

Heart Attack Risk Not Elevated By Dairy Consumption

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Dairy products can be high in harmful saturated fat but not necessarily in risk to the heart. A newly published analysis of thousands of adults in Costa Rica found that their levels of dairy consumption had nothing to do statistically with their risk of a heart attack.

"Things like milk and cheese are very complex substances," said Stella Aslibekyan, a community health graduate student at Brown University and the lead author of the study, published in advance online in the journal *Nutrition, Metabolism and Cardiovascular Diseases*. "We looked at [heart attack risk and] dairy products in their entirety and then looked at separate components of those dairy products, including fats, and it turns out that the results are null. Perhaps the evidence is not there."

Rather than suggesting that the saturated fats in dairy products are harmless, Aslibekyan and co-author Ana Baylin, an adjunct assistant professor of community health at Brown, hypothesize that other nutrients in dairy products are protective against heart disease, for all but perhaps the highest dairy consumption quintile in their study. The potentially beneficial nutrients include calcium, vitamin D, potassium, magnesium and conjugated linoleic acid (CLA).

To conduct the study, Aslibekyan and Baylin analyzed data on 3,630 middle-aged Costa Rican men and women who participated in an epidemiological study between 1994 and 2004 by co-author Hannia Campos of the Harvard School of Public Health.

They split the study population between two equal groups: 1,815 "cases" who had non-fatal heart attacks and 1,815 comparable "controls" who did not. The researchers looked not only at the subjects' self-reported dairy intake, but also at measurements of dairy fat biomarkers, namely 15:0 and 17:0, in their bodies.

What they found is that the dairy intake of people who had heart attacks was not statistically different than the intake of people who did not. After breaking people into quintiles, based on their dairy consumption amount, there was no significant linear relationship between consumption and heart risk, even among the most voracious consumers. The highest consumption quintile consumed an average of 593 grams of dairy foods a day.

When the researchers controlled for such risk factors as smoking, waist-to-hip ratio, alcohol intake, and physical activity, the lack of a statistically significant association between dairy intake and heart attack risk remained. They also tracked and adjusted the data for levels of CLA and calcium and found they may have a protective effect. Protective effects lessened in the highest quintile, however.

Baylin likened the nutritional complexity of dairy products to that of eggs, which were once a source of intense consumer concern because of their cholesterol content, but are now viewed in a more complex way because they, too, have seemingly protective nutrients.

"The message is that it is important to look at the net effect of whole foods and dietary patterns and not only isolated nutrients" Baylin said.

Notes:

Since conducting the study at Brown, Baylin has been appointed an assistant professor of epidemiology at the University of Michigan School of Public Health. Aslibekyan, who will graduate from Brown May 29 with a PhD, is already employed as a postdoctoral scholar at the University of Alabama at Birmingham.

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