



# CONTENTS

	Preface	xix
	Acknowledgments	xxi
<b>PART 1</b>	<b>THE FOUNDATIONS OF MEDICAL TERMINOLOGY</b>	<b>1</b>
<b>CHAPTER 1</b>	<b>The Basic Ideas, or “Hey! It’s Just <i>Greek</i> (or <i>Latin</i>) to Me!”</b>	<b>3</b>
	Background and History	4
	Early Medical Laws: The Code of Hammurabi	6
	Healing, Not Hurting: Enter the Ancient Greeks and Asclepius	7
	The Greek Foundation of Modern Medicine: Hippocrates	9
	Physiology and Galen	10
	Vesalius: The Founder of Modern Anatomy	12
	Diseases, Injuries, and Therapies	14
	“So, Just <i>Where</i> Do We Put Our ‘ <i>Memory Pills</i> ’?”	15
	Medical Terms and Word Parts	17
	Word Dissection or Analysis	19



## CONTENTS

	Word Translation	19
	Word Building or Synthesis	19
	Summary of Word Parts	20
	The Magic of the Combining Vowel: “A Spoonful of Sugar Helps the Medicine Go Down!”	20
	Quiz	22
	Memory Pillboxes for Chapter 1	24
<b>CHAPTER 2</b>	<b>Terms of Anatomy, Anesthesia, and Surgery</b>	<b>27</b>
	Background and History	28
	Trephination: One of the Earliest Forms of Surgery Was “Hole-istic Medicine”!	28
	John Hunter: The Father of Scientific Surgery Had Night Visits from Grave Robbers!	32
	William Morton: Anesthesia Gets “Real”	33
	Quiz	36
	Memory Pillboxes for Chapter 2	38
	Answers for Chapter 2 Summary Tables	42
<b>CHAPTER 3</b>	<b>Terms of Microbiology and Infectious Diseases</b>	<b>44</b>
	Background and History	45
	Development of the Microscope: The Tiny Becomes Visible	46
	Pathogenic Macroscopic (Gross) Organisms	53
	Pathogenic Fungi: They’re <i>Not</i> All Just <i>Mushrooms</i> !	54
	Summary Overview of Infectious Diseases	55



	<i>Medical Case History: Histoplasmosis— It's from the Birds!</i>	56
	Quiz	58
	Memory Pillboxes for Chapter 3	59
	Answers for Chapter 3 Summary Tables	63
	Answers to Probe of Case History	63
<b>CHAPTER 4</b>	<b>Terms of Therapy: Feeling Better!</b>	<b>64</b>
	Background and History	64
	Caring Hands of Nurses Bring Therapy	65
	Some Major Types of Therapy	66
	The Special World of Chemotherapy	68
	<i>Medical Case History: Drug Addiction and Severe Accidental Overdose</i>	74
	Quiz	76
	Memory Pillboxes for Chapter 4	78
	Answers for Chapter 4 Summary Tables	82
	Answers to Probe of Case History	83
	<b>Test: Part 1</b>	<b>84</b>
<b>PART 2</b>	<b>CELLS AND BODY DEFENSE</b>	<b>89</b>
<b>CHAPTER 5</b>	<b>Terms of Diagnosis, Immunity, and the Lymphatic System</b>	<b>91</b>
	Background and History	91
	An Overview of Immunity	92
	The World of Diagnosis: Taking Stock When Immunity Fails	98
	Important Tools and Techniques Used for Making Diagnoses	100
	The Ultimate Challenge: Finding the "Cause"	105
	<i>Medical Case History: Suddenly Stricken with Tonsillitis</i>	107



## CONTENTS

Quiz	109
Memory Pillboxes for Chapter 5	112
Answers for Chapter 5 Summary Tables	116
Answers to Probe of Case History	117

### CHAPTER 6

<b>Terms Related to Disorders of the Cells and Body Tissues</b>	<b>118</b>
Background and History	119
The Two Size-Worlds of Anatomy	119
Biological Order and Clinical Health	123
Normal A&P of the Human Cell	126
Normal A&P of the Body Tissues	130
Biological Disorder and Morbidity	136
Cellular Pathology and Tissue Necrosis	138
<i>Medical Case History: Terminal Lung Cancer in a Chronic Smoker—A Bad Dream of Hyperplasia</i>	141
Quiz	143
Memory Pillboxes for Chapter 6	144
Answers for Chapter 6 Summary Tables	149
Answers to Probe of Case History	150
<b>Test: Part 2</b>	<b>151</b>

### PART 3

## **BONES AND MUSCLES 157**

### CHAPTER 7

<b>Terms of Skeletal and Muscular Disorders, or “There’s Too Much Trouble in This Joint!”</b>	<b>159</b>
Background and History	160
The Skeletal System and Its Organs	162
Disorders of Bones and Joints	167
The Muscular System and Its Organs	173
Disorders of Skeletal Muscles	178



<i>Medical Case History: Arthroscopy of the</i>	
Knee Joint in an Injured Runner	181
Quiz	185
Memory Pillboxes for Chapter 7	186
Answers for Chapter 7 Summary Tables	191
Answers to Probe of Case History	191
<b>Test: Part 3</b>	<b>192</b>

## **PART 4                      MOVING OUR BLOOD AND AIR                      197**

<b>CHAPTER 8</b>	<b>Terms Related to Disorders of the Heart and Blood Vessels</b>	<b>199</b>
	Background and History	200
	General Components of the Vascular Network	201
	The One-Way Circulation: Valves Tell the Story	202
	Ligation for Control of Blood Loss	206
	Important Parameters of Cardiovascular Function	210
	Aspects of the Blood Pressure	211
	The Coronary Arteries and “Heart Attacks”	217
	Atherosclerosis and Coronary Heart Disease (CHD)	219
	The Blood and its Disorders	222
	The Hematocrit and Erythrocytes (RBCs)	223
	The Buffy Coat	225
	The Blood Plasma and Serum	225
	<i>Medical Case History: A Stubborn Dad Suffers Repeated “Small Heart Attacks”</i>	227
	Quiz	228



## CONTENTS

	Memory Pillboxes for Chapter 8	229
	Answers for Chapter 8 Summary Tables	234
	Answers to Probe of Case History	235
<b>CHAPTER 9</b>	<b>Terms Related to Disorders of the Respiratory System</b>	<b>236</b>
	Background and History	237
	An Overview of the Respiratory System	237
	The Upper Respiratory Tract	237
	Some Disorders of the Upper Respiratory Tract	239
	What Comes After the Trachea? The Lower Respiratory Tract!	240
	Normal versus Abnormal Types of Pulmonary Ventilation	242
	Gas and the Guillotine: The Saga of Antoine Lavoisier	248
	<i>Medical Case History: An Emergency Tracheotomy to Treat Airway Obstruction</i>	249
	Quiz	252
	Memory Pillboxes for Chapter 9	253
	Answers for Chapter 9 Summary Tables	259
	Answers to Probe of Case History	259
	<b>Test: Part 4</b>	<b>260</b>
<b>PART 5</b>	<b>OUR BODY SENSES</b>	<b>265</b>
<b>CHAPTER 10</b>	<b>Terms Related to Disorders of the Glands and Skin</b>	<b>267</b>



	Background and History	268
	Overview of the Integumentary System (Skin)	268
	The Skin and Its Disorders	268
	Glands and Hormones	273
	<i>Medical Case History: Diabetes Mellitus and Insulin Shock</i>	280
	Quiz	284
	Memory Pillboxes for Chapter 10	286
	Answers for Chapter 10 Summary Tables	290
	Answers to Probe of Case History	291
<b>CHAPTER 11</b>	<b>Terms Related to Disorders of the Nervous System and Special Senses</b>	<b>292</b>
	Background and History	293
	The Brain and Its Organic Problems	294
	Some Neuroses and Psychoses	299
	Philippe Pinel Unchains the Insane	301
	Spinal Cord Disorders	303
	Some Disorders of Vision and Hearing	304
	<i>Medical Case History: Cerebrovascular Accident and Aphasia</i>	310
	Quiz	313
	Memory Pillboxes for Chapter 11	314
	Answers for Chapter 11 Summary Tables	320
	Answers to Probe of Case History	320
	<b>Test: Part 5</b>	<b>321</b>
<b>PART 6</b>	<b>WELCOME TO LIFE IN THE LAND “DOWN UNDER”!</b>	<b>327</b>



## CHAPTER 12

<b>Terms Related to Disorders of the Digestive Tract</b>	<b>329</b>
Background and History	329
The Five Major Functions of the Digestive Tract	330
Major Organs of the Digestive Tract	331
Summary of Digestive Tract Anatomy	334
A Detailed Look at the Stomach	334
Digestive Upsets as Disturbances in Body Acid-Base Balance	338
<i>Medical Case History: An Attack of Acute Appendicitis</i>	342
Quiz	347
Memory Pillboxes for Chapter 12	358
Answers for Chapter 12 Summary Tables	354
Answers to Probe of Case History	355

## CHAPTER 13

<b>Terms Related to Pregnancy and Urogenital Disorders</b>	<b>356</b>
Background and History	356
Our Urinary System: The Critical Kidney Connection	357
Urine Formation	358
The Urinary Pathway	362
Some Urinary Disorders	364
The Genital (Reproductive) System	367
Some Male Reproductive Disorders	370
Ova and Their Pathway to Pregnancy	371
Pregnancy versus Birth	375
Some Disorders of Pregnancy and Birth	376
<i>Medical Case History: Modern-Day Toxemia of Pregnancy</i>	379



# CONTENTS



A Final Farewell	381
Quiz	382
Memory Pillboxes for Chapter 13	384
Answers for Chapter 13 Summary Tables	390
Answers to Probe of Case History	391
<b>Test: Part 6</b>	<b>392</b>
<b>Final Exam</b>	<b>397</b>
<b>Answers to Quiz, Test, and Exam Questions</b>	<b>415</b>
<b>Index</b>	<b>421</b>