



Original Research

Patellar Tendinopathy Alters the Distribution of Lower Extremity Net Joint Moments During Hopping
Richard B. Souza, Shruti Arya, Christine D. Pollard, George Salem, and Kornelia Kulig..... 249

Force Enhancement of Quadriceps Femoris in Vivo and Its Dependence on Stretch-Induced Muscle Architectural Changes
Wolfgang Seiberl, Daniel Hahn, Florian Kreuzpointner, Ansgar Schwirtz, and Uwe Gastmann..... 256

Quantitative Analysis of the Limits of Stability in Sitting
Richard A. Preuss and Milos R. Popovic..... 265

A Morlet Wavelet Signal Analysis With a Daubechies Filter for the Wear Assessment of Hip Prostheses Coated With Diamond-Like Carbon by Triboadhesion
José María Rodríguez-Lelis, Dagoberto Tolosa Mata, Marciano Vargas-Treviño, José Navarro-Torres, Gilberto Piña-Piña, and Arturo Abundez-Pliego 273

The Effectiveness of Wrist Guards for Reducing Wrist and Elbow Accelerations Resulting From Simulated Forward Falls
Timothy A. Burkhart and David M. Andrews 281

Pelvic-femoral Kinematics While Ascending Single Steps of Different Heights
Richard W. Bohannon and Jason Smutnick 290

Sex Differences and Discriminative Value of Lower Extremity Alignments and Kinematics During Two Functional Tasks
Jennifer M. Medina McKeon, Craig R. Denegar, and Jay Hertel 295

A Marker-Based Mean Finite Helical Axis Model to Determine Elbow Rotation Axes and Kinematics in Vivo
Aaron Chin, David Lloyd, Jacqueline Alderson, Bruce Elliott, and Peter Mills..... 305

Effects of Training on Muscle and Tendon in Knee Extensors and Plantar Flexors in Vivo
Keitaro Kubo, Toshihiro Ikebukuro, Hideaki Yata, Naoya Tsunoda, and Hiroaki Kanehisa..... 316

Determination of the Drag Coefficient During the First and Second Gliding Positions of the Breaststroke Underwater Stroke
J. Paulo Vilas-Boas, Lígia Costa, Ricardo J. Fernandes, João Ribeiro, Pedro Figueiredo, Daniel Marinho, António J. Silva, Abel Roubosa, and Leandro Machado..... 324

Responses of the Trunk to Multidirectional Perturbations During Unsupported Sitting in Normal Adults
T. Adam Thrasher, Vivian W. Sin, Kei Masani, Albert H. Vette, B. Cathy Craven, and Milos R. Popovic..... 332

Treatment With Pharmacological Agents in Peripheral Arterial Disease Patients Does Not Result in Biomechanical Gait Changes
Jessie M. Huisinga, Iraklis I. Pipinos, Nicholas Stergiou, and Jason M. Johanning..... 341

The Reliability and Validity of a Three-Camera Foot Image System for Obtaining Foot Anthropometrics
Damien O'Meara, Benedicte Vanwanseele, Adrienne Hunt, and Richard Smith..... 349

Variability and Symmetry of Force Platform Variables in Maximum-Speed Running in Young and Older Athletes
Marko T. Korhonen, Harri Suominen, Jukka T. Viitasalo, Tuomas Liikavainio, Markku Alen, and Antti A. Mero..... 357

Technical Notes

Quantification of Soft-Tissue Vibrations in Running: Accelerometry Versus High-Speed Motion Capture
Aurel Coza, Benno M. Nigg, and Ladina Fliri..... 367

The Shoulder Distraction Force in Cricket Fast Bowling
Max C. Stuelcken, René E.D. Ferdinands, Karen A. Ginn, and Peter J. Sinclair..... 373