

Maintaining Body Balance, Flexibility and Stability

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Maintaining Body Balance, Flexibility and Stability

A Practical Guide to the Prevention and Treatment
of Musculoskeletal Pain and Dysfunction

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The Publisher

Contents

Foreword	vii
Preface	ix
Acknowledgments	xv
1. The different forms of muscle energy technique	1
2. Testing for shortness in muscles	17
3. Muscle energy techniques: treatment and self-treatment methods	51
4. Trigger points and their importance in pain control	103
5. Self-mobilization methods	117
6. Strength plus endurance equals stability	133
7. Balance, agility and breathing	163
8. Introducing positional release technique and strain and counterstrain	173
Index	189
<i>Exercise sheets (inside back cover)</i>	

Foreword

I first met Leon Chaitow in 1988 when he taught a workshop in soft tissue manipulation in Seattle, Washington. What I learned in that workshop changed forever the way I would practice medicine. I was shown a set of tools that has allowed me to be far more help to my patients than I might otherwise have been. To this day, I use these techniques with almost every patient I see whether their complaint is musculoskeletal or not.

The human body is a complex collection of bones, muscles, connective tissues, nerves, and organs. It is all of these parts, working together in concert, which make us what we are. The important part of that last sentence is ‘working together’. When these parts aren’t cooperating, disease and dysfunction result.

In a very real sense, we are what we have become as a result of our adaptation to stress. We may adapt well or we may adapt poorly, but we *will* adapt in some way. What should be obvious is that we need to learn to adapt well. Unfortunately, much of our adaptation is without thought and intent and becomes maladaptation. We survive, but we don’t function well.

Stress causes us to prepare for ‘fight or flight’, but we don’t fight or fly, we just stay tight and ready. We armor, we guard, and we never let go. Many of us sit all day slumped in front of a computer or over a desk with our heads forward and our shoulders up. Eventually our brain begins to think that’s the position we want to be in and we adapt. Then we develop mid back pain and perhaps chronic headaches. Often we begin to develop numbness and tingling in our arms and hands that some inexperienced doctor thinks is carpal tunnel syndrome and off we go to surgery that doesn’t help. Instead, we should be stretching the muscles in our neck and back that are crushing the nerves to our arms. We should learn a better adaptation to that stress.

Sitting, we allow the muscles in the front of our thighs to shorten and tighten and when we stand up that tension pulls our pelvis forward. When that happens, we adapt with a ‘sway back’, develop chronic low back pain and occasionally sciatic neuralgia. And it’s off to surgery we go for a herniated lumbar disk that isn’t really the problem.

I recently saw a patient with this very condition. He had been treated with chiropractic. He had been treated with massage. He had been treated with strengthening exercises by a physical therapist. He had been sent for an MRI that showed a little disk disease, but he never got any relief from his low back pain. A friend suggested that he come to see me.

I found that his quadriceps were tight (the muscles in the front of his thighs), his pelvis was tilted forward, and his low back muscles were tight and short as they adapted to the anterior tilt of his pelvis. I stretched his quadriceps and low back extensors, adjusted his lumbar spine and pelvis, and showed him how to

stretch at home. After two visits he came back, said he felt better than he had in 10 years, and asked me why no one had shown him the stretches before. All I could say was ‘nobody who you saw knew’. With this book, no one has an excuse for not knowing.

It is through the application of simple, straightforward techniques such as those presented here that we learn a better way to adapt. I believe that everyone alive today would benefit from the advice contained here. For those persons lucky enough to have a practitioner who uses these techniques the book will act as a reminder and guide for self-care. For anyone not that lucky, it may act as a guide in the selection of a new (and better) practitioner.

I, and several thousand of my patients, owe a debt of gratitude to my friend Leon Chaitow for introducing me to this work. Since 1990 I have taught much of this material to my students at Bastyr University and it has served them well in their practices also. I hope that you find the information contained herein to be as useful for yourself. And I hope that you introduce the book to your friends and families so that they might obtain and *Maintain (ing) Body Balance, Flexibility and Stability*.

Douglas C. Lewis
Washington, USA, 2003

Preface

How to use this book

The most common problems we take to our doctors relate to aches and pains and restrictions of the musculoskeletal system, the ‘machinery’ of the body. There is a great deal that individuals can do for themselves to prevent such problems, as well as to help in treatment and rehabilitation once problems have occurred.

The book is not intended to be a substitute for professional attention and treatment, but should be used to support the treatment and guidance of the treating practitioner. It offers ways of preventing new or recurrent musculoskeletal problems as well as outlining first-aid options for the self-management of aches, pains and restrictions until professional advice and treatment can be obtained. The book also contains numerous options for self-application of toning, stretching and mobilizing exercises which may be used as part of a planned recovery and rehabilitation program under the guidance of a medical doctor, chiropractor, physiotherapist, osteopath, massage therapist, athletic trainer or other healthcare provider.

The individual exercises and techniques described and illustrated should therefore be seen as ways of complementing professional attention, not as a substitute for this. Practitioners may wish to recommend that their patients refer to the book as a reminder on how to carry out the exercises and techniques they have instructed them to use. Many common muscle and joint problems can be eased by the use of self-help variations of osteopathic systems of care, known as muscle energy technique (MET) and strain/counterstrain or positional release technique (PRT). A detailed summary of these useful and safe first-aid bodywork methods is given in later chapters. Most descriptions of self-help exercises or techniques will contain details of the aims and objectives of the particular method and the correct position to get into, how to perform the maneuver and the timing and frequency of the exercise or technique.

Sometimes there will also be notes on particular patterns of breathing and eye movement to assist in successful application of the method. Choices for helping to prevent, or to ease, musculoskeletal problems are therefore easy to identify, either for first aid, or as homework following the advice of a healthcare provider.

In general, if a muscle or joint restriction exists, one or other of the variations of MET can be used to produce more relaxed soft tissues, so that stretching or increased range of movement can follow. If muscular weakness exists, other versions of MET can be used to increase tone and strength. Before using any of these methods it is important to recognize that if any pain is felt while performing them, which is more than simple discomfort, they should be

stopped. If the correct technique has been selected, and is used as described, then there should be no pain. Detailed descriptions of how MET works are given in Chapter 1.

MET, when used to generally loosen muscles which have become tight, whether through misuse or overuse, is safe and effective. However, it is important to remember that the human body is complex, and apart from using these methods as first aid, individuals should always seek the advice of a qualified expert before applying MET or other self-care methods.

Traditionally, the methods used in osteopathy to release and relax tense, tight muscles and joints have involved a variety of maneuvers in which the tissues have been stroked, stretched, pressed and generally manipulated by the practitioner. In recent years we have learned to better understand the ways in which the muscles and other soft tissues work, and this has led to new methods of treatment. Some of these are suitable for self-use because they are so safe and gentle that it is almost impossible to cause harm.

The words ‘muscle energy’ suggest that the effort and energy of the person or patient performing the movements provide the primary force involved in the process, as distinct from the effort and energy of a practitioner.

The conditions which can be helped, and often completely overcome by these methods are many, and include a wide range of joint and muscle complaints involving stiffness, restriction of movement, pain and disability. If the problem involves actual pathology, such as an arthritic condition in which damage has occurred to aspects of the joint surface, then the amount of possible improvement from use of (say) MET would be limited by the structural damage. Even so, even with an arthritic joint in the background, MET methods should usually be able to produce some degree of improvement in movement or reduced discomfort, even if this is not always long lasting.

MET methods can be used to strengthen weak muscles as well as to loosen tight ones. Not all the variations of MET are suitable for self-application, as some require the restraining or supporting hands of another person. A family member or friend can often provide this extra pair of hands if the method has been approved by the practitioner/therapist. In many situations an expert is required to control the precise directions and degrees of effort, and so in the text of this book I have attempted to indicate just where self-use is possible, and where outside aid is necessary.

It is recommended that anyone attempting to use any of the individual techniques and exercises described in later chapters should first ensure that they understand the reasons for the use of these methods and their underlying mechanisms. There is no more certain way of failing to obtain benefits than by wrongly using what appear to be simple methods.

The most common mistakes made when using MET are those which involve excessive use of force, over too prolonged (or too short) a period of time. Apart from the direction in which the effort is made, these two factors are the most important, and emphasis will be placed on them many times.

Essential questions to ask are, therefore:

- For how long must a MET effort be maintained?
- With what degree of force?
- In which direction(s)?
- And what should be done after the contraction is complete?

These are the key elements in muscle energy technique.

CAUTION

- In none of the methods which will be described in this book should any pain result.
- If pain is felt whilst they are being done, stop immediately.

Excessive effort is never required, and if there is any pain then either the choice of method, or the way it is being used, is incorrect.

Positional release methods

Positional release technique (PRT) methods, such as strain/counterstrain, can also usually be effectively used to deal with painful recent strains, before, after and instead of muscle energy techniques. These are described in Chapter 8.

Once the principles of MET and PRT have been well understood they can be modified to help most muscle and joint problems. PRT methods (such as strain/counterstrain) are most useful in treating conditions where spasm and contraction are features. This sort of acute problem is often associated with injury or strain. The distressed tissues can often be gently ‘persuaded’ to release by careful positioning of the area or joint, using a local tender point as a guide to the most suitable position for this release (this will be explained more fully in Chapter 3). No gentler method exists for relief of injury, especially if this is recent. Such methods are just as suitable for self-help use as muscle energy techniques.

Core stability

Self-mobilization and exercise are self-explanatory terms, and the examples selected for inclusion in this book will be found to offer a variety of means for freeing restricted, tight areas, as well as for maintaining freedom once achieved. Prevention of future problems is also the aim in many of the exercises and techniques described. In recent years we have learned a lot about the degree of stability that is provided to the back when the muscles of the trunk – both front and back – are in balance. All too often the low back muscles are very tight and the abdominal muscles are weak and flabby. This problem (described as a ‘crossed syndrome’) is best corrected by first having treatment to release and stretch the tight low back muscles (and often the hamstrings and other upper leg muscles as well) before the process of strengthening the weak abdominal muscles is started. The term used to describe the objective is creation of ‘core stability’, and a number of the exercises in Chapter 6 can help to achieve this.

Local pain and referred pain

In many cases of musculoskeletal pain there is an element of referred pain or reflex activity, in which the area of pain is actually some distance from the source of the problem. In Chapter 4 the nature of so-called ‘trigger points’ that may

be responsible for some pain problems is outlined. A variety of methods have been used in which the trigger points are deactivated, and some of these will be explained, using combinations of MET, PRT and other methods.

CAUTION

Apart from being used as first aid, while waiting to see an appropriate healthcare provider, the methods described in the book should only be used where the cause of the problem is understood. There is little value, and there may be risks, in attempting to minimize stiffness and pain if the cause lies in a disease process which is being ignored. On the other hand, if attention is being paid to underlying conditions, there are few areas of soft tissue and joint disability and pain which cannot benefit – even if only in the short term – from the intelligent use of the soft tissue manipulation methods described in later chapters. Many osteopaths, chiropractors, physiotherapists and massage therapists are now employing these techniques because they are gentler and safer than many traditional methods or treatment. Most practitioners are also teaching their patients simple home applications, especially of MET, and it is hoped that this handbook will expand that trend, along with the use of home-applied core stability, balance and agility exercises.

Osteopathy: The background of these methods

Osteopathic medicine is now over 120 years old, and is established in its home country, the USA, as a complete alternative medical discipline, incorporating much of mainstream medicine as well as unique approaches and concepts arising from a deeply held holistic philosophy of health. This philosophy sees the person as an integrated whole, in which mechanical dysfunction is capable of affecting the overall health of a person just as markedly as can psychological and biochemical (e.g. nutritional) influences.

In Europe and other parts of the world osteopathy has become synonymous with care of musculoskeletal problems and body maintenance. Over the past century the methods and techniques of osteopathy have continued to evolve and develop, until today osteopathic practitioners have at their disposal an array of methods, techniques and systems from which to choose in dealing with the various multiple dysfunctions of the human machine. Many of these methods (including MET and PRT) are also now widely used by physiotherapists, chiropractors and massage therapists.

Osteopathic healthcare and body maintenance *always* takes account of causes rather than simply treating the obvious symptoms. A joint problem, for example, would be looked at in relation to the other structures of the body and how they influence it, and how it influences them, as well as the way the person uses (and possibly abuses) their body in daily use: their working and sporting activities, postural habits, emotional stresses, etc.

A knee problem, for example, might be due to actual injury to knee structures, but it might just as easily be caused (or aggravated) by imbalances and restrictions in the foot, the hip, or even the low back or pelvis. It might be due to local soft-tissue damage, or to irritation (muscle, tendon, joint capsule, cartilage, ligament), or to nerve irritation some distance away. All these elements, added to the history of the individual, provide the osteopathic practitioner with a broad overview of the problem, and an understanding of what is required, not only to help the present symptom picture, but to prevent recurrence, if this is possible. In recent years emphasis has increasingly been toward a greater appreciation of the importance of the soft tissues in normalizing and easing such problems. In modern healthcare provision, which bases much of its choice of treatment on what has been proven by research, these same (osteopathic) principles are usually to be found embedded in the practice of physiotherapy, massage therapy and chiropractic.

Tone, strength flexibility, agility and balance

The soft tissues include the muscles, ligaments, fascia, tendons, etc., which provide the supportive matrix which normal bodily function requires. When joint problems exist attention should first be given to the soft tissues, when attempting to normalize joint function. It is after all the soft tissues which support and move the joints.

The methods which make up the bulk of this book are therefore those which pay particular attention to the soft tissues, and many of these methods can (and indeed should) be self-applied at home as part of the homework aspect of professional care. The methods, techniques and exercises outlined in this book are therefore meant for first-aid and short-term use, or as part of rehabilitation and prevention regimes. They may usefully accompany, precede, or follow regular osteopathic, chiropractic or other manual treatment. Your practitioner/therapist should therefore help you to select for home use appropriate methods from the book that meet your specific needs.

So what is on offer in this book are methods anyone can use to loosen what's too tight, to stabilize and strengthen what's not strong enough, and to create better balance between the 'tight' and the 'loose' structures. Better agility and balance is another objective, and some special guidance will be given to help you achieve this if it is a problem.

London, 2003

Leon Chaitow

Acknowledgments

Many years ago, in a small book entitled ‘Osteopathic Self-treatment’, I attempted to lay out, in user-friendly terms, for practical self-application, methods derived from osteopathic medicine. Although this now out-of-print book sold well, it was soon clear, from letters and calls, that many of the people purchasing it were therapists and practitioners, rather than the general public for whom it had been designed. Now, in this new, and completely revised and expanded version, this book is directed toward the needs of the therapist and practitioner, to use in collaboration with their patients to help construct individualized programs of ‘home work’. I wish to acknowledge the main lesson taught by that first incarnation, that without the professional input of trained healthcare providers, ‘self-help’ can often produce inadequate results.

Although osteopathy is the primary source of many of the methods described, the content of this book also relies on the pioneering work of many – too many to list – medical physicians, physiotherapists, exercise physiologists, chiropractors, massage therapists and others, who have over the years devised useful ways of helping people to apply safe self-care and rehabilitation methods at home. Without the experience of these many experts it would have been impossible to compile the series of exercises and programs that make up the bulk of this book.

I wish to also acknowledge the great help received from the Churchill Livingstone publishing team in Edinburgh in the production of this book.

Leon Chaitow

