and sour cream have different effects in the body compared to other sources of dairy. To test whether total dairy intake, along with different types of dairy, are associated with risk for type 2 diabetes, researchers evaluated dietary intake in 4,127 participants from the EPIC-Norfolk cohort with a seven day food diary. From there, participants were divided into three groups based on the amount of dairy they habitually ate. Those who ate on average 80 grams per day (1/3 cup) of low-fat fermented dairy had 24% reduced risk of developing type 2 diabetes compared to those who consumed less than 43 grams per day (1/8 cup). To put that 80 grams per day

into perspective, this is equal to consuming 4.5 standard ½ cup portions of dairy per week. Additionally, evidence showed that substituting yogurt for snacks was associated with 47% lower risk of type 2 diabetes. Researchers also concluded that consumption of total dairy, high-fat dairy, milk, cheese, or high-fat fermented dairy products was not associated with an increased risk of developing diabetes.

Diabetologia. 2014 May;57(5):909-17 (O'Connor LM et al.)

Eating Dairy Daily Can Have Positive Effects on Your Metabolic Health

To determine if there is a positive association between eating dairy and metabolic disease, researchers assessed 233 French Canadians during a clinic visit. They collected fasting blood samples along with information on their diet through a food frequency questionnaire. They found that participants on average had 2.5 portions of dairy per day, with 1.5 portions being low fat and 1 portion being high fat. These results indicated that nearly 45% of participants did not meet the current dairy recommendations of three portions per day. In addition, eating dairy, specifically low-fat dairy was significantly correlated with having lower fasting blood sugar levels. Total dairy intake was also significantly associated with lower blood pressure. Researchers concluded that when people choose to eat dairy, they experience small, but significant beneficial effects on their metabolic health.

Applied Physiology, Nutrition, and Metabolism. 2014 Dec;39(12):1323-31 (Da Silva MS et al.)

Kids May Consume Fewer Calories when Given Low-Fat Milk at Meals

Childhood obesity is a rising challenge in our nation today. The focus of this study was to investigate whether children ate more calories at lunch if they were given low-fat milk, apple juice, or water during breakfast. Forty-three obese boys in Iran, age 10-12, were given a standard breakfast of 65 g (2.3 ounces) whole wheat bread, 15 g (0.5 ounces) low-fat cheese, 12 g (0.4 ounces) of walnuts, and 1 cup of one of the three study beverages. Five hours later, participants were served lunch without restrictions. Children were able to choose unlimited portions of rice, chicken, cola, potatoes, yogurt, pasta, tomato sauce, or water. They found that children who were served low-fat milk at breakfast consumed significantly fewer calories at lunch than those who had water (122.25 kcal) or apple juice (59.06 kcal) at breakfast. Researchers concluded that one serving of low-fat milk may reduce short-term energy intake, but might not affect total energy intake throughout the day. More research is needed to address whether these results hold up during long-term interventions.

International Journal of Preventive Medicine. 2014 Nov;5(11):1405-11 (Mehrabani S et al.)