

**SECTION I Principles and Methods of Pediatric Endocrinology, 1**

**1. Overview and Principles of Pediatric Endocrinology, 1**

*Mark A. Sperling*

**2. Molecular Endocrinology, Endocrine Genetics, and Precision Medicine, 9**

*Ram K. Menon, Massimo Trucco, Joseph A. Majzoub, Constantine A. Stratakis*

**3. Receptor Transduction Pathways Mediating Hormone Action, 30**

*Bassil Kublaoui, Michael A. Levine*

**4. Endocrinology Laboratory Testing, 86**

*Jon Nakamoto*

**SECTION II Endocrine Disorders in the Neonate, 106**

**5. Fetal-Maternal Endocrinology and Parturition, 106**

*Sam Mesiano, Helen N. Jones, Heide Aungst, Tani Malhotra, Louis J. Muglia*

**6. Ambiguous Genitalia, 123**

*Selma Feldman Witchel, Peter A. Lee*

**7. Hypoglycemia in the Newborn and Infant, 175**

*Diva D. De Leon, Paul Thornton, Charles A. Stanley, Mark A. Sperling*

**8. Disorders of the Thyroid in the Newborn and Infant, 202**

*Johnny Deladoey, Julia Elisabeth von Oettingen, Guy Van Vliet*

**9. Disorders of Mineral Metabolism: Normal Homeostasis, 220**

*Allen W. Root*

**10. Monogenic Diabetes Mellitus: Neonatal Diabetes and Maturity-Onset  
Diabetes of the Young, 279**

*Siri Atma W. Greeley\*, Mary K. McCauley\*, Louis H. Philipson, Mark A. Sperling*

*\*Authors contributed equally to this chapter*

**SECTION III Childhood and Adolescent Endocrinology, 299**

**11. Disorders of Childhood Growth, 299**

*Alexander A.L. Jorge, Adda Grimberg, Mehul T. Dattani, Jeffrey Baron*

**12. Disorders of the Posterior Pituitary, 357**

*Abhinash Srivatsa, Joseph A. Majzoub*

**13. Thyroid Disorders in Children and Adolescents, 395**

*Scott Rivkees, Andrew J. Bauer*

**14. The Adrenal Cortex and Its Disorders, 425**

*Walter L. Miller, Christa E. Flück, David T. Breault, Brian J. Feldman*

**15. Pheochromocytoma/Paraganglioma, Medullary Thyroid Carcinoma, and Hereditary Endocrine Neoplasia Syndromes, 491**

*Steven G. Waguespack, Lauren Fishbein*

**16. Puberty in the Female and Its Disorders, 528**

*Robert L. Rosenfield, David W. Cooke, Sally Radovick*

**17. Turner Syndrome, 627**

*Philippe Backeljauw, Steven D. Chernausek, Claus Højbjerg Gravholt, Paul Kruszka*

**18. Puberty and Its Disorders in the Male, 661**

*Mark R. Palmert, Yee-Ming Chan, Leo Dunkel*

**19. Care of Transgender/Gender Nonconforming Youth, 695**

*Stephen M. Rosenthal, Amy B. Wisniewski*

**20. Disorders of Mineral Metabolism II. Abnormalities of Mineral Homeostasis in the Newborn, Infant, Child, and Adolescent, 705**

*Allen W. Root, Michael A. Levine*

**21. Diabetes Mellitus, 814**

*Mark A. Sperling, Joseph I. Wolfsdorf, Ram K. Menon, William V. Tamborlane, David Maahs, Tadej Battelino, Moshe Phillip*

**22. Autoimmune Polyglandular Syndromes, 884**

*Bimota Nambam, Michael J. Haller, William E. Winter, Desmond Schatz*

**23. Hypoglycemia in the Toddler and Child, 904**

*Joseph I. Wolfsdorf, Charles A. Stanley*

**24. Obesity, Metabolic Syndrome and Disorders of Energy Balance, 939**

*Joan C. Han, Ram Weiss*

**25. Lipid Disorders in Children and Adolescents, 1004**

*Stephen R. Daniels, Sarah C. Couch*

**Index, 1022**

**Interactive questions for self-assessment can be found in the e-book; see inside front cover for details.**