

Contents

SECTION I: UNDERSTANDING MOTOR PERFORMANCE IN CHILDREN

Section Editor: Suzann K. Campbell, PT, PhD, FAPTA

1 Evidence-Based Decision Making in Pediatric Physical Therapy, 1

Robert J. Palisano, PT, ScD
Suzann K. Campbell, PT, PhD, FAPTA
Susan R. Harris, PT, PhD, FAPTA, FCAHS

2 The Child's Development of Functional Movement, 37

Suzann K. Campbell, PT, PhD, FAPTA

3 Motor Control: Developmental Aspects of Motor Control in Skill Acquisition, 87

Sarah Westcott McCoy, PT, PhD
Stacey Dusing, PT, PhD

4 Motor Learning: Application of Principles to Pediatric Rehabilitation, 151

Andrew M. Gordon, PhD
Richard A Magill, PhD

5 Musculoskeletal Development and Adaptation, 175

Linda Pax Lowes, PT, PhD
Michelle Sveda, PT
Carrie G. Gajdosik, PT, MS
Richard L. Gajdosik, PT, PhD

6 Physical Fitness during Childhood and Adolescence, 205

Jean L. Stout, PT, MS

SECTION II: MANAGEMENT OF MUSCULOSKELETAL IMPAIRMENT

Section Editor: Margo N. Orlin, PT, PhD

7 Juvenile Idiopathic Arthritis, 239

Paul J.M. Helders, PhD, MSc, PT, PCS
Susan E. Klepper, PhD, PT
Tim Takken, PhD, MSc
Janjaap van der Net, PhD, BSc(PT), PCS

8 Spinal Conditions, 271

Heidi A. Frere, PT, DPT
Suzanne M. Green, PT
Cheryl R. Patrick, PT, MBA

9 Congenital Muscular Torticollis, 292

Karen Karmel-Ross, PT, PCS, LMT

10 Arthrogryposis Multiplex Congenita, 313

Maureen Donohoe, PT, DPT, PCS

11 Osteogenesis Imperfecta, 333

Maureen Donohoe, PT, DPT, PCS

12 Muscular Dystrophy and Spinal Muscular Atrophy, 353

Wayne A. Stuberg, PT, PhD, PCS

13 Limb Deficiencies and Amputations, 385

Meg Stanger, PT, MS, PCS
Colleen Coulter-O'Berry, PT, DPT, PhD, PCS
Brian Giavedoni, MBA, CP, LP

14 Orthopedic Conditions, 414

Mary Wills Jesse, PT, DHS, OCS
Judy Leach, PT

15 Sports Injuries in Children, 453

Mark V. Paterno, PT, MS, MBA, SCS, ATC
Laura C. Schmitt, PT, PhD(PT)
Donna Bernhardt Bainbridge, PT, EdD, ATC

SECTION III: MANAGEMENT OF NEUROLOGIC IMPAIRMENT

Section Editor: Suzann K. Campbell, PT, PhD, FAPTA

16 Developmental Coordination Disorder (DCD), 498

Lisa Rivard, PT, BSc(PT), MSc
Cheryl Missiuna, PhD, OTReg(Ont)
Nancy Pollock, MSc, OTReg(Ont)
Kathryn Steyer David, PT, MS, PCS

17 Children With Motor and Intellectual Disabilities, 539

Irene R. McEwen, PT, DPT, PhD, FAPTA
Mary J. Meiser, PT, MS
Laura H. Hansen, PT, MS

18 Cerebral Palsy, 577

Marilyn Wright, BScPT, MEd, MSc
Linda Wallman, BScPT

19 Brachial Plexus Injury, 628

Darl W. Vander Linden, PT, PhD

20 Spinal Cord Injury, 644

Christin H. Krey, PT, MPT, ATP
Therese E. Johnston, PT, PhD, MBA
Kristine A. Shakhazizian, PT
Teresa L. Massagli, MD

21 Acquired Brain Injuries: Trauma, Near-Drowning, and Tumors, 679

Michal Katz-Leurer, LPT, MPH, PhD
Hemda Rotem, PT, BPT, MSc(PT)

22 Myelodysplasia, 703

Kathleen A. Hinderer, PT, PhD
Steven R. Hinderer, PT, MD
David B. Shurtleff, MD

SECTION IV: MANAGEMENT OF CARDIOPULMONARY CONDITIONS

Section Editor: Suzann K. Campbell, PT, PhD, FAPTA

23 Children Requiring Long-Term Mechanical Ventilation, 756

Helene M. Dumas, PT, MS
M. Kathleen Kelly, PT, PhD

24 Cystic Fibrosis, 781

Jennifer L. Agnew, BScPT, BHK
Blythe Owen, MScPT, HBSc

25 Asthma: Multisystem Implications, 815

Mary Massery, PT, DPT

26 Thoracic Surgery, 845

Betsy A. Howell, PT, MS
Chris Tapley, PT, MS

SECTION V: SPECIAL SETTINGS AND SPECIAL CONSIDERATIONS

Section Editor: Robert J. Palisano, PT, PhD

27 The Environment of Intervention, 879

Thubi H. A. Kolobe, PT, PhD, FAPTA
Amanda Arevalo, PT, MS, PCS
Tricia Ann Catalino, PT, MS, PCS

28 The Special Care Nursery, 903

Linda Kahn-D'Angelo, PT, ScD
Yvette Blanchard, PT, ScD
Beth McManus, PT, ScD, MPH

29 Serving Infants, Toddlers, and Their Families Early Intervention Services under IDEA, 944

Lisa A. Chiarello, PT, PhD, PCS

30 The Educational Environment, 968

Susan K. Effgen, PT, PhD, FAPTA
Marcia K. Kaminker, PT, DPT, MS, PCS

31 The Burn Unit, 1008

Merilyn L. Moore, PT
Lesley A. Palmgren, PT, MPT
Carrie J. Yenne-Laker, PT, DPT, CWS

32 Transition to Adulthood for Youth with Disabilities, 1030

Nancy A. Cicirello, PT, MPH, EdD
Antonette K. Doty, PT, MPH
Robert J. Palisano, PT, ScD

Section EVOLVE only chapters: Special Topics

Chapter E1: Gait: Development and Analysis

Jean L. Stout, PT, MS

Chapter E2: Genomics and Genetic Syndromes Affecting Movement

Joan A. O'Keefe, PT, PhD

Chapter E3: Hemophilia

Sandra M. McGee, PT, PCS

Chapter E4: Assistive Technology

Roberta Kuchler O'Shea, PT, PhD, Brenda Sposato Bonfiglio, MEBME, ATP

Chapter E5: Screening for Referral and Differential Diagnosis

Venita Lovelace-Chandler, PT, PhD, PCS, Margaret McGee, PT, PhD, BSN, PCS