This book is intended as an introduction to neural therapy for the average general physician who has no previous knowledge of the subject. It should also have applications for physicians in almost every medical specialty. My aim is to provide not only an overview but also enough about diagnosis and treatment that the reader can begin to practice immediately. (Neural therapeutic techniques are very safe and forgiving of beginners' errors.) The presentations of conditions that might respond to neural therapy are so numerous and so varied that they cannot be taught on a "how to" basis. Rather, the would-be practitioner must first learn and then apply the general principles, and experience will do the rest.

Having established the audience for whom I have written the book, let me now explain the title in more detail. *Neural therapy* is one of those descriptive terms that do not accurately reflect the development of the practices to which they are attached. Neural therapy never did have much to do with therapy of the nerves, and both its theory and its practice have evolved considerably since the term was coined by the Huneke brothers in the 1930s. Nevertheless, the name has stuck. And, despite any nomenclatural shortcomings, the body of knowledge that has accumulated under this rubric attests to the lasting power of the concept.

The field of neural therapy began with a realization that procaine has therapeutic effects that far outlast what might be expected from local anesthesia. The first experiences were with intravenous procaine, but clinical experimentation and careful observation led to the serendipitous discovery of what are now known as interference fields, typically in scars. These interference fields turned out to be foci of bioelectrical instability with the potential to create significant pathophysiological effects, often in remote areas of the body. Infiltration of procaine reversed these disturbances, and so neural therapy was born.

The clinical experience of practicing neural therapy leads to a profound respect for the importance of the autonomic nervous system in regulating body processes. In fact, the term *regulation therapy* has been proposed as an alternative to *neural therapy*. Neurophysiology of the autonomic nervous system has always been the neglected stepchild of neurology. In internal medicine it is a downright nuisance, and neurophysiological processes are blocked pharmacologically at every opportunity. Part of the reason for this attitude has been the lack of tools to identify and treat local dysfunction. Neural therapy is one tool that allows these problems to be detected, treated and overcome.

Neural therapy has from the beginning been identified with the therapeutic use of procaine and other local anesthetics. Procaine remains the "gold standard" and has the advantage of having been thoroughly investigated for over 100 years. However, other research has shown that treatment of local disturbances of autonomic nervous system function is not the prerogative of this drug alone. Another method is the ancient art of manipulation, which has been shown in osteopathic research to be intimately connected with autonomic nervous

system physiology. When this and various other tools are considered (see Chapter 5), the term *neural therapy*, at least in its original sense, is recognized as too narrow.

This brings us to the book's subtitle: *Applied neurophysiology and other topics*. The subtitle encompasses the concept of neural therapy but extends the general approach into related areas. This extension can be important when neural therapy reaches its therapeutic limits, for example, when the therapeutic response is blocked by underlying metabolic problems, emotional difficulties or other factors that compromise autonomic nervous system function. Neural therapy can be an exercise in frustration if such problems go unrecognized.

At the time of this writing (in 2004), almost no published materials on neural therapy are available in English (an exception being Matthias Dosch's manual on neural therapy injection techniques<sup>1</sup>), even though much has been written in German over the past 70 years. This is the English-speaking world's misfortune. Sadly, the one major text that has been translated into English (the 11th edition of Peter Dosch's *Manual of Neural Therapy According to Huneke*<sup>2</sup>) is now over 20 years old and is out of print. This scholarly, well-translated book is rich in history, science and clinical pearls and remains the standard text on neural therapy. More recent German editions are available but have not been translated. It is to be hoped that increased interest in neural therapy will justify translation and reissue of a more recent edition of this important work.

The present volume is not intended as a replacement for Dosch's excellent book.<sup>2</sup> I do not read German and (recognizing this serious handicap) have limited my subject matter here to the application of established scientific principles, related material from the pertinent English literature and my own clinical experience. Any literature published in German in the past 25 years is therefore not covered.

My goals differ from Dosch's in any case. The Dosch book is a large reference text that was hardly designed to be read from cover to cover. In contrast, the current book derives from teaching experience and attempts to guide the physician into and through the material in such a way that it can be applied to clinical practice quickly and efficiently. It acknowledges that practicing physicians are busy people and that they have limited time for new medical projects. It also recognizes that if the material cannot be grasped relatively quickly, any such project will soon be abandoned.

This book differs from Dosch's in other ways. As I have already intimated, the ideas discovered in neural therapy can be profitably extended into other areas of medicine. Osteopathic medicine has recognized the importance of the autonomic nervous system since the 1940s but has been completely unaware of neural therapy's existence.<sup>3</sup> Neural therapy (at least until the 1980s) has been similarly ignorant of the achievements of osteopathic medicine. In this volume I have recognized these similarities and identify somatic dysfunction\* as identical with any other type of interference field. This has important implications in practice, as will be explained later (see Chapters 3, 4 and 5).

<sup>\*</sup>Somatic dysfunction is impaired or altered function of related components of the somatic (body framework) system; skeletal, arthrodial and myofascial structures; and related vascular, lymphatic and neural elements.<sup>4</sup>

Another difference is the space given to autonomic response testing, a technique of identifying interference fields that was not available when the *Manual of Neural Therapy* was most recently translated.<sup>2</sup> For instruction in this technique, I am indebted to Dietrich Klinghardt, who, with his colleague Louisa Williams, recognized that the muscle testing of applied kinesiology could be used to examine the autonomic nervous system and identify interference fields. This discovery is, in my opinion, the single greatest contribution to the practice of neural therapy since the origin of the field. It has greatly reduced the need for "test injections" by leading the physician to the significant interference field in an orderly manner. It also identifies when psychological, metabolic, allergic or other confounding factors are impairing the effectiveness of neural therapy.

A third major difference from the Dosch book is the space given to identifying and treating factors that may render neural therapy ineffective. This is where a broader view of neural therapy plays out. This form of treatment may for a time be defeated by confounding factors in a given patient. However, once these factors have been identified, the clinician often finds, paradoxically, that neural therapy itself has a role in treating them. For example, in a patient suffering from mercury toxicity, the autonomic nervous system may be so unresponsive that interference fields are difficult or impossible to find. However, during treatment of the toxicity, the physician may find that the organs of excretion, such as the liver and kidneys, are themselves interference fields that respond to neural therapy. "Integration" of medical therapies has become somewhat of a buzzword, but in situations such as these, integration comes naturally and logically to the treatment plan.

The book is divided into three sections. The first is a review of the neurophysiological principles that underlie the clinical material presented in later sections. Most of this material will be familiar to most physicians, but perhaps not the idea of direct clinical application. The science presented here is more important than in most clinical texts, as a scientific understanding of the pathophysiology is foundational to both diagnosis and treatment. In contrast, much of contemporary medicine is geared toward diagnosing and treating syndromes, which are by nature superficial manifestations of deeper disorders. The treatment of syndromes is too often a technological "fix", merely suppressing the symptoms and rarely addressing the causes of disease.

The second section, which focuses directly on neural therapy, is about the practical application of these general principles to interference fields. This section can be read on its own, but because the concept of an interference field is a profound one, I suggest that readers at least quickly scan the first section beforehand. Neural therapy is not just about finding a key lesion, the treatment of which produces spectacular effects. Rather, it is about how autonomic nervous system dysfunction spreads and affects other physiological processes. It also concerns the body's compartmentalization of its defense processes when a threat to the whole organism is perceived. Interference fields develop for a reason. The more that is known about why the body has created them, the greater the likelihood of success in finding and treating them. Chapter 7, Dental Aspects of Neural Therapy, is included in this section, even though it overlaps with topics in the last section of the book, simply because dental interference fields are so common. It has been estimated that 70% of interference fields are found in the head and neck region, and teeth are primarily or secondarily involved much of the time.

The third section, on systemic factors inhibiting neural therapy, is included in this introductory book because early failure in neural therapy is frequent. The novice is likely to blame his or her own lack of skills and to become discouraged if the limitation and the reasons for it are not recognized from the outset. In younger and healthier populations, this situation is less of an issue, but in an increasingly chemical-dependent and nutritionally deficient society it is becoming almost the norm.

The systemic factors that can inhibit neural therapy are as numerous as those that can affect the autonomic nervous system. If we recognize that the autonomic nervous system is exquisitely reactive to both external and internal stimuli (e.g., pupil size to a frightening thought, salivary glands to a tasty smell), it is a small thing to appreciate that the whole system can be blocked if its environment is metabolically disturbed.

Four chapters have been assigned to this section: Nutrition, Heavy Metal Toxicity, Organic Solvent Toxicity and Psychological Aspects of Neural Therapy. This list is by no means complete, but these subjects have been chosen because they are common and because they demonstrate a variety of general principles. For example, in the chapter on heavy metal toxicity, only mercury toxicity is discussed in detail. Lead, cadmium, arsenic and other heavy metals are also toxic to the autonomic nervous system, but their manifestations will differ in certain specifics. Yet if the principles of mercury toxicity are understood, the diagnosis and treatment of the other heavy metal toxicities follows easily, once the physician has consulted the appropriate literature sources.

Similarly, the main purpose of the chapter on psychological factors is to sensitize the reader to the importance of emotional factors to autonomic nervous system function. The space given to the subject is probably much less than it deserves, as emotion intertwines with all regulatory functions and is part of every illness experience. The mature physician realizes this unconsciously and finds that understanding, empathy and calm are powerful therapeutic tools. Nevertheless, at times the emotional aspect must be addressed in a more direct way. This is a difficult task, as most unresolved emotional difficulties lie in the subconscious, and special time-consuming techniques are required to draw them out. This chapter presents a technique that uses biological responses (changes in muscle tone) to quickly and efficiently reach significant unresolved issues. It then describes a simplified version of eye movement desensitization and resolution with colored glasses that is used to treat these problems.

The final chapter begins with a discussion of science, technology and the corrupting effect of technology on medicine. A growing number of people, both physicians and patients, are looking for alternatives to technology-driven medicine. This search has led to the exploration of other medical traditions, but new knowledge has been difficult to evaluate because of vastly different understandings of health and disease. With such different conceptual models it is a challenge to truly "integrate" Western scientific medicine and other medical approaches. An alternative approach to medicine is presented, one that is grounded in Western science but applies scientific principles in a different way. At the center of this approach is neural therapy, a powerful tool for correcting faulty biological control mechanisms. Examples are given to demonstrate the application of these principles.

## References

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