

THIRD EDITION



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Advanced  
Soft Tissue Techniques

# LEON CHAITOW

## Modern Neuromuscular Techniques

Contributors

Judith DeLany • Dennis Dowling • Howard Evans

Foreword by César Fernández-de-las-Peñas

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# Modern Neuromuscular Techniques

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# Modern Neuromuscular Techniques

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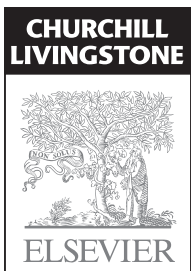
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# Abbreviations

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<b>ACh</b>	acetylcholine	<b>MI</b>	mechanical interface
<b>ASIS</b>	anterior superior iliac spine	<b>MPS</b>	myofascial pain syndrome
<b>ATP</b>	adenosine triphosphate	<b>MRT</b>	myofascial release technique
<b>CFS</b>	chronic fatigue syndrome	<b>NGF</b>	nerve growth factor
<b>CNS</b>	central nervous system	<b>NGP</b>	noxious generative point
<b>CSF</b>	cerebrospinal fluid	<b>NMT</b>	neuromuscular technique/therapy (USA)
<b>CTM</b>	connective tissue massage	<b>PINS</b>	progressive inhibition of neuromuscular structures
<b>EAV</b>	electroacupuncture according to Voll	<b>PIR</b>	post-isometric relaxation
<b>EMG</b>	electromyography	<b>PNF</b>	proprioceptive neuromuscular facilitation
<b>FMS</b>	fibromyalgia syndrome	<b>PRT</b>	positional release technique
<b>FPR</b>	facilitated positional release	<b>PSIS</b>	posterior superior iliac spine
<b>GAS</b>	general adaptation syndrome	<b>RI</b>	reciprocal inhibition
<b>HIV</b>	human immunodeficiency virus	<b>SCM</b>	sternocleidomastoid
<b>HSZ</b>	hyperalgesic skin zone	<b>SCS</b>	strain/counterstrain
<b>HVLA</b>	high-velocity low-amplitude	<b>STM</b>	soft tissue manipulation
<b>HVT</b>	high-velocity thrust	<b>TCM</b>	traditional Chinese medicine
<b>INIT</b>	integrated neuromuscular inhibition technique	<b>TFL</b>	tensor fascia lata
<b>LAS</b>	local adaptation syndrome	<b>TMJ</b>	temporomandibular joint
<b>MET</b>	muscle energy technique		

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# Foreword

It is my pleasure to write the foreword for the third edition of the textbook *Modern Neuromuscular Techniques* edited by Leon Chaitow. As always the editor has done excellent work by incorporating the expertise of other authors, in order to improve the quality of this essential textbook, written for manual and physical therapists, osteopaths and chiropractors. Chaitow is an Osteopathic Practitioner and Honorary Fellow at the University of Westminster, London, UK who combines clinical practice, teaching and writing activities. He is also the Editor-in-chief of the *Journal of Bodywork and Movement Therapies*, one of the most important clinical journals in Europe. Chaitow has written many textbooks, a number of which focus on manual approaches employed in the management of chronic pain and dysfunction. One of these excellent textbooks is the current one.

This textbook provides the most current information relating to the range of modalities known as Neuromuscular Techniques (NMT). The book's lead author and contributors have combined both clinical and scientific experience with an in-depth knowledge of the literature, to analyze, integrate, and present useful information and guidelines relevant to the practicing clinician. There are different forms of application of NMT, and most are covered in this edition, from classical European (Lief's) NMT, to the American model of Neuromuscular Therapy (also abbreviated as NMT), as well as a fascinating chapter on the merging of NMT with Thai massage. This

is appropriate since European NMT has at least part of its roots in Ayurvedic massage, as explained in the introductory chapters. Another important feature of this edition is the inclusion of an appendix that outlines the work of Raymond Nimmo DC, a contemporary of the early researchers into our understanding of myofascial pain and trigger points. As explained in early chapters, Nimmo's work strongly influenced American NMT, and there remains much to learn from his early chiropractic exploration of the aetiology and treatment of soft-tissue pain and dysfunction.

The clinical usefulness of NMT is acknowledged worldwide as both an assessment and treatment tool for the management of soft tissue disorders. NMT can be used for deactivating trigger points (TrPs) as well as for improving circulation of fascial tissues (Simons et al, 1999). Ibañez-García et al. (2009) demonstrated the effectiveness of NMT for the management of TrPs within the masseter muscle. Other authors have proposed NMT as one key element for the management of headaches (Palomeque-del-Cerro & Fernández-de-las-Peñas, 2010). In fact, in clinical practice NMT methods are commonly combined with other manual local techniques, e.g. ischemic compression, positional release and muscle energy techniques, for inactivating TrPs (Palomeque-del-Cerro & Fernández-de-las-Peñas, 2010). In my own clinical practice, NMT is one key element for the management of soft tissue disorders, in different chronic pain conditions, such as lateral

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epicondylalgia, tension type headache, carpal tunnel syndrome, fibromyalgia, low back and neck pain.

The editors, authors, publisher, illustrators, and all others involved in the production of this book can be justifiably proud of the final product. I hope you, the reader, will find the important, timely information that it contains, useful in assessing, treating and managing your patients. If both patients and clinicians benefit, then the

efforts of people involved in compiling this text will have been well worth it.

César Fernández-de-las-Peñas, PT, DO, MSc, PhD

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# Preface

“What are neuromuscular techniques (NMT)?”

If this subject (NMT) is new to you, that would be a reasonable question to ask.

Simplistically, and literally, the answer would point to NMT comprising methods that involve the nervous system and the musculoskeletal system - which realistically would involve almost all manual therapy techniques and modalities.

However, a more focused and accurate use of the term NMT exists – and this relates to manual treatment of soft tissue dysfunction in general, and myofascial (trigger point), and other reflexogenically related aspects of dysfunction, in particular.

The roots of NMT, as it evolved in the USA and Europe, are outlined in the opening chapters (particularly chapter 2). There the work of a few key individuals responsible for the body of knowledge that informs what we now term NMT, is described. These include the many years of study, innovation and development, by pioneer British osteopath and naturopath, Stanley Lief, his son Peter Lief ND DC, and his cousin Boris Chaitow ND DO DC. Across the Atlantic Raymond Nimmo DC – an innovative US based chiropractor - as well as the two premier researchers into myofascial pain, Janet Travell MD and David Simons MD added additional clinical and research dimensions.

While these early chapters mirror what was in earlier editions, the content has been updated to take account of recent research

The ways in which the efforts of those named individuals (and others), working separately and sometimes in combination, matured into our current understanding of myofascial pain, and how it can be treated, are therefore detailed in the

opening chapters, while novel material regarding Nimmo’s concepts, as well as a current review of chiropractic approaches to myofascial pain, is contained in an important appendix.

Understanding how myofascial pain evolves offers the best means for preventing and eliminating it – with chapters 3 and 4 focusing specifically on trigger point and other reflexogenic phenomena.

Following on from that, chapter 5 discusses diagnostic and assessment approaches, followed, in chapters 6 and 7, by details of the methodology of European (‘Lief’s’) NMT, both for the spine and abdomen. A separate chapter (8) details and discusses associated methods, modalities and techniques, while chapter 9 outlines an extremely useful combinations of NMT modalities in trigger point deactivation, as well as other clinical approaches.

In a fully updated chapter 10, American neuromuscular therapy is then reviewed and outlined, with specific examples, by the gifted therapist, author and teacher, Judith Delany. In a chapter on progressive inhibition of neuromuscular structures, (11) osteopathic professor Dennis Dowling describes this innovative pain management approach which has distinctive echoes of NMT.

Howard Evans, in his chapter on Thai massage and NMT (12), skilfully blends these two approaches. Howard obtained his Masters degree in Soft Tissue Manipulation approaches at the University of Westminster, London in the 1990’s, and since then has developed ever more subtle variations of NMT and Thai yoga massage.

As mentioned above, the appendix contains expanded material on the Nimmo approach – the pioneer whose work is first introduced in the opening chapters.

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This third edition of *Modern Neuromuscular Techniques* has therefore been conceived as a offering revision updates, as well as new material – emphasising the relevance of NMT to a wide

spectrum of professions – many of which contributed to its origins – physical therapy, osteopathy, chiropractic, massage therapy, Thai yoga massage – and more.

Leon Chaitow

Corfu, Greece, April 2010

# Dedication

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The death of David Simons MD (1922-2010), on April 5<sup>th</sup> 2010 demands recognition. He was working on a revision of his magisterial trigger point manual until days before he passed away – heading for (as he circulated to family, friends and colleagues) his “next great adventure”.

David was also a pioneer of space exploration. On August 19, 1957 he became the first man to travel into outer space in a pressurised gondola travelling to over 100,000 feet as part of the Man High Project. He had volunteered for this 36 hour venture to study the effects of cosmic radiation on living tissue – his own!

David was the last survivor of those whose clinical work, research and writing allowed NMT to evolve. His historically important texts *Myofascial Pain and Dysfunction: The Trigger Point Manual, Volumes 1 and 2* (co-authored with Janet Travell) remain unparalleled in their detailed descriptions and analysis of causes and treatment options, of myofascial pain in general, and trigger points in particular.

This book is dedicated to David, with grateful thanks.

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