Good Cholesterol Linked to Better Memory

The "good" type of cholesterol—high-density lipoprotein, or HDL—appears to help protect against heart attack and stroke. Now research suggests HDL may also be good for your memory.

Although scientists aren't sure about the mechanism by which HDL might be linked to memory, the connection isn't surprising: Research keeps turning up risk factors common to both cardiovascular disease and dementia.

In the latest study, published in Arteriosclerosis, Thrombosis and Vascular Biology, French and British scientists studied 3,673 men and women in a long-term study of British civil servants. Cholesterol levels were measured twice, at average ages 55 and 61, and short-term verbal memory was tested at each point. Participants were read a 20-word list and asked to write down as many words as they could recall within two minutes.

Initially, participants with low HDL (less than 40 mg/dL) scored lower on the memory test than those with high HDL (60 mg/dL or higher), but the difference wasn't statistically significant. After five years, however, the difference increased to become significant. Moreover, subjects whose HDL levels declined during the five-year interval were more likely to also show a decline in memory performance.

Neither total cholesterol nor trigly-
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Calories Count to Cut Your Diabetes Risk

Juice drinks boost your risk, while fruits and vegetables protect you.

A TRIO OF STUDIES published in the Archives of Internal Medicine sheds new light on the importance of diet in the risk of developing type 2 diabetes—and especially the role of calories. In an accompanying editorial, Mark N. Fein-glos, MD, and Susan E. Totten, RD, of Duke University Medical Center, summarized the findings: “Until we have more information, we have to assume that calories trump everything else, and that our number-one goal for the reduction of new cases of type 2 diabetes... should be to reduce the intake of high-energy, low-benefit foods.”

Among the calorie-packed culprits spotlighted by the studies are fruit drinks, which many mistakenly view as a healthier alternative to soft drinks. On the other hand, consumption of fruit and vegetables was associated with a reduced risk of diabetes. Perhaps surprisingly, a third study found no significant reduction in diabetes risk for women on a low-fat diet; losing weight proved more important to prevention.

In the first study, Julie R. Palmer, ScD, of Boston University and colleagues examined diabetes risk among 43,960 African-American women in the Black Women’s Health Study. Over 10 years of follow-up, 2,713 of the women developed type 2 diabetes. Those who reported consuming two or more soft drinks per day had a 24% greater diabetes risk compared with women sipping less than one per month. Women who consumed two or more fruit drinks daily had a 31% increased risk compared with those drinking less than one per month.

Diet soft drinks, grapefruit juice and orange juice were not associated with greater diabetes risk. Unlike other fruit drinks, grapefruit and orange juice contain mostly naturally occurring sugars, which may have different metabolic effects than the high-fructose corn syrup used to sweeten other juice drinks.

“Fruit drinks typically contain as many or more calories compared with soft drinks and, like soft drinks, may not decrease satiety to the same extent as solid food,” Palmer and colleagues wrote. “The public should be made aware that these drinks are not a healthy alternative to soft drinks with regard to risk of type 2 diabetes.”

The researchers concluded, “Our study suggests that the mechanism for the increase in diabetes risk associated with soft drink consumption is primarily through increased weight. Reducing consumption of soft drinks or switching from sugar-sweetened soft drinks to diet soft drinks is a concrete step that women may find easier to achieve than...”

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other approaches to weight loss.”

In another study, Anne-Helen Harding, PhD, of Addenbrooke’s Hospital in Cambridge, England, and colleagues analyzed blood vitamin C levels (an indicator of fruit and vegetable consumption) and fruit and vegetable intake in 21,831 people, average age 58, initially free of diabetes. Over 12 years of follow-up, 735 participants developed diabetes. Those with the highest vitamin C levels were 62% less likely to develop diabetes than those with the lowest. A similar but smaller risk reduction—22%—was seen for self-reported fruit and vegetable intake.

Fruits and vegetables may reduce diabetes risk by preventing obesity or by providing protective nutrients such as antioxidants, Harding and colleagues suggested: “Because fruits and vegetables are the main sources of vitamin C, the findings suggest that eating even a small quantity of fruits and vegetables may be beneficial and that the protection against diabetes increases progressively with the quantity of fruit and vegetables consumed.”

In a third study, Lesley Tinker, PhD, of Fred Hutchison Cancer Research Center in Seattle and colleagues analyzed diabetes risk in 48,835 participants in the Women’s Health Initiative, average age 62. While 60% continued their usual diet, 40% were randomly assigned to a low-fat diet (20% of calories from fat) with added fruits, vegetables and grains. The diet was not designed for weight loss.

Over 8.1 years, 1,303 of those on the low-fat diet (7.1%) and 2,039 of the women eating their usual diet (7.4%) developed diabetes—no significant difference. But Tinker and colleagues noted, “Trends toward reduced incidence were greater with greater decreases in total fat intake and weight loss.”

Women in the low-fat group lost about 4.2 pounds more weight after the first year and 1 pound more during the course of the study than those in the usual-diet group. “Weight loss, rather than macronutrient composition [e.g., fats, carbohydrates, proteins], may be the dominant predictor of reduced risk of diabetes,” the researchers concluded.

In the accompanying editorial, Dr. Feinglos and Totten agreed that the bottom line for diabetes risk seems to be weight: “We know that, as a population, we eat too much for our level of activity, and we are growing fatter as a result. In association with this increasing weight, we are in the midst of a dramatic increase in the number of cases of type 2 diabetes.”

HDL and Memory

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ceride levels was associated with memory performance. There was no evidence of interaction with a known genetic risk factor for Alzheimer’s.

The researchers, led by Archana Singh-Manoux, PhD, of the French National Institute for Health and Medical Research, speculated that HDL might protect cognitive function by reducing the risk for stroke and vascular disease, or HDL could affect beta-amyloid, associated with plaques in the brain. Other possibilities might include anti-inflammatory or antioxidant effects on the degeneration of the brain’s neurons. An accompanying editorial concluded, “These studies demand that we focus more effort on research at the interface between HDL and brain function.”

You can maintain healthy HDL levels by avoiding tobacco and trans fats and by losing weight. Factors thought to boost HDL include exercise, moderate alcohol consumption and intake of soluble dietary fiber such as in oats, vegetables, fruits and legumes. It’s also a good idea to switch from saturated fats to monounsaturated and polyunsaturated fats.
