

CONTENTS

Foreword	iii
Preface	iv
Acknowledgments	vi
Common Abbreviations	vii
List of Tables	ix
Alphabetical List of Topics	xviii

SECTION 1

NORMAL LIFE STAGES 1

Pregnancy and Lactation	5
Pregnancy	5
Lactation	12
Infancy, Childhood, and Adolescence	19
Infant, Normal (0–6 Months)	19
Infant, Normal (6–12 Months)	22
Childhood	27
Adolescence	33
Physical Fitness and Stages of Adulthood	38
Sports Nutrition	38
Adulthood	44
Nutrition in Aging	58

SECTION 2

NUTRITION PRACTICES, FOOD SAFETY, ALLERGIES, SKIN AND MISCELLANEOUS CONDITIONS 69

Complementary or Integrative Nutrition	70
Complementary or Integrative Nutrition	70
Cultural Food Patterns, Vegetarianism, Religious Practices	84
Cultural Food Patterns	84
Vegetarianism	88
Eastern Religious Dietary Practices	91
Western Religious Dietary Practices	93
Middle Eastern Religious Dietary Practices	95
Orofacial Conditions	96
Dental Difficulties and Oral Disorders	96
Periodontal Disease and Gingivitis	102
Temporomandibular Joint Dysfunction	104
Self-Feeding Problems: Vision, Coordination, Chewing, Hearing Loss	106
Self-Feeding Problems: Vision, Coordination, Chewing, Hearing Loss	106

Skin Conditions, Pressure Ulcers, and Vitamin Deficiencies	110
Skin Disorders	110
Pressure Ulcers	114
Vitamin Deficiencies	118
Food Allergy and Ménière's Syndrome	122
Food Allergy and Intolerances	122
Ménière's Syndrome (Autoimmune Inner-Ear Disease)	128
Foodborne Illness	130
Foodborne Illness	130

SECTION 3

PEDIATRICS: BIRTH DEFECTS AND GENETIC AND ACQUIRED DISORDERS 137

Abetalipoproteinemia	144
Attention-Deficit Disorders	145
Autism Spectrum Disorder	148
Biliary Atresia	150
Bronchopulmonary Dysplasia	152
Carbohydrate Metabolic Disorders	155
Cerebral Palsy	158
Cleft Lip and Palate (Orofacial Clefts)	161
Congenital Heart Disease	163
Cystinosis and Fanconi's Syndrome	165
Down Syndrome	167
Failure to Thrive	169
Fatty Acid Oxidation Disorders	172
Fetal Alcohol Syndrome	173
Hirschsprung's Disease (Congenital Megacolon)	175
HIV Infection, Pediatric	177
Homocystinuria	180
Large for Gestational Age Infant (Infant Macrosomia)	182
Leukodystrophies	184
Low Birth Weight or Prematurity	186
Maple Syrup Urine Disease	189
Necrotizing Enterocolitis	192
Neural Tube Defects: Spina Bifida and Melomeningocele	194
Obesity, Childhood	197
Otitis Media	202
Phenylketonuria	203
Prader-Willi Syndrome	206
Rickets	208
Small for Gestational Age Infant and Intrauterine Growth Retardation	210
Tyrosinemia	212
Urea Cycle Disorders	213
Wilson's Disease (Hepatolenticular Degeneration)	216

SECTION 4

NEURO-PSYCHIATRIC CONDITIONS 219

Neurological Disorders 227

- Alzheimer's Disease and Dementias 227
- Amyotrophic Lateral Sclerosis 232
- Brain Trauma 234
- Cerebral Aneurysm 236
- Coma or Persistent Vegetative State 238
- Epilepsy and Seizure Disorders 240
- Guillain-Barré Syndrome 242
- Huntington's Disease 244
- Migraine Headache 245
- Multiple Sclerosis 248
- Myasthenia Gravis and Neuromuscular Junction Disorders 251
- Parkinson's Disease 253
- Spinal Cord Injury 256
- Stroke (Cerebrovascular Accident) 259
- Tardive Dyskinesia 263
- Trigeminal Neuralgia 265

Psychiatric Disorders-Eating Disorders 266

- Anorexia Nervosa 266
- Binge Eating Disorder 269
- Bulimia Nervosa 270

Mental Disorders-Other 273

- Bipolar Disorder 273
- Depression 277
- Schizophrenia 281
- Sleep and Circadian Rhythm Disorders 285
- Substance Use Disorders and Addiction 287

SECTION 5

PULMONARY DISORDERS 291

- Asthma 293
- Bronchiectasis 297
- Bronchitis (Acute) 298
- Chronic Obstructive Pulmonary Disease 300
- Chylothorax 304
- Cor Pulmonale 305
- Cystic Fibrosis 307
- Interstitial Lung Disease 311
- Pneumonia 313
- Pulmonary Embolism 315
- Respiratory Distress Syndrome 317
- Respiratory Failure and Ventilator Dependency 319
- Sarcoidosis 322
- Sleep Apnea 324
- Thoracic Empyema 326
- Transplantation, Lung 327
- Tuberculosis 330

SECTION 6

CARDIOVASCULAR DISORDERS 335

- Angina Pectoris 343
- Arteritis 345

Atherosclerosis, Coronary Artery Disease,

- Dyslipidemia 347
- Cardiac Cachexia 352
- Cardiomyopathies 354
- Heart Failure 357
- Heart Transplantation or Heart-Lung Transplantation 363
- Heart Valve Diseases 365
- Hypertension 367
- Myocardial Infarction 372
- Pericarditis and Cardiac Tamponade 375
- Peripheral Artery Disease 377
- Thrombophlebitis 379

SECTION 7

GASTROINTESTINAL DISORDERS 383

Upper GI: Esophagus 386

- Dysphagia 386
- Esophageal Stricture or Spasm, Achalasia, or Zenker's Diverticulum 390
- Esophageal Trauma 392
- Esophageal Varices 393
- Esophagitis, Gastroesophageal Reflux Disease and Hiatal Hernia 395

Stomach 397

- Dyspepsia/Indigestion or Bezoar Formation 397
- Gastrectomy and Vagotomy 399
- Gastritis and Gastroenteritis 401
- Gastroparesis and Gastric Retention 403
- Giant Hypertrophic Gastritis and Ménétrier's Disease 405
- Peptic Ulcer Disease 407
- Vomiting, Pernicious 410

Lower GI: Intestinal Disorders 412

- Carcinoid Syndrome 412
- Celiac Disease 414
- Constipation 418
- Diarrhea, Dysentery, and Traveler's Diarrhea 421
- Diverticular Diseases 425
- Fat Malabsorption Syndrome 427
- Inflammatory Bowel Disease: Crohn's Disease 430
- Inflammatory Bowel Disease: Ulcerative Colitis 434
- Intestinal Fistula 437
- Intestinal Lymphangiectasia 439
- Intestinal Transplantation 440
- Irritable Bowel Syndrome 443
- Lactose Maldigestion 445
- Megacolon 448
- Ostomy: Colostomy 450
- Ostomy: Ileostomy 452
- Peritonitis 454
- Short Bowel Syndrome 456
- Tropical Sprue 460
- Whipple's Disease (Intestinal Lipodystrophy) 461

Rectal Disorders 463

- Fecal Incontinence 463
- Hemorrhoids 466
- Proctitis 467

SECTION 8**HEPATIC, PANCREATIC, AND BILIARY DISORDERS 471****Liver Disorders 474**

- Alcoholic Liver Disease 474
- Ascites and Chylous Ascites 477
- Hepatitis 479
- Hepatic Cirrhosis 483
- Hepatic Failure, Encephalopathy, and Coma 487
- Liver Transplantation 493

Pancreatic Disorders 497

- Pancreatitis, Acute 497
- Pancreatitis, Chronic 501
- Pancreatic Insufficiency 507
- Pancreatic Transplantation 509
- Zollinger-Ellison Syndrome 511

Biliary Disorders 512

- Biliary Cirrhosis 512
- Cholestasis 514
- Gallbladder Disease 516

SECTION 9**ENDOCRINE DISORDERS 519****Diabetes Mellitus, Complications, and Related Conditions 528**

- Type 1 Diabetes Mellitus 528
- Islet Cell Transplantation 537
- Metabolic Syndrome 539
- Prediabetes 542
- Type 2 Diabetes in Adults 544
- Type 2 Diabetes in Children and Teens 549
- Gestational Diabetes 552
- Pre-Eclampsia and Pregnancy-Induced Hypertension 556
- Diabetic Gastroparesis 558
- Diabetic Ketoacidosis 560
- Hyperosmolar Hyperglycemic State 563
- Hypoglycemia 565
- Hyperinsulinism and Spontaneous Hypoglycemia 567

Pituitary Gland 571

- Hypopituitarism 571

Pituitary Gland (Anterior) 573

- Acromegaly 573

Pituitary Gland (Anterior) 575

- Cushing's Syndrome 575

Pituitary Gland (Posterior) 577

- Diabetes Insipidus 577

Pituitary Gland 579

- Syndrome of Inappropriate Antidiuretic Hormone (SIADH) 579

Ovary 580

- Polycystic Ovarian Disease 580

Adrenal Gland (Cortex) 582

- Adrenocortical Insufficiency and Addison's Disease 582

Adrenal Gland (Cortex) 585

- Hyperaldosteronism 585

Adrenal Gland (Medulla) 586

- Pheochromocytoma 586

Thyroid Gland 589

- Hyperthyroidism 589

Thyroid Gland 591

- Hypothyroidism 591
- Parathyroid Glands 594
- Hypoparathyroidism and Hypocalcemia 595
- Hyperparathyroidism and Hypercalcemia 596

SECTION 10**MALNUTRITION—OBESITY AND UNDERNUTRITION 601****Overnutrition 609**

- Overweight and Obesity 609

Underweight and Malnutrition 622

- Underweight and Unintentional Weight Loss 622
- Undernutrition and Protein-Energy Malnutrition 626
- Refeeding Syndrome 633

SECTION 11**MUSCULO-SKELETAL AND COLLAGEN DISORDERS 637****Ankylosing Spondylitis (Spinal Arthritis) 643**

- Gout 645

Immobilization 647**Lupus 649****Muscular Dystrophy 652****Myofascial Pain Syndromes: Fibromyalgia and Polymyalgia Rheumatica 656****Osteoarthritis and Degenerative Joint Disease 658****Osteomyelitis 662****Osteomalacia 664****Osteopenia and Osteoporosis 666****Paget's Disease (Osteitis Deformans) 672****Polyarteritis Nodosa 673****Rhabdomyolysis 675****Rheumatoid Arthritis 677****Ruptured Disc 683****Scleroderma (Systemic Sclerosis) 684****SECTION 12****HEMATOLOGY: ANEMIAS AND BLOOD DISORDERS 687****Anemias 690**

- Anemia of Chronic Disease 690
- Anemias in Neonates 692
- Anemia of Renal Diseases 694
- Aplastic Anemia and Fanconi's Anemia 696
- Copper Deficiency Anemia 698
- Folic Acid Deficiency Anemia 701
- Hemolytic Anemias 705
- Iron-Deficiency Anemia 706
- Malaria and Parasitic Anemias 710

Megaloblastic Anemias: Pernicious or Vitamin B₁₂ Deficiency 713
Sideroblastic Anemia 715

Hemoglobinopathies 717
Sickle Cell Anemia 717
Thalassemias 720

Other Blood Disorders 722
Bleeding Disorders: Hemorrhage and Hemophilia 722
Hemochromatosis and Iron Overload 724
Polycythemia Vera 726
Thrombocytopenia 728

SECTION 13

CANCER 731

Cancer Prevention and Risk Reduction 733
Cancer Treatment and Tips for Long-Term Survival 738
Cancer: Treatment Guidelines 738
Bone Cancer and Osteosarcoma 751
Bone Marrow or Hematopoietic Stem-Cell Transplantation 753
Brain Tumor 756
Colorectal Cancer 759
Esophageal, Head and Neck, and Thyroid Cancers 763
Gastric Cancer 767
Liver Cancer 769
Kidney, Bladder, and Urinary Tract Cancers 772
Lung Cancer 774
Pancreatic Cancer 777
Skin Cancers 780
Hormonal Cancers 782
Breast Cancer 782
Choriocarcinoma 786
Prostate Cancer 788

Hematological Cancers 791
Leukemias 791
Lymphomas 795
Myeloma 797

SECTION 14

SURGICAL DISORDERS 799

General Surgical Guidelines 800
Surgery 800
Gastrointestinal Surgeries 812
Bariatric Surgery and Gastric Bypass 812
Bowel Surgery 816

SECTION 15

AIDS AND IMMUNOLOGY, BURNS, SEPSIS AND TRAUMA 819

AIDS and HIV Infection 829
Burns (Thermal Injury) 838
Fractures 842
Intestinal Parasite Infections 845

Multiple Organ Dysfunction Syndrome 847
Sepsis and Systemic Inflammatory Response Syndrome 850
Trauma 854

SECTION 16

RENAL DISORDERS 859

Collagen-IV Nephropathies: Alport Syndrome and Thin Glomerular Basement Membrane Nephropathy 862
Chronic Kidney Disease and Renal Failure 864
Dialysis 874
Glomerular and Autoimmune Kidney Diseases 879
Kidney Stones 882
Nephrotic Syndrome 885
Renal Metabolic Disorders: Hypophosphatemic Rickets and Hartnup Disorder 887
Polycystic Kidney Disease 889
Renal Transplantation 891
Urinary Tract Infections 894

SECTION 17

ENTERAL AND PARENTERAL NUTRITION THERAPY 897

Enteral Nutrition 902
Parenteral Nutrition 911

APPENDIX A

Nutritional Review 919
Recommended Dietary Allowances and Dietary Reference Intakes 919
Macronutrients 919
Micronutrients 923
Vitamins 935

APPENDIX B

Dietetic Process, Forms, and Counseling Tips 945
Introduction to the Practice of Dietetics 945
Nutrition Care Process, Forms, and Documentation Tools 948

APPENDIX C

Acuity Ranking for Dietitian Services and Concept Map 983

APPENDIX D

Dietary Reference Intakes 991

Index 999