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""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 ""
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""KNEE JOINT KINEMATICS IN HEALTHY CHILDREN AND CHILDREN WITH HYPERMOBILITY SYNDROME ""

Sommario/riassunto

Knee injuries are common occurrences that affect the young active population and can lead to subsequent long term joint degeneration. This book provides an overview of current research examining knee injury mechanisms, prevention, and treatment options. Detailed discussions are included related to current treatment options for ACL injury, PCL injury, meniscal tears, patellofemoral instability, and combined knee pathology. Additionally, current advances in tissue engineering in ACL reconstruction and results following transphyseal ACL reconstruction in adolescents are examined. Furthermore, biomechanical studies and computerized modeling techniques are highlighted as methods for determining the mechanisms and sequelae of knee injuries, thus aiding in the development of injury prevention programs.