

Brief Contents

Preface x
Acknowledgments xi
Reviewers xii
User's Guide xiii

PART I Introduction to Medical Terminology 1

- 1** Concepts, Suffixes, and Prefixes of Medical Terminology 2
- 2** Body Structure 38
- 3** Disease and Treatment 74

PART II Body Systems 123

- 4** Integumentary System 124
- 5** Skeletal System 150
- 6** Muscular System 188
- 7** Nervous System and Mental Health 216
- 8** Special Senses: Ear and Eye 258
- 9** Endocrine System 292
- 10** Cardiovascular and Lymphatic Systems 314
- 11** Blood and Immunity 356
- 12** Respiratory System 390
- 13** Digestive System 424

- 14** Urinary System 460
- 15** Male Reproductive System 488
- 16** Female Reproductive System; Pregnancy and Birth 510

Appendices:

- 1** Commonly Used Symbols 554
- 2** Abbreviations and Their Meanings 555
- 3** Word Parts and Their Meanings 564
- 4** Meanings and Their Corresponding Word Parts 571
- 5** Word Roots 579
- 6** Suffixes 584
- 7** Prefixes 586
- 8** Metric Measurements 588
- 9** Stedman's Medical Dictionary at a Glance 589
- 10** Drugs 590
- 11** Answer Key 595

Glossary 622
Figure Credits 648
Index of Boxes 654
Index 655

Contents

Preface x
Acknowledgments xi
Reviewers xii
User's Guide xiii

PART I Introduction to Medical Terminology 1

1 Concepts, Suffixes, and Prefixes of Medical Terminology 2

Introduction 4

Concepts of Medical Terminology 4

Word Parts 4

Combining Forms 5

Word Derivations 6

Words Ending in *x* 6

Suffixes Beginning With *rh* 6

Pronunciation 6

Soft and Hard *c* and *g* 7

Silent Letters and Unusual Pronunciations 7

Abbreviations 8

Phrase Abbreviations 8

Symbols 8

Medical Dictionaries 8

Suffixes 9

Noun Suffixes 9

Adjective Suffixes 12

Forming Plurals 15

Some Exceptions to the Rules 18

Prefixes 18

2 Body Structure 38

Introduction 40

The Cell 40

Tissues 43

Membranes 45

Organs and Organ Systems 45

Word Parts Pertaining to Cells, Tissues, and Organs 47

The Body as a Whole 51

Directional Terms 52

Body Cavities 54

Abdominal Regions 54

Positions 55

Word Parts Pertaining to Body Structure 57

3 Disease and Treatment 74

Introduction 76

Types of Diseases 76

Infectious Diseases 76

Bacteria 78

Responses to Disease 79

Inflammation 79

Phagocytosis 79

Immunity 79

Neoplasia 80

Word Parts Pertaining to Disease 82

Diagnosis 89

Imaging Techniques 91

Treatment 93

Surgery 93

Alternative and Complementary Medicine 95

Cancer 95

Word Parts Pertaining to Diagnosis and Treatment 98

Drugs 106

Adverse Drug Effects 106

Drug Names 106

Drug Information 106

Herbal Medicines 106

Drug Administration 107

Word Parts Pertaining to Drugs 112

PART II Body Systems 123

4 Integumentary System 124

Introduction 126

Anatomy of the Skin 126

Associated Skin Structures 126

Roots Pertaining to the Integumentary System 129

Clinical Aspects of the Skin 130

Wounds 131

Dermatitis 133

Psoriasis 133

Autoimmune Disorders 134

Skin Cancer 134

5 Skeletal System 150

Introduction 152

Divisions of the Skeleton 152

Bone Formation 155

Structure of a Long Bone 155

Joints 156

Roots Pertaining to the Skeletal System 158

Clinical Aspects of the Skeleton 160

Infection 162

Fractures 162

Metabolic Bone Diseases 162

Neoplasms 164

Joint Disorders 164

Disorders of the Spine 166

6 Muscular System 188

Introduction 190

Types of Muscles 190

Skeletal Muscle 190

Muscle Structure 190

Muscle Action 190

Naming of Muscles 194

Roots Pertaining to Muscles 197

Clinical Aspects of the Muscular System 198

Muscular Dystrophy 198

Multiple-System Disorders Involving

Muscles 198

Stress Injuries 199

7 Nervous System and Mental Health 216

Introduction 218

Organization of the Nervous System 218

The Neuron 218

Nerves 219

The Brain 219

Protecting the Brain 220

The Spinal Cord 222

The Spinal Nerves 222

Reflexes 222

The Autonomic Nervous System 224

Word Parts Pertaining to the Nervous System 227

Clinical Aspects of the Nervous System 231

Vascular Disorders 231

Head Injury 231

Confusion and Coma 232

Infection 232

Neoplasms 233

Degenerative Diseases 233

Epilepsy 234

Sleep Disturbances 234

Others 235

Behavioral Disorders 235

Anxiety Disorders 235

Mood Disorders 236

Psychosis 236

Attention Deficit Hyperactivity Disorder 236

Autism Spectrum Disorder 237

Drugs Used in Treatment 237

8 Special Senses: Ear and Eye 258

Introduction 260

The Senses 260

The Ear 262

Clinical Aspects of Hearing 266

Hearing Loss 266

Otitis 266

Otosclerosis 266

Ménière Disease 266

Acoustic Neuroma 266

The Eye and Vision 269

Word Parts Pertaining to the Eye and Vision 273

Clinical Aspects of Vision 276

- Errors of Refraction 276
- Infection 276
- Disorders of the Retina 276
- Cataract 278
- Glaucoma 278

9 Endocrine System 292

Introduction 294

Hormones 294

The Endocrine Glands 294

- Pituitary 296
- Thyroid and Parathyroids 296
- Adrenals 297
- Pancreas 297

Other Endocrine Tissues 297

Roots Pertaining to the Endocrine System 299

Clinical Aspects of the Endocrine System 300

- Pituitary 300
- Thyroid 301
- Parathyroids 301
- Adrenals 301
- The Pancreas and Diabetes 302

10 Cardiovascular and Lymphatic Systems 314

Introduction 316

The Heart 317

- Blood Flow Through the Heart 317
- Blood Supply to the Myocardium 318
- The Heartbeat 318
- Electrocardiography 319

The Vascular System 321

- Blood Pressure 321

Roots Pertaining to the Cardiovascular System 326

Clinical Aspects of the Cardiovascular System 328

- Atherosclerosis 328
- Thrombosis and Embolism 328
- Aneurysm 329
- Hypertension 329
- Heart Disease 330
- Disorders of the Veins 333

The Lymphatic System 337

Roots Pertaining to the Lymphatic System 340

Clinical Aspects of the Lymphatic System 341

11 Blood and Immunity 356

Introduction 358

Blood 358

- Blood Plasma 358
- Blood Cells 358
- Blood Types 362

Immunity 364

- Innate Immunity 364
- Adaptive Immunity 364
- Types of Adaptive Immunity 365

Word Parts Pertaining to Blood and Immunity 367

Clinical Aspects of Blood 370

- Anemia 370
- Coagulation Disorders 373
- Neoplasms 373

Clinical Aspects of Immunity 374

- Hypersensitivity 374
- Immunodeficiency 374
- Autoimmune Diseases 375

12 Respiratory System 390

Introduction 392

Upper Respiratory Passageways 392

- The Nose 392
- The Pharynx 393

Lower Respiratory Passageways and Lungs 394

- The Larynx 394
- The Trachea 394
- The Bronchial System 395
- The Lungs 395

Breathing 395

- Inspiration 396
- Expiration 396

Gas Transport 396

Word Parts Pertaining to the Respiratory System 398

Clinical Aspects of the Respiratory System 401

- Infections 401
- Emphysema 404
- Asthma 405
- Pneumoconiosis 405
- Lung Cancer 405
- Respiratory Distress Syndrome 405
- Cystic Fibrosis 405
- Sudden Infant Death Syndrome 405
- Pleural Disorders 405
- Diagnosis of Respiratory Disorders 406

13 Digestive System 424**Introduction 426****Digestion 426****The Digestive Tract 426**

- The Mouth to the Stomach 427
- The Small Intestine 428
- The Large Intestine 429

The Accessory Organs 429**Roots Pertaining to the Digestive System 432****Clinical Aspects of the Digestive System 436**

- Digestive Tract 436
- Accessory Organs 440

14 Urinary System 460**Introduction 462****The Kidneys 462**

- Kidney Location and Structure 462
- The Nephrons 463
- Blood Supply to the Kidney 463

Urine Formation 463

- Transport and Removal of Urine 464

Roots Pertaining to the Urinary System 466**Clinical Aspects of the Urinary System 469**

- Infections 469
- Glomerulonephritis 469
- Nephrotic Syndrome 470
- Renal Failure 470
- Urinary Stones 472
- Cancer 472
- Urinalysis 473

15 Male Reproductive System 488**Introduction 490****The Testes 490****Transport of Spermatozoa 492****The Penis 492****Formation of Semen 492****Word Parts Pertaining to the Male Reproductive System 494****Clinical Aspects of the Male Reproductive System 496**

- Infection 496
- Benign Prostatic Hyperplasia 497

- Cancer 497
- Cryptorchidism 498
- Infertility 498

Erectile Dysfunction 498

- Inguinal Hernia 498

16 Female Reproductive System; Pregnancy and Birth 510**Introduction 512****The Female Reproductive System 512**

- The Ovaries 512
- The Uterine Tubes, Uterus, and Vagina 512
- The External Genital Organs 512

The Mammary Glands 512**The Menstrual Cycle 514**

- Menopause 515

Contraception 515**Roots Pertaining to the Female Reproductive System 518****Clinical Aspects of Female Reproduction 521**

- Infection 521
- Fibroids 522
- Endometriosis 522
- Dysfunctional Uterine Bleeding 523
- Premenstrual Syndrome 523
- Polycystic Ovarian Syndrome 523
- Cancer of the Female Reproductive Tract 523
- Breast Cancer 523

Pregnancy and Birth 528

- Fertilization and Early Development 528
- The Placenta 528
- Fetal Circulation 530
- Childbirth 531
- Lactation 532

Roots Pertaining to Pregnancy and Birth 534**Clinical Aspects of Pregnancy and Birth 535**

- Infertility 535
- Ectopic Pregnancy 535
- Preeclampsia 536
- Abortion 536
- Rh Incompatibility 536
- Placental Abnormalities 536
- Mastitis 536

Congenital Disorders 537

- Diagnosis of Congenital Disorders 539

Appendices:

- | | | | |
|----------|--|-----------|---|
| 1 | Commonly Used Symbols 554 | 7 | Prefixes 586 |
| 2 | Abbreviations and Their Meanings 555 | 8 | Metric Measurements 588 |
| 3 | Word Parts and Their Meanings 564 | 9 | Stedman's Medical Dictionary at a Glance 589 |
| 4 | Meanings and Their Corresponding Word Parts 571 | 10 | Drugs 590 |
| 5 | Word Roots 579 | 11 | Answer Key 595 |
| 6 | Suffixes 584 | | |
- Glossary 622*
Figure Credits 648
Index of Boxes 654
Index 655