Mechanical Properties of Aging Soft Tissues [

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Monografía

Exploring the structure and mechanics of aging soft tissues, this edited volume presents authoritative reviews from leading experts on a range of tissues including skin, tendons, vasculature and plantar soft tissues. It provides an overview of in vivo and in vitro measurement techniques including state-of-the-art methodologies, as well as focusing on the structural changes that occur within the main components of these tissues resulting in detrimental mechanical property changes. It also highlights the current challenges of this field, and offers an insight into future developments. Age-related changes in the mechanical properties of soft tissues have a profound effect on human morbidity and mortality, and with changing global demographics, there is growing interest in this area. There has been increasing interest in robustly characterizing these mechanical changes to develop structure-property relationships, and growing awareness of the need for enhanced predictive models for computational simulations. This book seeks to address the challenges involved in applying these engineering techniques to reliably characterize these tissues. Focusing on a wide range of tissues and presenting cutting-edge techniques, this book provides an invaluable reference to academics and researchers in a range of disciplines including biomechanics, materials science, tissue engineering, life sciences and biomedicine.\00A0 \00A0 \00A0

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