

# Active, Fit and Smart – Effects of physical activity and fitness on the cognitive prerequisites of learning (AFIS)

## Background and aims

Previous research has found that physical activity and fitness may positively affect cognitive functions and brain health, but this link has not been systematically studied in younger populations.

The purpose of this multidisciplinary study is to increase understanding of the potential that physical activity may have in optimizing the prerequisites of learning and general cognitive skills at different ages. The research consortium combines research on physical activity and learning at multiple levels, from neurobiology and neuroscience to epidemiology.

## Funding

This study is part of the Research Programme on the Future of Learning, Knowledge and Skills (TULOS) funded by the Academy of Finland.

## Timetable

2014–2017



**This multidisciplinary research consortium consists of three subprojects that aim to clarify:**

1. How changes in physical activity and fitness during the life-course affect cognitive function, academic achievement and educational attainment at different ages.

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2. The associations of lifelong physical activity vs. inactivity with structural and functional properties of the brain underlying executive functions and memory in children and adults.

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3. How both intrinsic and acquired aerobic fitness and sedentary vs. active lifestyle affect learning abilities from juvenile to old adulthood.

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