

[Clin Neurophysiol.](#) 2007 Jun;118(6):1179-92. Epub 2007 Apr 26.

# **Volitional control of movement: the physiology of free will.**

[Hallett M.](#)

## **Source**

Human Motor Control Section, National Institute of Neurological Disorders and Stroke, NIH, Building 10, Room 5N226, 10 Center Dr MSC 1428, Bethesda, MD 20892-1428, USA.  
hallettm@ninds.nih.gov

## **Abstract**

This review deals with the physiology of the initiation of a voluntary movement and the appreciation of whether it is voluntary or not. I argue that free will is not a driving force for movement, but a conscious awareness concerning the nature of the movement. Movement initiation and the perception of willing the movement can be separately manipulated. Movement is generated subconsciously, and the conscious sense of volition comes later, but the exact time of this event is difficult to assess because of the potentially illusory nature of introspection. Neurological disorders of volition are also reviewed. The evidence suggests that movement is initiated in the frontal lobe, particularly the mesial areas, and the sense of volition arises as the result of a corollary discharge likely involving multiple areas with reciprocal connections including those in the parietal lobe and insular cortex.

PMID:

17466580

[PubMed - indexed for MEDLINE]

PMCID:

PMC1950571 [Free PMC Article](#)