

contents

-
- chapter 1 Lower extremity function and normal mechanics 1
Justin Wernick and Russell G. Volpe
 - chapter 2 Pathomechanics of lower extremity function 59
Ronald L. Valmassy
 - chapter 3 The classification of human foot types, abnormal foot function, and pathology 85
Paul R. Scherer and Jack L. Morris
 - chapter 4 The spine, an integral part of the lower extremity 95
Irene Minkowsky and Robert Minkowsky
 - chapter 5 Biomechanical principles of running injuries 113
Richard J. Bogdan
 - chapter 6 Biomechanical examination of the foot and lower extremity 131
Bart W. Gastwirth
 - chapter 7 Gait evaluation in clinical biomechanics 149
Charles C. Southerland, Jr.
 - chapter 8 Computerized gait evaluation 179
Eric Arthur Fuller
 - chapter 9 Neuromuscular examination 207
Michael O. Seibel
 - chapter 10 Limp and the pediatric patient 223
Leon Paul Smith
 - chapter 11 Biomechanical evaluation of the child 243
Ronald L. Valmassy
 - chapter 12 Impression casting techniques 279
James M. Losito
 - chapter 13 Prescription writing for functional and accommodative foot orthoses 295
Lester J. Jones
 - chapter 14 Orthotic materials 307
William R. Olson
 - chapter 15 Troubleshooting functional foot orthoses 327
Kevin A. Kirby

chapter 16 Utilizing footwear as a therapeutic modality 349

Notty Bumbo

chapter 17 Padding and taping techniques 367

Stephen C. White

chapter 18 Ankle-foot orthoses 391

Notty Bumbo

chapter 19 Serial plaster immobilization of congenital foot deformities 405

Richard Berenter and Daniel K. Kosai

chapter 20 Lower extremity treatment modalities for the pediatric patient 425

Ronald L. Valmassy

chapter 21 Athletic shoes 453

Jane A. Denton

chapter 22 The inverted orthotic technique:

Its role in clinical biomechanics 465

Richard L. Blake and Heather Ferguson