

CONTENTS

PART I Foundations

- 1 Classification and Management Guidelines for Cerebral Concussion, 3
Joseph C. Maroon, M.D.
- 2 Neurobiology of Concussion, 12
David A. Hovda, Ph.D., Mayumi Prins, Ph.D., Donald P. Becker, M.D.,
Stefan Lee, Ph.D., Marvin Bergsneider, M.D., and Neil A. Martin, M.D.
- 3 Chronic Traumatic Brain Injury, 52
Barry D. Jordan, M.D., M.P.H.
- 4 Head Injury and Alzheimer's Disease, 65
Peter J. Snyder, Ph.D., and James Valeriano, M.D.

PART II Incidence, Prevention, and Management

- 5 Injury Patterns in Selected High School Sports, 75
John W. Powell, Ph.D., A.T.C.
- 6 Organized and Recreational Sports, 91
Julian E. Bailes, M.D.

- 7** Helmet Design, 102
James A. Newman, Ph.D., P.Eng.
- 8** Diagnosis and Management of Head Injury, 115
Julian E. Bailes, M.D.
- 9** Diagnosis and Management of Cervical Spine Injury, 140
Julian E. Bailes, M.D.

PART

III

Neuropsychology: Evaluation and Testing

- 10** Ethical Issues, 157
Ruben J. Echemendia, Ph.D., and Elizabeth S. Parker, Ph.D.
- 11** Reliability and Validity of Serial Assessments, 171
Michael D. Franzen, Ph.D.
- 12** Computerized Testing, 180
Sandra P. Koffler, Ph.D.
- 13** Research at the High School Level, 188
Edward I. Bartolic, Ph.D.
- 14** Evaluation of the College Athlete, 196
Jeffrey T. Barth, Ph.D.
- 15** Evaluation of the Professional Athlete, 200
Mark R. Lovell, Ph.D.
- 16** Testing in Ice Hockey: The Expanding Role
of the Neuropsychologist, 215
Peter E. Anderson, Ph.D., and Mark R. Lovell, Ph.D.
- 17** Future Directions, 225
Jeffrey T. Barth, Ph.D.

PART **IV** Expert's Roundtable

18 Concussion From the Inside: The Athlete's Perspective, 231

Moderator: Lynn Swann

Panelists: Julian E. Bailes, M.D., Harry Carson, Merrill Hoge, Mark Kelso,
Joseph C. Maroon, M.D., Mike Tomczak, and Anthony Yates, M.D.

Index, 253