Record Nr. UNINA9910830372003321 Neuromuscular aspects of sport performance [[electronic resource] /] / **Titolo** edited by Paavo V. Komi Pubbl/distr/stampa Chichester, West Sussex, UK, : Wiley-Blackwell, 2010 **ISBN** 1-282-81772-8 9786612817724 1-4443-2482-9 1-4443-2483-7 Descrizione fisica 1 online resource (321 p.) Collana Encyclopaedia of sports medicine:: 17 Altri autori (Persone) KomiPaavo V Disciplina 612.044 613.7/11 Sports - Physiological aspects Soggetti Neurophysiology Muscles - Physiology Stretch (Physiology) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "An IOC Medical Commission publication." Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Neuromuscular Aspects of Sport Performance; Contents; List of Contributors; Foreword; Preface; 1 From Isolated Actions to True Muscle Function; 2 Stretch-Shortening Cycle of Muscle Function; 3 Utilization of Stretch-Shortening Cycles in Cross-Country Skiing; 4 Neuromechanics of the Cycling Task; 5 Kinetics and Muscular Function in Alpine Skiing; 6 Kinetics and Muscular Function in Ski Jumping; 7 Mechanical Efficiency of SSC Exercise; 8 Transcranial Magnetic Stimulation as a Tool to Study the Role of the Motor Cortex in Human Muscle Function 9 Contribution of In-Vivo Human Tendon Force Measurements for Understanding Tendomuscular Loading During SSC10 Ultrasound as a Tool to Record Muscle Function During Normal Locomotion: 11 Neuromechanical Loading of Biological Tissues: 12 Stretch-Shortening Cycle Fatigue; 13 Training Adaptation of the Neuromuscular System; 14

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## Sommario/riassunto

This new title in the Encyclopaedia of Sports Medicine Series from the Medical Commission of the International Olympic Committee presents in one volume the latest information on neuromuscular function in sport and exercise. Chapters combine basic mechanistic knowledge with true applications; Topics covered include neuromuscular fatigue, neuromuscular training, and musculoskeletal loading, and special chapters examine recently developed research methodologies used during natural locomotion: high speed ultrasonography (US) and transmagnetic electrical stimulation (TMES). An important additio