

**Hillman et al 2009** (Neuroscience, 159, 1044-1054)

20 normal functioning preadolescent children were tested after a 20 minute bout of moderate (60% maxHR) treadmill walking and after a 20 minute sedentary period on brain activity (event-related brain potential – ERP) and applied aspects of cognition (response accuracy and academic achievement).

**RESULTS:**

Participants scored a full grade level higher in reading comprehension after PA than after a period of rest.

PA increased response accuracy and ERP levels.

“As demonstrated from previous literature, this study indicated that, after a 20 minute bout of PA, children scored higher on multiple assessments of cognition and academic performance as compared to a 20 minute rest period. Specifically, children performed significantly better in reading comprehension, with participating children scoring approximately a **full grade level higher in reading comprehension after PA** than after a period of rest.”