

1. Record Nr.	UNINA9910450872103321
Titolo	Oxidative stress, exercise, and aging [[electronic resource] /] / Helaine M. Alessio, Ann E. Hagerman, editors
Pubbl/distr/stampa	London, : Imperial College Press Hackensack, NJ, : distributed by World Scientific Pub., c2006
ISBN	1-281-86722-5 9786611867225 1-86094-912-6
Descrizione fisica	1 online resource (185 p.)
Altri autori (Persone)	AlessioHelaine M HagermanAnn E
Disciplina	612.22
Soggetti	Oxidative stress Exercise - Physiological aspects Aging - Physiological aspects Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	CONTENTS ; Preface ; 1 Chemistry of reactive oxygen species and antioxidants ; 1.1 What are reactive oxygen species? ; 1.2 What are antioxidants? ; 1.3 Oxidized biomarkers ; 1.4 Summary ; References ; 2 Oxidative stress in plants and animals ; 2.1 Introduction 2.2 Sources of oxidative stress in plants 2.3 Sources of oxidative stress in animals ; 2.4 Similar consequences of oxidative stress for plants and animals ; 2.5 Environmental factors inducing oxidative stress ; 2.6 Irradiation ; 2.7 Temperature extremes 2.8 Pollutants and toxic chemicals 2.9 Nutrient stress ; 2.10 Anoxia ; 2.11 Disease ; 2.12 Summary ; References ; 3 The exercise continuum ; 3.1 Introduction ; 3.2 Isometric exercise ; 3.3 Isotonic exercise

; 3.4 The exercise continuum ; 3.5 Summary
; References
4 Oxidative stress and muscle size type and action
4.1 Introduction ; 4.2 Oxidative stress in large and small
muscles ; 4.3 Metabolism and
oxidative stress in small and large animals
; 4.4 Radical damage and damage control in DNA
; 4.5 Muscle type and oxidative stress
4.6 Muscle remodeling and oxidative stress
4.7 Oxidative stress and muscle action ;
4.8 Aging and muscle action ; 4.9 Summary
; References ; 5 Oxidative stress across the exercise
continuum ; 5.1 Introduction
; 5.2 Muscle contractions and reactive oxygen species
5.3 Age and exercise-induced ROS

Sommario/riassunto

This book brings together some of the leading researchers in the actively investigated field of oxidative stress, an area of study which is of importance to human health and disease. It examines oxidative stress in a variety of models, at rest and after exercise, in young and old. Key concepts of oxidative stress, exercise and aging are presented in clear and easy-to-understand terms. Oxidative stress in different types of exercises - isometric, isotonic and sports - is explained in detail, with several chapters focusing on acute and chronic adaptations of skeletal muscles following both aero
