



## LOMA LINDA UNIVERSITY

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### **Pomegranate juice may reduce Alzheimer's risk**

You may want to include pomegranate juice on your Thanksgiving table. Loma Linda University research suggests that a daily glass of pomegranate juice could halve the build-up of harmful proteins linked to Alzheimer's disease. "This study is the first to show beneficial effects (both behavioral and neuropathological) of pomegranate juice in an animal model of Alzheimer's disease," says Richard Hartman, PhD, researcher and lead author of the study, and assistant professor of psychology in the School of Science and Technology, LLU. Dr. Hartman collaborated with Washington University researchers on this project.

**Pomegranates** contain very high levels of polyphenols (an antioxidant phytochemical that tends to prevent or neutralize the damaging effects of free radicals) as compared to other fruits and vegetables.

**The study** began with transgenic mice predisposed to develop Alzheimer's-like pathology and symptoms. At a young age, the mice were split into two groups—half received water with added pomegranate-juice concentrate, and the control group received drinking water with the same amount of sugar as the juice. The mice drank an average of 5 ml of fluid a day, which is roughly equivalent to a human drinking one to two glasses of pomegranate juice a day. The learning and memory abilities of the mice were tested in the Morris water maze, which required the animals to swim and find a submerged platform in a pool of water.

**The results** are significant. After six months, 1) the pomegranate juice-treated mice learned water maze tasks more quickly and swam faster; and 2) the mice that drank the pomegranate juice had 50 percent less beta-amyloid plaques in the hippocampus of their brains.

This study, titled "Pomegranate juice decreases amyloid load and improves behavior in a mouse model of Alzheimer's disease," is featured in the December 2006 journal of *Neurobiology of Disease*. The full research article is available.

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