Accepted Manuscript

Title: NEURAL AND MUSCULOTENDINOUS MECHANISMS UNDERPINNING AGE-RELATED FORCE REDUCTIONS

Authors: Lucas Bet da Rosa Orssatto, Matheus Joner Wiest, Fernando Diefenthaeler

PII:	S0047-6374(18)30038-1
DOI:	https://doi.org/10.1016/j.mad.2018.06.005
Reference:	MAD 11066
To appear in:	Mechanisms of Ageing and Development
Received date:	16-2-2018
Revised date:	21-6-2018
Accepted date:	28-6-2018

Please cite this article as: da Rosa Orssatto LB, Wiest MJ, Diefenthaeler F, NEURAL AND MUSCULOTENDINOUS MECHANISMS UNDERPINNING AGE-RELATED FORCE REDUCTIONS, *Mechanisms of Ageing and Development* (2018), https://doi.org/10.1016/j.mad.2018.06.005

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



NEURAL AND MUSCULOTENDINOUS MECHANISMS UNDERPINNING AGE-RELATED FORCE REDUCTIONS

Lucas Bet da Rosa Orssatto¹; Matheus Joner Wiest²; Fernando Diefenthaeler¹

¹Laboratório de Biomecânica, Centro de Desportos, Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brazil.

²Toronto Rehabilitation Institute – UHN. Neural Engineering & Therapeutic Team, Toronto, Ontario, Canada.

Corresponding author:

Fernando Diefenthaeler, Centro de Desportos, Laboratório de Biomecânica, Universidade Federal de Santa Catarina, Campus Reitor João David Ferreira Lima, Trindade, Florianópolis, SC, 88040-900, Brazil. Email: <u>fernando.diefenthaeler@ufsc.br</u>

Highlights

- This study describes the main mechanisms age-related force reductions
- The nervous system, muscles and tendons are negatively affected by ageing resulting in lower force capacity
- Physical exercise can be used to counteract or delay age-related neuromusculoskeletal adaptations

Abstract

Ageing leads to substantial force production capacity reductions, which is an indicator of frailty and disability, and a mortality predictor in elders. Understanding the agedependent neuromuscular mechanisms underlying force reductions can optimize healthcare professionals' exercise protocol choices for patients and allows researchers to investigate new interventions to mitigate these reductions. Our primary goal was to Download English Version:

https://daneshyari.com/en/article/8284646

Download Persian Version:

https://daneshyari.com/article/8284646

Daneshyari.com