



Crossover effects of lower limb muscle fatigue on movement strategies



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RESEARCH QUESTION

Are there acute crossover effects of lower limb muscle fatigue on movement strategies of young adults during upright standing?

BACKGROUND

- Crossover effects pertains to the effects of training one side of the body to the untrained contralateral or opposite side
- Postural Control is the ability to control one's body position in space for stability and orientation
- What happens to postural of one leg when the contralateral leg is fatigued ?

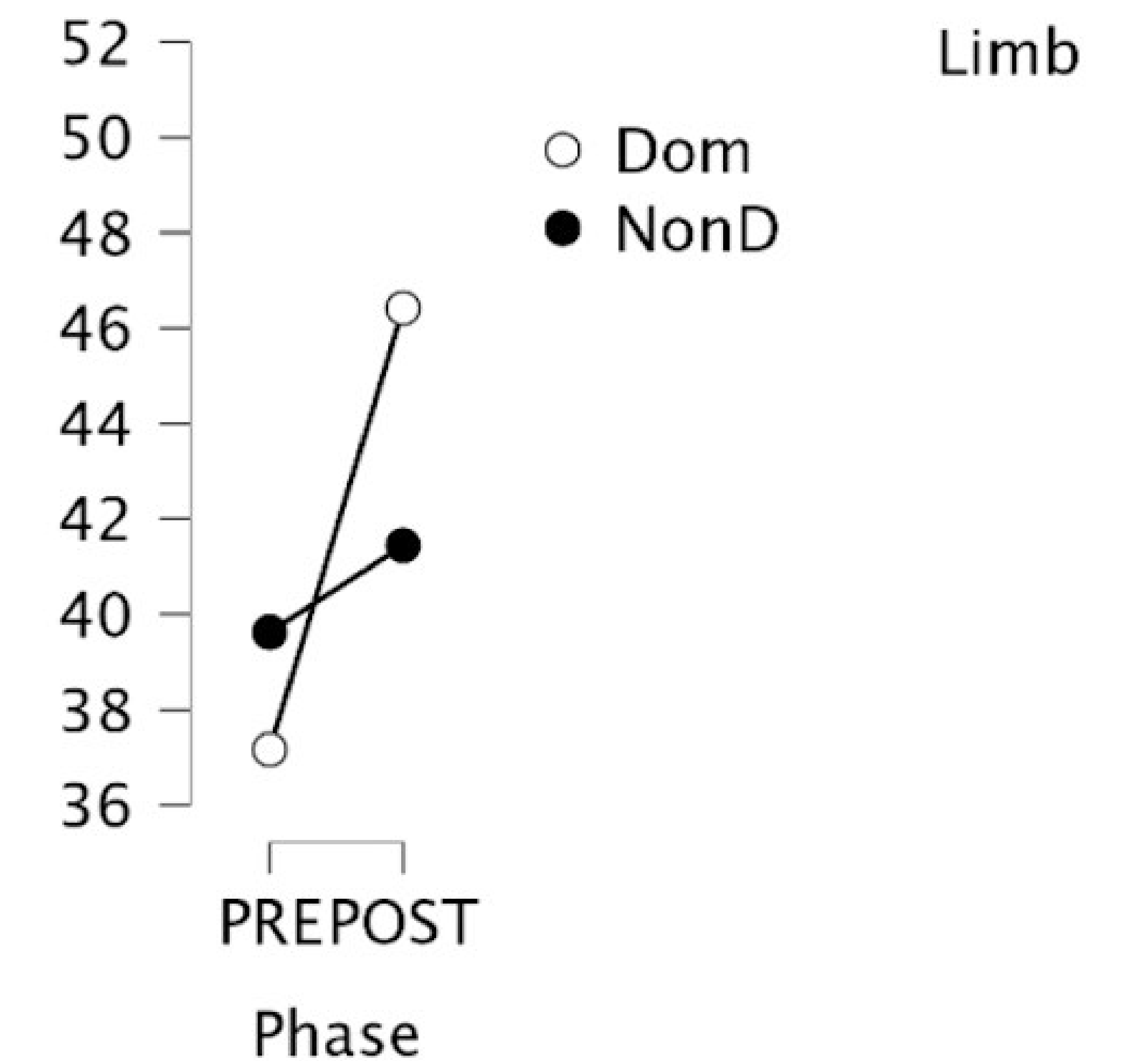
METHODS

- 20 healthy young students
 - » 17 males, 3 females
 - » Demographics (Mean \pm SD) :
 - »» Age (years): 21.5 ± 2.6
 - »» Height (cm): 179.8 ± 9.8
 - »» Weight (kg): 78.65 ± 10.0
- Force plate (see image)
- Wooden box (5 cm tall): to fatigue dominant calf muscle by calf raises

We hypothesize that inducing a local fatigue to a lower limb muscle will induce a significant fatiguing effect on the homologous contralateral limb muscle.



RESULTS



FUTURE DIRECTIONS

- Increase Power with more subjects
- More diverse subjects
- Other body parts/exercises
- Application of this concept for rehabilitation of injuries

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