

# MEDICAL TERMINOLOGY

FOR HEALTH PROFESSIONS



7<sup>th</sup>  
EDITION



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EDITION

# MEDICAL TERMINOLOGY FOR HEALTH PROFESSIONS

Ann Ehrlich  
Carol L. Schroeder

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CENGAGE Learning

Australia • Brazil • Japan • Korea • Mexico • Singapore • Spain • United Kingdom • United States

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***Medical Terminology for Health Professions,  
Seventh Edition***

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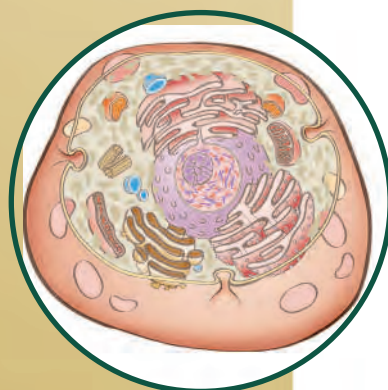
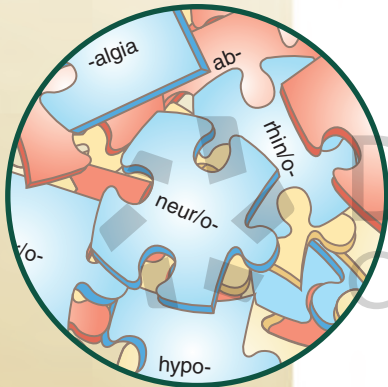
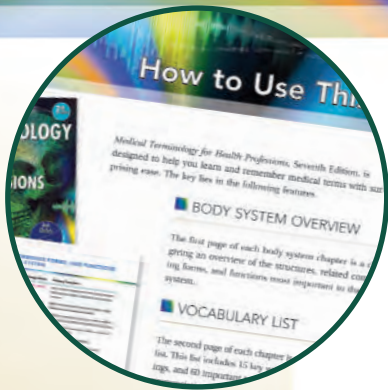
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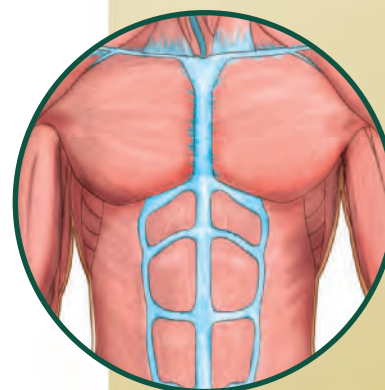
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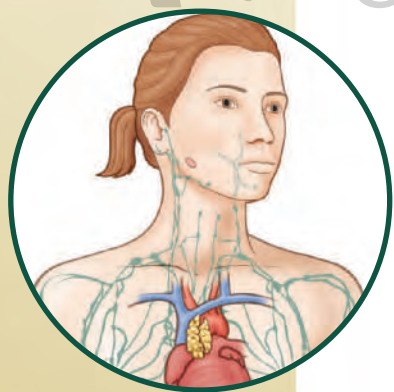
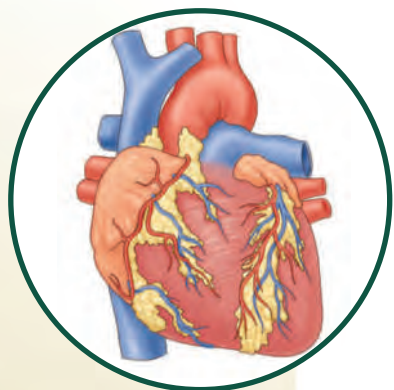
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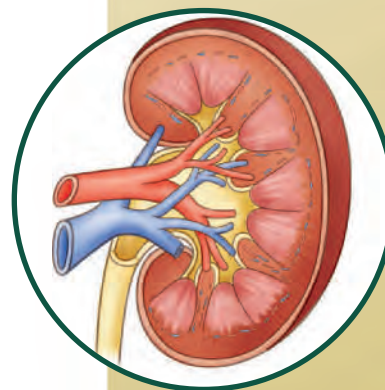
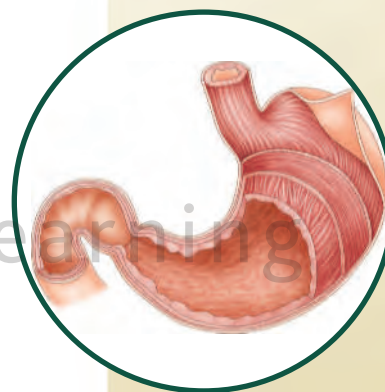
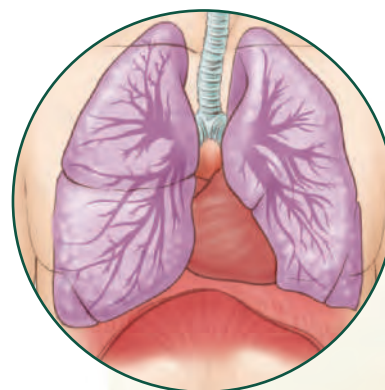
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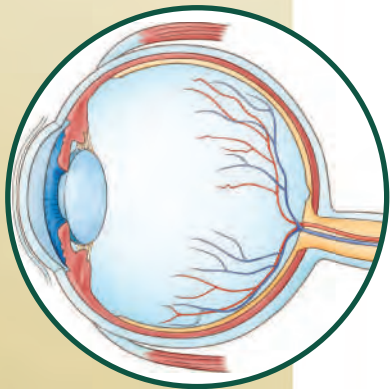
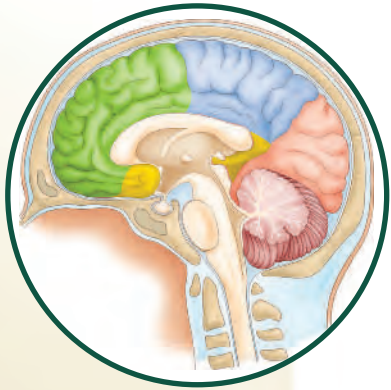
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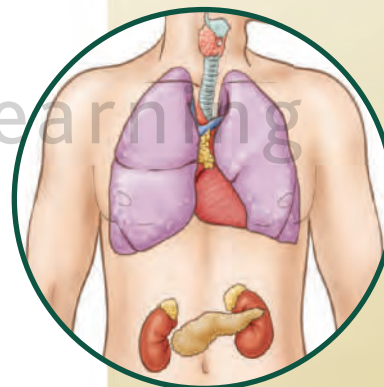
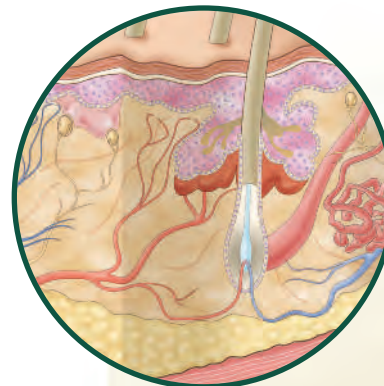
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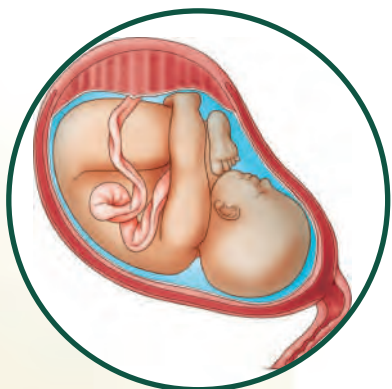
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d. tachycardia

RS.3. The suffix \_\_\_\_\_ fixation.

a. **-desis**

b. **-lysis**

c. **-pexy**

d. **-ptosis**

**-PNEA**

breathing

# Preface

## TO THE LEARNER

Welcome to the world of medical terminology! Learning this special language is an important step in preparing for your career as a healthcare professional. Here's good news: Learning medical terms is much easier than learning a foreign language because you are already familiar with quite a few of the words, such as *appendicitis* and *tonsillectomy*. Understanding new words becomes easier with the discovery that many of these terms are made up of interchangeable word parts that are used in different combinations. Once you understand this, you'll be well on your way to translating even the most difficult medical terms, including words you have never seen before. You'll be amazed to see how quickly your vocabulary will grow!

This book and the accompanying learning materials are designed to make the process as simple as possible. Review the introductory sections at the beginning of the book, including "How to Use This Book" and "How to Use StudyWARE™" so you can find your way around easily. Once you become comfortable with the format, you'll discover you are learning faster than you ever imagined possible.

### CHAPTER ORGANIZATION

The text is designed to help you master medical terminology. It is organized into 15 chapters, the Word Part Review, the Comprehensive Medical Terminology Review, three appendices, an index, and removable Flashcards. To gain the most benefit from your use of this text, take advantage of the many features, including the "Learning Exercises" plus the "Human Touch" stories and discussion that are included at the end of each chapter.

**Primary terms** are the most important terms in a chapter. When first introduced, the term appears in boldface and, if appropriate, is followed by the "sounds-like pronunciation." Only primary terms are used as correct answers in the exercises and tests.

**Secondary terms** appear in *orange* italics. These terms, which are included to clarify the meaning of a primary term, are sometimes used as distracters, but not as correct answers, in exercises or tests.

Each chapter begins with a **vocabulary list** consisting of 15 word parts and 60 medical terms selected from among the primary terms in the chapter. These important words are pronounced in the StudyWARE™, as well as on the optional Audio CDs.

Note: if your instructor is using the **Simplified Syllabus** version of this course, these are the terms that you will be expected to learn for all quizzes, tests, and exams.

### Introductory Chapters and Word Part Review

**Chapters 1 and 2** create the foundation that enables you to master the rest of the book. Chapter 1 introduces key word parts—the building blocks of most medical terms.

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Chapter 2 introduces more word parts and provides an overview of basic terms used throughout the health field.

After studying these chapters, complete the **Word Part Review** that follows Chapter 2. These practice activities and the accompanying test will help you determine whether you've mastered the concept of these all-important building blocks. If you are having trouble here, it is important to put more effort into learning these basics.

## Body System Chapters

**Chapters 3 through 14** are organized by body system. Because each body system stands alone, you can study these chapters in any sequence. Each chapter begins with an overview of the structures and functions of that system so you can relate these to the specialists, pathology, diagnostics, and treatment procedures that follow.

**Chapter 15** introduces basic diagnostic procedures, examination positions, imaging techniques, laboratory tests, nuclear medicine, and pharmacology. It also includes a section on alternative and complementary medicines. This chapter can be studied at any point in the course.

## Comprehensive Medical Terminology Review

This section, which follows Chapter 15, is designed to help you prepare for your final examination. It includes study tips, practice exercises, and a simulated final test; however, be aware that none of these questions are from the actual final test.

## Appendices

**Appendix A: Prefixes, Combining Forms, and Suffixes** is a convenient alphabetic reference for medical word parts. When you don't recognize a word part, you can look it up here.

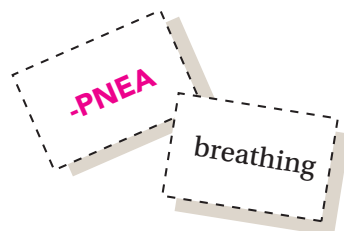
**Appendix B: Abbreviations and Their Meanings** is an extensive list of commonly used abbreviations and their meanings. Abbreviations are important in medicine, and using them *accurately* is essential!

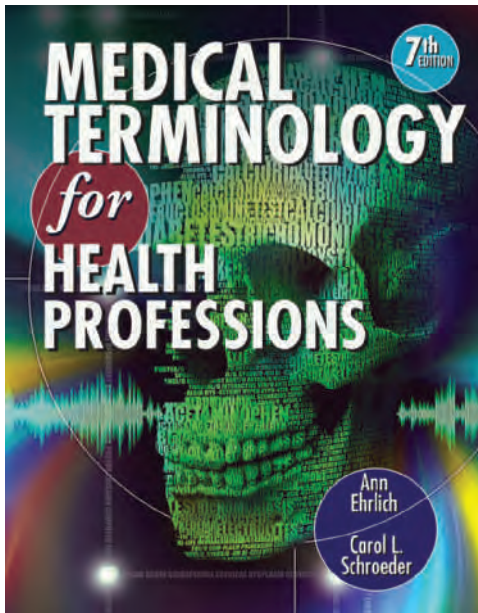
**Appendix C: Glossary of Pathology and Procedures** gives the definitions of all the primary terms in the text relating to diagnosis, pathology, and medical procedures.

## LEARNING SUPPLEMENTS

The following supplements are included with your textbook to provide even more help as you study.

- Flashcards.** Improve your knowledge and test your mastery by using the flashcards provided in the last section of the book. Remove these perforated pages carefully and then separate the cards. Flashcards are an effective study aid for use even when you have only a small amount of time.





- **StudyWARE™**. This interactive software packaged with the book, and available online, offers an exciting way to gain additional practice (while having fun) through exercises, game activities, and audio elements for each chapter. See “How to Use the StudyWare” on page xxv for details.

*The students who have used [StudyWARE™] show a significant lead in learning, retaining and understanding terminology as evidenced by 85% or greater on term tests and 80% or higher on the final spelling and terminology competencies. These students also are better documenters of patient treatment than those who did not utilize [StudyWARE™].*

—Jane Dumas, Allied Health Department Chair

Also available: StudyWARE™ CD-ROM Stand-alone to accompany Medical Terminology for Health Professions, Seventh Edition, ISBN: 1-1115-4334-8

## PREMIUM WEBSITE

A Premium Website is available to accompany the text that includes the StudyWARE™, slide presentations created in PowerPoint®, animations, and Mobile Downloads.

### Redeeming an Access Code:

1. Go To: [www.CengageBrain.com](http://www.CengageBrain.com)
2. ENTER THE Access code in the Prepaid Code or Access Key field, **REDEEM**
3. REGISTER as a new user or LOG IN as an existing user if you already have an account with Cengage Learning or CengageBrain.com
4. SELECT **Go to MY Account**
5. OPEN the product from the My Account page

Also available:

- Premium Website IAC to accompany *Medical Terminology for Health Professions*, Seventh Edition, ISBN 1-1115-4348-8

## TO THE INSTRUCTOR

From the very first edition, *Medical Terminology for Health Professions* has been dedicated to breaking new ground that will make learning medical terminology faster and easier. In this seventh edition, the authors have maintained this standard of providing high-quality teaching materials for the mastery of medical terminology.

In the preparation of the seventh edition, all medical term definitions have been reviewed and updated as appropriate, and obsolete terms have been deleted. In addition, this latest edition of the text has an all-new art program, with original illustrations and contemporary photographs that will appeal to today’s visual learner.

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To help instructors make the transition from the sixth edition to the seventh, all major changes in terms and content can easily be accessed through the “Conversion Guide” found on the Instructor Resources CD-ROM.

## CHANGES TO THE SEVENTH EDITION

A detailed conversion guide that helps you make the change from the sixth to the seventh edition is included in the Instructor Resources. A brief summary of changes follows:

- The “Supplements At-a-Glance” feature briefly describes resource materials to accompany this textbook.
- Hundreds of new, full-color illustrations were added. There is also expanded use of photographs and multicultural images.
- Definitions for word parts were added to the vocabulary lists at the beginning of each chapter.
- Information was added in Chapter 1 on “Do Not Use” abbreviations.
- A section on complementary and alternative therapies was added to Chapter 15.
- Appendix C: Glossary of Pathology and Procedures is back by popular demand.
- A StudyWARE™ Connection feature was added to remind learners of animations, interactive games, and quizzes.
- A Mobile Downloads feature was added to direct learners to free online audio.
- A Workbook Practice feature was added.
- SOAP notes with study questions and answer keys were added to the Instructor’s Manual.
- Word search games using the Simplified Syllabus terms were added to the StudyWARE and Instructor’s Manual.

## USING THE SIMPLIFIED SYLLABUS

In response to the needs of instructors who face the challenge of teaching a “brief” medical terminology course, the authors have developed a program called the Simplified Syllabus. By using these specialized teaching materials, which are based on the 60 terms and 15 word parts from the vocabulary list for each chapter, you can hold your students responsible just for this key information. These materials have been expanded to include:

- A **Simplified Syllabus Computerized Test Bank** with questions using these key terms and word parts for each chapter, plus a midterm and final test
- A **Simplified Syllabus Workbook** with written questions plus, just for fun, a crossword puzzle and word search at the end of each chapter (Workbook ISBN 1-1115-4328-3)
- **Simplified Syllabus Activities** in the Instructor’s Manual, which is part of the Instructor Resources CD-ROM and includes the new Word Search activity
- **Audio CDs** featuring all of the Simplified Syllabus terms pronounced and defined, which creates a flexible study aid for your students to use



## 

### AUDIO CDS

The Audio CDs include the pronunciation of the 60 terms from the vocabulary list for each chapter. After the pause, the word is pronounced again and then defined. These Audio CDs are a valuable, flexible, learning aid for use whenever and wherever the learner needs to study. Audio CDs, ISBN 978-1-1115-4332-7

### THE INSTRUCTOR RESOURCES

The Instructor Resources is a robust computerized tool for your instructional needs! A must-have for all instructors, this comprehensive and convenient CD-ROM contains the following:

- **Textbook Teaching Resources** is an overview of the teaching resources featured in the text.
  - **Conversion Guide** helps you make the change from the sixth to the seventh edition of *Medical Terminology for Health Professions*.
  - **Textbook Learning Exercises Answer Keys** are included for your reference.
  - **Workbook Answer Keys** are also included.
  - **ExamView® Computerized Test Bank** contains two test banks of prepared questions: The **Standard Tests** include 100 questions per chapter plus a 50-question midterm test that covers Chapters 1 through 8, and a 100-question final test covering the entire text.
  - The **Simplified Syllabus** test bank includes 75 questions per chapter plus a 50-question midterm test that covers Chapters 1 through 8, and a 100-question final test covering the entire text. You can use these questions to create your own review materials or tests. This versatile program enables you to create your own tests and to write additional questions.
  - **Presentations Created in PowerPoint®**, including animations, are designed to aid you in planning your class presentations. If a learner misses a class, a printout of the slides for a lecture makes a helpful review page. To facilitate correcting Learning Exercises in class, the textbook Learning Exercises answer keys are included in the PowerPoint® slides. There are now also slides for the Personal Response Device Questions provided for each chapter.
  - **The Instructor's Manual** includes a wide variety of valuable resources to help you plan the course and implement activities by chapter. The availability of this manual in an electronic format increases its value as a teaching resource. This manual includes the following:
    - **Course Planning Tips**, including a sample 16-week syllabus and a sample course outline.
    - **Tips for New Teachers**, which includes practical ideas to help new teachers and their students have a successful experience.
    - The **Teaching Tools by Chapter** feature, which includes two 25-question chapter quizzes with answer keys, classroom activities, a crossword puzzle and answer, and a case study for each chapter. New to this edition are SOAP notes with questions and a word search game.
    - **Review Activities for Midterm and Final Tests.**
- Instructor Resources, ISBN 978-1-1115-4329-7

Not For Sale

## INSTRUCTOR COMPANION SITE

An Instructor Companion Site is available that includes the Instructor Resources. To access the Instructor Companion Site, go to [login.cengage.com/sso/](http://login.cengage.com/sso/).

## THE LEARNING LAB

Learning Lab is an online homework solution that maps to learning objectives in *Medical Terminology for Health Professions, Seventh Edition*. Interactive, scenario-based activities build students' medical vocabulary, strengthen word-building skills, and encourage an understanding of the importance of medical terminology as the basis of communication in the health care workplace, between health care professionals, and with patients. This simulated, immersive environment engages users with its real-life approach. The Learning Lab includes a pre-assessment, three learning activities, and a post-assessment organized around the chapters in this text. The post-assessment scores can be posted to the instructor grade book in any learning management system. The amount of time the student spends within the Learning Lab can also be tracked.

IAC Learning Lab to Accompany *Medical Terminology for Health Professions, 7th Edition*, ISBN 978-1-1115-4342-6

## COURSEMATE

Medical Terminology CourseMate includes:

- An interactive eBook, with highlighting, note taking, and search capabilities
- Interactive learning tools including:
  - Quizzes
  - Flashcards
  - Animations
  - Mobile downloads
  - and more!

Go to [login.cengagebrain.com](http://login.cengagebrain.com) to access these resources, and look for this icon to find resources related to your text in Medical Terminology CourseMate.

IAC CourseMate for *Medical Terminology for Health Professions, 7th Edition*, ISBN 978-1-1115-4339-6



## WEBTUTOR™ ADVANTAGE

Designed to complement the textbook, WebTUTOR™ is a content-rich, Web-based teaching and learning aid that reinforces and clarifies complex concepts. Animations enhance learning and retention of material. The WebCT™ and Blackboard™ platforms also provide rich communication tools to instructors and students, including a course calendar, chat, e-mail, and threaded discussions.

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Learn more about our health care solutions that increase retention and build critical thinking skills. Visit [www.cengage.com/community/health\\_science](http://www.cengage.com/community/health_science).

## ADDITIONAL RESOURCES

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### DELMAR'S MEDICAL TERMINOLOGY STUDENT THEATER: AN INTERACTIVE VIDEO PROGRAM

Organized by body system, this CD-ROM is invaluable to learners trying to master the complex world of medical terminology. The program is designed for allied health and nursing students who are enrolled in medical terminology courses. A series of video clips leads learners through the various concepts, interspersing lectures with illustrations to emphasize key points. Quizzes and games allow learners to assess their understanding of the video content.

ISBN 978-1-4283-1863-2

### DELMAR LEARNING'S ANATOMY AND PHYSIOLOGY IMAGE LIBRARY CD-ROM, THIRD EDITION

This CD-ROM includes more than 1,050 graphic files. These files can be incorporated into a PowerPoint® or Microsoft® Word presentation, used directly from the CD-ROM in a classroom presentation, or used to make color transparencies. The Image Library is organized around body systems and medical specialties. The library includes various anatomy, physiology, and pathology graphics of different levels of complexity. Instructors can search and select the graphics that best apply to their teaching situation. This is an ideal resource to enhance your teaching presentation of medical terminology or anatomy and physiology.

ISBN 978-1-4180-3928-8

### COMPLETE MEDICAL TERMINOLOGY ONLINE COURSE

Designed as a stand-alone course, this eliminates the need for a separate book. Everything is online! Content is presented in four major sections: Study, Practice, Tests, and Reports. The Study section includes the content from the text, along with graphics, animations, and audio links. The Practice section includes exercises and games to reinforce learning. The Test section includes tests with a variety of question types for each chapter. A midterm and a final exam are also available. The Report section features learner reports and instructor reports.

Individual Course, ISBN 978-0-7668-2738-7

Educational Course, ISBN 978-0-7668-2737-0

**Not For Sale**

## DELMAR'S MEDICAL TERMINOLOGY AUDIO LIBRARY

This extensive audio library of medical terminology includes three Audio CDs with more than 3,700 terms pronounced, and a software CD-ROM. The CD-ROM presents terms organized by body systems, medical specialty, and general medical term categories. The user can search for a specific term by typing in the term or key words, or click on a category to view an alphabetical list of all terms within the category. The user can hear the correct pronunciation of one term or listen to each term on the list pronounced automatically. Definitions can be viewed after hearing the pronunciation of terms.

Institutional Version, ISBN 978-1-4018-3223-0

Individual Version, ISBN 978-1-4018-3222-3

## DELMAR'S MEDICAL TERMINOLOGY CD-ROM INSTITUTIONAL VERSION

This is an exciting interactive reference, practice, and assessment tool designed to complement any medical terminology program. Features include the extensive use of multimedia—animations, video, graphics, and activities—to present terms and word-building features. Difficult functions, processes, and procedures are included, so learners can more effectively learn from a textbook.

ISBN 978-0-7668-0979-6

## DELMAR'S MEDICAL TERMINOLOGY FLASH! COMPUTERIZED FLASHCARDS

Learn and review more than 1,500 medical terms using this unique electronic flashcard program. Flash! is a computerized flashcard-type question-and-answer association program designed to help users learn correct spellings, definitions, and pronunciations. The use of graphics and audio clips make it a fun and easy way for users to learn and test their knowledge of medical terminology.

ISBN 978-0-7668-4320-2

## FUNDAMENTALS OF ANATOMY AND PHYSIOLOGY ONLINE COURSE

This fully developed online course introduces learners with little or no prior biology knowledge to the complex and exciting world of anatomy and physiology. The course is a complete interactive online learning solution. Chapter content is organized around body systems and focuses on how each system works together to promote homeostasis. Full-color art, 3-D anatomical animations, audio, and “bite-size” chunks of content fully engage the learner. Interactive games such as image labeling, concentration, and championship reinforce learning. Powerful customization tools allow administrators to individualize the course and assessment tools, while extensive tracking features allow administrators to monitor learner performance and progress.

Anatomy & Physiology Online—Academic Individual Access Code, ISBN 978-1-4180-0131-5

Anatomy & Physiology Online—Academic Institutional Access Code, ISBN 978-1-4180-0130-8

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*Ann Ehrlich*

*Carol L. Schroeder*

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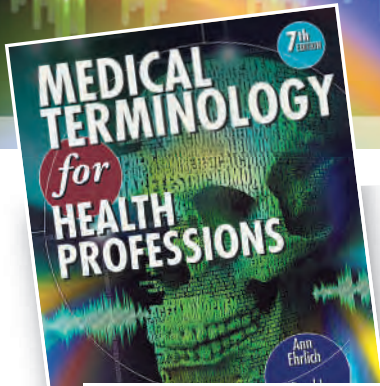
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# How to Use This Book



*Medical Terminology for Health Professions*, Seventh Edition, is designed to help you learn and remember medical terms with surprising ease. The key lies in the following features.

## BODY SYSTEM OVERVIEW

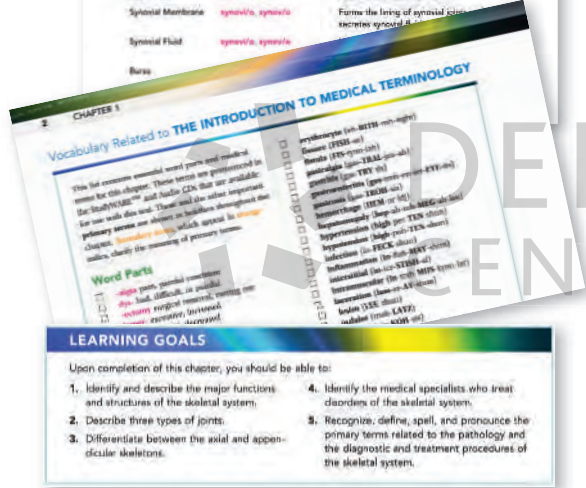
The first page of each body system chapter is a chart giving an overview of the structures, related combining forms, and functions most important to that system.

Overview of STRUCTURES, COMBINING FORMS, AND FUNCTIONS OF THE SKELETAL SYSTEM

Major Structures	Related Combining Forms	Primary Functions
Bones	<i>oste/o, oss/, oste/o, osteo/</i>	Act as the framework for the body, protect the internal organs, and store the mineral calcium.
Bone Marrow	<i>myel/o</i> (also means spinal cord)	Red bone marrow forms some blood cells. Yellow bone marrow stores fat.
Cartilage	<i>chondr/o</i>	Creates a smooth surface formation within the joints and protects the ends of the bones.
Joints	<i>arthr/o</i>	Work with the muscles to make a variety of motions possible.
Ligaments	<i>ligament/o</i>	Connect one bone to another.
Synovial Membrane	<i>synovi/o, synov/o</i>	Forms the lining of synovial joints and secretes synovial fluid.
Synovial Fluid	<i>synovi/o, synov/o</i>	
Bursae		

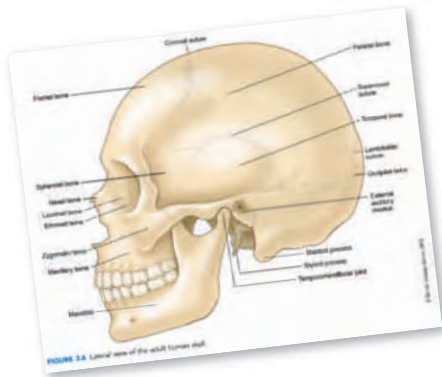
## VOCABULARY LIST

The second page of each chapter is a 75-item vocabulary list. This list includes 15 key word parts and their meanings, and 60 important terms for the chapter with their pronunciations. This immediately alerts you to the key terms in the chapter and acts as a review guide. Next to each term is a box so you can check off each term when you've learned it. The list includes the 60 terms pronounced in the StudyWARE™, which is included with the book and online, as well as on the optional Audio CDs.



## LEARNING GOALS

The beginning of each chapter lists learning goals to help you understand what is expected of you as you read the text and complete the exercises. These objectives are set off with a colored bar for easy identification.



## ALL-NEW ART PROGRAM

The all-new art program includes hundreds of photos and full-color illustrations that help clarify the text and contain important additional information. Review each illustration and read its caption carefully for easy and effective learning. There is also expanded use of photographs and multicultural images.

## "SOUNDS-LIKE" PRONUNCIATION SYSTEM

The sounds-like pronunciation system makes pronunciation easy by respelling the word with syllables you can understand—and say—at a glance. Simply pronounce the term just as it appears in parentheses, accenting the syllables as follows:

- **Primary** (strongest) **accent**: capital letters and bold type
- **Secondary accent**: lowercase letters and bold type

## WORD PARTS

Because word parts are so important to learning medical terminology, whenever a term made up of word parts is introduced, the definition is followed (in parentheses) by the word parts highlighted in **magenta** and defined.

## PRIMARY AND SECONDARY TERMS

- **Primary terms** are the most important medical words in a chapter. When first introduced, the term appears in **boldface** and, if appropriate, is followed by the sounds-like pronunciation. These are the words students need to concentrate on learning. Only primary terms are used as correct answers in the exercises and tests.
- **Secondary terms** appear in **orange** italics. These terms are included to clarify the meaning of a primary term. Although used as distracters in exercises, the secondary terms are not used as correct answers in exercises or tests.

## LEARNING EXERCISES

Each chapter includes 100 Learning Exercises in a variety of formats that require a one- or two-word written answer. Writing terms, rather than just circling a multiple-choice option, reinforces learning and provides practice in writing and spelling the terms.

## THE HUMAN TOUCH: CRITICAL THINKING EXERCISE

A real-life ministry and related critical thinking questions at the end of each chapter that involves patients and pathology helps you apply what you are learning to the real world. There are no right or wrong answers, but just questions to get you started thinking about and using the new terms you have learned.

**Cartilage**

- **Cartilage** (**KAR**-tih-lidj) is the smooth, rubbery, blue-white connective tissue that acts as a shock absorber between bones. Cartilage, which is more elastic than bone, also makes up the flexible parts of the skeleton such as the outer ear and the tip of the nose.
- **Articular cartilage** (ar-TICK-you-lar **KAR**-tih-lidj) covers the surfaces of bones where they come together to form joints. This cartilage makes smooth joint movement possible and protects the — from rubbing against each other (Figures 3.1
- **Hemopoietic** (**hee**-moh-poy-ET-ick) means pertaining to the formation of blood cells (**hem/o** means blood, and **-poietic** means pertaining to formation). This term is also spelled **hematopoietic**.
- **Yellow bone marrow** functions as a fat storage area. It is composed chiefly of fat cells and is located in the medullary cavity of long bones.

**TABLE 3.1**  
Abbreviations Related to the Skeletal System

bone density testing – BDT	BDT – bone density testing
closed reduction – CR	CR – closed reduction
fracture – Fx	Fx – fracture
osteoarthritis – OA	OA – osteoarthritis
osteoporosis – OP	OP – osteoporosis
partial knee replacement – PKR	PKR – partial knee replacement
polyarthritis – PA	PA – polyarthritis
polyarthritis – PMR	PMR – polyarthritis
rheumatoid arthritis – RA	RA – rheumatoid arthritis
total hip arthroplasty – THA	THA – total hip arthroplasty
total knee arthroplasty – TKA	TKA – total knee arthroplasty

**MATCHING WORD PARTS 1**

Write the correct answer in the correct column.

Definition	Correct Answer	Possible Answers
3.1. vertebra		vertebra
3.2. cartilage		cartilage
3.3. vertebra, bone cell		osteocyte
3.4. joint		joint
3.5. ligament		ligament

**MATCHING WORD PARTS 2**

Write the correct answer in the correct column.

Definition	Correct Answer	Possible Answers
3.6. fracture; split		fracture
3.7. rib		rib
3.8. setting back; injury		dislocation
3.9. spinal cord; bone		vertebra
3.10. to bind; to tie		ligament

**THE HUMAN TOUCH**  
Critical Thinking Exercise

The following case and questions are designed to stimulate critical thinking through case discussion. Assume each case and answer questions of the case. Write your answers on a separate sheet of paper.

**Case:** Mrs. Green had a stroke several months ago. She is now in a nursing home. She has a right-sided weakness and a right-sided sensory deficit. She has a right-sided hemiparesis and a right-sided sensory deficit. She has a right-sided hemiparesis and a right-sided sensory deficit. She has a right-sided hemiparesis and a right-sided sensory deficit.

**Questions:**

1. Describe the pathophysiology of Mrs. Green's stroke. How do you think she became paralyzed?
2. Discuss the medical management of Mrs. Green's stroke. How do you think she should be treated?

**Suggested Discussion Topics:**

1. Discuss the pathophysiology of Mrs. Green's stroke. How do you think she became paralyzed?
2. Discuss the medical management of Mrs. Green's stroke. How do you think she should be treated?



# How to Use



## StudyWARE to accompany Medical Terminology for Health Professions, Seventh Edition

### SYSTEM REQUIREMENTS

Minimum System Requirements:

- Microsoft Windows XP w/SP 2, Windows Vista w/SP 1, Windows 7
- Mac OS X 10.4, 10.5, or 10.6
- Processor: Minimum required by Operating System
- Memory: Minimum required by Operating System
- Hard Drive Space: 540 MB
- Screen resolution: 1024 x 768 pixels
- CD-ROM drive
- Sound card and listening device required for audio features
- Flash Player 10. The Adobe Flash Player is free, and can be downloaded from [www.adobe.com/products/flashplayer/](http://www.adobe.com/products/flashplayer/)

### WINDOWS SETUP INSTRUCTIONS

1. Insert disc into CD-ROM drive. The software installation should start automatically. If it does not, go to step 2.
2. From My Computer, double-click the icon for the CD drive.
3. Double-click the *setup.exe* file to start the program.

### MAC SETUP INSTRUCTIONS

1. Insert disc into CD-ROM drive.
2. Once the disc icon appears on your desktop, double click on it to open it.
3. Double-click the *StudyWARE* to start the program.

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## TECHNICAL SUPPORT

Telephone: 1-800-648-7450

Monday-Friday

8:30 A.M.-6:30 P.M. EST

E-mail: [delmar.help@cengage.com](mailto:delmar.help@cengage.com)

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## GETTING STARTED

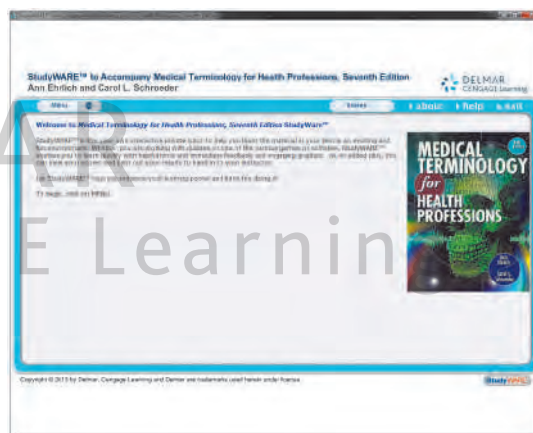
The StudyWARE™ software helps you learn material in *Medical Terminology for Health Professions, Seventh Edition*.

As you study each chapter in the text, be sure to explore the activities in the corresponding chapter in the software. Use StudyWARE™ as your own private tutor.

Getting started is easy. Install the software by inserting the CD-ROM into your computer's CD-ROM drive and following the on-screen instructions. When you open the software, enter your first and last name so the software can store your quiz results. Then choose a chapter from the menu to take a quiz or explore one of the activities.

## MENUS

You can access the menus from wherever you are in the program. The menus include quizzes and other activities.



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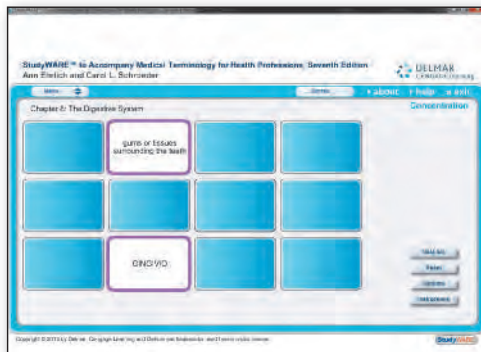
## QUIZZES

Quizzes include true/false, multiple-choice, fill-in-the-blank, and word-building questions. You can take the quizzes in both practice mode and quiz mode. Use practice mode to improve your mastery of the material. You have multiple tries to get the answers correct. Instant feedback tells you whether you're right or wrong and helps you learn quickly by explaining why an answer was correct or incorrect. Use quiz mode when you are ready to test yourself, and keep a record of your scores. In quiz mode, you have one try to get the answers right, but you can take each quiz as many times as you want.



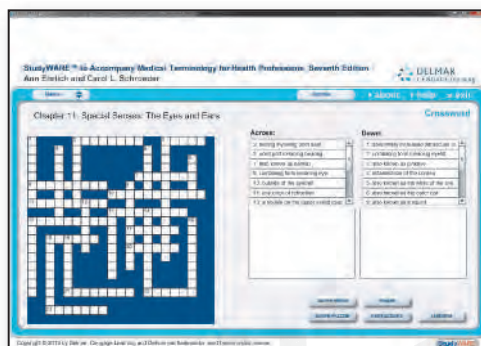
## SCORES

You can view your last scores for each quiz and print your results to hand in to your instructor.



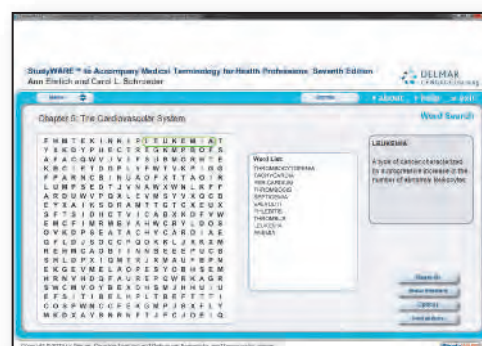
## ACTIVITIES

Activities include image labeling, spelling bee, concentration, crossword and word search puzzles, and championship. Have fun while increasing your knowledge!



## AUDIO LIBRARY

The StudyWARE™ Audio Library is a reference that includes audio pronunciations and definitions for more than 900 medical terms! Use the audio library to practice pronunciation and review definitions for medical terms. You can browse terms by chapter or search by key word. Listen to pronunciations of the terms you select, or listen to an entire list of terms.



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## ANIMATIONS

Animations expand your learning by helping you visualize concepts related to word-building, anatomy, physiology, and pathology.

