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Title

Does neuromuscular electrostimulation have the potential to increase intrinsic foot muscle strength?

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Highlights

- Neuromuscular electrostimulation has no influence on parameters of intrinsic foot muscle strength.
- A running program in minimal shoes increases the cross sectional area of the abductor hallucis muscle.
- An increase in cross sectional area has no influence on longitudinal arch stability.

Abstract

Purpose: The purpose of this study was to investigate the effect of an eight-week neuromuscular electrostimulation program on the intrinsic foot muscle strength. The results were compared with those from a passive and an active control group.

Methods: 74 healthy participants were recruited and divided into three groups: a neuromuscular electrostimulation group (n=19), a passive control group (n=15) with no further intervention, and an active control group following a running protocol with minimal shoes (n=40). The electrostimulation and running groups followed a training protocol consisting of two sessions per week over a period of eight weeks. Three characteristics of

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