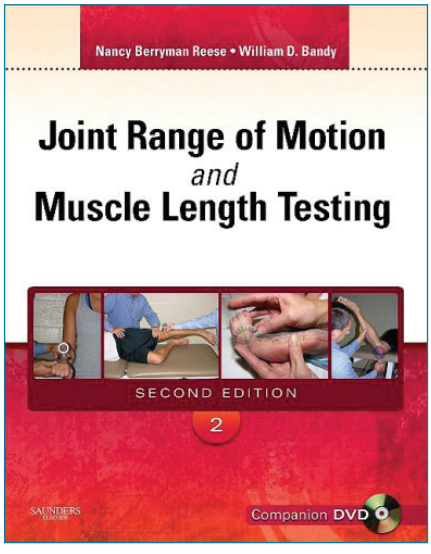
Joint Range of Motion and Muscle Length Testing (2nd Edition)

Nancy Berryman Reese and, William D. Bandy
2009
Saunders, Elsevier
Price: £38.99 Pp: 528
ISBN: 9781416058847



This book provides a wealth of information regarding the theory and practice of evaluating joint motion and muscle length. Chapters are arranged into five sections: 1 - history, basic principles and relevance of joint motion and muscle length assessment, 2 - the upper limb, 3 - the head, neck and trunk, 4 - the lower limb, and 5 - appendices, which contain sample data recording forms and a summary of the research on normative range of motion. Each chapter in sections 2 to 4 is focused on an anatomical area. These chapters provide detailed information on how to evaluate joint range of motion (or muscle length), as well as the anatomy and kinesiology theory that underpins these assessments. For example, chapter 3, 'Measurement of ROM of the shoulder' contains information regarding the anatomy, osteokinematics and arthrokinematics of the glenohumeral, sternoclavicular, acromioclavicular and scapulothoracic joints. Limits to motion are discussed and research is presented regarding the motion required to undertake functional activities. Techniques used to evaluate shoulder range of motion are described in detail, and include the patient position, stabilization, examiner action, goniometer alignment, alternative starting positions, and documentation procedures. Photographs are provided to increase the clarity of these descriptions. The chapters on muscle length assessment follow a similar format and all chapters are exhaustively referenced.

The chapters of this book are well set out, which made it easy to find information quickly. A strength of this textbook is that a vast amount of research evidence has been summarized. In fact, almost every chapter contains research evidence. However, the chapters on the reliability and validity of joint motion assessment are particularly useful. The authors provide summary data on the movement direction assessed, the technique used, the demographics and size of the sample as well as the reliability coefficient. In addition, this book includes a 16 page appendix which presents normative range of motion data, including the technique used and the sample demographics. Readers can therefore hypothesize why differences in normative values may occur between studies. Moreover, with this data, readers can calculate the standard error of measurement, which provides information regarding the magnitude of measurement error for each direction of movement in degrees.

A whole chapter of this book has been devoted to the measurement of pediatric movement. This chapter is focused specifically on how to evaluate joint motion in infants. The authors also present research evidence on changes in joint motion during childhood, and where available, across the lifespan. Moreover, a DVD accompanies the text, which features 120 assessment procedures which are covered in the book. This feature caters for different learning styles.

Because of this text's comprehensiveness and its easy to read format, it would be a useful resource for students, novice and experienced clinicians, particularly physiotherapists, occupational therapists and medical practitioners.

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Mechanisms and Management of Pain for the Physical Therapist

Kathleen Sluka (ed)
2009
International Association for the Study of Pain, Seattle, USA
Price: £54.62 Pp: 394
ISBN: 9780931092770

This book focuses on one of the most common and thorny symptoms in the history of rehabilitation, and presents all the information with regards to pain mechanisms and management as are supported by the literature.

The chapters of this book are divided into four parts. The first one consists of introductive issues referring to terminology and definitions, covering the physiology, the theories, and the mechanisms which relate to pain, and presenting patient variability according to sex, gender, age and social environment differences. The second section refers to pain rehabilitation from the physiotherapist's perspective and presents existing evidence on the assessment tools as well as the physical means (electrotherapy, thermotherapy and manual therapy) that contribute to the management of pain. The third part stresses the importance of the medical, physiotherapeutic and psychological involvement in pain management, while the fourth part explores specific pain syndromes and reports case studies of particular interest.

From a general point of view, this is a book designed for physiotherapists, nevertheless it also appears to be a useful tool for physiotherapy students, as it presents practical information as well as well-evidenced theory. Specifically, chapter 5 presents the tools used for the assessment of pain – a variety of different types of questionnaires and pain scales are demonstrated for the reader to explore. Chapter 19 presents case studies whose aim, as stated by the authors, is to educate the readers by applying the information provided by the book, in practice. This chapter definitely meets its purposes, as it allows for reflection on the best treatment, as based on the evidence of the book. Furthermore, chapter 11 clearly demonstrates the role of different disciplines on pain management, and educates students on professional boundaries, and the role that they should play as future physiotherapists within the rehabilitation team. It also reveals the way that they can use the physiotherapy tools they have at their disposal based, on the best evidence.

Chapters 7 to 10 report the possible mechanisms involved in the use of electrotherapy, thermotherapy and manual therapy, followed by reviews of physiotherapy clinical applications (TENS, ultrasound, diathermy etc.) and an exploration of their effectiveness based on the literature. Chapters 14 to 18 illustrate the importance of interdisciplinary collaboration for the rehabilitation of specific pain syndromes such as fibromyalgia, myofascial pain, headache etc. by presenting their management from the medical, the physiotherapeutic and the psychological point of view.

All in all, this is a scientific piece of work which presents valuable information to the physiotherapy educator, student and clinician, since it gathers, in a concise manner, all the well-referenced and evidence-based information that physiotherapists need for their practice. Indeed, not only does it guide them on the therapeutic protocols that should be used in order to achieve maximum potential in patients' rehabilitation, but it also stresses the importance of the collaboration of different health professionals for the effective management of pain.

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