

Accepted Manuscript

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PII: S0966-6362(17)30983-9
DOI: <https://doi.org/10.1016/j.gaitpost.2017.10.027>
Reference: GAIPOS 5856

To appear in: *Gait & Posture*

Received date: 20-12-2016
Revised date: 19-10-2017
Accepted date: 27-10-2017

Please cite this article as: Franklin Simon, Li François-Xavier, Grey Michael J. Modifications in lower leg muscle activation when walking barefoot or in minimalist shoes across different age-groups. *Gait and Posture* <https://doi.org/10.1016/j.gaitpost.2017.10.027>

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Modifications in lower leg muscle activation when walking barefoot or in minimalist shoes across different age-groups.

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Highlights

- Minimalist shoes are intermediate to barefoot and conventional footwear
- Stance phase gastrocnemius medialis activity is decreased in supportive shoes
- Initial stance tibialis anterior activity reduced when barefoot/in minimalist shoes
- Reduced peroneus longus activity at initial stance when barefoot in younger ages

Abstract

Ageing is associated with a decline in muscle strength and impaired sensory mechanisms which contribute to an increased risk of falls. Walking barefooted has been suggested to promote increased muscle strength and improved proprioceptive sensibility through better activation of foot and ankle musculature. Minimalist footwear has been marketed as a method of reaping the suggested benefits of barefoot walking whilst still providing a protective surface. The aim of this study was

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