

## BRAIN BREAKS REFERENCES

This links are to articles that show the research-tested benefits of Brain Breaks and provide links to specific research studies:

<https://www.edutopia.org/article/research-tested-benefits-breaks>

<https://www.edutopia.org/video/science-behind-brain-breaks>

<https://www.gonoodle.com/blog/research-why-classrooms-need-movement-everyday/>

<https://www.brainfacts.org/thinking-sensing-and-behaving/learning-and-memory/2020/kids-need-brain-breaks-010920>

<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-6982-z>

<https://www.onlineschools.org/science-of-study-breaks/>

<https://education.gov.gy/web/index.php/teachers/tips-for-teaching/item/5242-research-tested-benefits-of-breaks>

[https://nwcommons.nwciowa.edu/cgi/viewcontent.cgi?article=1162&context=education\\_masters](https://nwcommons.nwciowa.edu/cgi/viewcontent.cgi?article=1162&context=education_masters)

---

### **CORPS ACTIF, CERVEAU PERFORMANT (2019)**

This article in French describes a 10-year initiative in the Outaouais region of Quebec that now includes 25 schools who are now using physically active breaks in class and in school to enhance academic performance.

---

### **THE ASSOCIATION BETWEEN SCHOOL-BASED PHYSICAL ACTIVITY, INCLUDING PHYSICAL EDUCATION, AND ACADEMIC PERFORMANCE – CDC -2010**

[https://www.cdc.gov/healthyyouth/health\\_and\\_academics/pdf/pa-pe\\_paper.pdf](https://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf)

U.S. Department of Health and Human Services, **Centers for Disease Control** and Prevention National Center for Chronic Disease Prevention and Health Promotion Division of Adolescent and School Health [www.cdc.gov/HealthyYouth](http://www.cdc.gov/HealthyYouth) Revised Version — July 2010 pp 21-23

Collectively, eight of the nine studies reviewed suggest that classroom-based physical activities may have favorable associations with indicators of cognitive functioning, academic behaviors, and/or academic achievement. Furthermore, there was no evidence that allotting classroom time for these activities was negatively associated with academic achievement.

---

### **PHYSICAL ACTIVITY, BRAIN, AND COGNITION**

<https://www.sciencedirect.com/science/article/pii/S2352154615000157>

[Kirk I Erickson<sup>1</sup>](#), [Charles H Hillman<sup>2</sup>](#), [Arthur F Kramer<sup>3</sup>](#)

[Volume 4](#), August 2015, Pages 27-32

In this brief review we summarize the promising effects of physical activity and fitness on brain and cognition in children and older adults. Research in children finds that higher fit and more active preadolescent children show greater hippocampal and basal ganglia volume, greater white matter

integrity, elevated and more efficient patterns of brain activity, and superior cognitive performance and scholastic achievement. Higher fit and more physically active older adults show greater hippocampal, prefrontal cortex, and basal ganglia volume, greater functional brain connectivity, greater white matter integrity, more efficient brain activity, and superior executive and memory function. Despite these promising results, more randomized trials are needed to understand heterogeneity in response to physical activity, mechanisms, and translation to public policy.

---

## RESEARCH-TESTED BENEFITS OF BREAKS

<https://www.edutopia.org/article/research-tested-benefits-breaks>

By [Youki Terada](#) March 9, 2018

Students are easily distracted, but regular, short breaks can help them focus, increase their productivity, and reduce their stress.

---

## EDUCATING THE STUDENT BODY: TAKING PHYSICAL ACTIVITY AND PHYSICAL EDUCATION TO SCHOOL.

<https://www.ncbi.nlm.nih.gov/books/NBK201500/>

Committee on Physical Activity and Physical Education in the School Environment; Food and Nutrition Board; Institute of Medicine; Kohl HW III, Cook HD, editors.

Washington (DC): [National Academies Press \(US\)](#); 2013 Oct 30.

Several recent reviews have concluded that physical activity has a positive effect on mental health and emotional well-being for both adults and children ([Peluso and Guerra de Andrade, 2005](#); [Penedo and Dahn, 2005](#); [Strong et al., 2005](#); [Hallal et al., 2006](#); [Ahn and Fedewa, 2011](#); [Biddle and Asare, 2011](#)).

---

## PHYSICAL EDUCATION, SCHOOL PHYSICAL ACTIVITY, SCHOOL SPORTS AND ACADEMIC PERFORMANCE.

<https://ijbnpa.biomedcentral.com/track/pdf/10.1186/1479-5868-5-10>

TRUDEAU, F. & SHEPHARD R.J. *International Journal of Behavioral Nutrition and Physical Activity*, 2008, volume 5, no 10, 12 pages.