

Exercise may delay cognitive decline in people with rare Alzheimer's disease

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For individuals carrying a genetic mutation that causes Alzheimer's disease, engaging in at least 2.5 hours of physical activity per week may

have beneficial effects on markers of Alzheimer's disease brain changes and may delay cognitive decline, according to a new study available online by *Alzheimer's & Dementia: The Journal of the Alzheimer's Association* as an article in press, corrected proof.

According to the authors, these results support the benefit of physical activity on cognition and dementia progression, even in individuals with autosomal dominant Alzheimer's disease (ADAD), a rare genetically-driven form of the disease in which the development of dementia at a relatively young age is inevitable.

The authors say their results, "show a significant relationship between physical activity, cognition, functional status and Alzheimer's disease pathology even in individuals with genetically-driven ADAD. ... The officially recommended physical activity duration of 150 minutes per week was associated with significantly better cognition and less Alzheimer's disease pathology in ADAD. From a public health perspective, this amount of physical activity was achieved by 70% of all ADAD individuals participating at the DIAN study. Therefore, a physically active lifestyle is achievable and may play an important role in delaying the development and progression of ADAD."

"The results of this study are encouraging, and not only for individuals with rare genetically-caused Alzheimer's disease," said Maria C. Carrillo, Ph.D., Chief Science Officer for the Alzheimer's Association. "If further research confirms this relationship between physical activity and later onset of dementia symptoms in ADAD, then we need to expand the scope of this work to see if it also is true in the millions of people with more common, late onset Alzheimer's."

Christoph Laske, M.D. and his research team at the University Hospital of Tübingen, Germany analyzed data generated from 275 individuals (average age 38.4) who carry a genetic mutation for ADAD and are

participating in the Dominantly Inherited Alzheimer's Network (DIAN), an international observational study of individuals and families with ADAD led by researchers at Washington University School of Medicine in St. Louis.

Researchers aimed to determine if at least 150 minutes of physical activity (walking, running, swimming, aerobics, etc.) per week—the current recommendation by the World Health Organization and the American College of Sports Medicine—would produce cognitive benefits for the study participants. One hundred fifty-six (156) were classified as high physical activity individuals (>150 minutes physical activity/week); 68 as low physical activity individuals (

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