## **Accepted Manuscript**

Title: The age-related loss of skeletal muscle mass and function: measurement and mechanisms of muscle fibre atrophy and muscle fibre loss in humans

Authors: D.J. Wilkinson, M. Piasecki, P.J. Atherton

PII: S1568-1637(18)30134-X

DOI: https://doi.org/10.1016/j.arr.2018.07.005

Reference: ARR 843

To appear in: Ageing Research Reviews

Received date: 23-5-2018 Revised date: 20-6-2018 Accepted date: 18-7-2018

Please cite this article as: Wilkinson DJ, Piasecki M, Atherton PJ, The age-related loss of skeletal muscle mass and function: measurement and mechanisms of muscle fibre atrophy and muscle fibre loss in humans, *Ageing Research Reviews* (2018), https://doi.org/10.1016/j.arr.2018.07.005

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.



The age-related loss of skeletal muscle mass and function: measurement and

mechanisms of muscle fibre atrophy and muscle fibre loss in humans

Wilkinson DJ, Piasecki M, Atherton PJ

MRC/ARUK Centre for Musculoskeletal Ageing Research and National Institute of

Health Research, Biomedical Research Centre, School of Medicine, University of

Nottingham, UK

Address for correspondence:

Professor Philip J Atherton

MRC-ARUK Centre for Musculoskeletal Ageing Research and National Institute of

Health Research, NIHR Biomedical Research Centre

School of Medicine,

Derby, DE22 3DT, UK

Telephone: 01332 724725; Fax: 01332 724727

Email: philip.atherton@nottingham.ac.uk

Running title: Age-related muscle atrophy

**Highlights** 

Loss of muscle mass with age is due to atrophy and loss of individual muscle fibres

Anabolic resistance is fundamental in age-related fibre atrophy

Fibre loss is associated with denervation and remodelling of motor units

The plasticity of both factors should be considered in future research

**Abstract** 

Age-related loss of skeletal muscle mass and function, sarcopenia, is associated with

physical frailty and increased risk of morbidity (chronic diseases), in addition to all-

cause mortality. The loss of muscle mass occurs incipiently from middle-age

1

## Download English Version:

## https://daneshyari.com/en/article/8257105

Download Persian Version:

https://daneshyari.com/article/8257105

<u>Daneshyari.com</u>