

Milk could be good for your brain

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New research conducted at the University of Kansas Medical Center has found a correlation between milk consumption and the levels of a naturally-occurring antioxidant called glutathione in the brain in older, healthy adults.

In-Young Choi, Ph.D., an associate professor of neurology at KU Medical Center, and Debra Sullivan, Ph.D., professor and chair of dietetics and nutrition at KU Medical Center, worked together on the project. Their research, which was published in the Feb. 3, 2015 edition of *The American Journal of Clinical Nutrition*, suggests a new way that drinking milk could benefit the body.

"We have long thought of milk as being very important for your bones

and very important for your muscles," Sullivan said. "This study suggests that it could be important for your [brain](#) as well."

Choi's team asked the 60 participants in the study about their diets in the days leading up to brain scans, which they used to monitor levels of glutathione - a powerful antioxidant - in the brain.

The researchers found that participants who had indicated they had drunk milk recently had higher levels of glutathione in their brains. This is important, the researchers said, because glutathione could help stave off [oxidative stress](#) and the resulting damage caused by reactive chemical compounds produced during the normal metabolic process in the brain. Oxidative stress is known to be associated with a number of different diseases and conditions, including Alzheimer's disease, Parkinson's disease and many other conditions, said Dr. Choi.

"You can basically think of this damage like the buildup of rust on your car," Sullivan said. "If left alone for a long time, the buildup increases and it can cause damaging effects.

Few Americans reach the recommended daily intake of three dairy servings per day, Sullivan said. The new study showed that the closer older adults came to those servings, the higher their levels of [glutathione](#) were.

"If we can find a way to fight this by instituting lifestyle changes including diet and exercise, it could have major implications for brain health," Choi said.

An editorial in the same edition of *The American Journal of Clinical Nutrition* said the study presented "a provocative new benefit of the consumption of [milk](#) in older individuals," and served as a starting point for further study of the issue.

"Antioxidants are a built-in defense system for our body to fight against this damage, and the levels of antioxidants in our brain can be regulated by various factors such as diseases and lifestyle choices," Choi said.

For the study, researchers used high-tech brain scanning equipment housed at KU Medical Center's Hogle Brain Imaging Center. "Our equipment enables us to understand complex processes occurring that are related to health and disease," Choi said. "The advanced magnetic resonance technology allowed us to be in a unique position to get the best pictures of what was going on in the brain."

A randomized, controlled trial that seeks to determine the precise effect of [milk consumption](#) on the brain is still needed and is a logical next step to this study, the researchers said.

Provided by University of Kansas

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