Exercise isn’t just good for your body.

In a 2011 review of the literature published in the *Journal of Applied Physiology*, psychologist Michelle W. Voss, PhD, and colleagues found growing evidence that aerobic exercise can help people develop and maintain cognitive functioning throughout their life span.

“It’s clear that exercise has a positive effect on the body and the brain,” says Voss, an assistant professor of psychology at the University of Iowa.

In childhood, the research shows, physical activity facilitates optimal cognitive development. In contrast, inactivity and reduced fitness are associated with lower academic achievement and lower scores on neuropsychological tests. At the age spectrum’s other end, research largely supports the role of physical activity and aerobic fitness in maintaining cognitive function and preventing dementia in older adults.

What about young adulthood, such as the typical graduate student years? There the evidence is less clear, although the research that exists points to the same association between greater aerobic fitness and better brain functioning.

The problem with studying exercise’s impact on young adults is that they’re at their cognitive prime, so it’s harder to show a difference between physically fit and unfit individuals, says Voss.

“You’re just not dealing with as much variability overall with young adults’ ability to do a task well,” she explains. “You can’t really see effects unless you push the task to be really difficult.” Studies that don’t do this often don’t see an effect, she says.

In a 2013 literature review in *Psychonomic Bulletin & Review*, psychologist Liana Machado, PhD, and student Hayley Guiney of the University of Otago in New Zealand also found support for physical activity’s role in keeping and even improving cognitive function throughout life.

Among young adults, this review found that exercise did have an impact on one key area of cognitive functioning: memory-related tasks. Fitter young adults performed better when it came to updating working memory and in the amount of information they could hold, according to the research.

The dearth of evidence about exercise’s impact on young adults doesn’t undermine the idea that young adults need exercise, too, emphasizes Voss.

“Even though the effects are more subtle in young adulthood, that doesn’t mean they won’t accumulate to a larger effect as the person continues to develop,” she says.

— REBECCA A. CLAY