

# Introduction To The Foot And Ankle

The approach to caring for the painful foot is undergoing significant, perhaps even radical, change within the physical therapy community. The foot used to be the last region taught in anatomy class, often on the last day of class. Students were told that "the foot is like the hand" and were sent on their way. More and more physical therapists, however, now are looking at the foot from a biomechanical focus, recognizing its marvelous functional adaptability and realizing the tremendous stresses put on it every day in standing and walking, running and jumping. It is this focus on the foot and ankle that we present in this special issue.

The articles in this issue deal with a wide variety of topics concerning the foot and ankle, beginning with anatomy, biomechanics, growth and development, and pathomechanics and followed by a review of evaluation techniques, footwear, orthoses, and prostheses. Special problems of the foot related to age (old or young) and diabetes mellitus also are presented. Finally, case studies appearing at the end of the issue illustrate topics addressed in the articles.

We hope you will see a common thread throughout this special issue. This thread, the beginning of a theoretical basis for the treatment of the foot and ankle, is founded on biomechanical concepts. Not all of these concepts have been proven or tested; they form a basis for discussion out of which will grow the research hypotheses to be tested.

To assist in formulating this theoretical basis, we have attempted to provide consistency in terminology and to define terms carefully and precisely in order to minimize confusion. We have tried also to demonstrate the similarities and differences in terminology across disciplines. Ambiguity in terminology and use of similar terms with very different meanings have perpetuated confusion and hindered communication among health care professionals. A startling example of this is the use of "tibial varum" and "tibia vara." The former term is used frequently in the podiatric literature to mean the alignment of the leg with respect to the floor in quiet standing (see article by Giallonardo in this issue). The latter term, found in the orthopedic surgery literature, refers to the tibial deformity resulting from a disease of the proximal growth plate. It is essential that physical therapists are aware of such differences in order to facilitate communication and avoid misunderstandings.

This issue also presents treatment approaches that may be confusing to some readers, in particular the concept of treating such foot deformities as hindfoot varus and valgus. The traditional goal of treatment has been to correct the deformity, presumably grounded in the premise that the deformity is the result of soft tissue imbalances. The approach suggested most often in this issue is based on the belief that the deformity is osseous, and therefore cannot be corrected by conservative treatment in the adult. Consequently the goal of treatment in this case is to accommodate the deformity in order to prevent deleterious compensations.

We hope these articles are of value to you in two ways: that they are useful in your clinical practice and that you will find in them a theoretical base on which to build a consistent terminology to facilitate communication. We suggest that you begin by reading the introductory articles on anatomy, biomechanics (static and dynamic), and pathomechanics before reading those on treatment techniques.

Many thanks to our contributors for providing stimulating manuscripts, and to both our contributors and the Journal staff for being so supportive of our attempts to establish consistency and continuity in vocabulary and quality throughout the manuscripts.

**Rebecca L. Craik, PT, PhD**  
**Carol A. Oatis, PT, PhD**  
*Guest Editors*