

## **Section 1 Radiation Effects and Safety**

1. Radiation Bioeffects, Risks, and Radiation Protection in Medical Imaging in Children
2. Magnetic Resonance Safety
3. Complications of Contrast Media

## **Section 2 Head and Neck**

### Part 1 Orbit

4. Embryology, Anatomy, Normal Findings, and Imaging Techniques
5. Prenatal, Congenital, and Neonatal Abnormalities
6. Orbit Infection and Inflammation
7. Orbital Neoplasia

### Part 2 Nose and Sinuses

8. Nose and Sinonasal Cavities

### Part 3 Ear and Temporal Bone

9. Embryology, Anatomy, Normal Findings, and Imaging Techniques
10. Congenital and Neonatal Abnormalities
11. Infection and Inflammation
12. Neoplasia

### Part 4 Neck

13. Embryology, Anatomy, Normal Findings, and Imaging Techniques
14. Prenatal, Congenital, and Neonatal Abnormalities
15. Infection and Inflammation
16. Neoplasia

### Part 5 Thyroid and Parathyroid

17. Thyroid and Parathyroid

### **Section 3 Neuroradiology**

#### Part 1 Cranium and Face

18. Embryology, Anatomy, Normal Findings, and Imaging Techniques

19. Prenatal Imaging

20. Craniosynostosis, Selected Craniofacial Syndromes, and Other Abnormalities of the Skull

21. Neoplasms, Neoplasm-like Lesions, and Infections of the Skull

#### Part 2 Mandible

22. The Mandible

#### Part 3 Skull and Facial Trauma

23. Traumatic Lesions of the Skull and Face

#### Part 4 Brain

24. Embryology and Brain Development .

25. Magnetic Resonance Spectroscopy and Positron Emission Tomography

26. Diffusion-Weighted Magnetic Resonance Imaging: Principles and Implementation in Clinical and Research Settings

27. Functional Magnetic Resonance Imaging

28. Perfusion Imaging and Magnetoencephalography

29. Prenatal Imaging

30. Neonatal Brain Injury

31. Congenital Brain Malformations

32. Hydrocephalus

33. Inherited Metabolic and Neurodegenerative Disorders

- 34. Infection and Inflammation
- 35. Pediatric Brain Neoplasms
- 36. Cerebrovascular Disorders
- 37. Stroke
- 38. Neuroimaging in Pediatric Epilepsy
- 39. Trauma

#### Part 5 Vertebral Column and Spinal Cord

- 40. Embryology, Anatomy, and Normal Findings
- 41. Spinal Cord Imaging Techniques
- 42. Prenatal Imaging
- 43. Congenital Abnormalities of the Spine
- 44. Infections of the Spine and Spinal Cord
- 45. Spinal Tumor and Tumorlike Conditions
- 46. Vascular Lesions
- 47. Trauma

### **Section 4 Respiratory System**

#### Part 1 Overview

- 48. Embryology, Anatomy and Neonatal Lung Pathophysiology
- 49. Imaging Techniques
- 50. Prenatal Imaging and Intervention

#### Part 2 Airway

- 51. Upper Airway Disease
- 52. Lower Large Airway Disease

### Part 3 Lungs

- 53. Congenital Lung Anomalies
- 54. Pulmonary Infection
- 55. Neoplasia
- 56. Diffuse Lung Disease
- 57. Pulmonary Manifestations of Systemic Disease

### Part 4 Mediastinum

- 58. The Mediastinum

### Part 5 Chest Wall, Pleura, and Diaphragm

- 59. The Chest Wall
- 60. The Pleura
- 61. The Diaphragm

## **Section 5 Heart and Great Vessels**

### Part 1 Overview

- 62. Introductory Embryology
- 63. Cardiovascular Anatomy and Segmental Approach to Imaging of Congenital Heart Disease

### Part 2 Imaging Techniques

- 64. Pediatric Echocardiography
- 65. Chest Radiography in Pediatric Cardiovascular Disease
- 66. Pediatric Cardiothoracic Computed Tomographic Angiography
- 67. Magnetic Resonance Imaging for Congenital Heart Disease
- 68. Pediatric Cardiac Catheterization and Electrophysiology
- 69. Surgical Considerations for Congenital Heart Disease

70. Prenatal Imaging and Therapy of Congenital Heart Disease

Part 3 Congenital and Cardiovascular Abnormalities

71. Abnormal Pulmonary and Systemic Venous Connections

72. Systemic to Pulmonary Arterial Shunts

73. Left Heart Lesions

74. Right Heart Lesions

75. Conotruncal Anomalies

76. Congenital Anomalies of the Thoracic Great Arteries

77. Coronary Artery Disease in Children

78. Syndromes and Chromosomal Anomalies

Part 4 Acquired Cardiovascular Abnormalities

79. Myocardial, Endocardial and Pericardial Diseases

80. Cardiac and Pericardial Tumors

81. Cardiovascular Involvement by Systemic Diseases

82. Acquired Diseases of the Thoracic Great Vessels

**Section 6 Gastrointestinal System**

Part 1 Overview

83. Embryology, Anatomy, and Normal Findings

84. Imaging Techniques

85. Prenatal Gastrointestinal and Hepatobiliary Imaging

86. The Abdominal Wall and Peritoneal Cavity

Part 2 Hepatobiliary System

87. Congenital Hepatobiliary Abnormalities

- 88. Acquired Biliary Tract Disease
- 89. Parenchymal Liver Disease
- 90. Infectious Causes of Liver Disease
- 91. Neoplasia
- 92. Vascular Abnormalities of the Liver
- 93. Liver Transplantation in Children

#### Part 3 Spleen

- 94. The Spleen

#### Part 4 Pancreas

- 95. The Pancreas

#### Part 5 Esophagus

- 96. Congenital and Neonatal Abnormalities
- 97. Disorders of Swallowing
- 98. Acquired Esophageal Disorders

#### Part 6 Stomach

- 99. Congenital and Neonatal Abnormalities
- 100. Hypertrophic Pyloric Stenosis
- 101. Acquired Disorders

#### Part 7 Duodenum and Small Intestine

- 102. Congenital and Neonatal Abnormalities
- 103. Acquired Abnormalities
- 104. Acquired Lesions of the Small Intestines

#### Part 8 Colon

105. Congenital and Neonatal Abnormalities

106. Inflammatory and Infectious Diseases

107. Intussusception

108. Tumors and Tumorlike Conditions

109. Abdominal Trauma

## **Section 7 Genitourinary System**

### Part 1 Overview

110. Embryology, Anatomy, and Variants of the Genitourinary Tract

111. Imaging Techniques

112. Prenatal Imaging and Intervention

### Part 2 Prenatal Imaging and Intervention

113. Congenital and Neonatal Abnormalities

114. Acquired Abnormalities (Stone Disease and Infection)

115. Renal Neoplasms

116. Vascular Conditions

117. Renal Failure and Transplantation

### Part 3 Lower Urinary Tract

118. The Ureter

119. Vesicoureteral Reflux

120. Bladder and Urethra

### Part 4 Adrenal and Retroperitoneum

121. Congenital and Neonatal Conditions

122. Acquired Conditions

## Part 5 Trauma

123. Genitourinary Trauma

## Part 6 Reproductive Organs

124. Disorders of Sex Differentiation

125. Abnormalities of the Male Genital Tract

126. Abnormalities of the Female Genital Tract

127. Amenorrhea and Abnormalities of Puberty

## **Section 8 Musculoskeletal System**

### Part 1 Overview

128. Embryology, Anatomy, and Normal Findings

129. Imaging Techniques

130. Prenatal Musculoskeletal Imaging

### Part 2 Congenital Malformations

131. Congenital Anomalies of Bone

132. Skeletal Dysplasias and Selected Chromosomal Disorders

### Part 3 Disorders in Alignment

133. Alignment Disorders

134. Scoliosis

135. Developmental Dysplasia of the Hip

### Part 4 Arthritides and Other Inflammatory Disorders

136. Arthritis and Differential Inflammatory Joint Disorders

### Part 5 Infections

137. Musculoskeletal Infections

Part 6 Tumors and Tumor-Like Conditions

138. Soft Tissue and Bone Tumors

Part 7 Metabolic and Endocrine Disorders

139. Metabolic Bone Disease

140. Endocrine Disorders

Part 8 Systemic Disease

141. Skeletal Manifestations of Systemic Disease

Part 9 Trauma

142. Skeletal Trauma

143. Child Abuse

144. Sports Medicine