

1. Record Nr.	UNINA9910373920903321
Titolo	Osteosarcopenia: Bone, Muscle and Fat Interactions // edited by Gustavo Duque
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-25890-4
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVI, 383 p. 42 illus., 28 illus. in color.)
Disciplina	571.8 616.716
Soggetti	Aging Developmental biology Geriatrics Endocrinology Biogerontology Geriatrics/Gerontology Osteoporosi Malalties musculars Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Dedication -- Foreword -- Preface -- Acknowledgements -- PART I Biology of Muscle and Bone -- Muscle and Bone Biology -- Mesenchymal stem cells as regulators of bone, muscle, and fat formation -- Age-related changes in muscle and bone -- Cross-talk between muscle and bone -- Role of connexins and pannexins in bone and muscle mass and function -- Osteosarcopenia as a Lipotoxic Disease -- The endocrine actions of undercarboxylated osteocalcin in skeletal muscle: effects and mechanisms -- Sex steroid hormones and osteosarcopenia -- Calciotropic hormones and osteosarcopenia -- Genetics of Osteosarcopenia -- PART II Clinical Characteristics -- Diagnosis of Osteosarcopenia – clinical -- Diagnosis of Osteosarcopenia – Imaging -- Diagnosis of osteosarcopenia – Biochemistry and pathology -- Osteosarcopenic obesity -- Non-

pharmacological interventions for osteosarcopenia -- The Falls and Fractures Clinic – An integrated model of care for osteosarcopenic patients -- Index.

Sommario/riassunto

This edited work presents the most current evidence on osteosarcopenia from bench to bedside, which is expected to facilitate the understanding of this syndrome and to develop preventive and therapeutic strategies. With our aging population, chronic diseases such as osteoporosis and sarcopenia are becoming highly prevalent. Fortunately, our understanding of the bone and muscle interactions has increased in recent years. This has allowed to the coining of the term osteosarcopenia to describe a syndrome in which these two diseases overlap. This overlap between osteoporosis and sarcopenia has major negative effects not only on our older adults but also on health systems worldwide. Readers will find a highly translational approach that starts with a summary of recent discoveries on stem cells biology, muscle and bone interactions – including the role of local bone and muscle fat – followed by comprehensive reviews on myokines (i.e. myostatin), osteokines (i.e. osteocalcin) and adipokines (i.e. interleukins) as major players and determinants of bone and muscle loss with aging. In addition, the role of sex steroids (i.e. estrogens, androgens), and calciotropic hormones (i.e. parathyroid hormone, vitamin D) in the pathogenesis of this syndrome is also reviewed. Moreover, using practical diagnostic and therapeutic tips, this book summarizes the clinical characteristics of osteosarcopenic patients thus facilitating the diagnosis and treatment of this syndrome in clinical practice. Finally, the book presents the case for the Falls and Fractures Clinic as the optimal model of care for this syndrome, aimed to avoid fragmentation and optimize osteosarcopenia care, and simultaneously prevent falls and fractures in older persons. This book offers relevant information on the mechanisms of osteosarcopenia, and a practical guide on how to identify and treat this geriatric syndrome and its adverse outcomes, which are dramatically affecting our aging population. The work is written by leaders in the field and is especially suited not only to any researcher in the musculoskeletal arena but also to medical specialists and allied health professionals involved in the care of older persons.
