

Clinical Biomechanics of Spinal Manipulation

Walter Herzog

Churchill Livingstone

Soft cover, 228 pages

ISBN 0-443-07808-4

This is an outstanding book and an ideal text for the researcher, field practitioner, resident and student. The book is comprised of six chapters and each of these 6 chapters has been authored by leading researchers and clinicians, who not only bring a unique perspective and approach to their chapters, but provide helpful insight to clinical and functional questions. Beginning with 'Basic Mechanics', this chapter provides an introduction to mechanics and also provides the reader with a series of sample problems in order to enhance their understanding of basic mechanics. The next two chapters, the 'Functional Anatomy of the Lumbar Spine and Thoracic Spine, and the Functional Anatomy of the Cervical Spine' provide the reader with detailed functional anatomy, kinematic relationships and functional significance of the lumbar, thoracic and cervical spines. In addition, these two chapters provide unique views on subjects such as 'How do people hurt their backs picking up a pencil?' or 'The degenerative spine and cervical spondylotic myelopathy'. Following these two chapters are chapters on 'The Mechanics of Spinal Manipulation and The Mechanical, Neuromuscular and Physiologic Effects Produced by Spinal Manipulation'. These two chapters are very detailed and review such topics as 'Theoretic Mechanics of the Manipulable Lesion' and 'Physiologic Effects Produced During Spinal Manipulation'. Finally the last chapter, 'Spinal Manipulation in the Clinical Management of Spine Pain', looks at selected case studies taken from a clinical practice.

The format of the book is quite good and easy to follow, however, there is a lot of scientific and clinical information which may take the reader a fairly long time to digest. Through out the book there are clinical and scientific highlights which are noted in 'box' form. These 'boxes' are well placed and very applicable. In addition, the tables, graphs, diagrams, photographs, radiographs and figures are also very well done, easy to follow and help illustrate key concepts.

This text focus is clinical biomechanics as it applies to spinal manipulative treatments and clinical practice and can be used on a daily basis. Not only is it extremely

applicable it will enhance the reader's overall understanding of clinical biomechanics. I highly recommend this text for all practitioners, clinicians, students and researchers.

Philip Conway, BPE DC

Adjunct Professor CMCC

Clinical Research Associate, Human Performance Laboratory,
University of Calgary

Skeletal Imaging:

Atlas of the Spine and Extremities

John A. Taylor DC and Donald Resnick MD

WB Saunders Company, 2000

1064 pages, hard-cover, \$200.00

ISBN 0-7216-7510-7

Authors Taylor and Resnick, both osteoradiologists, have produced a text of skeletal imaging which is organized into chapters according to anatomical region. This text is not only meant or designed for radiologists but for all clinicians who routinely interpret radiographs of the musculoskeletal system.

This atlas illustrates most skeletal disorders with numerous examples of plain films and complimented with advanced imaging (MRI, CT, radionuclide studies) when appropriate. It includes a description of the appearance of normal developmental anatomy and major anomalies and anatomic variants, and it demonstrates the full range of the most frequently encountered conditions including dysplasias, physical injuries, internal derangements of joints, articular disorders, and bone tumors as well as metabolic, hematologic and infectious diseases.

The book is divided into four parts. Part I introduces the reader to the general concepts of skeletal disorders in 17 tables which are later discussed and illustrated in other chapters in the text. Part II involves the spine and the sacroiliac joints. In each region the authors illustrate the more common and important conditions that are seen in every day practice. Part III covers the pelvis and lower extremities. The authors again include the commonly encountered conditions as well as the less common ones for consideration in a differential diagnosis.

Part IV covers the thoracic cage and upper extremities. The same theme is seen in this section.

The illustrations have been purposely enlarged and ac-

accompanied by a detailed legend describing and discussing each condition thoroughly leaving very little out. Each discussion is referenced for further investigation.

Overall I feel that this text will replace all of my other reference atlas texts. The authors state that they hope this text serves to increase the likelihood of accurate diagnosis when imaging studies of the musculoskeletal system are interpreted. I agree with the authors and believe that this text makes the reader a better diagnostician.

John R. Pikula DC, DACBR, FCCR, FCCS
Brantford, Ontario

Skeletal Imaging – Atlas of the Spine and Extremities

John Taylor, DC, DACBR, Donald Resnick, MD

W.B. Saunders Company, Toronto 2000

A Harcourt Health Science Company

The Curtis Centre, Independence Square West,

Philadelphia, Pennsylvania 19106

Harcourt Canada,

5 Horner Avenue, Toronto M8Z 4X4

Hard Cover, 1064 pages (\$203 Canadian)

ISBN 0-7216-7510-7

Skeletal radiography, when appropriately ordered and interpreted, is a valuable, reliable and non-invasive technique for clinicians whose interest or expertise lies in the field of neuromusculoskeletal disorders. Drs. Taylor and Resnick provide us with their superb text comprehensively addressing all the disorders affecting bone and joint in this encyclopaedic-like regional atlas. The text's layout departs from the standard "CATBITES" presentation of all other texts on osteo-radiology. The regional approach used makes it much easier for the clinician to locate information investigating and comparing radiographic signs with their own patient's radiographs. Also quite practical and very much appreciated are paediatric and anatomical variants sections included in each of the 17 chapters.

The authors are both unquestioned experts in the field of radiology; Dr. Taylor as a well-researched chiropractic radiologist and Dr. Resnick as a senior, respected author in medical radiology.

Chapter 1 requires a compulsory read-through for general concepts on disorders that characteristically affect multiple regions of the skeleton - this has been done to

avoid redundancy of discussion relating to general and systemic disease processes. In covering these concepts in executive-summary style, the chapter is an outstanding outline of tables covering the general characteristics of all the CATBITES disorders - students and clinicians preparing for licensure or radiology exams will be instantly drawn to this chapter. The other 16 chapters cover all regions of the spine, pelvis and lower extremities, and thoracic cage and upper extremities. The skull is not covered as a stand-alone chapter. There are 195 tables and 1,005 figures, over 2,000 photos in all, of exceptional quality with multiple views of a condition including complementary images to the plain film series, such as CT, MRI and radionuclide studies. Each chapter covers normal radiographic anatomy and developmental anomalies/variants essential in understanding pathological alterations; even a "sources of diagnostic error" discussion, as well as alignment abnormalities, trauma, arthritides, tumors, metabolic and haematologic disorders - bone and joint disorders affecting the child and adolescent are generously reviewed.

This Atlas has been prepared for both the student and seasoned clinician alike who wish a strong foundation in radiographic interpretation and the pathological anatomy of disorders affecting the skeleton.

This text, because of its regional approach provides a distinct and complementary place along side other great texts on radiology and at \$200 Canadian, it's a real bargain compared to similar books of its size.

Donald J. Henderson, DC, FCCS(C), FCCR(C)
Etobicoke, Ontario

Movement, Stability and Low Back Pain:

The Essential Role of the Pelvis

Edited by Andry Vlemming, Vert Mooney,

Chris J Snijders, Rob Stoeckart Churchill Livingstone,

650 Avenue of the Americas,

New York, N.Y., 1997. 10011 USA \$169.00 CAN

ISBN 0-443-05574-2

The interrelationship of movement between the spine, pelvis and lower extremities is not a new concept for most chiropractors. Assessing the working dynamic of the "human kinetic chain" is the basis of most chiropractic exami-

nations. While this is not a new subject area, this book successfully compiles ground-breaking research validating this important clinical concept.

Movement, Stability and Low Back Pain: The Essential Role of the Pelvis, is edited by A. Vleeming, V. Mooney, T. Dorman, C. Snijders and R. Stoeckart, an internationally renowned clinical group in pelvic biomechanics. Forty percent of its listed contributors are of medical background. However, this text provides a refreshing multidisciplinary approach intended for a full breadth of clinicians involved in manual therapy, including chiropractors, physiotherapists and osteopaths.

The purpose of the text is to present the clinician with current findings regarding movement patterns and mechanisms inherent within the body that provide stability to the low back and pelvis. The book presents well-substantiated descriptions of anatomy and biomechanical principles that provide evidence for the capability of the sacroiliac joint (SIJ) to produce pain associated with the low back. Several chapters are dedicated to the SIJ in terms of clinical tests and recommended treatments, among which SIJ manipulation is discussed.

The book is organized into two parts, entitled: 1) Basic Research; and 2) Clinical Aspects. Each part includes five sections which consist of several related chapters. Part One is comprised of sections entitled: Anatomy and Pathophysiology; Biomechanics; Mobility of the Sacroiliac Joints; Lumbopelvic Rhythm; and Evolution and Gait. This first section outlines theoretical concepts and combines them with concrete laboratory evidence. Part Two is most beneficial to the chiropractor and is focused on the clinical aspects of low back and pelvic pain. It has sections entitled Differential Diagnosis; Visualization; Pregnancy and Peripartum Pelvic Pain; Therapy; and Surgery.

The chapters within each section are written by authors from a variety of disciplines, each demonstrating unique

concepts in their approach to the assessment and treatment of low back and pelvic pain. Chapters of notable mention include: 1) Sacroiliac Dysfunction, Coupled Motion of Contralateral Latissimus Dorsi and Gluteus Maximus; its Role in Sacroiliac Stabilization; 2) Low Back and Posterior Pelvic Pain in Pregnancy and 3) The Muscles, Ligaments and Neural Structure of the Low Back and its Relation to Back Pain.

The text provides a concise review of low back and pelvic anatomy, with excellent photographs of clear dissections of the ligamentous structures and muscular relationships. One chapter, in particular, explains the concept of neurogenic inflammation and the role of sympathetic efferent fibers in chronic pain states of the lumbopelvic spine. Each chapter finishes with a conclusion that summarizes the main concepts in a point-by-point fashion. References are listed by author and year within the text; a format that proves useful to the reader.

There are two major limitations of note within this text book. The first relates to the lack of continuity in writing styles and format between chapters. This might be explained by the variety of contributing authors. The second limitation is the absence of chiropractic input within the text; a text that is so closely related to the fundamentals of our profession.

However, the totality of this work does represent a compilation of basic and clinical research aimed at directing the clinician towards effective assessment and management of conditions related to the spine and pelvis. From a chiropractic standpoint, this text is certainly useful as it validates many of the clinical principles and concepts used in everyday practice.

Rhonda Kirkwood, BSc, DC
Canadian Memorial Chiropractic College

Help Support Chiropractic Research

Become a member of the Canadian Chiropractic Research Foundation