

# Boosting key milk nutrients may help lower type 2 diabetes risk

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Most Americans fail to get the calcium and vitamin D they need, but this shortfall could be affecting more than their bones. It may, at least in part, be one reason behind the epidemic of type 2 diabetes, suggests new research conducted at Tufts University.

Drinking more milk – a leading source of calcium and vitamin D in the American diet – could help decrease the risk of type 2 diabetes by nearly 15 percent, according to the new meta-analysis and review published in the *Journal of Clinical Endocrinology & Metabolism*.

In the thorough analysis of previously published studies, the researchers found chronically low levels of vitamin D were linked to as high as 46 percent greater risk of type 2 diabetes. Yet boosting vitamin D alone would likely have little effect in healthy adults. Instead, the researchers suggested that a combination of vitamin D and calcium, like that found in milk, would have the greatest potential to help prevent diabetes, especially among those at highest risk for the disease.

Examining the intake of milk and milk products specifically, the researchers found there was nearly a 15 percent lower risk for type 2 diabetes among individuals with the highest dairy intake (3-5 servings per day) compared to those getting less than 1 ½ servings each day.

Most of the studies assessed were observational and the limited number of intervention trials makes definitive conclusions difficult, yet the Tufts researchers suggest calcium and vitamin D may affect the body's ability

to produce or utilize insulin, the hormone the body makes to process sugar that is impaired in those with diabetes and pre-diabetes.

Beside calcium and vitamin D, milk is the primary beverage source of magnesium, which a second meta-analysis found may also reduce the risk of type 2 diabetes (2). The analysis concludes that for every 100 milligram increase in magnesium up to the recommended dietary intake, the risk of developing type 2 diabetes decreased by 15 percent.

Type 2 diabetes and insulin resistance syndrome (or pre-diabetes) affect a staggering 75 million Americans and death rates from diabetes have increased nearly 45 percent over the past 20 years, elevating the importance of finding new ways to treat and prevent this deadly disease.

Milk is a primary source of calcium and vitamin D in the American diet. In fact, government reports indicate that more than 70 percent of the calcium in our nation's food supply comes from milk and milk products. Additionally, milk is one of the few food sources of vitamin D, which is fast emerging as a "super nutrient."

The recommended three servings of lowfat or fat-free milk provides 900 mg of calcium, 300 IU of vitamin D and 80 mg of magnesium daily.

Source: Weber Shandwick Worldwide

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