

# Do Exercise and Physical Activity Protect the Brain?


**Exercise and physical activity have many benefits. Studies show they are good for our hearts, waistlines, and ability to carry out everyday activities, but what about brain health?**

Some studies suggest that exercise also may play a role in reducing risk for Alzheimer’s disease and age-related cognitive decline, and research in this area is continuing.

Animal studies found that exercise increases both the number of small blood vessels that supply blood to the brain and the number of connections between nerve cells. In addition, exercise raises the level of a protein in an area of the brain important to memory and learning.

Research in humans shows that exercise can stimulate the brain’s ability to maintain old network connections and make new ones vital to healthy cognition. For example, in a year-long study, older people exercised daily, walking for 40 minutes or doing stretching and toning exercises. At the end of the study, the walking group showed improved connectivity in the part of the brain engaged in daydreaming, envisioning the future, and recalling the past, as well as improved ability to plan and organize tasks such as cooking a meal.

We don’t know yet what prevents Alzheimer’s or age-related cognitive decline, but we do know that a healthy lifestyle that includes a healthy diet, physical activity, appropriate weight, and not smoking can maintain and improve overall health and well-being. Making healthy choices can lower the risk of certain chronic diseases, like heart disease and diabetes. Scientists are very interested in the possibility that a healthy lifestyle also might have a beneficial effect on Alzheimer’s. In the meantime, people of all ages can benefit from taking positive steps to get and stay healthy.

 **Quick Tip**  
For more information about brain health and Alzheimer’s disease, visit the National Institute on Aging at NIH  
[www.nia.nih.gov/alzheimers](http://www.nia.nih.gov/alzheimers).

**VISIT**  
[www.nia.nih.gov/Go4Life](http://www.nia.nih.gov/Go4Life)

- Read more tips for adding physical activity to your day.
- Print useful tools.
- Share your exercise story.

