LeMone & Burke's Medical-Surgical Nursing

Clinical Reasoning in Patient Care

Seventh Edition

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Gerene Bauldoff is a Professor of Clinical Nursing at The Ohio State University College of Nursing in Columbus, Ohio. She has been a nurse educator for 19 years, teaching medical-surgical nursing, clinical and research methods and measurement, and evidence-based practice courses at the baccalaureate, master's, and doctoral levels. Prior to her nursing educator role, her clinical background included home health nurse, lung transplant coordinator, and pulmonary rehabilitation coordinator. Dr. Bauldoff has a diploma from the Western Pennsylvania Hospital School of Nursing in Pittsburgh, Pennsylvania, and a BSN from LaRoche College in Pittsburgh. Her graduate education is from the University of Pittsburgh, with a MSN in medical-surgical nursing (cardiopulmonary clinical nurse specialist) and PhD in nursing in 2001, training under Leslie Hoffman, PhD, RN, FAAN.

Dr. Bauldoff is an active member of multiple professional organizations including the American Academy of Nursing (AAN), Sigma Theta Tau International Honor Society of Nursing, the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR), the American Thoracic Society Nursing Assembly, and the American College of Chest Physicians (ACCP). She is a recognized expert in medical-surgical nursing, focusing on the care of the patient with chronic pulmonary disease, serving on committees focusing on international standards for and patient-centered outcomes in pulmonary rehabilitation. She has been honored with fellowships in AAN and ACCP and is a master fellow in AACVPR. Dr. Bauldoff has conducted several international presentations related to evidence-based practice and clinical outcomes.

Dr. Bauldoff considers nursing as the greatest profession, using scientific evidence to provide the highest quality of care while maintaining the personal relationship with patients and their families. Her experiences provide her with insights and lessons that she shares with her students.

Dr. Bauldoff resides in central Ohio. She enjoys international travel, walking, bicycling, golfing, and spending time with her family and friends.

I dedicate this book to the memory of my parents, to my sisters, and to my friends, especially Vicki von Sadovszky, Linda Daley, Patty Orndoff, and Eileen Collins—you are my touchstones to the world and are my greatest sounding boards. You help me keep my feet on the ground and my face turned toward new opportunities. You mean the world to me!

Paula Gubrud, RN, MS, EdD, FAAN

Paula Gubrud is Senior Associate Dean for Academic Affairs and an Associate Professor at Oregon Health and Science University (OHSU) School of Nursing. She has more than 25 years of experience as a nurse educator involving multiple levels of programs from LPN to doctoral education. Dr. Gubrud is a founding leader and co-director of the Oregon Consortium for Nursing Education, an award-winning consortium that includes the five campuses of OHSU and nine community colleges. She also has more than 20 years of experience in medical-surgical nursing, critical care, home health, and hospice. Dr. Gubrud earned a baccalaureate degree in nursing from Walla Walla University (1980), an MS in community-based nursing from OHSU (1993), and an EdD in postsecondary education from Portland State University (2008). She is a frequent invited speaker at national and international nursing education conferences and consults with other states and countries on the development of competency-based curriculum and nursing education consortiums designed to promote academic progression in nursing education. Her research activity is focused on clinical education redesign and the integration of simulation into nursing curriculum.

Dr. Gubrud is passionate about nursing and the opportunities it provides members of the profession. She values the sacred relationship nurses experience with patients as they promote health, treat illness, and provide comfort and palliative care. She believes the nation's health depends on highly qualified nurses who are dedicated to lifelong learning in pursuit of evidence-based, patient-centered care.

Dr. Gubrud lives in the Pacific Northwest and enjoys reading, camping, hiking, and fishing. She catches really big salmon year round!

I dedicate this book to my husband Leland Howe and my children Elizabeth Gubrud-Howe, Gabriel Howe, and Caleb Howe for encouraging me to pursue my professional passions and goals. I also dedicate this book to my father, Allan Gubrud, who instilled insatiable curiosity, a love of learning, and a passion to teach.

Margaret-Ann Carno, PhD, MBA, MJ, RN, CPNP, D,ABSM, ATSF, FAAN

Margaret-Ann Carno is Professor of Clinical Nursing and Pediatrics as well as Co-Director of Baccalaureate Programs at the University of Rochester, School of Nursing. Dr. Carno has over 20 years of teaching across baccalaureate, master's, and doctoral levels of nursing education in medical-surgical nursing, pediatrics, ethics, health law, sleep across the lifespan, and research. Seeing students be successful gives Dr. Carno the greatest joy.

Dr. Carno earned her baccalaureate in nursing at Syracuse University and then went on to complete an MBA in Operations Management and an MS in Nursing (Pediatric Critical Care) also from Syracuse University. She received her PhD from the University of Pittsburgh under the guidance of Leslie Hoffman, PhD, RN, FAAN. Dr. Carno also holds a Masters in Jurisprudence in Health Law from University of Loyola–Chicago and a post Masters certification as a Pediatric Nurse Practitioner from the University of Rochester, School of Nursing. She is a Fellow of the American Academy of Nursing and of the American Thoracic Society. Dr Carno is a Diplomate of the American Board of Sleep Medicine.

When she is not teaching or working on other duties, Dr. Carno enjoys traveling the world with her beloved cousins as shown in the accompanying photo, where Dr. Carno is on the left.

I dedicate this book to my father Joseph, who while was in my life only a short time instilled the idea I could be anything I wanted and to never stop learning. Also to my mom, Libera, who has been my champion and support throughout my life.

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Preface

Why We Wrote This Book

Dr. LeMone-Koeplin developed the original vision for *Medical-Surgical Nursing: Clinical Reasoning in Patient Care* based on the belief that nursing is a holistic, evidence-based, person-centered profession. Nursing care, therefore, is provided for the whole person, not just for a malfunction of one or more body systems. We chose the cover and unit opener images to reflect this emphasis on the whole person.

The revisions and updates reflected in the seventh edition of *Medical-Surgical Nursing: Clinical Reasoning in Patient Care* further reflect our belief that nurses should possess the necessary knowledge, skills, and attitudes to continuously improve the quality and safety of care in healthcare systems. We believe that nurses need to be able to use evidence-based practice, apply clinical reasoning skills, and understand nursing care standards to safely perform complex skills and tasks. In Unit 1, *Dimensions of Medical-Surgical Nursing*, Chapter 2, Health and Illness in Adults, includes a section on critical care with a table to easily find critical care–related topics like shock and sepsis, burns, cardiac and pulmonary disorders, as well as disorders of the liver/pancreas, acute kidney injury, and spinal cord injury. Unit 2, *Alterations in Patterns of Health*, has been revised to include a new, comprehensive chapter on caring for the patient with alterations in sleep (Chapter 3) to emphasize the impact that inadequate sleep has on the patient in a multitude of ways.

In this textbook, discussions of the human responses to illness and disease are structured within the framework of clinical reasoning and the nursing process. Nursing care is presented within the context of nursing problems or diagnoses, emphasizing the importance of developing individualized evidence-based plans of care. The quality and safety implications for nursing care are addressed. Throughout the text, nursing care planning is based on a philosophy that individuals, their families, and communities are active participants in health and illness as well as consumers of healthcare services.

Regardless of the type of healthcare service or setting, medical-surgical nurses must use knowledge and skills to provide competent and safe patient care. The ability to effectively prioritize activities and patient care needs is critical. Nursing care is structured by the activities planned and carried out through clinical reasoning and multiple thinking strategies when applying the nursing process. Care of the medical-surgical patient is based on established professional ethics and standards and is focused on promoting or returning the patient to a state of functional health or providing palliative care at the end of life. Transitions of care are addressed for selected topics related to nursing based on prevention, acute, chronic, and end-of-life foci.

Throughout the text, we make every effort to communicate that both nurses and patients may be male or female and that patients require holistic, individualized care regardless of their age, gender, or racial, cultural, or socioeconomic background. Where indicated, we addressed issues related to special populations including older adults, the LGBTQI population, veterans, and adult survivors of pediatric conditions and congenital disorders. Our goal is to help students acquire the knowledge, resources, and competencies that ensure a solid base for clinical reasoning and that are applied to provide safe, individualized, and competent nursing care. We use understandable language and a consistent format, focusing on the most commonly encountered conditions. We have developed multiple learning strategies to facilitate success—audio, illustrations, teaching tips, and video and animation media.

Starting with the first edition, we have held fast to our vision that this textbook:

- Maintains a strong focus on nursing care as the essential element in learning and doing nursing, regardless of the gender, age, race, culture, or socioeconomic background of the patient or the setting for care.
- Provides a balance of pathophysiology, pharmacology, and interprofessional care to support interdependent and independent nursing interventions.
- Emphasizes the nurse's role as a caregiver, educator, advocate, leader and manager, and as an essential member of the interprofessional healthcare team.
- Uses functional health patterns and the nursing process as the structure for providing nursing care in today's world by prioritizing nursing interventions specific to altered responses to illness.
- Fosters clinical reasoning and decision making as the basis for safe, knowledgeable, individualized clinical practice.

Organization of This Book

The 50 chapters in this text are organized into units based on alterations in human structure and function. To increase student learning, each chapter in the book includes key terms, learning outcomes and clinical competencies, chapter highlights, test yourself NCLEX-type questions, and references with supporting evidence. Each chapter is grouped into sections, and each section has a learning outcome.

Each unit with a focus on altered health opens with an assessment chapter. This chapter draws on the student's prerequisite knowledge and serves to reinforce basic principles of anatomy and physiology as applied to assessment in both health and illness. Following the assessment chapter, nursing care chapters provide information about major illnesses and traumatic injuries. Each nursing care chapter follows a consistent format, including the following key components:

Pathophysiology and Risk Factors

The discussion of each *major* illness or injury begins with incidence and prevalence, risk factors, and an overview of pathophysiology, followed by manifestations (signs and symptoms) and complications. Selected *Focus on Cultural Diversity* boxes demonstrate how race, age, and gender affect differences in incidence, prevalence, and mortality.

Manifestations and Complications

To further describe *major* illnesses, manifestations including signs and symptoms, antecedents, and subsequent clinical symptoms commonly seen are described for each condition. Common complications are also described to provide important information to allow anticipation of potential problems.

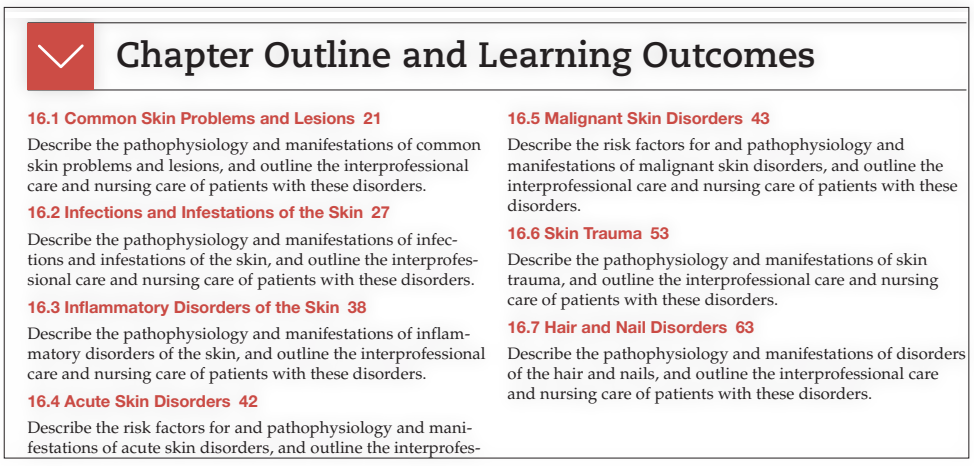
Interprofessional Care

Interprofessional care considers diagnosis and treatment by the healthcare team. The section includes information, as appropriate, about specific tests necessary for diagnosis, medications, surgery and other treatments, fluid management, dietary management, and complementary and alternative therapies. Specific information with related nursing care is highlighted in *Medication Administration* boxes and boxes focused on the nursing care of patients having a specific treatment or surgery.

Nursing Care

We discuss nursing assessment and care within a context of priorities of care, diagnoses, outcomes, and interventions, with rationales provided for each intervention. Boxes throughout each illness discussion section present information essential to patient care. These features include *Nursing Care of the Patient*, *Genetic Considerations*, *Focus on Cultural Diversity*, *Safety Alerts*, *Multisystem Effects*, *Pathophysiology Illustrated*, and *Moving Evidence into Action*.

Last, for 80 major disorders or types of trauma, we provide a narrative *Case Study & Nursing Care Plan*. Clinical reasoning



Chapter Outline and Learning Outcomes

16.1 Common Skin Problems and Lesions 21

Describe the pathophysiology and manifestations of common skin problems and lesions, and outline the interprofessional care and nursing care of patients with these disorders.

16.2 Infections and Infestations of the Skin 27

Describe the pathophysiology and manifestations of infections and infestations of the skin, and outline the interprofessional care and nursing care of patients with these disorders.

16.3 Inflammatory Disorders of the Skin 38

Describe the pathophysiology and manifestations of inflammatory disorders of the skin, and outline the interprofessional care and nursing care of patients with these disorders.

16.4 Acute Skin Disorders 42

Describe the risk factors for and pathophysiology and manifestations of acute skin disorders, and outline the interprofes-

16.5 Malignant Skin Disorders 43

Describe the risk factors for and pathophysiology and manifestations of malignant skin disorders, and outline the interprofessional care and nursing care of patients with these disorders.

16.6 Skin Trauma 53

Describe the pathophysiology and manifestations of skin trauma, and outline the interprofessional care and nursing care of patients with these disorders.

16.7 Hair and Nail Disorders 63

Describe the pathophysiology and manifestations of disorders of the hair and nails, and outline the interprofessional care and nursing care of patients with these disorders.

questions specific to the care plan are provided in a section called *Clinical Reasoning in Patient Care* (with suggestions for decision-making provided in Appendix B under *Evaluate Your Response to Clinical Reasoning in Patient Care*). The nursing care section ends with information about continuity of care with essential patient and caregiver education, and suggestions for referrals and additional patient resources.

Transitions of Care

New to the seventh edition, this section addresses critical issues for patients and families along the care continuum. For identified disorders, we describe care needs related to prevention, acute and chronic disease, and end-of-life considerations to support planning for and implementing comprehensive care transition.

End-of-Chapter Sections

Each chapter ends with *Chapter Highlights*, a bulleted list of key points for each section/learning outcome; *Test Yourself NCLEX-RN Review*, 10 NCLEX-style review questions that reinforce comprehension of the chapter content (the correct answers with rationales are found in Appendix B); *References* to support all evidence presented in the chapter; and *Additional Resources* for students who need or want additional study.

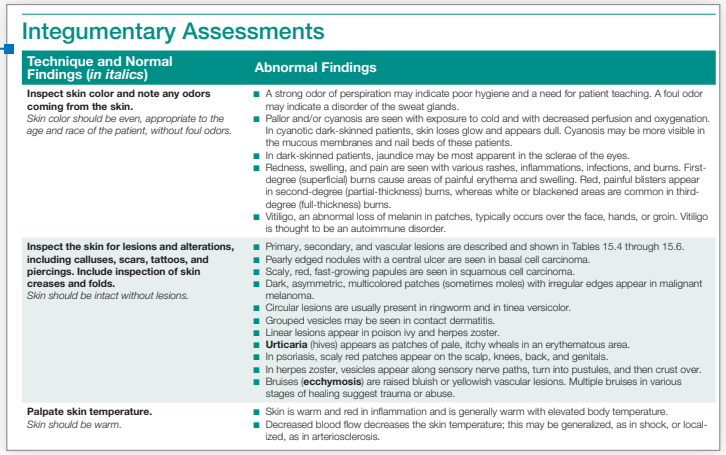
What's New in the Seventh Edition

We are delighted to welcome Margaret-Ann Carno as a coauthor of this book. Information about Dr. Carno is included in About the Authors on page x. New features of the seventh edition include:

- A consistent chapter structure with numbered sections, a matching learning outcome for each, and a new design that emphasizes the structure, making it easier for students to navigate the book.
- Chapter 3, *Nursing Care of the Patient with Alterations of Sleep*, which describes commonly seen sleep disorders. The greatest strength of the chapter is that it demonstrates the linkage between sleep and health and the bidirectional nature of sleep and health.
- Recognizing the overwhelming number and variety of medications nurses must safely administer, the most commonly prescribed drugs are printed in **blue type** in the *Medication Administration* features.
- *Transitions of Care* replaces the section previously titled Continuity of Care. This section focuses on the nurse's responsibility for preparing the patient and caregivers for transitions of care from one healthcare setting to another or to the home.

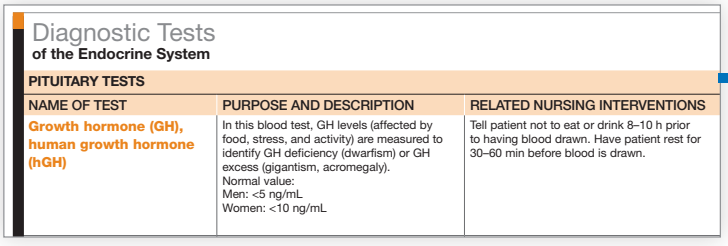
Chapter Features

Assessment Addressing the first step in the nursing process, the assessment feature provides a review of the objective and subjective data needed to provide a clear clinical picture of the condition. Techniques and normal findings are compared to abnormal findings. Selected assessments include detailed guidelines for psychomotor skills used to assess the organ system.



Integumentary Assessments

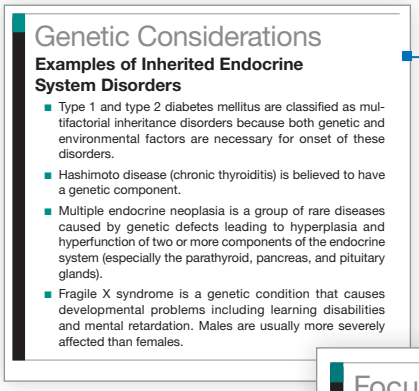
Technique and Normal Findings (*in italics*)	Abnormal Findings
Inspect skin color and note any odors coming from the skin. *Skin color should be even, appropriate to the age and race of the patient, without foul odors.*	■ A strong odor of perspiration may indicate poor hygiene and a need for patient teaching. A foul odor may indicate a disorder of the sweat glands. ■ Pallor and/or cyanosis are seen with exposure to cold and with decreased perfusion and oxygenation. In cyanotic dark-skinned patients, skin loses glow and appears dull. Cyanosis may be more visible in the mucous membranes and nail beds of these patients. ■ In dark-skinned patients, jaundice may be most apparent in the sclerae of the eyes. ■ Redness, swelling, and pain are seen with various rashes, inflammations, infections, and burns. First-degree (superficial) burns cause areas of painful erythema and swelling. Red, painful blisters appear in second-degree (partial-thickness) burns, whereas white or blackened areas are common in third-degree (full-thickness) burns. ■ Vitiligo, an abnormal loss of melanin in patches, typically occurs over the face, hands, or groin. Vitiligo is thought to be an autoimmune disorder.
Inspect the skin for lesions and alterations, including calluses, scars, tattoos, and piercings. Include inspection of skin creases and folds. *Skin should be intact without lesions.*	■ Primary, secondary, and vascular lesions are described and shown in Tables 15.4 through 15.6. ■ Pearly edged nodules with a central ulcer are seen in basal cell carcinoma. ■ Scaly, red, fast-growing papules are seen in squamous cell carcinoma. ■ Dark, asymmetric, multicolored patches (sometimes moles) with irregular edges appear in malignant melanoma. ■ Circular lesions are usually present in ringworm and in tinea versicolor. ■ Grouped vesicles may be seen in contact dermatitis. ■ Linear lesions appear in poison ivy and herpes zoster. ■ **Urticaria** (hives) appears as patches of pale, itchy wheals in an erythematous area. ■ In psoriasis, scaly red patches appear on the scalp, knees, back, and genitals. ■ In herpes zoster, vesicles appear along sensory nerve paths, turn into pustules, and then crust over. ■ Bruises (**ecchymosis**) are raised bluish or yellowish vascular lesions. Multiple bruises in various stages of healing suggest trauma or abuse.
Palpate skin temperature. *Skin should be warm.*	■ Skin is warm and red in inflammation and is generally warm with elevated body temperature. ■ Decreased blood flow decreases the skin temperature; this may be generalized, as in shock, or localized, as in arteriosclerosis.



Diagnostic Tests
of the Endocrine System

PITUITARY TESTS		
NAME OF TEST	PURPOSE AND DESCRIPTION	RELATED NURSING INTERVENTIONS
Growth hormone (GH), human growth hormone (hGH)	In this blood test, GH levels (affected by food, stress, and activity) are measured to identify GH deficiency (dwarfism) or GH excess (gigantism, acromegaly). Normal value: Men: <5 ng/mL Women: <10 ng/mL	Tell patient not to eat or drink 8–10 h prior to having blood drawn. Have patient rest for 30–60 min before blood is drawn.

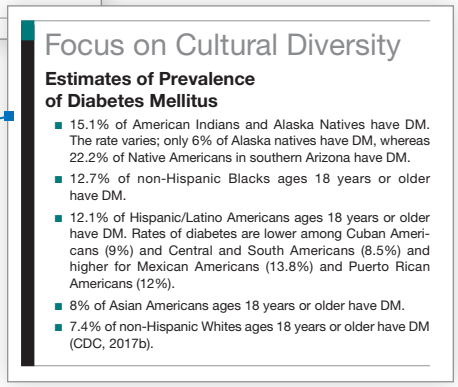
Diagnostic Tests This feature identifies commonly used diagnostic tests for specific disorders. The tests are identified while the values of characteristics related to the specific disorder are emphasized, making a clear connection between the significance of the test and the disorder.



Genetic Considerations
Examples of Inherited Endocrine System Disorders

- Type 1 and type 2 diabetes mellitus are classified as multifactorial inheritance disorders because both genetic and environmental factors are necessary for onset of these disorders.
- Hashimoto disease (chronic thyroiditis) is believed to have a genetic component.
- Multiple endocrine neoplasia is a group of rare diseases caused by genetic defects leading to hyperplasia and hyperfunction of two or more components of the endocrine system (especially the parathyroid, pancreas, and pituitary glands).
- Fragile X syndrome is a genetic condition that causes developmental problems including learning disabilities and mental retardation. Males are usually more severely affected than females.

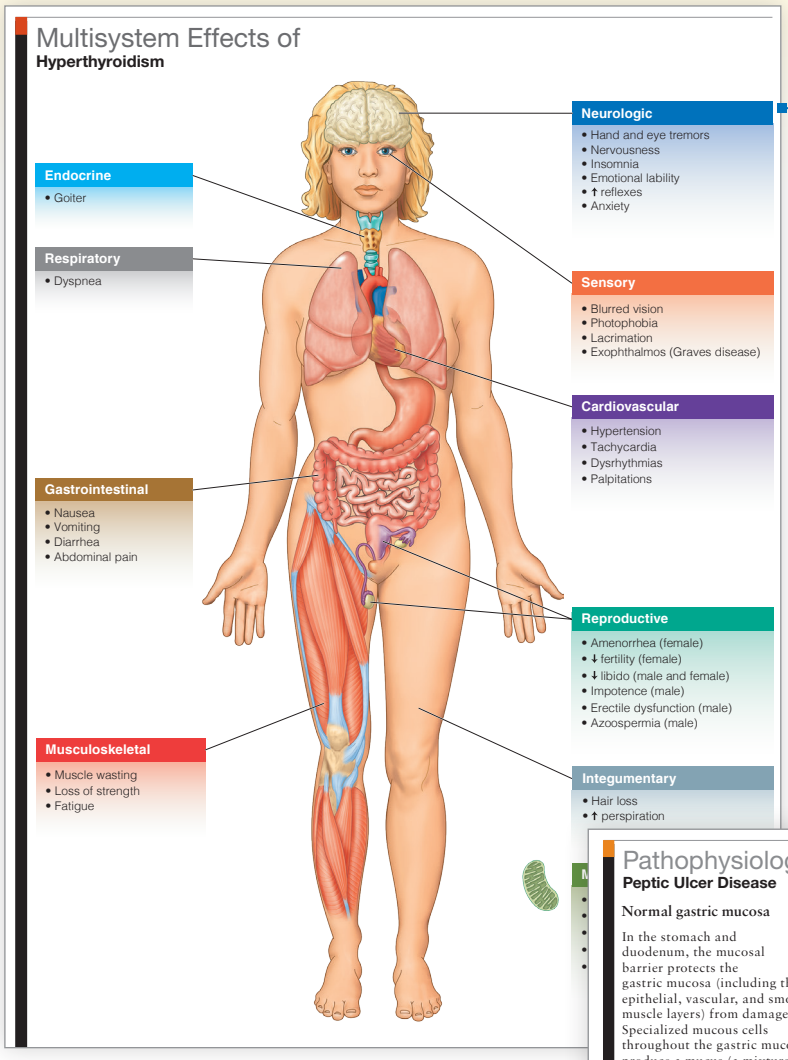
Genetic Considerations With the expanding knowledge of genetic impact on disease, the Genetics Considerations feature provides examples of system-specific disorders. This feature is found in both the assessment chapters as well as the detailed disorder chapters.



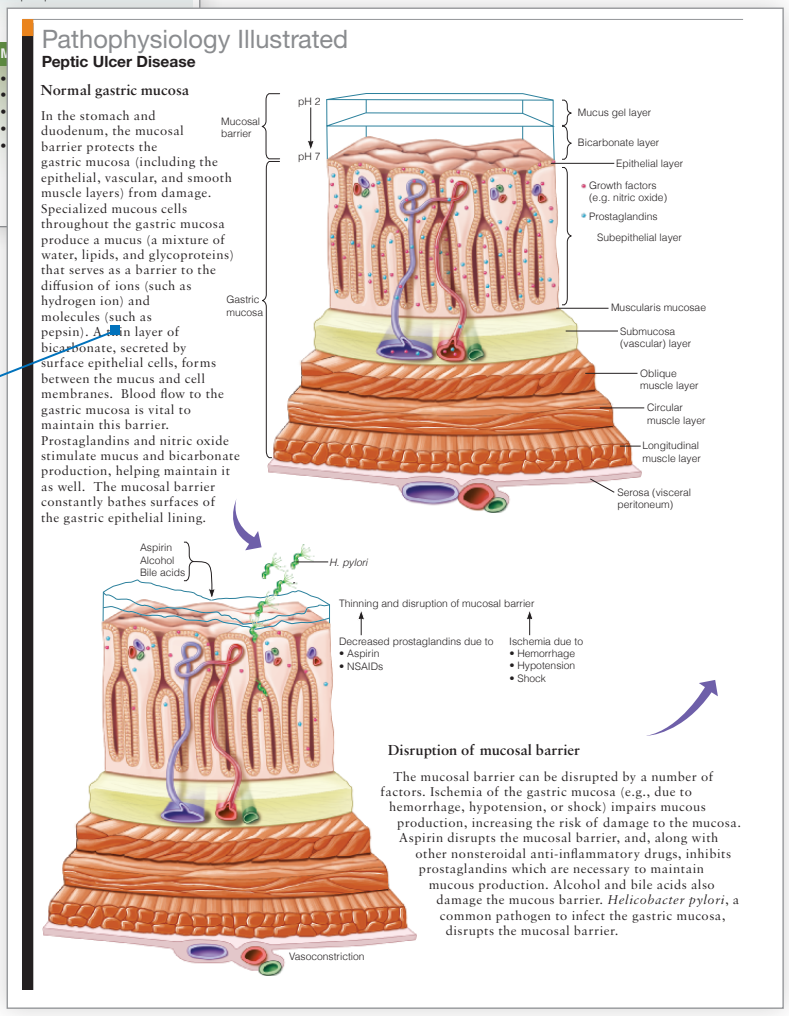
Focus on Cultural Diversity
Estimates of Prevalence of Diabetes Mellitus

- 15.1% of American Indians and Alaska Natives have DM. The rate varies; only 6% of Alaska natives have DM, whereas 22.2% of Native Americans in southern Arizona have DM.
- 12.7% of non-Hispanic Blacks ages 18 years or older have DM.
- 12.1% of Hispanic/Latino Americans ages 18 years or older have DM. Rates of diabetes are lower among Cuban Americans (9%) and Central and South Americans (8.5%) and higher for Mexican Americans (13.8%) and Puerto Rican Americans (12%).
- 8% of Asian Americans ages 18 years or older have DM.
- 7.4% of non-Hispanic Whites ages 18 years or older have DM (CDC, 2017b).

Focus on Cultural Diversity This feature provides essential guidelines for nurses to help them provide culturally sensitive care.



Multisystem Effects These new and updated illustrated features focus on a specific disorder describing manifestations and effects on body systems.



Pathophysiology Illustrated Pathophysiology Illustrated art brings changes in physiologic processes to life, helping the student develop a visual memory of the disorder and its effects.

Medication Administration Drugs appropriate for the chapter disorders are featured, as well as the related nursing responsibilities and patient/family teaching. The top 200 prescribed drugs are shown in blue type.

Medication Administration 22.A

Drugs to Treat Obesity

APPETITE SUPPRESSANTS

phentermine (Adipex-P, Fastin, Ionamin, Obestin-30, Oby-Trim, others)

phentermine and topiramate extended release (Qsymia)

lorcaserin (Belviq)

Phentermine acts directly on the appetite-control center in the CNS to suppress the appetite and reduce hunger. Topiramate increases feelings of fullness and increases calorie burning.

Liraglutide (Saxenda, Victoza) is a glucagon-like peptide 1 (GLP-1) that causes increased insulin release and decreased glucagon release. Liraglutide is approved for the treatment of Type 2 diabetes but it also delays gastric emptying so has an independent weight loss effect.

Bupropion and naltrexone (Contrave) is a combination medication—a dopamine and norepinephrine reuptake inhibitor and opioid receptor antagonist. The combination decreases the motivation/reinforcement that food provides (dopamine effect) and the pleasure/palatability of eating (opioid effect).

Lorcaserin (Belviq) activates the serotonin 5-HT 2c receptor in the brain, which causes a person to feel full after eating smaller amounts of food.

These drugs may be used to treat obesity in patients with a BMI > 30 and patients with a BMI > 27 who have risk factors such as diabetes or hypertension.

Nursing Responsibilities

- Assess for contraindications, such as pregnancy or lactation, use of other appetite suppressants, impaired liver or kidney function, history of CHD, or alcohol abuse.
- Regularly monitor blood pressure and heart rate during treatment. Increases may indicate need to reduce dose or discontinue treatment.

Health Education for the Patient and Family

- Take as directed; do not exceed recommended dose. Do not take if you may be pregnant or are nursing.
- Take your last dose no later than 4:00 p.m. to avoid insomnia.
- You may experience difficulty sleeping, nervousness, or palpitations while taking this drug.
- Increase your fluid intake to reduce possible side effects of dry mouth and constipation.
- This drug does not replace diet and exercise for weight loss; continue to follow your prescribed regimen.

LIPASE INHIBITOR

orlistat (Alli, Xenical)

Orlistat inhibits lipases necessary for the breakdown and absorption of fat, thus decreasing the absorption of dietary fat. Its action is primarily local, within the GI tract, with few systemic effects.

Nursing Responsibilities

- Administer with meals or up to 1 hour following a meal.
- Provide a fat-soluble vitamin supplement (A, D, E, and K) daily. Separate administration time from orlistat by at least 2 hours.

Health Education for the Patient and Family

- Take as directed; do not increase dose. You may skip a dose if you do not consume a meal.
- Use in conjunction with a low-calorie, low-fat diet.
- Common gastrointestinal side effects include oily or fatty stools, flatulence, oily discharge, or frequent stools with difficulty controlling defecation. These side effects may diminish with time or increase if a meal high in fat is consumed.
- Notify your healthcare provider if you become pregnant while taking this medication.

Note: Drugs identified in ***blue*** are among the 200 most commonly prescribed medications in the U.S.

Source: Data from Adams, Holland, & Urban, 2017.

SAFETY ALERT: Sublingual nitroglycerin tablets and nitroglycerin spray are the only medications appropriate to treat an acute anginal attack. ■

Safety Alerts Safety Alerts bring forward critical information for safe and effective nursing practice.

Moving Evidence into Action These boxes focus on evidence into specific topics and how the external evidence, internal evidence, and patient priorities and values are incorporated into high-quality care.

Moving Evidence into Action

Decision Making in Heart Failure

Clinical Issue

Heart failure is a major disease process impacting function throughout the world. As HF is a chronic illness, ongoing decisions must be made related to treatments, pharmacologic options, and other, more invasive therapeutic options like surgery. How patients make decisions is an important concept for nurses to understand.

External Evidence

Hamel, Gaugler, Porta, and Hadidi (2018) conducted a systematic review of the literature to examine complex decision making to clarify key decision points and identify commonalities. Their review included 12 studies. Themes identified included "processing the decision," "timing and prognostication," and "considering the future." Some of the subthemes focused on when and how information was received, making the treatment decision, the role of the "future" in their decisions, and the influence of life and death decisions. Common themes were timing of discussions, the delivery of information, and considerations of the future.

Internal Evidence

As part of the evaluation of internal evidence, one must consider the patient's "real-time" response to the clinical decisions that must be made, the proposed treatment plan, and identification of stakeholders that influence the patient decision-making process. One question to ask: Are there patients with heart failure who are confronted with significant decisions regarding treatment planning within the population of your care environment? Does the clinical environment support the information related to patient decision making? How does providing more support for HF patients decision making in your environment impact costs?

Patient Considerations

When considering use of a new practice (like additional supportive decision making for patients with HF), the nurse must consider the specific patient population where it will be used. Will patients and their families be amenable to additional information related to their decision making?

Putting the Pieces Together

In the ideal world, the patient is a partner with the healthcare team, especially when making decisions related to the therapeutic plan when faced with a chronic illness like heart failure. Knowing the common themes that make up patient decision making can allow the healthcare team to support effective decision making by the patient and his or her family. To effectively implement a plan, it is important to evaluate the external evidence and consider the internal implications and patient/family issues. With the use of decision-making themes, more effective patient decisions can be supported. This will lead to increased patient participation in his or her therapeutic plan and patient satisfaction.

Reference

Hamel, A. V., Gaugler, J. E., Porta, C. M., & Hadidi, N. N. (2018). Complex decision-making in heart failure: A systematic review and thematic analysis. *Journal of Cardiovascular Nursing*, 33(3), 225–231.

Case Study & Nursing Care Plan Each Case Study & Nursing Care Plan includes Assessment, Diagnoses, Expected Outcomes, Planning and Implementation, Evaluation, and Clinical Reasoning in Patient Care. Cues for students to evaluate their responses to the Clinical Reasoning items are located in Appendix B.

Case Study & Nursing Care Plan

A Patient with Hypertension

Margaret Spezia is a married, 49-year-old woman with eight children whose ages range from 3 to 18 years. For the past 2 months, Mrs. Spezia has had frequent morning headaches and occasional dizziness and blurred vision. At her annual physical examination 1 month ago, her blood pressure was 168/104 and 156/94 mmHg. She was instructed to reduce her fat and cholesterol intake, to avoid using salt at the table, and to start walking for 30 to 45 minutes daily. Mrs. Spezia returns to the clinic for a follow-up.

ASSESSMENT	DIAGNOSES	EXPECTED OUTCOMES
While escorting Mrs. Spezia to the exam room and obtaining her weight, blood pressure, and history, Lisa Christos, RN, notices that Mrs. Spezia seems restless and upset. Ms. Christos says, "You look upset about something. Is everything OK?" Mrs. Spezia responds, "Well, my head is throbbing, and I'm sort of dizzy. I think I'm just overdoing it and not getting enough rest. You know, raising eight children is a lot of work and expense. I just started working part time so we wouldn't get behind in our bills. I thought the extra money might relieve some of my stress, but I'm not so sure that's really happening. I'm not getting any better and I'm worried that I'll lose my job or become disabled and that my husband won't be able to manage the children by himself. I really need to go home, but first, I want to get rid of this awful headache. Would you please get me a couple of aspirin or something?" Mrs. Spezia's history shows a steady weight gain during the past 18 years. She has no known family history of hypertension. Physical findings include height 160 cm (63 in.); weight 102 kg (225 lb); T 37.2°C (99°F); P 100 bpm and regular; R 16/min; BP 180/115 (lying), 170/110 (sitting), 165/105 mmHg (standing); average 10-point difference in readings between right and left arm (lower on left). Skin cool and dry, capillary refill 4 seconds right hand, 3 seconds left hand. Mrs. Spezia's total serum cholesterol is 245 mg/dL (normal < 200 mg/dL). All other blood and urine studies are within normal limits. Based on analysis of the	■ Fatigue due to effects of hypertension and stresses of daily life ■ Obesity related to excessive food intake ■ Inability to maintain a healthy lifestyle ■ Insufficient understanding of effects of prescribed treatment	■ Patient will reduce blood pressure readings to < 150 systolic and 90 diastolic by return visit next week. ■ Patient will incorporate low-sodium and low-fat foods into her diet from a provided list. ■ Patient will develop a plan for regular exercise. ■ Patient will verbalize understanding of the effects of prescribed drug, dietary restrictions, exercise, and follow-up visits to help control hypertension.

Visuals

The visuals in **LeMone & Burke's Medical-Surgical Nursing** have been updated for currency, accuracy, realism, and style. Visual learners in particular will be delighted to see the detailed illustrations, vivid photos, and numerous tables.

Table 15.2 Skin Color Assessment Variations in People with Light and Dark Skin

Disorder and Cause	Change in Light Skin	Change in Dark Skin
Pallor: *A decrease or absence in skin color as the result of a decrease in tissue perfusion; a decrease in shape, size, or amount of RBCs; or an absence of melanin (local or generalized).*		
Anemia (decreased or abnormal size and shape of RBCs)	Generalized paleness	Brown skin is dull and has a yellow cast; black skin is dull and has an ashen gray cast
Hemorrhage (decreased amount of circulating RBCs)	Generalized paleness	Brown skin is dull and has a yellow cast; black skin is dull and has an ashen gray cast
Shock (decreased amount of circulating RBCs or decreased perfusion)	Generalized paleness	Brown skin is dull and has a yellow cast; black skin is dull and has an ashen gray cast
Arterial insufficiency (trauma, acute arterial occlusion, or arteriosclerosis)	Local paleness	Dull, ashen gray
Vitiligo (patchy loss of melanocytes)	Patches of white spots, most often found over the skin of the face, hands, or groin	Patches of white spots, most often found over the skin of the face, hands, or groin
Albinism (total absence of melanin)	White/pink	Tan, cream, or white
Cyanosis: *A bluish discoloration of the skin and mucous membranes resulting from a local or generalized excess of deoxygenated hemoglobin or a structural defect in the hemoglobin molecule.*		
Acute and chronic disorders of the structure and function of the heart and lungs (arterial insufficiency; exposure to cold, hypothermia)	Dusky blue; color may be generalized or local, depending on cause	Skin may appear darker, but will be dull; cyanosis is more readily assessed in the nail beds, oral mucous membranes, and conjunctivae
Erythema: *Redness of the skin or mucous membranes that is the result of dilation and congestion of superficial capillaries.*		
Hyperemia (inflammation, increased body temperature, hot environmental temperature, embarrassment, alcohol ingestion)	Red or bright pink	Difficult to assess; skin may have a dark red cast
Carbon monoxide poisoning (carbon monoxide displaces oxygen on the hemoglobin molecule, causing hypoxia, carboxyhemoglobinemia)	Cherry red in face and upper torso	Cherry red lips, oral mucous membranes, and nail beds
Venous stasis (inability of veins to return blood to heart; may result from edema, varicose veins, or pressure)	Dusky red	Difficult to assess
Jaundice: *Yellowish discoloration of the skin, mucous membranes, and sclerae of the eyes, caused by increased amounts of bilirubin or other pigments in the blood.*		
Increased serum bilirubin to > 2–3 mg/100 mL (liver disease, pancreatic disease, gallbladder disease, hemolysis such as following blood transfusion, severe burns or infections)	Yellowing of skin follows yellowing of sclerae and mucous membranes; may also be assessed in the fingernails and palms of the hands	Yellowing is best assessed at the junction of the hard palate and the soft palate or on the palms of the hands; sclerae may be yellow near the limbus (do not confuse with normal yellow eye pigmentation)
Uremia (retained urochrome pigments in the blood)	Orange-green or gray cast to skin	Difficult to assess; may appear as yellowish-green color in the sclera of the eye

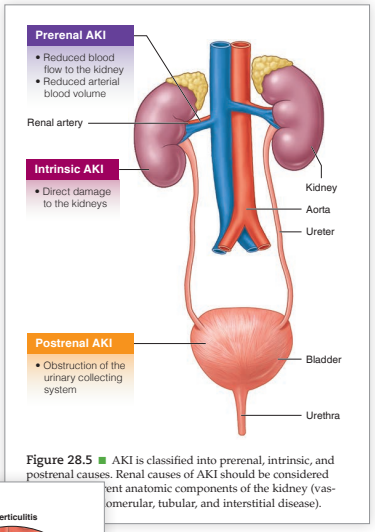


Figure 28.5 ■ AKI is classified into prerenal, intrinsic, and postrenal causes. Renal causes of AKI should be considered ent anatomic components of the kidney (vas- omerular, tubular, and interstitial disease).

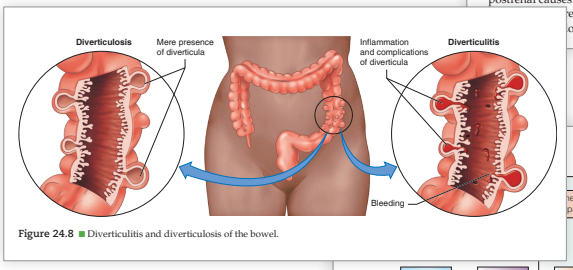


Figure 24.8 ■ Diverticulitis and diverticulosis of the bowel.

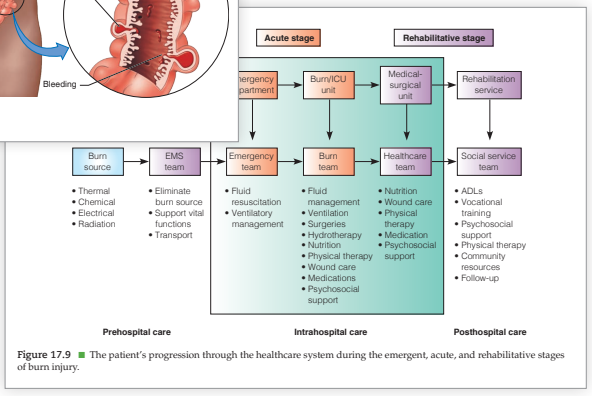


Figure 17.9 ■ The patient's progression through the healthcare system during the emergent, acute, and rehabilitative stages of burn injury.

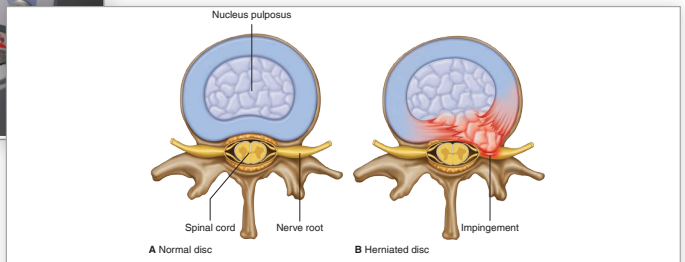


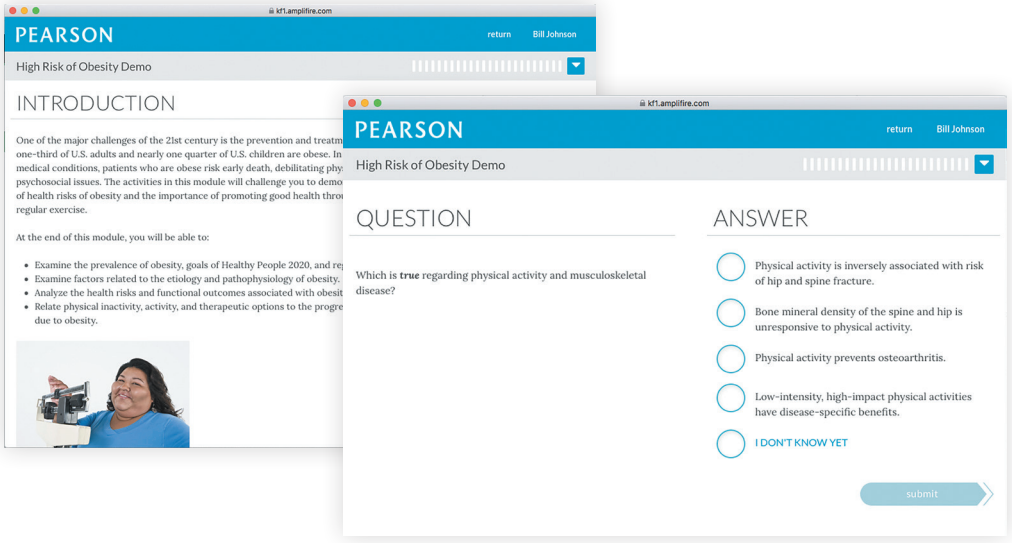
Figure 43.5 ■ **A**, Normal intervertebral disc. **B**, A herniated intervertebral disk. The herniated nucleus pulposus is applying pressure against the nerve root.

MyLab Nursing

MyLab Nursing is an online learning and practice environment that works with the text to help students master key concepts, prepare for the NCLEX-RN exam, and develop clinical reasoning skills. Through a new mobile experience, students can study *LeMone & Burke's Medical-Surgical Nursing* anytime, anywhere. New adaptive technology with remediation personalizes learning, moving students beyond memorization to true understanding and application of the content. MyLab Nursing contains the following features:

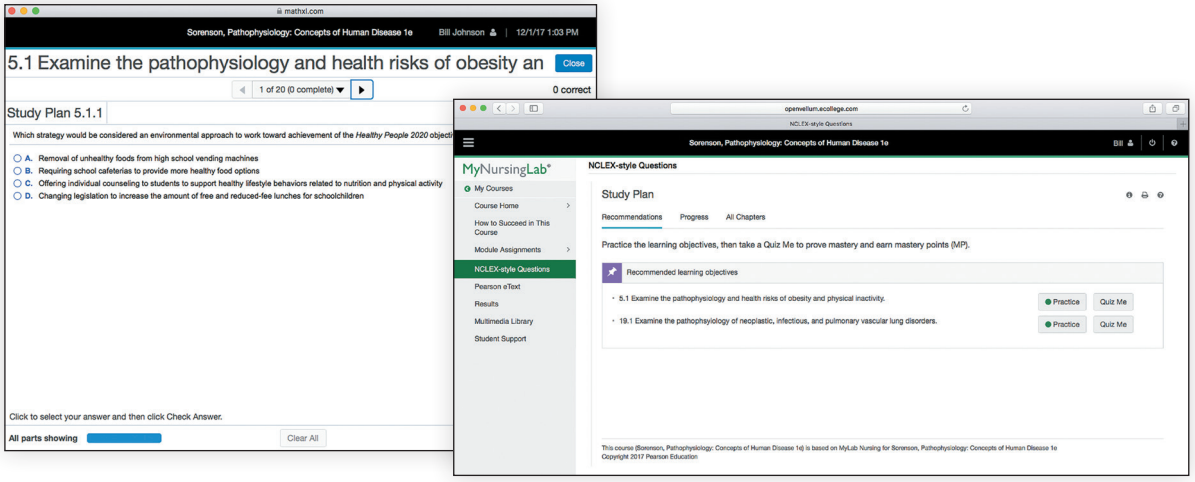
Dynamic Study Modules

New adaptive learning modules with remediation that personalize the learning experience by allowing students to increase both their confidence and their performance while being assessed in real time.



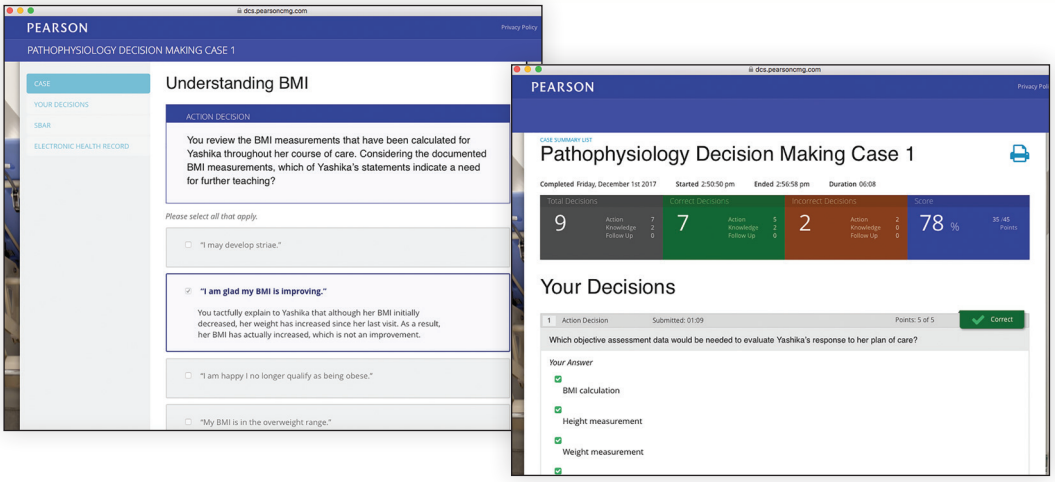
NCLEX-Style Questions

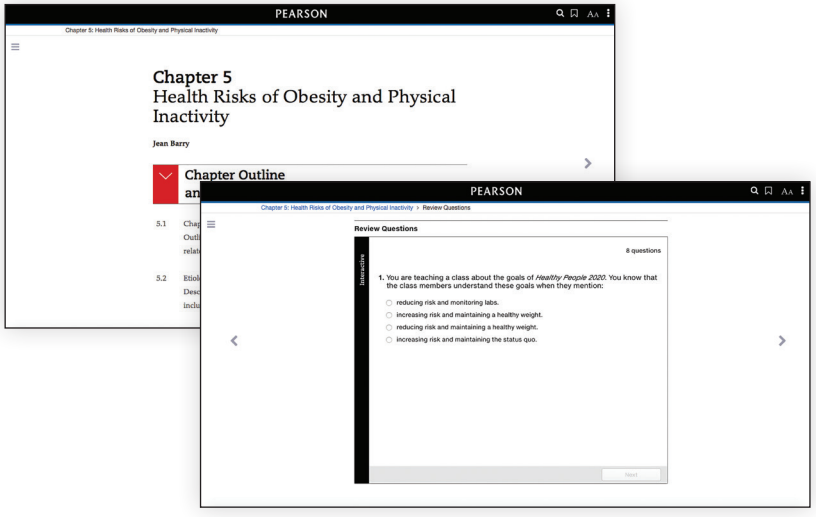
Practice tests with more than 1000 NCLEX-style questions of various types build student confidence and prepare them for success on the NCLEX-RN exam. Questions are organized by chapter.



Decision Making Cases

Clinical case studies that provide opportunities for students to practice analyzing information and making important decisions at key moments in patient care scenarios. These 15 unfolding case studies are designed to help prepare students for clinical practice.





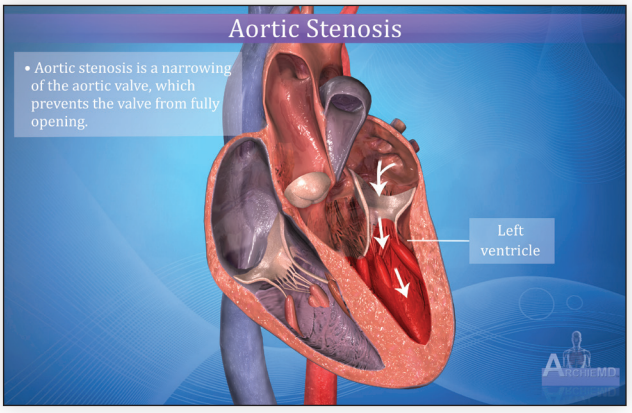
Pearson eText

The eText enhances student learning both in and outside the classroom. Students can take notes, highlight, and bookmark important content, or engage with interactive and rich media to achieve greater conceptual understanding of the text content. Interactive features include audio clips, pop-up definitions, figures, questions and answers, the nursing process, hotspots, and video animations. Some examples of video animations include:

- **Congenital Heart Defect Animations** illustrate the many congenital heart defects that may occur in newborns and provide students the opportunity to see, hear, and understand how congenital heart defects impair the correct functioning of the heart and how they may be corrected.

Instructor Resources

Instructor Resource Manual
Lecture Note PowerPoints
Test Bank



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