

SECTION I Children, Their Families, and the Nurse

1 Perspectives of Pediatric Nursing, 1

Marilyn J. Hockenberry

- Health Care for Children, 1
- Health Promotion, 1
- Childhood Health Problems, 3
- The Art of Pediatric Nursing, 7
- Philosophy of Care, 7
- Role of the Pediatric Nurse, 8
- Research and Evidence-Based Practice, 10
- Clinical Reasoning and the Process of Providing Nursing Care to Children and Families, 11
- Clinical Reasoning, 11
- Nursing Process, 11
- Quality Outcome Measures, 12

2 Social, Cultural, Religious, and Family Influences on Child Health Promotion, 15

Quinn Franklin and Kim Mooney-Doyle

- General Concepts, 15
- Definition of Family, 15
- Family Theories, 15
- Family Structure and Function, 17
- Family Structure, 17
- Family Strengths and Functioning Style, 19
- Family Roles and Relationships, 19
- Parental Roles, 19
- Role Learning, 20
- Parenting, 20
- Parenting Styles, 20
- Limit Setting and Discipline, 21
- Special Parenting Situations, 23
- Parenting the Adopted Child, 23
- Parenting and Divorce, 24
- Single Parenting, 27
- Parenting in Reconstituted Families, 27
- Parenting in Dual-Earner Families, 27
- Foster Parenting, 28
- Sociocultural Influences on Children and Families, 28
- Influences in the Surrounding Environment, 29
- School Communities: School Health and School Connectedness, 29
- Schools, 29
- Peer Cultures, 30
- Community, 30
- Broader Influences on Child Health, 30
- Social Media and Mass Media, 30
- Race and Ethnicity, 31
- Social Class, 32
- Poverty, 32

- Land of Origin and Immigration Status, 33
- Religion/Spiritual Identity, 34
- Cultural Humility and Health Care Providers' Contribution, 37

3 Hereditary Influences on Health Promotion of the Child and Family, 41

Cynthia A. Prows

- Genetic/Genomic Nursing Competencies, 41
- Genetics and Genomics, 41
- Congenital Anomalies, 44
- Genetic Disorders, 45
- Single-Gene Disorders, 50
- Variable Patterns of Gene Expression and Inheritance, 59
- Mitochondrial Disorders, 60
- Hereditary Cancer Predisposition Genes, 60
- Multifactorial (Complex) Disorders, 61
- Disorders of the Intrauterine Environment, 61
- Inborn Errors of Metabolism, 62
- Phenylketonuria, 63
- Galactosemia, 65
- Cytogenetic Diagnostic Techniques, 66
- Molecular Diagnostic Techniques, 66
- Predisposition Genetic Testing, 67
- Therapeutic Management of Genetic Disease, 67
- Impact of Hereditary Disorders on the Family, 68
- Genetic Testing, 68
- Prenatal Testing, 70
- Genetic Evaluation and Counseling, 71
- Role of Nurses, 72

SECTION II Childhood and Family Assessment

4 Communication, Physical, and Developmental Assessment of the Child and Family, 80

Jan M. Foote

- Guidelines for Communication and Interviewing, 80
- Establishing a Setting for Communication, 80
- Computer Privacy and Applications in Nursing, 80
- Telephone Triage and Counseling, 81
- Communicating With Families, 81
- Communicating With Parents, 81
- Communicating With Children, 83
- Communication Techniques, 85
- History Taking, 87
- Performing a Health History, 87
- Nutritional Assessment, 93
- Dietary Intake, 93
- Clinical Examination of Nutrition, 95
- Evaluation of Nutritional Assessment, 98
- General Approaches Toward Examining the Child, 98
- Sequence of the Examination, 98
- Preparation of the Child, 98

- Physical Examination, 98
- Growth Measurements, 98
- Physiologic Measurements, 105
- General Appearance, 111
- Skin, 111
- Lymph Nodes, 111
- Head and Neck, 112
- Eyes, 112
- Ears, 115
- Nose, 119
- Mouth and Throat, 120
- Chest, 121
- Lungs, 122
- Heart, 124
- Abdomen, 126
- Genitalia, 128
- Anus, 130
- Back and Extremities, 130
- Neurologic Assessment, 131
- Developmental Assessment, 132
- 5 Pain Assessment and Management in Children, 137**
Shirley D. Martin, Maggie Maxtin, Katherine Smalling, and Sue Park
 - What Is Pain and How Does It Occur?, 137
 - What Does Pain Do Besides Hurt?, 138
 - Common Acute Pain Conditions in Children, 138
 - Needlestick Pain, 140
 - Postoperative Pain, 140
 - Common Chronic Pain Conditions in Children, 140
 - Headaches, 141
 - Abdominal Pain, 141
 - Musculoskeletal Pain, 141
 - Neuropathic Pain Syndromes, 141
 - Common Mixed-Pain Conditions in Children, 141
 - Burn Pain, 141
 - Cancer Pain, 142
 - Sickle Cell Pain, 143
 - Measuring Pain in Children, 143
 - Observational Pain Measures, 143
 - Special Populations, 144
 - Self-Report Pain Rating Scales, 145
 - Chronic and Recurrent Pain Assessment, 147
 - Multidimensional Measures, 147
 - Prevention and Treatment of Pain in Children, 148
 - Biobehavioral Interventions, 149
 - Pharmacologic Management of Pain, 150
- 6 Childhood Communicable and Infectious Diseases, 169**
Cheryl C. Rodgers
 - Infection Control, 169
 - Immunizations, 170
 - Communicable Diseases, 179
 - Nursing Care Management, 179
 - Conjunctivitis, 188
 - Stomatitis, 189
 - Zika Virus, 190
 - Intestinal Parasitic Diseases, 190
 - General Nursing Care Management, 190
 - Giardiasis, 190
 - Enterobiasis (Pinworms), 193
 - Bedbugs, 193

SECTION III Family-Centered Care of the Newborn

7 Health Promotion of the Newborn and Family, 196

Barbara J. Wheeler

- Adjustment to Extrauterine Life, 196
- Immediate Adjustments, 196
- Physiologic Status of Other Systems, 197
- Nursing Care of the Newborn and Family, 199
- Assessment, 199
- Maintain a Patent Airway, 217
- Maintain a Stable Body Temperature, 217
- Protect From Infection and Injury, 218
- Provide Optimum Nutrition, 222
- Promote Parent-Infant Bonding (Attachment), 230
- Prepare for Discharge and Home Care, 233

8 Health Problems of the Newborn, 238

Kimberley Fisher and Kristina D. Wilson

- Birth Injuries, 238
- Soft Tissue Injury, 238
- Head Injury, 238
- Fractures, 240
- Nerve Injuries, 241
- Cranial Deformities, 242
- Microcephaly, 242
- Craniostenosis, 243
- Craniofacial Abnormalities, 244
- Pierre Robin Sequence, 244
- Cleft Lip and Cleft Palate, 245
- Dermatologic Problems in the Newborn, 249
- Erythema Toxicum Neonatorum, 249
- Candidiasis, 249
- Oral Candidiasis, 249
- Herpes Simplex Virus, 250
- Bullous Impetigo, 250
- Birthmarks, 251
- Problems Related to Physiologic Factors, 252
- Hyperbilirubinemia, 252
- Hemolytic Disease of the Newborn, 259
- Hypoglycemia, 263
- Hyperglycemia (Transient), 264
- Hypocalcemia, 264
- Hemorrhagic Disease of the Newborn, 265
- Problems Caused by Perinatal Environmental Factors, 266
- Chemical Agents, 266
- Radiation, 266

9 The High-Risk Newborn and Family, 270

Kimberly Fisher

- General Management of High-Risk Newborns, 270
- Identification of High-Risk Newborns, 270
- Intensive Care Facilities, 271
- Nursing Care of High-Risk Newborns, 273
- Assessment, 273
- Monitoring Physiologic Data, 273
- High-Risk Conditions Related to Dysmaturity, 295
- Preterm Infants, 295
- Postterm Infants, 296

High Risk Related to Disturbed Respiratory Function, 296
 Apnea of Prematurity, 296
 Respiratory Distress Syndrome, 299
 Meconium Aspiration Syndrome, 306
 Air Leak Syndromes, 307
 Persistent Pulmonary Hypertension of the Newborn, 308
 Bronchopulmonary Dysplasia, 309
 High Risk Related to Infectious Processes, 311
 Sepsis, 311
 Necrotizing Enterocolitis, 313
 High Risk Related to Cardiovascular and Hematologic Complications, 314
 Patent Ductus Arteriosus, 314
 Anemia, 315
 Polycythemia, 315
 Retinopathy of Prematurity, 315
 High Risk Related to Neurologic Disturbance, 316
 Perinatal Hypoxic-Ischemic Brain Injury, 316
 Intraventricular Hemorrhage, 317
 Intracranial Hemorrhage, 319
 Neonatal/Perinatal Stroke, 319
 Neonatal Seizures, 319
 High Risk Related to Maternal Conditions, 321
 Infants of Diabetic Mothers, 321
 Drug-Exposed Infants, 322
 Maternal Infections, 327

SECTION IV Family-Centered Care of the Infant

10 Health Promotion of the Infant and Family, 338

Mystii Kidd and Cheryl C. Rodgers

Promoting Optimum Growth and Development, 338
 Biologic Development, 338
 Psychosocial Development, 344
 Cognitive Development, 345
 Development of Body Image, 347
 Development of Gender Identity, 347
 Social Development, 348
 Temperament, 350
 Coping With Concerns Related to Normal Growth and Development, 352
 Promoting Optimum Health During Infancy, 360
 Nutrition, 360
 Sleep and Activity, 363
 Dental Health, 364
 Safety Promotion and Injury Prevention, 364
 Anticipatory Guidance—Care of Families, 368

11 Health Problems of the Infant, 372

Lisa M. Cleveland

Nutritional Imbalances, 372
 Vitamin Imbalances, 372
 Mineral Imbalances, 373
 Health Problems Related to Nutrition, 374
 Severe Acute Malnutrition (Protein-Energy Malnutrition), 374
 Food Sensitivity, 376
 Failure to Thrive, 380
 Special Health Problems, 382
 Colic (Paroxysmal Abdominal Pain), 382
 Sudden Infant Death Syndrome, 384

Positional Plagiocephaly, 387
 Apparent Life-Threatening Event, 389

SECTION V Family-Centered Care of the Toddler and Preschooler

12 Health Promotion of the Toddler and Family, 393

Elizabeth A. Duffy

Promoting Optimum Growth and Development, 393
 Biologic Development, 393
 Cognitive Development, 396
 Moral Development: Preconventional or Premoral Level, 398
 Spiritual Development, 398
 Development of Body Image, 399
 Development of Gender Identity, 399
 Social Development, 399
 Temperament, 402
 Coping With Concerns Related to Normal Growth and Development, 402
 Toilet Training, 402
 Sibling Rivalry, 405
 Temper Tantrums, 406
 Negativism, 407
 Stress, 407
 Regression, 407
 Promoting Optimum Health During Toddlerhood, 407
 Nutrition, 407
 Vegetarian Diets, 409
 Complementary and Alternative Medicine, 410
 Sleep and Activity, 411
 Dental Health, 411
 Safety Promotion and Injury Prevention, 414
 Anticipatory Guidance—Care of Families, 420

13 Health Promotion of the Preschooler and Family, 423

Rebecca A. Monroe

Promoting Optimum Growth and Development, 423
 Biologic Development, 423
 Psychosocial Development, 424
 Cognitive Development, 425
 Moral Development (Kohlberg), 426
 Spiritual Development, 426
 Development of Body Image, 426
 Development of Sexuality, 426
 Social Development, 426
 Temperament, 430
 Coping With Concerns Related to Normal Growth and Development, 431
 Promoting Optimum Health During the Preschool Years, 436
 Nutrition, 436
 Sleep and Activity, 437
 Dental Health, 437
 Injury Prevention, 437
 Anticipatory Guidance—Care of Families, 437

14 Health Problems of Early Childhood, 440

Brigit M. Carter

Sleep Problems, 440
 Ingestion of Injurious Agents, 440
 Principles of Emergency Treatment, 441
 Heavy Metal Poisoning, 445

- Lead Poisoning, 446
- Child Maltreatment, 450
- Child Neglect, 450
- Physical Abuse, 451
- Sexual Abuse, 452
- Nursing Care of the Maltreated Child, 453

SECTION VI Family-Centered Care of the School-Age Child

15 Health Promotion of the School-Age Child and Family, 460

Cheryl C. Rodgers

- Promoting Optimum Growth and Development, 460
- Biologic Development, 460
- Cognitive Development (Piaget), 463
- Moral Development (Kohlberg), 465
- Spiritual Development, 465
- Language Development, 465
- Social Development, 466
- Play, 468
- Development of Self-Concept, 470
- Development of Sexuality, 472
- Coping With Concerns Related to Normal Growth and Development, 473
- School Experience, 473
- Discipline, 475
- Coping With Stress, 476
- Promoting Optimum Health During the School Years, 478
- Health Behaviors, 478
- Nutrition, 479
- Sleep and Rest, 481
- Physical Activity, 482
- Dental Health, 484
- School Health, 485
- Injury Prevention, 487
- Anticipatory Guidance—Care of Families, 492

16 Health Problems of the School-Age Child, 495

Katherine Soss Prihoda and Cheryl C. Rodgers

- Obesity: Complications, Treatment, and Prevention, 495
- Obesity, 495
- Dental Disorders, 502
- Dental Caries, 502
- Periodontal Disease, 504
- Malocclusion, 504
- Trauma, 504
- Disorders of Continence, 505
- Enuresis, 505
- Encopresis, 507
- Disorders With Behavioral Components, 508
- Learning Disability, 511
- Tic Disorders, 512
- Gilles De La Tourette Syndrome, 512
- Posttraumatic Stress Disorder, 513
- School Phobia, 514
- Functional Abdominal Pain, 515
- Conversion Reaction, 516
- Childhood Depression, 516
- Childhood Schizophrenia, 517
- Anxiety Disorders, 518
- Conduct Disorders, 518

SECTION VII Family-Centered Care of the Adolescent

17 Health Promotion of the Adolescent and Family, 523

Anne Derouin

- Promoting Optimum Growth and Development, 523
- Biologic Development, 524
- Cognitive Development, 530
- Development of Value Autonomy, 531
- Psychosocial Development, 531
- Social Environments, 534
- Promoting Optimum Health During Adolescence, 537
- Adolescents' Perspectives on Health, 537
- Factors That Promote Adolescent Health and Well-Being, 538
- Health Concerns of Adolescence, 540
- Health Promotion Among Special Groups of Adolescents, 546
- Nursing Care Management, 548

18 Health Problems of the Adolescent, 551

Cheryl C. Rodgers

- Health Conditions of the Male Reproductive System, 551
- Penile Conditions, 551
- Varicocele, 551
- Epididymitis, 552
- Testicular Torsion, 552
- Gynecomastia, 552
- Health Conditions of the Female Reproductive System, 552
- Gynecologic Examination, 552
- Menstrual Disorders, 553
- Nursing Care Management, 553
- Endometriosis, 555
- Premenstrual Syndrome, 556
- Abnormal Uterine Bleeding, 556
- Vaginal Infections, 558
- Sexually Transmitted Infections, 559
- Sexually Transmitted Protozoa Infections, 560
- Sexually Transmitted Bacterial Infections, 560
- Sexually Transmitted Viral Infections, 563
- Health Conditions Related to Reproduction, 565
- Adolescent Pregnancy, 565
- Adolescent Abortion, 568
- Contraception, 569
- Sexual Assault (Rape), 572
- Health Conditions With a Behavioral Component, 573
- Anorexia Nervosa and Bulimia Nervosa, 573
- Substance Abuse, 578
- Motivation, 579
- Types of Drugs Abused, 579
- Tobacco, 579
- Alcohol, 580
- Cocaine, 581
- Narcotics, 581
- Central Nervous System Depressants, 581
- Central Nervous System Stimulants, 581
- Mind-Altering Drugs, 581
- Nursing Care Management, 581

Self-Harm, 583
 Etiology, 583
 Diagnostic Evaluation, 583
 Therapeutic Management, 583
 Suicide, 583
 Etiology, 584
 Methods, 584
 Nursing Care Management, 585

SECTION VIII Family-Centered Care of the Child With Special Needs

19 Impact of Chronic Illness, Disability, or End-of-Life Care for the Child and Family, 589

Sharron L. Docherty, Debra Brandon, Alexandra Kathleen Superdock, and Raymond C. Barfield

Perspectives on the Care of Children and Families
 Living With or Dying From Chronic or Complex Diseases, 589
 Scope of the Problem, 589
 Trends in Care, 590
 The Family of the Child With a Chronic or Complex Condition, 591
 Impact of the Child's Chronic Illness, 592
 Coping With Ongoing Stress and Periodic Crises, 594
 Assisting Family Members in Managing Their Feelings, 594
 Establishing a Support System, 595
 The Child With a Chronic or Complex Condition, 596
 Developmental Aspects, 596
 Coping Mechanisms, 598
 Nursing Care of the Family and Child With a Chronic or Complex Condition, 599
 Assessment, 599
 Provide Support at the Time of Diagnosis, 599
 Support the Family's Coping Methods, 600
 Educate About the Disorder and General Health Care, 602
 Promote Normal Development, 603
 Establish Realistic Future Goals, 605
 Palliative Care in Childhood Terminal Illness, 605
 Scope of the Problem, 605
 Principles of Palliative Care, 606
 Goals of Care, 606
 Awareness of Dying in Children With Life-Threatening Illness, 608
 Children's Understanding of and Reactions to Dying, 610
 Delivery of Palliative Care Services, 613
 Nursing Care of the Child and Family at the End of Life, 614
 Management of Pain and Suffering, 614
 Parents' and Siblings' Need for Education and Support Through the Caregiving Process, 615
 Care at the Time of Death, 618
 Postmortem Care, 619
 Care of the Family Experiencing Unexpected Childhood Death, 620

Special Decisions at the Time of Dying and Death, 621
 Right to Die and Do-Not-Attempt-Resuscitation Orders, 621
 Viewing of the Body, 621
 Organ or Tissue Donation and Autopsy, 621
 Siblings' Attendance at Funeral Services, 622
 Care of the Grieving Family, 622
 Grief, 623
 Mourning, 625
 Bereavement Programs, 626
 The Nurse and the Child With Life-Threatening Illness, 626
 Nurses' Reactions to Caring for Children With Life-Threatening Illnesses, 626
 Coping With Stress, 627

20 Impact of Cognitive or Sensory Impairment on the Child and Family, 632

Rosalind Bryant

Cognitive Impairment, 632
 General Concepts, 632
 Nursing Care of Children With Impaired Cognitive Function, 633
 Educate Child and Family, 633
 Down Syndrome, 637
 Fragile X Syndrome, 639
 Sensory Impairment, 640
 Hearing Impairment, 640
 Visual Impairment, 645
 Hearing-Visual Impairment, 650
 Communication Impairment, 650
 Autism Spectrum Disorders, 650

SECTION IX The Child Who Is Hospitalized

21 Family-Centered Care of the Child During Illness and Hospitalization, 658

Tara Merck and Patricia Barry McElfresh

Stressors of Hospitalization and Children's Reactions, 658
 Separation Anxiety, 658
 Loss of Control, 660
 Effects of Hospitalization on the Child, 660
 Stressors and Reactions of the Family of the Child Who Is Hospitalized, 661
 Parental Reactions, 661
 Sibling Reactions, 661
 Nursing Care of the Child Who Is Hospitalized, 662
 Preparation for Hospitalization, 662
 Nursing Interventions, 665
 Nursing Care of the Family, 671
 Supporting Family Members, 671
 Providing Information, 671
 Encouraging Parent Participation, 672
 Preparing for Discharge and Home Care, 672
 Care of the Child and Family in Special Hospital Situations, 673
 Ambulatory or Outpatient Setting, 673
 Isolation, 674
 Emergency Admission, 674
 Intensive Care Unit, 675

22 Pediatric Nursing Interventions and Skills, 678*Caroline E. Anderson and Ruth Anne Herring***General Concepts Related to Pediatric Procedures, 678****Informed Consent, 678****Preparation for Diagnostic and Therapeutic Procedures, 679****Surgical Procedures, 686****Compliance, 688****Skin Care and General Hygiene, 690****Maintaining Healthy Skin, 690****Bathing, 691****Oral Hygiene, 691****Hair Care, 691****Feeding the Sick Child, 692****Controlling Elevated Temperatures, 693****Family Teaching and Home Care, 694****Safety, 694****Environmental Factors, 694****Infection Control, 696****Transporting Infants and Children, 697****Restraining Methods, 697****Positioning for Procedures, 700****Femoral Venipuncture, 700****Extremity Venipuncture or Injection, 700****Lumbar Puncture, 700****Bone Marrow Aspiration or Biopsy, 701****Collection of Specimens, 701****Fundamental Steps Common to All Procedures, 701****Urine Specimens, 701****Stool Specimens, 705****Blood Specimens, 705****Respiratory Secretion Specimens, 707****Administration of Medication, 708****Determination of Drug Dosage, 708****Oral Administration, 709****Intramuscular Administration, 710****Subcutaneous and Intradermal Administration, 713****Intravenous Administration, 714****Maintaining Fluid Balance, 719****Measurement of Intake and Output, 719****Parenteral Fluid Therapy, 719****Securement of a Peripheral Intravenous Line, 720****Safety Catheters and Needleless Systems, 721****Infusion Pumps, 721****Maintenance, 722****Complications, 722****Removal of a Peripheral Intravenous Line, 723****Rectal Administration, 723****Optic, Otic, and Nasal Administration, 723****Aerosol Therapy, 724****Family Teaching and Home Care, 724****Nasogastric, Orogastic, and Gastrostomy Administration, 725****Alternative Feeding Techniques, 725****Gavage Feeding, 726****Gastrostomy Feeding, 729****Nasoduodenal and Nasojejunum Tubes, 730****Total Parenteral Nutrition, 730****Family Teaching and Home Care, 730****Procedures Related to Elimination, 730****Enema, 730****Ostomies, 731****Family Teaching and Home Care, 732****SECTION X Childhood Nutrition and Elimination Problems****23 The Child With Fluid and Electrolyte Imbalance, 736***Mary A. Mondozi, Rose Ann Urdiales Baker, and Marilyn J. Hockenberry***Distribution of Body Fluids, 736****Water Balance, 736****Disturbances of Fluid and Electrolyte Balance, 739****Dehydration, 742****Water Intoxication, 745****Edema, 746****Nursing Responsibilities in Fluid and Electrolyte Disturbances, 747****Assessment, 747****Shock, 748****Septic Shock, 752****Anaphylaxis, 754****Toxic Shock Syndrome, 755****Burns, 756****Overview, 756****Burn Wound Characteristics, 757****Pathophysiology, 760****Therapeutic Management, 764****Nursing Care Management, 770****Future Research Needs, 775****24 The Child With Renal Dysfunction, 778***Patricia A. Ring and Cynthia J. Camille***Renal Structure and Function, 778****Renal Physiology, 778****Renal Pelvis and Ureters: Structure and Function, 780****Urethrovessical Unit: Structure and Function, 780****Genitourinary Tract Disorders, 782****Urinary Tract Infection, 782****Vesicoureteral Reflux, 790****Glomerular Disease, 791****Acute Glomerulonephritis, 791****Chronic or Progressive Glomerulonephritis, 795****Nephrotic Syndrome, 795****Renal Tubular Disorders, 799****Tubular Function, 799****Renal Tubular Acidosis, 799****Nephrogenic Diabetes Insipidus, 800****Miscellaneous Renal Disorders, 800****Hemolytic Uremic Syndrome, 800****Familial Nephritis (Alport Syndrome), 801****Unexplained Proteinuria, 801****Renal Trauma, 802****Renal Failure, 802****Acute Kidney Injury, 802****Chronic Kidney Disease, 806****Renal Replacement Therapy, 810****Hemodialysis, 810****Peritoneal Dialysis, 812****Continuous Venovenous Hemofiltration, 813****Transplantation, 813****Defects of the Genitourinary Tract, 815****Phimosis, 815****Hydrocele, 815****Cryptorchidism, 815****Hypospadias, 817****Epispadias and Exstrophy Complex, 818**

- Disorders of Sex Development, 819
 Pathophysiology, 819
 Therapeutic Management, 819
 Family Support, 820
 Obstructive Uropathy, 820
- 25 The Child With Gastrointestinal Dysfunction, 825**
Cheryl C. Rodgers
- Gastrointestinal Structure and Function, 825
 Development of the Gastrointestinal Tract, 825
 Digestion, 826
 Absorption, 827
 Assessment of Gastrointestinal Function, 828
 Gastrointestinal Disorders, 828
 Diarrhea, 828
 Constipation, 838
 Vomiting, 840
 Ingestion of Foreign Substances, 841
 Pica, 841
 Foreign Bodies, 842
 Disorders of Motility, 844
 Hirschsprung Disease (Congenital Aganglionic Megacolon), 844
 Gastroesophageal Reflux, 845
 Irritable Bowel Syndrome, 848
 Inflammatory Conditions, 848
 Acute Appendicitis, 848
 Meckel Diverticulum, 850
 Inflammatory Bowel Disease, 853
 Peptic Ulcer Disease, 856
 Obstructive Disorders, 858
 Hypertrophic Pyloric Stenosis, 859
 Intussusception, 860
 Malrotation and Volvulus, 862
 Malabsorption Syndromes, 862
 Celiac Disease (Gluten-Sensitive Enteropathy), 862
 Short-Bowel Syndrome, 863
 Gastrointestinal Bleeding, 864
 Hepatic Disorders, 866
 Acute Hepatitis, 866
 Biliary Atresia, 869
 Cirrhosis, 871
 Structural Defects, 872
 Esophageal Atresia and Tracheoesophageal Fistula, 872
 Abdominal Wall Defects, 875
 Hernias, 877
 Umbilical Hernia, 877
 Inguinal Hernia, 877
 Femoral Hernia, 878
 Anorectal Malformations, 878
- General Aspects of Respiratory Tract Infections, 887
 Etiology and Characteristics, 887
 Clinical Manifestations, 887
 Nursing Care of the Child With a Respiratory Tract Infection, 887
- Upper Respiratory Tract Infections, 891
 Acute Viral Nasopharyngitis, 891
 Acute Streptococcal Pharyngitis, 893
 Tonsillitis, 894
 Infectious Mononucleosis, 896
 Influenza, 897
 Otitis Media, 898
 Acute Otitis Externa, 902
 Croup Syndromes, 902
 Acute Epiglottitis, 903
 Acute Laryngitis, 904
 Acute Laryngotracheobronchitis, 904
 Acute Spasmodic Laryngitis, 905
 Bacterial Tracheitis, 906
 Infections of the Lower Airways, 906
 Bronchitis, 906
 Respiratory Syncytial Virus and Bronchiolitis, 906
 Pneumonia, 909
 Viral Pneumonia, 909
 Primary Atypical Pneumonia, 909
 Bacterial Pneumonia, 910
 Neonatal Pneumonia, 912
 Other Infections of the Respiratory Tract, 912
 Pertussis (Whooping Cough), 912
 Tuberculosis, 913
 Respiratory Disturbance Caused by Noninfectious Irritants, 917
 Foreign Body Ingestion and Aspiration, 917
 Foreign Body in the Nose, 919
 Aspiration Pneumonia, 919
 Pulmonary Edema, 920
 Acute Respiratory Distress Syndrome and Acute Lung Injury, 921
 Smoke Inhalation Injury, 923
 Environmental Tobacco Exposure, 924
 Structural Defects, 925
 Congenital Diaphragmatic Hernia, 925
 Pierre Robin Sequence, 926
 Choanal Atresia, 927
 Long-Term Respiratory Dysfunction, 927
 Allergic Rhinitis, 927
 Asthma, 929
 Cystic Fibrosis, 944
 Obstructive Sleep Apnea, 952
 Respiratory Emergency, 953
 Respiratory Failure, 953
 Nursing Care Management, 953

SECTION XI Childhood Oxygenation Problems

26 The Child With Respiratory Dysfunction, 883

Patricia Conlon

- Respiratory Tract Structure, 883
 Respiratory Function, 883
 Assessment of Respiratory Function, 884
 Physical Assessment, 884
 Diagnostic Procedures, 885
 Defenses of the Respiratory Tract, 886

SECTION XII Childhood Blood Production and Circulation Problems

27 The Child With Cardiovascular Dysfunction, 958

Margaret L. Schroeder, Annette L. Baker, Heather Bastardi, and Patricia O'Brien

- Cardiac Structure and Function, 958
 Cardiac Development and Function, 958
 Assessment of Cardiac Function, 961

- Tests of Cardiac Function, 962
- Congenital Heart Disease, 966
- Altered Hemodynamics, 967
- Clinical Consequences of Congenital Heart Disease, 967
- Congestive Heart Failure, 967
- Classification of Congenital Heart Defects, 985
- Defects With Increased Pulmonary Blood Flow, 986
- Obstructive Defects, 987
- Defects With Decreased Pulmonary Blood Flow, 987
- Mixed Defects, 987
- Single Ventricle Anatomy, 987
- Family-Centered Care Home Monitoring Program, 988
- Nursing Care of the Child With Congenital Heart Disease and His or Her Family, 988
- Acquired Cardiovascular Disorders, 994
- Bacterial (Infective) Endocarditis, 994
- Acute Rheumatic Fever and Rheumatic Heart Disease, 996
- Kawasaki Disease, 998
- Systemic Hypertension, 1001
- Dyslipidemia (Abnormal Lipid Metabolism), 1005
- Cardiac Dysrhythmias, 1009
- Pulmonary Hypertension, 1012
- Cardiomyopathy, 1013
- Advanced Heart Failure, 1014
- Heart Transplantation, 1015
- 28 The Child With Hematologic or Immunologic Dysfunction, 1020**
Rosalind Bryant
 - The Hematologic System and Its Function, 1020
 - Origin of Formed Elements, 1020
 - Assessment of Hematologic Function, 1024
 - Red Blood Cell Disorders, 1025
 - Anemia, 1025
 - Blood Transfusion Therapy, 1027
 - Anemia Caused by Nutritional Deficiencies, 1030
 - Iron Deficiency Anemia, 1030
 - Anemias Caused by Increased Destruction of Red Blood Cells, 1033
 - Hereditary Spherocytosis, 1033
 - Sickle Cell Anemia, 1034
 - Beta-Thalassemia (β -Thalassemia or Cooley Anemia), 1043
 - Anemias Caused by Impaired or Decreased Production of Red Blood Cells, 1048
 - Aplastic Anemia, 1048
 - Defects in Hemostasis, 1049
 - Mechanisms Involved in Normal Hemostasis, 1049
 - Hemophilia, 1050
 - Von Willebrand Disease, 1054
 - Immune Thrombocytopenia (Idiopathic Thrombocytopenic Purpura), 1055
 - Disseminated Intravascular Coagulation, 1056
 - Other Hematologic Disorders, 1057
 - Neutropenia, 1057
 - Henoch-Schönlein Purpura, 1057
 - Immunologic Deficiency Disorders, 1059
 - Mechanisms Involved in Immunity, 1059
 - Human Immunodeficiency Virus Infection and Acquired Immunodeficiency Syndrome, 1060
 - Wiskott-Aldrich Syndrome, 1064
 - Severe Combined Immunodeficiency Disease, 1065

SECTION XIII Childhood Regulatory Problems

29 The Child With Cancer, 1071

Kathleen S. Ruccione

- Cancer in Children, 1071
- Epidemiology, 1071
- Etiology, 1071
- Diagnostic Evaluation, 1073
- Treatment Modalities, 1074
- Complications of Therapy, 1077
- Nursing Care Management, 1078
- Signs and Symptoms of Cancer in Children, 1078
- Managing Side Effects of Treatment, 1079
- Nursing Care During Hematopoietic Stem Cell Transplantation, 1083
- Preparation for Procedures, 1083
- Pain Management, 1084
- Health Promotion, 1084
- Family Education, 1084
- Completion of Therapy, 1085
- Cancers of Blood and Lymph Systems, 1085
- Acute Leukemias, 1085
- Lymphomas, 1088
- Nervous System Tumors, 1091
- Brain Tumors, 1091
- Neuroblastoma, 1096
- Bone Tumors, 1097
- General Considerations, 1097
- Osteosarcoma, 1098
- Ewing Sarcoma (Primitive Neuroectodermal Tumor of the Bone), 1099
- Other Solid Tumors, 1099
- Wilms Tumor, 1099
- Rhabdomyosarcoma, 1101
- Retinoblastoma, 1102
- Germ Cell Tumors, 1104
- Liver Tumors, 1104
- The Childhood Cancer Survivor, 1104
- 30 The Child With Cerebral Dysfunction, 1108**
Maureen Sheehan
 - Cerebral Structure and Function, 1108
 - Development of the Neurologic System, 1108
 - Central Nervous System, 1109
 - Increased Intracranial Pressure, 1110
 - Evaluation of Neurologic Status, 1111
 - Assessment: General Aspects, 1111
 - Altered States of Consciousness, 1112
 - Neurologic Examination, 1114
 - Special Diagnostic Procedures, 1116
 - The Child With Cerebral Compromise, 1119
 - Nursing Care of the Unconscious Child, 1119
 - Head Injury, 1123
 - Submersion Injury, 1131
 - Intracranial Infections, 1133
 - Bacterial Meningitis, 1133
 - Nonbacterial (Aseptic) Meningitis, 1138
 - Tuberculous Meningitis, 1138

- Brain Abscess, 1138
- Encephalitis, 1139
- Rabies, 1140
- Reye Syndrome, 1141
- Human Immunodeficiency Virus Encephalopathy, 1141
- Seizures and Epilepsy, 1141
- Epilepsy, 1142
- Headache, 1157
- Assessment, 1157
- Migraine Headache, 1159
- The Child With Cerebral Malformation, 1159
- Hydrocephalus, 1159
- 31 The Child With Endocrine Dysfunction, 1170**
Amy Barry and Erin Connelly
- The Endocrine System, 1170
- Hormones, 1170
- Neuroendocrine Interrelationships, 1171
- Disorders of Pituitary Function, 1171
- Hypopituitarism, 1172
- Pituitary Hyperfunction, 1176
- Precocious Puberty, 1177
- Diabetes Insipidus, 1178
- Syndrome of Inappropriate Antidiuretic Hormone, 1179
- Disorders of Thyroid Function, 1180
- Juvenile Hypothyroidism, 1180
- Goiter, 1181
- Chronic Lymphocytic Thyroiditis, 1181
- Hyperthyroidism, 1181
- Disorders of Parathyroid Function, 1183
- Hypoparathyroidism, 1183
- Hyperparathyroidism, 1184
- Disorders of Adrenal Function, 1185
- Adrenal Hormones, 1185
- Acute Adrenocortical Insufficiency, 1186
- Chronic Adrenocortical Insufficiency (Addison Disease), 1187
- Cushing Syndrome, 1188
- Congenital Adrenal Hyperplasia, 1189
- Hyperaldosteronism, 1191
- Pheochromocytoma, 1191
- Disorders of Pancreatic Hormone Secretion, 1192
- Diabetes Mellitus, 1192

SECTION XIV Childhood Physical Mobility Problems

32 The Child With Integumentary Dysfunction, 1209

Cheryl C. Rodgers

- Integumentary Dysfunction, 1209
- Skin Lesions, 1209
- Wounds, 1210
- Infections of the Skin, 1216
- Bacterial Infections, 1216
- Viral Infections, 1218
- Dermatophytoses (Fungal Infections), 1218
- Systemic Mycotic (Fungal) Infections, 1218
- Skin Disorders Related to Chemical or Physical Contacts, 1219
- Contact Dermatitis, 1219
- Poison Ivy, Oak, and Sumac, 1222

- Drug Reactions, 1223
- Foreign Bodies, 1224
- Skin Disorders Related to Animal Contacts, 1224
- Arthropod Bites and Stings, 1224
- Scabies, 1226
- Pediculosis Capitis, 1226
- Rickettsial Diseases, 1227
- Lyme Disease, 1228
- Pet Bites, 1230
- Human Bites, 1230
- Cat Scratch Disease, 1230
- Miscellaneous Skin Disorders, 1231
- Skin Disorders Associated With Specific Age-Groups, 1231
- Diaper Dermatitis, 1232
- Atopic Dermatitis (Eczema), 1233
- Seborrheic Dermatitis, 1235
- Acne, 1235
- Cold Injury, 1237

33 The Child With Musculoskeletal or Articular Dysfunction, 1239

Angela Drummond

- The Child and Trauma, 1239
- Trauma Management, 1239
- Assessment of Trauma, 1241
- The Immobilized Child, 1242
- Immobilization, 1242
- The Child in a Cast, 1248
- The Child in Traction, 1253
- Distraction, 1255
- Amputation, 1256
- Mobilization Devices, 1256
- The Child With a Fracture, 1259
- Fracture Complications, 1265
- Injuries and Health Problems Related to Sports Participation, 1266
- Preparation for Sports, 1267
- Types of Injury, 1267
- Contusions, 1268
- Dislocations, 1268
- Sprains and Strains, 1269
- Overuse Injury, 1270
- Exercise-Induced Heat Stress, 1270
- Health Concerns Associated With Sports, 1271
- Nurse's Role in Children's Sports, 1274
- Musculoskeletal Dysfunction, 1274
- Torticollis, 1274
- Kyphosis and Lordosis, 1275
- Idiopathic Scoliosis, 1275
- Skeletal Limb Deficiency, 1278
- Developmental Dysplasia of the Hip, 1279
- Legg-Calvé-Perthes Disease, 1282
- Slipped Capital Femoral Epiphysis, 1282
- Metatarsus Adductus, 1283
- Clubfoot, 1283
- Nursing Care Management, 1284
- Orthopedic Infections, 1284
- Osteomyelitis, 1284
- Septic Arthritis, 1286
- Skeletal Tuberculosis, 1286

- Skeletal and Articular Dysfunction, 1286
- Osteogenesis Imperfecta, 1286
- Juvenile Idiopathic Arthritis, 1287
- Systemic Lupus Erythematosus, 1292
- 34 The Child With Neuromuscular or Muscular Dysfunction, 1298**
 - Anne Feierabend Stanton and Teri A. Huddleston Lavenberg*
 - Neuromuscular Dysfunction, 1298
 - Classification and Diagnosis, 1298
 - Cerebral Palsy, 1300
 - Defects of Neural Tube Closure, 1310
 - Etiology, 1310
 - Anencephaly, 1311
 - Spina Bifida and Myelodysplasia, 1311
 - Myelomeningocele (Meningomyelocele), 1313

- Latex Allergy, 1319
- Hypotonia, 1320
- Spinal Muscular Atrophy Type 1 (Werdnig-Hoffmann Disease), 1320
- Juvenile Spinal Muscular Atrophy (Kugelberg-Welander Disease), 1322
- Guillain-Barré Syndrome, 1322
- Tetanus, 1324
- Botulism, 1325
- Myasthenia Gravis, 1326
- Spinal Cord Injuries, 1327
- Muscular Dysfunction, 1337
- Juvenile Dermatomyositis, 1337
- Muscular Dystrophies, 1338
- Duchenne Muscular Dystrophy, 1338