

Sample abstract

Effect of acute exercise and cardiovascular fitness on cognitive function: an event-related cortical desynchronization study.

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Background: There is an increasing trend in physical inactivity and obesity in the general population, which can contribute to cognitive decline. The effect of physical activity on cognition has gained importance in the research field.

Objectives: This study aimed to clarify the effects of acute exercise and cardiovascular fitness on cognitive function using the Stroop test in an aged population.

Material and methods: Old adults ($X \pm Y$ years) were assigned to either high-fitness group or low-fitness group, and they were subjected to an acute bout of exercise and cognition was assessed.

Results: Acute exercise improved cognitive performance regardless of the age ($p < 0.01$). Old adults with higher fitness levels received greater benefits from acute exercise than lower fitness levels.

Conclusion: These findings suggest that the beneficial effects of acute exercise on cognitive performance may result from exercise-induced attentional control.

Keywords: physical inactivity, obesity, exercise, cognition

Mode of presentation preferred: Oral