

Exercise is key in the fight against Alzheimer's disease

June 27 2012, by Danielle Gutierrez

In a recent *Journal of Biological Chemistry* "Paper of the Week," research led by Ayae Kinoshita at the Kyoto University Graduate School of Medicine in Japan reveals the benefits of exercise in combating Alzheimer's disease.

The most common cause of [dementia](#), Alzheimer's disease results in the loss of cognitive faculty. In the majority of cases, Alzheimer's disease occurs after age 65, and factors such as diet and exercise appear to play a role in its development, with high-fat diets as a risk factor.

Kinoshita's research compared the effects of 1) diet control, 2) voluntary exercise and 3) diet control plus exercise in an Alzheimer's disease [mouse model](#). The results showed that exercise was more beneficial than diet control in reducing β -amyloid formation (a defining characteristic of Alzheimer's disease) and restoring memory loss induced by a high-fat diet in these mice. Moreover, Kinoshita's team found that the effect of diet control plus exercise was not significantly different than exercise alone. They attribute the positive effects of exercise to increased degradation of β -amyloid deposits in the brain.

"Based on the results in this research," Kinoshita suggests, "exercise should be given priority to prevent Alzheimer's disease."

From the article: "Exercise is more effective than [diet](#) control in preventing high fat diet-induced β -amyloid deposition and memory deficit in amyloid precursor protein transgenic mice" by Masato

Maesako, Kengo Uemura, Masakazu Kubota, Akira Kuzuya, Kazuki Sasaki, Naoko Hayashida, Megumi Asada-Utsugi, Kiwamu Watanabe, Maiko Uemura, Takeshi Kihara, Ryosuke Takahashi, Shun Shimohama and Ayae Kinoshita

Read the Paper in Press version here: [www.jbc.org/content/early/2012... M111.315358.abstract](http://www.jbc.org/content/early/2012/.../M111.315358.abstract)

Provided by American Society for Biochemistry and Molecular Biology

Citation: Exercise is key in the fight against Alzheimer's disease (2012, June 27) retrieved 26 April 2024 from <https://medicalxpress.com/news/2012-06-key-alzheimer-disease.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.