

1. Record Nr.	UNINA9910792478503321
Autore	Fung Y. C (Yuan-cheng), <1919->
Titolo	Biomechanics : mechanical properties of living tissues // Y. C. Fung
Pubbl/distr/stampa	New York : , : Springer, , 1993 1993
ISBN	1-4757-2257-5
Edizione	[Second edition.]
Descrizione fisica	1 online resource (xviii, 568 p.) : ill
Disciplina	611
Soggetti	Tissues Biomechanics Rheology (Biology)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1 Introduction: A Sketch of the History and Scope of the Field -- 2 The Meaning of the Constitutive Equation -- 3 The Flow Properties of Blood -- 4 Mechanics of Erythrocytes, Leukocytes, and Other Cells -- 5 Interaction of Red Cells with Vessel Wall, and Wall Shear with Endothelium -- 6 Bioviscoelastic Fluids -- 7 Bioviscoelastic Solids -- 8 Mechanical Properties and Active Remodeling of Blood Vessels -- 9 Skeletal Muscle -- 10 Heart Muscle -- 11 Smooth Muscles -- 12 Bone and Cartilage -- Author Index.
Sommario/riassunto	The objective of this book remains the same as that stated in the first edition: to present a comprehensive perspective of biomechanics from the stand point of bioengineering, physiology, and medical science, and to develop mechanics through a sequence of problems and examples. My three-volume set of Bio- mechanics has been completed. They are entitled: Biomechanics: Mechanical Properties of Living Tissues; Biodynamics: Circulation; and Biomechanics: Motion, Flow, Stress, and Growth; and this is the first volume. The mechanics prerequisite for all three volumes remains at the level of my book A First Course in Continuum Mechanics (3rd edition, Prentice-Hall, Inc., 1993). In the decade of the 1980s the field of Biomechanics expanded tremendously. New advances have been made in all fronts. Those that

affect the basic understanding of the mechanical properties of living tissues are described in detail in this revision. The references are brought up to date.
