

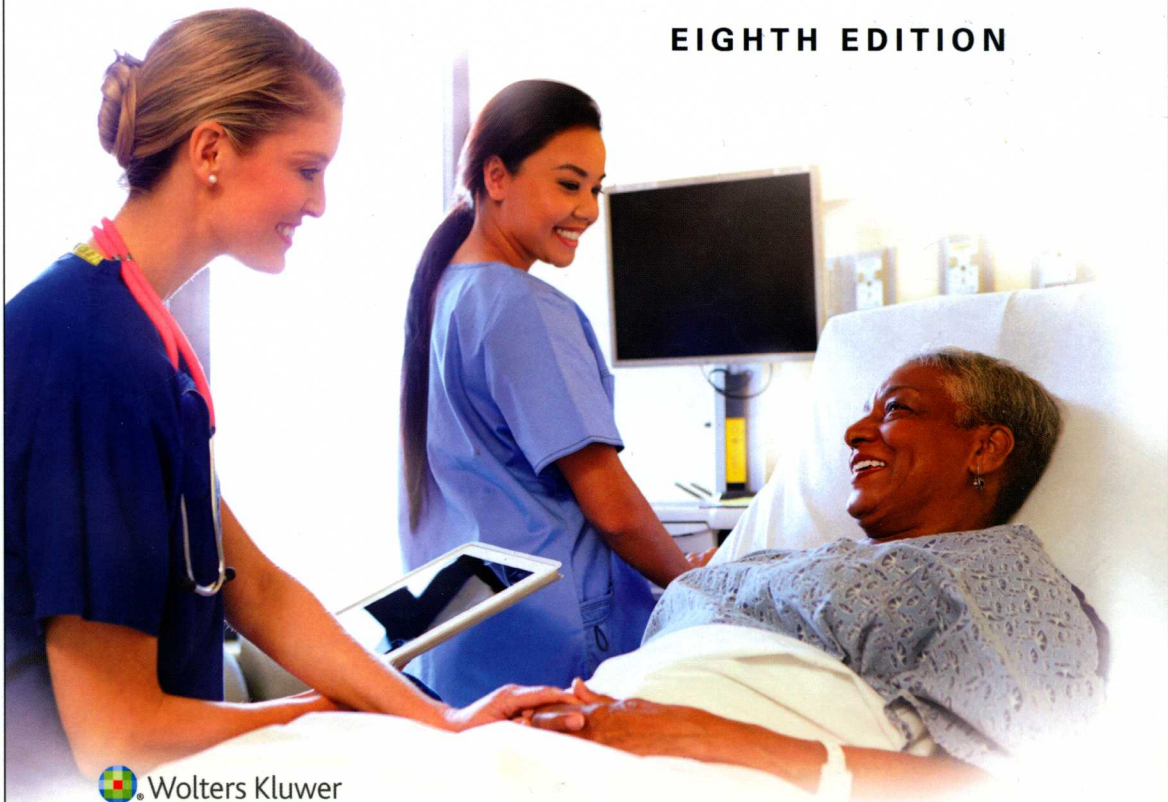
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RUTH CRAVEN  
CONSTANCE HIRNLE  
CHRISTINE M. HENSHAW

# Fundamentals of **NURSING** Human Health and Function

EIGHTH EDITION



 Wolters Kluwer

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# Fundamentals of Nursing

## *Human Health and Function*

**EIGHTH EDITION**

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# Fundamentals of Nursing

*Human Health and Function*

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**EIGHTH EDITION**



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*To Bill; Brent, Katie, and Lex; Judy, Shanyce, and Treven; Kyle and Carter Craven*

*Scott, Beth, Ethan, and Autumn; John Hirnle; Sarah, Peter, and Maddie Nimis;  
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*David and Alex Henshaw*

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this book a reality.*

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For a list of the reviewers of the Test  
Generator questions accompanying this  
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# Preface

## WHY THIS BOOK?

We are witnessing an era of seismic change in the nursing world. In this new landscape, the nurse's role is expanding dramatically, bringing new demands and challenges. Even the focus of nursing practice is shifting: although always important, patient safety, communication, and critical thinking have become paramount. It is vital to have a textbook that can keep pace.

The first duty of a professional nurse is to support or restore patients to health so that they can function independently and safely in various settings. Because hospital stays are shorter—and patient loads often high—nurses are under pressure to make judgments on the spot. In short order, they need to (a) accurately assess a patient's health status, (b) diagnose problems or challenges in the case, (c) help the patient understand what kinds of outcomes he or she can expect, and (d) plan for and arrange for appropriate interventions. Additionally, nurses have to monitor and evaluate each patient's progress along the way.

For today's nursing students, building a foundation of up-to-the-minute nursing knowledge and clinical skills is essential but no longer enough. You must also develop critical thinking skills and learn how to apply them in a clinical setting. With that in mind, this book takes a big-picture approach to prepare you for a challenging and dynamic nursing practice.

## MAKING KNOWLEDGE WORK FOR YOU

The healthcare system is growing more complex, and the pool of nursing candidates is becoming more diverse. You and your fellow students come with different skill sets and represent a wide range of backgrounds. To keep up, nursing schools are expanding various courses in their curricula and adding new teaching methods and media to accommodate different learning styles.

Still, all nursing students have one thing in common: the need for a framework—a system for acquiring knowledge and putting it to work. The right framework simplifies the whole process of clinical thinking. It helps you prioritize information so that you do not feel overwhelmed. The right framework lets you work in a logical sequence and process data calmly and efficiently. It teaches you to think about each case in a meaningful, systematic way, and it builds intuition, so you can

instantly grasp the kinds of problems you are up against. Most important, working within a proven framework helps you protect your patients' safety and ensure the best possible outcomes for those under your care.

That is why the system we have devised for this book is so important. We are still teaching the basics—how to promote health, differentiate between normal function and dysfunction, use scientific rationales, and follow the approved nursing process. But each chapter has also been designed for the clinical environment, with input from nurses who are currently practicing in a range of settings and situations. Our aim is to help you ease the transition from school to your first nursing job. This book will give you a mastery of critical healthcare knowledge as well as something just as valuable: an understanding of how successful nurses think and act.

It is important to remember that, today more than ever, a nurse is a player in a collaborative process. To provide the best care for patients and their families, you must hone your communication skills, learn how to use reputable healthcare databases for evidence, and know how to put your research into practice.

## WHAT MAKES THIS EDITION UNIQUE?

This is our most ambitious edition to date. It does more than provide healthcare knowledge. This edition breathes life into theoretical principles. It puts you in the mindset of a successful nurse and gives you a framework for tackling real-life challenges in a clinical setting. It is organized in an innovative way that ties together all the different elements of the nursing practice, revealing them as a dynamic whole.

Patients respond differently to health problems—it is that variation that makes being a nurse so meaningful and challenging. This book has been thoughtfully designed to help you practice with confidence and offer the best care for your patients right from the start.

## HOW THIS BOOK IS STRUCTURED

The content is presented in four parts, with the most important information clearly highlighted.



### Unit 1: Conceptual Foundations of Nursing

This section introduces vital concepts that weave their way through all of the chapters in the book. Safety, life span, culture, evidence-based care, communication, patient education, and scope of care are all addressed. Together, this material forms the basis for professional nursing practice.

### Unit 2: Nursing Process

In this section, you will be introduced to a way of thinking—a framework for acquiring and processing information—that provides the basis for nursing practice. The framework allows you to stay on track while customizing care for each patient. You will learn to identify normal function, assess risk for dysfunction, envision potential outcomes, plan and provide for interventions, and evaluate the effectiveness of care.

### Unit 3: Clinical Nursing Therapies

In this section, you will learn a broad set of skills vital to many aspects of nursing care. Topics include health assessment, sepsis, medication administration, intravenous therapy, and perioperative care. The information you will learn here forms an essential part of a nurse's toolkit, teaching you how to offer safe, individualized care in various clinical settings.

### Unit 4: Clinical Nursing Care

This section is clearly organized by areas of human function, from physical to psychological, including how they overlap. It covers mobility, respiratory and cardiac health, and nutrition and elimination. You will also learn about sleep, pain, sensory and cognitive issues, self-concept, coping, sexuality, and spiritual health.

## NEW AND IMPROVED IN THE EIGHTH EDITION

- **A timely new chapter**—Chapter 4, The Nurse's Role in Healthcare Quality and Patient Safety—responds to multiple imperatives in today's healthcare focusing on safety and quality. The chapter helps students understand systems that promote exceptional care in a complex environment. The topic of safety as it applies to the individual patient is further explored in Chapter 23.
- **New, richly illustrated concept maps**, ideal for visual learners, apply the nursing process and critical thinking to the case scenarios that begin each chapter.
- **PICO (patient/problem, intervention, comparison, outcome) displays** illustrate examples of a structured, evidence-based way to find an answer to a clinical question related to the chapter-opening scenario.
- **Concept Mastery Alerts** clarify fundamental nursing concepts to improve the reader's understanding of potentially confusing topics, as identified by Misconception Alerts in Lippincott's Adaptive Learning Powered by prepU. Data from thousands of actual students using this program in courses across the United States identified common misconceptions to be clarified in this new feature.
- **Photos** have been updated in some of the procedures, and **new procedures** have been added—for example, end-tidal

carbon dioxide monitoring (EtCO<sub>2</sub>; capnography) and sputum specimen collection.

- **Apply Your Critical Thinking** features appear in nearly every chapter that guide students to explore concepts and situations more deeply. Answers provided in Appendix B allow students to check their thinking.

## SPECIAL FEATURES

Many features appear throughout the text to help students grasp the important content. Refer to the "How to Use This Book" section immediately following this preface to learn more about them.

## A FULLY INTEGRATED COURSE EXPERIENCE

We are delighted to introduce an expanded suite of digital solutions and ancillaries to support instructors and students using *Fundamentals of Nursing: Human Health and Function, Eighth Edition*. To learn more about any solution, please contact your local Wolters Kluwer representative.

Lippincott **CoursePoint+**

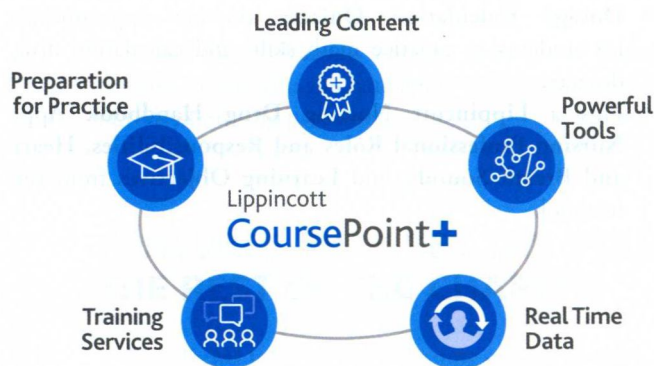
**Lippincott CoursePoint+**

*Lippincott CoursePoint+* is an integrated digital learning solution designed for the way students learn. It is the only nursing education solution that integrates:

- **Leading content in context:** Content provided in the context of the student learning path engages students and encourages interaction and learning on a deeper level.
- **Powerful tools to maximize class performance:** Course-specific tools, such as adaptive learning powered by prepU, provide a personalized learning experience for every student.
- **Real-time data to measure students' progress:** Student performance data provided in an intuitive display lets you quickly spot which students are having difficulty or which concepts the class as a whole is struggling to grasp.
- **Preparation for practice:** Integrated virtual simulation and evidence-based resources improve student competence, confidence, and success in transitioning to practice.
  - **vSim for Nursing:** Co-developed by Laerdal Medical and Wolters Kluwer, *vSim for Nursing* simulates real nursing scenarios and allows students to interact with virtual patients in a safe, online environment.
  - **Lippincott Advisor for Education:** With over 8,500 entries covering the latest evidence-based content and drug information, *Lippincott Advisor for Education* provides students with the most up-to-date information possible, while giving them valuable experience with the same point-of-care content they will encounter in practice.



- **Training services and personalized support:** To ensure your success, our dedicated educational consultants and training coaches will provide expert guidance every step of the way.



## vSim for Nursing

### Simulation and Other Resources

- **vSim for Nursing | Fundamentals**, a new virtual simulation platform (available via thePoint). Co-developed by Laerdal Medical and Wolters Kluwer, *vSim for Nursing | Fundamentals* helps students develop clinical competence and decision-making skills as they interact with virtual patients in a safe, realistic environment. *vSim for Nursing* records and assesses student decisions throughout the simulation, then provides a personalized feedback log highlighting areas needing improvement.
- **DocuCare Lippincott DocuCare** (available via thePoint). Lippincott DocuCare combines web-based electronic health record simulation software with clinical case scenarios that relate to content in *Fundamentals of Nursing: Human Health and Function*. Lippincott DocuCare's nonlinear solution works well in the classroom, simulation lab, and clinical practice.

## TEACHING/LEARNING PACKAGE

A comprehensive teaching/learning package has been developed to assist faculty and students.

### Resources for Instructors

Tools to assist you with teaching your course are available upon adoption of this text at <http://thePoint.lww.com/Craven8e>.

- An **e-Book** on thePoint gives you access to the book's full text and images online.
- The **Test Generator** lets you put together exclusive new tests from a bank containing more than 1,000 questions to help you in assessing your students' understanding of the

material. Test questions link to chapter learning objectives.

- An extensive collection of materials is provided for each book chapter:
  - **Prefecture Quizzes** (and answers) are quick, knowledge-based assessments that allow you to check students' reading.
  - **PowerPoint Presentations** provide an easy way for you to integrate the textbook with your students' classroom experience, either via slide shows or handouts. Multiple choice and true/false questions are integrated into the presentations to promote class participation and allow you to use i-clicker technology.
  - **Guided Lecture Notes** walk you through the chapters, objective by objective, and provide you with corresponding PowerPoint slide numbers.
  - **Discussion Topics** (and suggested answers) can be used as conversation starters or in online discussion boards.
  - **Assignments** (and suggested answers) include group, written, clinical, and web assignments.
  - **Case Studies** with related questions (and suggested answers) give students an opportunity to apply their knowledge to a patient case similar to one they might encounter in practice.
- Two **Image Banks**—one that includes all the images in the book, and one made up of all the book's concept maps—let you use the photographs and illustrations from this textbook in your PowerPoint slides or as you see fit in your course.
- A sample **Syllabus** provides guidance for structuring your nursing fundamentals course.
- **Journal Articles**, updated for the new edition, offer access to current research available in Wolters Kluwer journals.
- Adaptable **Procedure Checklists** walk through procedures from the book step by step and can be used to help you evaluate your students' mastery of skills.
- **Master Checklist for Skills Competency** provides a list of all skills in the book to help you track your students' progress in achieving skill competency.
- **Learning Management System cartridges.**
- **Strategies for Effective Teaching** offer creative approaches.

Contact your sales representative or check out [LWW.com/Nursing](http://LWW.com/Nursing) for more details and ordering information.

## RESOURCES FOR STUDENTS

An exciting set of free resources is available to help students review material and become even more familiar with vital concepts. Students can access all these resources at <http://thePoint.lww.com/Craven8e> using the codes printed in the front of their textbooks.

- **NCLEX-Style Review Questions** for each chapter help students review important concepts and practice for NCLEX. Over 850 questions are included.

- **Multimedia Resources** appeal to various learning styles. Icons in the text direct readers to relevant resources:
- **Watch & Learn Video Clips** reinforce skills from the textbook and appeal to visual and auditory learners.
- **Practice & Learn Activities** present case scenarios and offer interactive exercises and questions to help students apply what they have learned.
- **Concepts in Action Animations** bring physiologic and pathophysiologic concepts to life and enhance student comprehension.
- **Procedure Checklists** walk through skills from the book step by step and can be used to help evaluate your mastery of skills.
- A table of **Medical Terminology: Prefixes, Roots, and Suffixes** provides clues to deciphering many medical terms students will encounter.
- A **Spanish–English Audio Glossary** provides helpful terms and phrases for communicating with patients who speak Spanish.
- **Journal Articles** offer access to current research available in Wolters Kluwer journals.
- **Dosage Calculation Quizzes** provide opportunities for students to practice math skills and calculating drug dosages.
- Plus a **Lippincott Nursing Drug Handbook App, Nursing Professional Roles and Responsibilities, Heart and Breath Sounds, and Learning Objectives** from the textbook.



# How to Use This Book

*Fundamentals of Nursing: Human Health and Function, Eighth Edition* includes many features to help you gain and apply the knowledge that you'll need to meet the challenges of today's nursing profession.

## FEATURES THAT SET THE STAGE FOR THE REST OF THE CHAPTER

- **Key Terms** listed at the beginning of each chapter and bolded in text highlight important vocabulary. A glossary provides definitions of all the key terms in the book.
- **Learning Objectives** help readers identify important chapter content and focus their reading.

### LEARNING OBJECTIVES

Upon completion of this chapter, you will be able to do the following:

1. Identify benefits of sleep sufficiency and consequences of sleep deficiency.
2. Describe normal patterns of sleep and of NREM and REM sleep stages throughout the life span.
3. Identify factors that affect quality sleep and rest.
4. Conduct an assessment interview regarding normal sleep patterns, risk for disturbance, and actual sleep problems.
5. Develop a daily schedule with a patient, incorporating his or her unique needs and patterns for sleep and rest.
6. Discuss interventions to promote sleep health.
7. Develop a nursing plan of care for a patient with sleep disturbance.

### KEY TERMS

circadian rhythms  
enuresis  
fatigue  
hypnotics  
hypopnea  
insomnia  
narcolepsy  
parasomnias  
polysomnography  
rest  
sleep  
sleep deficiency  
sleep-disordered breathing (SDB)  
sleep health  
sleepiness  
sleep latency  
sleep loss  
somnambulism  
sleep sufficiency

## FEATURES THAT STRENGTHEN CRITICAL THINKING

- **Apply Your Critical Thinking** features, which have been renamed since the last edition to more accurately reflect their content, and which now appear in nearly every chapter, guide students to explore concepts and situations more deeply. Answers provided in Appendix B allow students to check their thinking.



### APPLY YOUR CRITICAL THINKING

Esther Bennet, 79, comes to the clinic for a follow-up of her bladder infection, which was originally diagnosed and treated 1 week ago. Her husband tells you that the bladder infection seems much improved, but his wife has watery diarrhea and a severely inflamed perineum. He is frustrated and his wife is in pain, not wanting to sit up.

What assessment data do you need to obtain at this point? How will you assist the patient in managing the diarrhea and the perineal skin problem?

Check your answers in Appendix B.