

Clinical Mechanics and Kinesiology

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Subjects: Biomechanics, Functional Anatomy.

Description: *Clinical Mechanics and Kinesiology with Web Resource* gives students of physical therapy, occupational therapy and athletic training a solid foundation that allows them to understand biomechanics and functional anatomy in relation to both normal and abnormal movement.

Purpose: The goal of the book is to provide a thorough understanding of biomechanics and kinesiology for all rehabilitation professionals and students.

Audience: The book is written for all clinicians and students involved in rehabilitation practice, including physical therapists, occupational therapists, athletic trainers and sports medicine physicians.

Features: The book is composed of 4 parts and 19 chapters, an appendix, glossary, references and an index at the end of the book. The book contains about 360 pieces of full-color art and a web resource providing an interactive

forum for reviewing regional structural anatomy. Part I is "Basic Biomechanics" covering the chapters "Kinematics" and "Kinetics". The second part named "Basic Muscle and Joint Physiology and Function" encompasses the chapters "Muscle and Nerve Physiology", "Muscle Performance and Function", and "Human Joint Structure and Function". Part III, "Regional Anatomy and Kinesiology", focuses on the following 10 anatomic area; "Cervical Spine", "Cranio-mandibular Complex", "Thoracic Spine", "Lumbar Spine and Pelvic Girdle", "Shoulder", "Elbow and Forearm", "Wrist and Hand", "Hip", "Knee", and "Foot and Ankle". Finally, Part IV is "Basic Movements and Clinical Application" and includes the chapters "Posture", "Walking Gait", "Running Gait", and "Cutting and Jumping".

Assessment: The three authors are highly knowledgeable and have more than 40 combined years of clinical and teaching experience. The book is in full color throughout and contains hundreds of figures to aid visualize structures and motion. Each chapter starts with chapter objectives, includes clinical correlations and key points, and has reviewer questions at the end. The clinical correlations, particularly, help students increase their understanding of biomechanics and kinesiology and apply theory to clinical practice.

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