1. Record Nr. UNISALENTO991003236349707536

Titolo	Tribology and biophysics of artificial joints [e-book] / [edited by] L.S. Pinchuk ... [et al]
Pubbl/distr/stampa	Amsterdam ; Boston : Elsevier, 2006
ISBN	9780444521620 0444521623
Descrizione fisica	ix, 350 p. : ill., ports. ; 25 cm
Collana	Tribology and interface engineering series, 1572-3364 ; 50
Altri autori (Persone)	Pinchuk, Leonid Semenovich
Disciplina	681.761
Soggetti	Artificial joints - Design Artificial joints - Materials Tribology Electronic books.
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	ARTHROLOGY AND JOINT ENDOPROSTHETICS -- MATERIALS FOR JOINT ENDOPROSTHESES -- DESIGNS OF JOINT ENDOPROSTHESES -- SOME CLINICAL ASPECTS OF ENDOPROSTHETICS -- TRIBOLOGICAL ASPECTS OF ENDOPROSTHETICS -- SIMULATION OF CARTILAGE TISSUES -- SIMULATION OF BIOPOTENTIALS IN JOINTS -- EDVANCES IN JOINTS ENDOPROSTHETICS
Sommario/riassunto	Joint endoprosthetics - the science of implanting artificial joints into the human body - has been around since the 1960s, and consistent advancements are leading to better practice, materials and mechanics. The present book is devoted to the biophysics and effect of wear, friction and lubrication on artificial joints. The important aspects of biocompatibility and wear resistance are reviewed and a retrospective analysis of modern joint endoprosthetic designs is presented. Data on clinical aspects of endoprosthetics are cited in support of the text. Advancements in genetic engineering, and promising new techniques of designing bone and cartilage transplants are explored, and a critical comparison between tribological mechanisms of operation and natural joint functioning are made. An exceptional resource for all specialists in orthopedy, biophysics, immunology and engineers engaged in

developing artificial joints.