1. Record Nr. UNINA9910789205703321 Titolo The knee [[electronic resource]]: current concepts in kinematics, injury types, and treatment options // Randy Mascarenhas, editor Pubbl/distr/stampa New York,: Nova Science Publishers, Inc., 2012 **ISBN** 1-61942-278-6 Descrizione fisica 1 online resource (257 p.) Collana Muscular System - Anatomy, Functions and Injuries Altri autori (Persone) MascarenhasRandy Disciplina 617.582 Soggetti Knee Knee - Fractures 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 ""THE KNEE CURRENT CONCEPTS IN KINEMATICS. INJURY TYPES. AND TREATMENT OPTIONS ""; ""THE KNEE CURRENT CONCEPTS IN KINEMATICS, INJURY TYPES, AND TREATMENT OPTIONS ""; ""CONTENTS ""; ""PREFACE ""; ""BIOMECHANICAL RESPONSE OF THE KNEE IN SPORTS INJURY SCENARIOS ""; ""ABSTRACT ""; ""1. INTRODUCTION ""; ""Injury in Sports ""; ""Sports Participation ""; ""Injury Incidence ""; ""Risk Factors for Injury ""; ""Knee Biomechanics ""; ""Tissue Properties ""; ""Biomechanical Function of the Knee Joint""; ""Acute Knee Injuries ""; ""Ligamentous Injury ""; ""Analysis of Knee Injury Mechanisms "" ""Experimentally Produced Knee Injuries """"Knee Kinetics ""; ""Post-Traumatic Osteoarthritis ""; ""Risk Factors and Epidemiology ""; ""Bone Bruises ""; ""Osteochondral Microdamage ""; ""2. METHODS ""; ""Knee

Sports ""; ""Sports Participation ""; ""Injury Incidence ""; ""Risk Factors for Injury ""; ""Knee Biomechanics ""; ""Tissue Properties ""; ""Biomechanical Function of the Knee Joint""; ""Acute Knee Injuries ""; ""Ligamentous Injury ""; ""Analysis of Knee Injury Mechanisms "" ""Experimentally Produced Knee Injuries """Knee Kinetics ""; ""Post-Traumatic Osteoarthritis ""; ""Risk Factors and Epidemiology ""; ""Bone Bruises ""; ""Osteochondral Microdamage ""; ""2. METHODS ""; ""Knee Specimens ""; ""Data Recording and Statistics ""; ""3. INJURIES DUE TO TIBIOFEMORAL COMPRESSION (TFC) ""; ""Loading Methods ""; ""Results ""; ""DISCUSSION ""; ""4. INJURIES DUE TO INTERNAL TIBIAL TORSION (ITT) ""; ""Loading Methods ""; ""Results ""; ""Discussion ""; ""5. INJURIES DUE TO HYPEREXTENSION (HE) ""; ""Loading Methods ""; ""Results ""; ""Discussion "" ""6. INJURIES DUE TO VALGUS BENDING (VB) """"Loading Methods ""; ""Results ""; ""Discussion ""; ""8. COMPUTATIONAL MODELING OF JOINT INJURY ""; ""Methods ""; ""Results ""; ""Discussion ""; ""9. CONTACT INDUCED OSTEOCHONDRAL MICROTRAUMA ""; ""Methods ""; ""Results ""; ""Resu

""; ""Discussion ""; ""10. DISCUSSION AND CONCLUSION ""; ""Isolated ACL Injury "": ""Tibiofemoral Compression "": ""Post-Traumatic Osteoarthritis ""; ""CONCLUSION""; ""REFERENCES ""; ""3D COMPUTATIONAL MODELING OF THE HUMAN KNEE IN PHYSIOLOGICAL STATE"" ""ABSTRACT"""1. INTRODUCTION ""; ""2. MATERIAL AND METHODS ""; ""2.1. Knee Joint Geometry ""; ""2.2. Behavior of Biological Tissues ""; ""2.3. Enforcement of Initial Strains ""; ""2.4. Boundary Conditions ""; ""3. RESULTS ""; ""CASE I: Flexion of 60 Degrees of the Femur (Simplified Model) ""; ""CASE II: Static Compression of the Tibia of 1150 N (Full Model) ""; ""CASE III: Flexion of 10 Degree of the Complete Model ""; ""CONCLUSION "": ""ACKNOWLEDGMENTS "": ""REFERENCES "": ""EFFECT OF A LOWER LIMB INJURY PREVENTION PROGRAM ON LANDING POSITION IN FEMALE BASKETBALL ATHLETES""; ""ABSTRACT "" ""INTRODUCTION """"METHODS ""; ""Study Population ""; ""Continuous Jump Testing ""; ""Balance Ability Testing ""; ""Prevention Program ""; ""Statistical Analysis ""; ""RESULTS ""; ""DISCUSSION ""; ""CONCLUSION ""; ""ACKNOWLEDGMENTS ""; ""REFERENCES ""; ""DELETORIOUS EFFECTS OF FATIGUE ON KNEE JOINT PROPRIOCEPTION IN SOCCER PLAYERS ""; ""ABSTRACT ""; ""INTRODUCTION ""; ""METHODS ""; ""Subjects and Study Design ""; ""Assessment of Rate of Perceived Exertion""; ""Assessment of Knee Joint Position Sense ""; ""DATA ANALYSIS ""; ""RESULTS ""; ""DISCUSSION ""; ""CONCLUSION ""; ""REFERENCES "" ""KNEE JOINT KINEMATICS IN HEALTHY CHILDREN AND CHILDREN WITH HYPERMOBILITY SYNDROME ""