

Psychosomatic

Aging associated changes of motor control in the brain

Does brain activity during certain movements change with age?

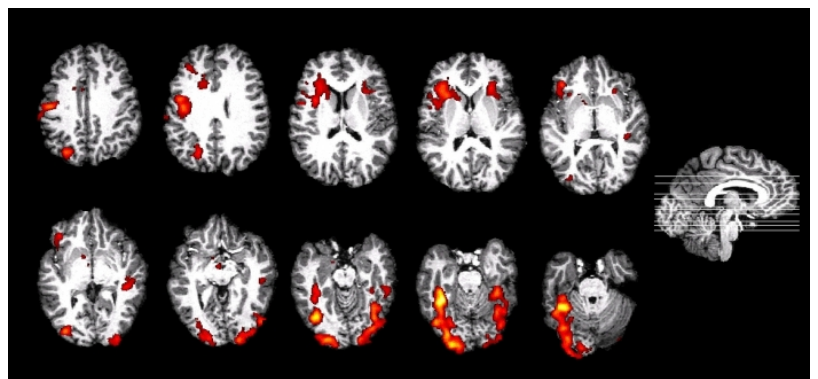
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As we get older we present impaired motor performance across a variety of tasks and ability domains. Although age-related gait changes have been well characterized, little is known regarding potential functional changes in central motor control of distal lower limb movements with age.

Authors hypothesized that there are changes in brain activity associated with the control of repetitive ankle movements, an element of gait feasible for study with functional magnetic resonance imaging (fMRI). The study counted with 102 healthy participants aged from 20-83. Data from participants fMRI were analyzed.

This is the first study confirming age-related changes in brain activity with this gait-related movement of the lower limb in a large

population. Increasing age correlated strongly with increased movement-associated activity in the cerebellum and precuneus. Given that task performance did not vary with age, we interpret these changes as potentially compensatory for other age-related changes in the sensorimotor network responsible for control of limb function.



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