

Hypermobility of Joints

by: P. Beighton, M.D., R. Grahame, M.D., and H. Bird, M.D.
Springer Verlag, Berlin - Heidelberg
New York, 1983, 1978 pages.

This book is a definitive and well illustrated review of a topic that is of considerable importance to those who deal with locomotor diseases in man.

The text is divided into three sections. Sections one and two deal with the basic aspects and the clinical aspects of hypermobility respectively. The reader will find a comprehensive review of the existing clinical and biometrical methods for assessment of the range of joint movements and the practical application of these techniques, that are designed for detecting the patient who is suspected of displaying generalized joint hypermobility. The structure and function of connective tissue are discussed covering areas relevant to histopathology and collagen chemistry.

If this text has a weak area then it may be found in section two, when the authors deal with the clinical features of hypermobility and the management of articular complications in the hypermobility syndrome. This is largely due to the fact that this book has been written by rheumatologists and a geneticist, and therefore offers little specific information on these aspects from the point of view of "joint-mechanics" and manipulative therapy.

Therefore, some chiropractors may find this part of the text of limited value. However, one must credit the authors for including 32 illustrative case histories and an excellent chapter on hypermobility in the performing arts and sport.

In section three, genetic syndromes in which hypermobility is a major component are described in detail.

This book is written in a clear and concise manner which allows for easy reading. The nature of the topic reviewed should obviously be of great interest to anyone who deals with the musculoskeletal system, practitioner and student alike.

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Entrapment Neuropathies

by D. Dawson, M. Hallett and L. Millender
Little, Brown and Company, Boston/Toronto 1983
307 pp. illus., \$46.25

"Entrapment Neuropathies" is an extremely beneficial and pertinent textbook. The book is written by two associate professors of Neurology in conjunction with a clinical professor of orthopaedic surgery. They approach the subject of nerve entrapment from a clinical, neurologic and treatment point of view.

The text consists of 16 chapters each approaching a specific entrapment neuropathy based upon the location of impingement.

The median and ulnar nerves have two chapters each dedicated to two of their most common sites of entrapment. Sciatic nerve and

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peroneal nerve entrapments are not dealt with extensively because they are felt to be uncommon. Lateral femoral cutaneous nerve, radial nerve and tarsal tunnel syndrome are also covered to a lesser degree. Thoracic outlet syndromes are discussed as one and the reader is left with references, should they wish to pursue the three types in greater depth. Miscellaneous syndromes (Morton's toe neuroma, saphenous nerve, ilioinguinal nerve, femoral nerve, axillary nerve, musculo-cutaneous nerve, etc.) that are even less frequently seen, are also mentioned with emphasis on presenting signs. The final three chapters deal with neurologic differential diagnosis of nerve entrapments, as well as, the pathophysiology of nerve damage and electrophysiologic techniques used to determine the extent of the nerve damage.

When taken separately each chapter is a complete explanation of a syndrome. The reader is introduced to the topic with a description of prevalence, incidence and typical presentation. This is followed by an exceptional review of clinical features which explore the signs, symptoms and the physical findings (both sensory and motor disturbances). A section is then devoted to the etiology of the entrapment. A thorough review of the anatomy, as the nerve courses through the region is usually provided at this stage. In the more common syndromes, such as a Carpal tunnel, the etiology section provides an excellent description of disorders which may precipitate the entrapment (i.e. Rheumatoid flexor tenosynovitis, Polymyalgia Rheumatica, pregnancy, vitamin deficiency, etc.). Differential diagnosis for each syndrome are provided in each chapter. These usually include radiculopathies, central nervous system lesions or vascular disorders. The final part of the chapter discusses the treatment. This is broken down into non-surgical treatment (conservative management) and surgical treatment. The authors spend time describing the surgical technique and support this with descriptive pictures of the procedure. The chapters also tend to have pictures which demonstrate the clinical features of muscle wasting and decreased function of muscles for their respective entrapments.

A chapter solely on differential diagnosis further introduces the reader to disorders that may damage nerves in a focal manner. These conditions include metabolic, vascular, inflammatory and degenerative diseases which may resemble the entrapment neuropathy. Ailments such that they cause, demyelination, symmetrical or asymmetrical polyneuropathies, vasospastic conditions, amyotrophic lateral sclerosis are discussed based on how to differentiate them from an entrapment neuropathy.

Pathophysiologic changes to the nerve are further provided in detail in a separate chapter. The events during nerve injury such as Wallerian degeneration are discussed in a basic introduction. Classifications of nerve injuries are provided from literature reviews, as well as, with histologic observations. The electrophysiologic techniques utilized are reviewed providing specific examples. Information is offered on the motor and sensory stimulation tests that should be standardly used to evaluate the degree of nerve injury. The test findings are considered according to what they would indicate and why.

Unfortunately, for the chiropractic reader, the authors have written the textbook for neurologists and orthopaedic surgeons. This results in parts of the treatment sections providing a practical discussion on surgery for the treatment of entrapment disorders. For a chiropractor

this provides little information other than a chance to see how other health care professions, would perform their treatment. However, ignoring this emphasis, the authors are able to stress the need for early detection and conservative care before the condition progresses.

The textbook, therefore, provides for an excellent reference text on peripheral nerve entrapments. The subject matter is adequately referenced and supported with pictures and illustrations. The clinical features sections are well worth reviewing as they give an accurate and concise description of entrapment conditions. The authors provide multiple differentials which should be considered before developing a diagnosis. While the authors view radiculopathy in a different context than a chiropractor, it is apparent that such a nerve root lesion could account for, or assist in (as in a "double crush" syndrome) precipitating a nerve entrapment. They offer a conservative treatment regime that would be of assistance if used early in the development of a disorder. Finally they make it apparent at what stage of progression a referral might be considered.

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Physiology of Aging - A Synopsis
by Richard A. Kenney
Yearbook Medical Publishers, Chicago, 1982
pp: 137/illus. \$19.00

This eleven chapter book attempts to condense a vast array of information into 137 pages. It is written for the practitioner who would like to refresh his understanding of the elderly or for the student who is just beginning to question what goes on throughout the aging process. There is an assumption made that the reader has a basic background in physiology thereby allowing the author to concentrate on what occurs with the aging of the various tissues. The book describes the functional changes that will occur with aging and then separates the normal from the common pathological changes seen. The general overview is enough to entice the reader to investigate further. This is aided by a suggested reading list following each chapter.

The information is divided into three subsections that are logically arranged and easy to follow. The first section incorporates statistics on life span, body composition and conformation and theories on the aging process. The second section follows a systematic approach to the aging of organs in the individual body systems. The final section touches on other concerns such as nutrition, drug use and sleep.

With the advances in health care technology, the geriatric population (aged 65 or over) has increased eight fold in this century alone. It is increasingly evident with hospitals and old age homes filled to capacity that this is indeed true and therefore the health care practitioner will see an ever expanding clientele of geriatric patients. In 1982, the geriatric population was 11% in the United States and it is estimated to be as great as 1 in every 8 members of the population will be over 65 by the year 2000. Although these statistics are four years old, the consensus is that they will be achieved. The author does not belabour the statistics but he is able to give the reader an

impression of an increasing geriatric population.

It is suggested that aging might be due to a decreasing ability to survive stress. This leads to a look at:

- 1 how aging may impair homeostasis and,
- 2 aging as an immune response phenomenon

Reactions to stress occur more slowly in the elderly and therefore regulation or adaptation to these stressors is impaired. With increasing age, lymphoid tissue is lost, this developing immunodeficiency may result in a delay of cellular function.

Other theories of aging that are postulated are:

- 1 Cellular aging as a programmed phenomenon. All cells will bear a specific "death" gene, except for germ cells and transformed cells.
- 2 The Error Theory. This suggests a faster metabolism creates a greater chance of error in D.N.A., R.N.A. replication resulting in cell death.
- 3 There is a failure of the cellular repairing mechanisms.
- 4 A hormone is produced which reduces cellular response and results in death. This hormone is believed to be a derivative of the pituitary gland.

The bulk of the text deals with the aging of the tissues and organ systems. Very little emphasis is spent on the musculoskeletal system. There is a greater emphasis on changes to the nervous system as they pertain to the brain, cerebral blood flow, neurotransmitters, reflexes, reaction time and the aging of the senses. The cardiovascular, respiratory, urinary and alimentary systems are all reviewed and changes seen reported. The contents are geared towards the physiological changes that are seen and therefore would appear to be of no use to a practitioner in the field. There is, however, a fair amount of information pertaining to the clinical signs seen with aging.

Despite the lack of depth necessary for a physiologist, this book offers clinical information of use both to the practitioner and student. This text would serve as an aid to the practitioner in explaining the aging process to the geriatric patient while reviewing a case.

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