

THE RELEASE OF this text will coincide, almost to the day, with the date of my doctorate in podiatric medicine, 40 years ago. Although the focus of my postgraduate training, residency, and fellowship was foot surgery, I had a fascination with lower extremity biomechanics, which at the time was merely a budding field. Few professors accepted the concept that most of the pathologies we were learning to surgically correct had a mechanical origin. This concept was considered by some at the time to be a philosophy, trend and, at best, a fleeting theory.

My contact, discussions, and arguments with Drs. Tom Sgarlato and John Weed at the California College of Podiatric Medicine (CCPM), as well as Vern Inman at the University of California, impressed me greatly with the concept of pathomechanics as an etiological pathway to foot pathology. The idea that orthotic therapy, if developed scientifically and honestly, would have a significant role in treating many foot pathologies projected me onto the path that resulted in my becoming chair of the Department of Biomechanics at CCPM. I am honored to follow Drs. Merton Root and Thomas Sgarlato and to precede the tenure of Drs. Ronald Valmassy and Jack Morris.

I have been involved in many levels of education during my career as a podiatrist, and I am familiar with most of the texts that address biomechanics, pathomechanics, and orthotic therapy of the foot and ankle. None of the available literature provides a guide to understanding the documented value of orthoses or for prescribing the variations of orthotic materials or modifications. I hope that this text will fill that void.

I have endeavored to step beyond what is now taught in the classroom and create a compilation of documented and anecdotal evidence regarding orthotic decision making. This text is intended for the advanced student and the clinician who use orthoses to treat mechanically induced pathology of the foot. It has been designed to provide a logical approach to orthotic therapy categorized by pathology. It is my intent in this text to establish this concept of pathology-specific orthotic therapy in the professions that prescribe orthoses.

Much of the contemporary research quoted in this text references custom functional foot orthoses. Consideration must be made that the orthoses in these studies differed, unfortunately, with regard to materials, construction, and positive cast modification technique. The orthotic rec-

ommendations in this text refer to those made from a neutral suspension negative cast with the forefoot fully dorsiflexed on the rearfoot and the first ray plantar flexed, as well as the forefoot to rearfoot cast correction technique originally described by Dr. Root with a minimal arch fill, unless otherwise described.

While researching over the years the treatment of the foot and ankle with orthoses, I have been appalled by the amount of pseudoscientific nonsense that has been published, especially on today's Internet. Actually, the bulk of information about orthoses is not produced by professional scholars but rather by financial opportunists and amateurs who work outside of academia. The reader must understand that the nonscientific nonscholar is not held to the same standards of peer review and scrutiny as the academic community. I have attempted to avoid referencing this type of material in hopes of providing accurate and helpful information that the clinician can build upon with practice and experience.

The topic of orthotic therapy began with uncritical thinking or blatant proselytizing, which today can still be found in the lecture hall and on the Internet. The professions that utilize orthoses frequently embrace these enthusiasts because they are passionate and sometimes entertaining; a good story or a charismatic lecturer trumps boring data every time. But this scenario also, unfortunately, buries the truth about what works and what does not work concerning foot orthoses. I do not mean to insult the overly enthusiastic preachers of orthoses but rather will try to separate the evidence from the wishful thinking, so that the serious professional will not be misled by the faulty or erroneous conclusions that are in circulation.

It is my desire that this text and its philosophy of pathology-specific orthoses improve clinical outcomes, promote more consistent research, and advance the acceptance of orthotic therapy as a valued therapeutic modality.