SEIDEL'S GUIDE TO

PHYSICAL EXAMINATION

10TH EDITION

AN INTERPROFESSIONAL APPROACH

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Jane W. Ball graduated from The Johns Hopkins Hospital School of Nursing and subsequently received her master's and doctoral degrees in public health from The Johns Hopkins University Bloomberg School of Public Health. She began her nursing career as a pediatric nurse and pediatric nurse practitioner at The Johns Hopkins Hospital. Since completing her public health degrees, she has held many positions that enable her to focus on improving the healthcare system for children and adults, such as serving as the chief of Child Health for the Commonwealth of Pennsylvania Department of Health, Assistant Professor at the University of Texas at Arlington School of Nursing, and executive director of the Emergency Medical Services for Children National Resource Center based at Children's National Medical Center in Washington, DC. She is the Chief Nurse and Content Development Officer for Triaj, Inc., which has developed Triaj, a mobile app to provide healthcare providers with point-of-care access to evidence-based practice guidelines for the care of hospitalized children and adolescents. Dr. Ball serves as a consultant to the American College of Surgeons' Committee on Trauma, assisting with development and editing of best practice guidelines for the care of injured patients. She is also the author of several pediatric nursing textbooks. Dr. Ball was recognized as a distinguished alumnus of The Johns Hopkins University in 2010.

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As a board-certified family nurse practitioner with doctorates in both public health and law, Joyce E. Dains has had a rich and productive career in education and clinical practice. She graduated as valedictorian from the New England Baptist Hospital School of Nursing in Boston and subsequently earned a baccalaureate degree in nursing from Boston College, graduating magna cum laude; a master's degree in nursing from Case Western Reserve University; and a doctorate in public health from the University of Texas–Houston. She also completed a post-graduate nurse practitioner program at the Texas Woman's University. She earned her law degree at the University of Houston and practiced law for a brief period. In addition to her current position and affiliation, Dr. Dains has been in clinical practice, teaching, and leadership positions at major universities and medical institutions including the Ohio State University, the University of Texas-Houston, the Texas Woman's University, and Baylor College of Medicine. She has been instrumental in the education of nursing students, nurse practitioners, medical students, and other healthcare professionals. As a family nurse practitioner, she has maintained a clinical practice in a variety of primary care settings. She is currently at the University of Texas MD Anderson Cancer Center where she is Executive Director for Advanced Practice, a family nurse practitioner in the Cancer Prevention Center, and Chair (ad interim) for the Department of Nursing. Dr. Dains is a Fellow of the American Association of Nurse Practitioners and a Fellow of the American Academy of Nursing, and she is the recipient of other distinguished honors, including election to the National Academies of Practice. Dr. Dains is also the author of Elsevier's *Advanced Health Assessment and Clinical Diagnosis in Primary Care*.

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John A. Flynn completed his undergraduate work at Boston College, graduating magna cum laude with a bachelor's degree in mathematics. He attended medical school at the University of Missouri–Columbia where he was recognized in 2004 with the "Outstanding Young Alumni" award. Dr. Flynn completed his internship and residency at The Johns Hopkins University School of Medicine, followed by a fellowship in rheumatology, and was selected to serve as an assistant chief of service for the Longcope Firm of the Osler Medical Service. Dr. Flynn also completed a master's degree in business administration at The Johns Hopkins University. Dr. Flynn is currently the Chief Physician of the University of Chicago Medicine and its health system and Dean for Clinical Affairs, serving as head of the faculty practice plan and president of University of Chicago Medicine's expanding care network. Prior to joining University of Chicago Medicine, Flynn served Johns Hopkins

Medicine as Vice President of the Office of Johns Hopkins Physicians, Associate Dean, and Executive Director of the institution's Clinical Practice Association, establishing programs for ambulatory, perioperative, and hospital-based interprofessional teams comprising physician, nurse, and administrative leaders. As chief medical officer of Hopkins' accountable care organization, Flynn helped to implement medical and quality strategy. At Hopkins, Flynn co-founded and co-directed the Osler Center of Clinical Excellence and the Primary Care Consortium. Dr. Flynn is a Fellow with the American College of Rheumatology and a Diplomat of the American Board of Rheumatology, as well as a Fellow to the American College of Physicians. Dr. Flynn holds memberships in the American College of Physicians, the American College of Rheumatology, the Spondyloarthritis Research and Treatment Network, and the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis. He has served as an editor of *Cutaneous Medicine: Cutaneous Manifestations of Systemic Disease* and the first and second editions of the *Oxford American Handbook of Clinical Medicine*. Dr. Flynn's clinical interest is arthritis and his research interests include ambulatory education, the delivery of ambulatory care in an academic setting, and the care of patients with spondyloarthritis.

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Barry S. Solomon graduated from the University of Pennsylvania School of Medicine and completed his residency at the Children's Hospital of Pittsburgh. He then completed a fellowship in general academic pediatrics at The Johns Hopkins University School of Medicine, during which time he received a master of public health degree from The Johns Hopkins University Bloomberg School of Public Health. Dr. Solomon is currently the Catherine DeAngelis, MD and Jackie Julio Endowed Professor of Pediatrics, Chief of the Division of General Pediatrics, and Assistant Dean for Medical Student Affairs in the School of Medicine. With institutional and community partners, he works to improve health equity by addressing social drivers of health for children and families through innovations in pediatric primary care. Dr. Solomon holds a joint appointment in the Department of Health, Behavior and Society in the Bloomberg School of Public Health, where he conducts research with faculty in the Center for Injury Research and Policy to reduce disparities in childhood injury. For 10 years, as medical director of The Johns Hopkins Children's Center Harriet Lane Clinic, Dr. Solomon developed a nationally recognized model for delivering family-centered care in an urban pediatric primary care setting. Many of the clinic's patients and families experience significant social and financial challenges associated with living in poverty. Dr. Solomon helped bring a variety of services to the clinic, including programs for mothers with depression, a child safety center, and a social needs screening and case management program staffed by undergraduates and community health workers. Dr. Solomon is also an active clinical teacher and research mentor to medical students, residents, fellows, and junior faculty interested in addressing social drivers of health. He is a Fellow of the American Academy of Pediatrics, member of the Society of Pediatric Research, and leader of the Academic Pediatric Association. Dr. Solomon is committed to promoting child health equity and supporting the career development of health professionals. His academic career and personal mission have been centered on providing high-quality, family-centered primary care, while training new generations of health professionals to become advocates for vulnerable populations.

Rosalyn W. Stewart, MD, MS, MBA

Rosalyn Stewart began her career at the University of Texas Medical Branch where she earned her medical degree and subsequently completed her combined internal medicine–pediatrics residency and a Master of Science degree in preventive medicine. She is currently professor of internal medicine and pediatrics at Johns Hopkins University School of Medicine and is faculty in the Johns Hopkins' Bloomberg School of Public Health and The Johns Hopkins University School of Nursing. She completed a Master of Business Administration degree with an emphasis on health care at the Johns Hopkins Carey Business School. She practices general internal medicine, general pediatrics, and addiction medicine. She is Medical Director for Care Coordination and Resource Management for the Johns Hopkins Hospital and Director of the Johns Hopkins Hospital Division of Addiction Medicine. Her academic focus is on systems of health care delivery for the medically underserved, medical education, the patient care continuum, and health equity. She holds many positions centered on these interests and has been recognized for her ability to carry forth the Osler philosophy, discipline, and practice of medicine. She has been recognized for her teaching acumen, clinical excellence, and clinical innovation by being asked to join the Miller Colsan Academy of Clinical Excellence and serve

as Core Faculty in the Armstrong Institute of Quality Improvement and Patient Safety. She directs The Johns Hopkins After Care Clinic, a clinic devoted to engaging and coordinating care for individuals facing the greatest social determinants of health disparities. The culmination of her efforts is to create medical providers who are leaders and systems-level change agents while providing high-quality, safe, effective, equitable, comprehensive, well-coordinated, person-focused care for the underserved inner city patient.

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Preface

Seidel's Guide to Physical Examination: An Interprofessional Approach was a landmark text when first published, in part because of the interprofessional team of nurse practitioner and physician authors. The use of interprofessional authors has continued through all editions, and the current team of nurse practitioner and physician authors brings the strengths of their respective disciplines to help students of all health disciplines learn to conduct a patient-centered interview and perform a physical examination. This text is written primarily for students beginning their careers as a healthcare professional.

The core message of the book is that patients are our central focus and must be served well. Learning how to take a history and perform a physical examination is necessary, but does not provide a full understanding of your patients. The relationship with your patients and the development of trust most often begins with conversation. Patients will more comfortably share personal and sensitive information when you develop a rapport and build trust. Such a relationship helps you obtain reliable information enabling you to serve your patients well. You are, after all, learning the stories of individuals with unique experiences and cultural heritage, and our interaction with them involves far more than the sum of body parts and systems. The art and skills involved in history taking and the physical examination are common to all of us, regardless of our particular health profession.

Organization

The achievement of a constructive relationship with a patient begins with your mastery of sound history taking and physical examination. Chapter 1 stresses that "knowing" is incomplete without the mutual understanding of cultural backgrounds and differences. Chapter 2 offers vital "getting to know you" guidelines to help you learn about the patient as the patient learns about you. Chapter 3 gives an overview of examination processes and the equipment you will need.

Chapter 4 assists with the process of analyzing the information collected during the history and physical examination, and using clinical reasoning to support decision making and problem solving. Chapter 5 provides guidance on recording the information collected into the patient's written or electronic health record with particular emphasis on the Problem Oriented Medical Record (POMR) and the use of SOAP (**S**ubjective findings, **O**bjective findings, **A**ssessment, and **P**lan).

Chapters 6 through 8 introduce important elements of assessment: vital signs and pain; mental status; and growth, development, and nutrition. Chapters 9 through 23 discuss specific body systems and body parts, with each chapter divided into four major sections:

- Anatomy and Physiology
- Review of Related History
- Examination and Findings
- Abnormalities

Each of these sections begins with consideration of the adult patient and ends, when appropriate, with variations for infants, children, and adolescents; pregnant persons; older adults; and individuals with disabilities. We have also updated language and content to reflect gender-diverse considerations. Throughout the book, there is language to support the inclusive nature of a physical exam, including physical exam changes related to transgendered persons.

To help you get organized, each chapter starts with a preview of physical examination components discussed. The Anatomy and Physiology sections begin with the physiologic basis for the interpretation of findings, as well as the key anatomic landmarks to guide physical examination. The Review of Related History sections detail a specific method of inquiry when a system or organ-related health issue is discovered during the interview or examination. The Examination and Findings sections list needed equipment and then describe in detail the procedures for the examination and the expected findings. These sections encourage you to develop an approach and sequence that is comfortable for you and also for the patient. In some chapters advanced examination procedures are described for use in specific circumstances or when specific conditions exist. You will note that the terms "normal" and "abnormal" are avoided whenever possible to describe findings because, in our view, these terms suggest a value judgment that may or may not prove valid with experience and additional information. The Abnormalities sections provide an overview of diseases and associated problems relevant to the particular system or body part. The Abnormalities sections include tables clearly listing pathophysiology in one column and patient subjective and objective data in another column for selected conditions. Full-color photos and illustrations are often included.

Chapter 24 details the issues relevant to the sports participation evaluation. Chapter 25 provides guidance for integrating examination of all body systems into an organized sequence and process. Chapter 26 provides guidelines for the change in standard examination approaches in emergency and life-threatening situations. This information is only a beginning and is intended to be useful in your clinical decision making. You will need to add other resources to your base of knowledge.

The companion Evolve website content (at http://evolve.elsevier.com/Seidel/) provides clinical tools and resources to document observations or problems and complete the physical examination, preserving a continuous record.

Special Features

The basic structure of the book—with its consistent chapter organization and the inclusion of special considerations sections for infants, children, adolescents, pregnant persons, and older adults—facilitates learning.

- Differential Diagnosis tables—a hallmark of this text—appear throughout the text.
- Evidence-Based Practice in Physical Examination boxes are reminders that our clinical assessment—as much as possible—should be supported by research.
- Risk Factors boxes highlight modifiable and nonmodifiable risk factors for a variety of conditions.
- Functional Assessment boxes help students to consider specific physical problems and to evaluate their effect on patient function.
- Patient Safety boxes offer guidance about ways to promote patient safety during the physical examination or about patient education that supports safe practices at home.
- New to this edition are Think About It boxes. These help guide students to the next steps when a particular cluster of findings is noted.

New to This Edition

The entire book has been thoroughly updated for this edition. This includes the replacement of illustrations of abnormal findings with updated photos and the use of new full-color photos and drawings to replace one- and two-color illustrations in the tenth edition. There are approximately 1200 illustrations in addition to the numerous tables and boxes that have traditionally given readers easy access to information. Among the many changes:

- Evidence-Based Practice in Physical Examination boxes have been thoroughly updated. These boxes focus on the ongoing need to incorporate recent research into clinical practice and decision making.
- Clinical Pearls boxes have been updated and revised.
- The Examination Techniques and Equipment chapter includes updated recommendations for Standard Precautions.
- Updated cancer screening controversies and summary evidence are included in the abdomen, breast, and prostate chapters.
- Information about sensitive and respectful approaches to history taking and physical examination of lesbian, gay, bisexual, and gender-diverse patients has been integrated into several chapters.
- The Emergency or Life-Threatening Situations chapter has been updated.
- The sports participation chapter includes updated recommendations for assessing and managing patients with sports-related concussions.

Our Ancillary Package

Seidel's Physical Examination Handbook is a concise, pocket-sized companion for clinical experiences. It summarizes, reinforces, and serves as a quick reference to the core content of the textbook.

Student Laboratory Manual for Seidel's Guide to Physical Examination is a practical printed workbook that helps readers integrate the content of the textbook and ensure content mastery through a variety of engaging exercises.

Instructor Resources on the companion Evolve website (http://evolve.elsevier.com/Seidel/) include an extensive electronic image collection and a PowerPoint lecture slide collection that includes integrated animations, case studies, and a series of audience response questions. In addition, *TEACH* provides learning objectives, key terms, nursing curriculum standards, content highlights, teaching strategies, and case studies. Also available on the Evolve website is a thoroughly revised Test Bank in ExamView format, which faculty can use to create customized exams for medical, allied health, or nursing programs. Together these resources provide the complete building blocks needed for course preparation.

Student Resources on the companion Evolve website include a wide variety of activities, including animations depicting content and processes; NCLEX-style review questions; and downloadable student checklists.

Also available is the thoroughly revised and expanded online course library titled *Physical Examination and Health Assessment Online,* which is an exhaustive multimedia library of online resources, including animations, video clips, interactive exercises, quizzes, and much more. Comprehensive self-paced learning modules offer flexibility to faculty or students, with tutorial learning modules and in-depth capstone case studies for each body system chapter in the text. Available for individual student purchase or as a required course supplement, *Physical Examination and Health Assessment Online* unlocks a rich online learning experience.

This edition is also available on Elsevier eBooks on VitalSource. Easy-to-use, interactive features let you make highlights, share notes, run instant searches, and much more. You can access your eBook online through Evolve or with apps for PC, Mac, iOS, and Android.

Our Core Values

In the tenth edition of *Seidel's Guide to Physical Examination: An Interprofessional Approach,* we have made every attempt to consider patients in all of their variety and to preserve the fundamental messages explicit in earlier editions. These include the following:

- Respect the patient.

- Achieve the complementary forces of competence and compassion.
- The art and skill essential to history taking and physical examination are the foundation of care; technologic resources complement these processes.
- The history and physical examination are inseparable; they are one.
- The computer and technology complement you. Your care and skills are what builds a trusting, fruitful relationship with the patient.
- That relationship can be indescribably rewarding.

We hope that you will find this a useful text and that it will continue to serve as a resource as your career evolves.

Acknowledgments

The tenth edition of our textbook is possible only because of the professionalism and skills of so many others who really know how to fashion a book and its ancillaries so that it is maximally useful to you. First, there are those instructors and students who have so thoughtfully and constructively offered comment over the years. Improvements in content and style are often the results of their suggestions. Furthermore, we are very grateful to Paula M. Neira, JD, MSN, RN, CEN, FAAN, Clinical Program Director of the Johns Hopkins Center for Transgender Health, for her thorough review and contributions to the tenth edition. Throughout the text, Paula incorporated guidance for providing care to transgender and gender-diverse patients.

While the authors have provided the content, it must be accessible to the reader. A textbook needs a style that ensures readability, and our partners at Elsevier have made that happen. Lee Henderson, our Executive Content Strategist, provided oversight and guidance with the eye of an experienced editor along with strategies to meet the changing environment of print and electronic publishing. The whole textbook revision is a demanding project requiring effective teamwork. Luke Held, our Senior Content Development Manager, maintained professional skill and calm while moving the project forward. Brian Salisbury's design is visually appealing and showcases the content.

We also want to recognize the indispensable efforts of the entire marketing team led by Samantha Page, as well as the sales representatives, who make certain that our message is honestly portrayed and that comments and suggestions from the field are candidly reported. Indeed, there are so very many men and women who are essential to the creation and potential success of our tenth edition, and we are indebted to each of them.

The remarkable teaching tools we call the ancillaries need special attention. They demand an expertise—if they are to be useful—that goes beyond that of the authors. Frances Donovan Monahan offers hers for the laboratory manual, and Amber Dortch offers hers for the test bank. The careful attention to all Evolve asset development is overseen by Venkatram Krishnan. The development of *Physical Examination and Health Assessment Online* is led again by Frances Donovan Monahan.

We want to acknowledge Henry M. Seidel, MD, and William Benedict, MD, two of our original authors, who served on seven and six editions, respectively. Their commitment to the relationship with the patient and their appreciation of the importance of intraprofessional collaboration helped shape this text.

And finally—our families! They are patient with our necessary absences, support what we do, and are unstinting in their love. They have our love and our special thanks.

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CHAPTER 1

Cultural Competency

Achieving cultural competence is a learning process that requires self-awareness, reflective practice, and knowledge of core cultural issues. It involves recognizing one's own culture, values, and biases and using effective patient-centered communication skills. A culturally competent healthcare provider adapts to the unique needs of patients of backgrounds and cultures that differ from their own. This adaptability, coupled with a genuine curiosity about a patient's beliefs, values, and lived experience, lay the foundation for a trusting patient-provider relationship.

A Definition of Culture

Culture, in its broadest sense, reflects the whole of human behavior, including ideas and attitudes, ways of relating to one another, manners of speaking, and the material products of physical effort, ingenuity, and imagination. Language is a part of culture. So, too, are the abstract systems of belief, etiquette, law, morals, entertainment, and education. Within the cultural whole, different populations may exist in groups and subgroups. Each group is identified by a particular body of shared traits (e.g., a particular art, ethos, or belief; or a particular behavioral pattern) and is rather dynamic in its evolving accommodations with internal and external influences. Any individual may belong to more than one group or subgroup, such as ethnic origin, religion, gender, sexual orientation, occupation, and profession.

Distinguishing Physical Characteristics

The use of physical characteristics (e.g., anatomy or skin color) to distinguish a cultural group or subgroup is inappropriate. There is a significant difference between distinguishing cultural characteristics and distinguishing physical characteristics. Do not confuse the physical with the cultural or allow the physical to symbolize the cultural. To assume homogeneity in the beliefs, attitudes, and behaviors of all individuals in a particular group leads to misunderstandings about the individual. The *stereotype,* a fixed image of any group that denies the potential of originality or individuality within the group, must be rejected. People can and do respond differently to the same environment or situation. Stereotyping occurs through two cognitive phases. In the first phase, a stereotype becomes activated when an individual is categorized into a social group. When this occurs, the beliefs and feelings (prejudices) come to mind about what members of that particular group are like. Over time, this first phase occurs without effort or awareness. In the second phase, people use these activated beliefs and feelings when they interact with the individual, even when they explicitly deny these stereotypes. Multiple studies have shown that healthcare providers activate these implicit stereotypes, or unconscious biases, when communicating with and providing care to minority patients (FitzGerald and Hurst, 2017). With this in mind, you can begin learning cultural competence by acknowledging your implicit, or unconscious, biases toward patients based on physical characteristics.

At the same time, this does not minimize the value of understanding the cultural characteristics of groups, nor does this deny the interdependence of the physical with the cultural. Genotype, for example, precedes the development of the intellect, sensitivity, and imagination that leads to unique cultural achievements, such as the creation of classical or jazz music. Similarly, a person's phenotype, such as skin color, precedes most of the experience of life and the subsequent interweaving of that phenotype with cultural experience. Although commonly used in clinical practice, the use of phenotypic traits to classify an individual's race is problematic. The term *race* has been used to categorize individuals based on their continent or subcontinent of origin (e.g., Asian, Southeast Asian). However, there is ongoing debate about the usefulness of race, considering the degree of phenotypic and genetic variation of individuals from the same geographic region (Relethford, 2009). In addition, the origins of race date back to the 17th century, long before scientists identified genetic similarities. Over time, beliefs about particular racial groups were shaped by economic and political factors, and many believe race is a social construct (Richeson and Sommers, 2016). Racism, defined as discrimination directed against a person or people of a particular racial or ethnic group, has been shown to negatively impact health over the life course. This occurs through inequitable access to resources and opportunities, such as education and healthcare, and stressful experiences that result in altered physiologic responses and changes in health behavior (Williams et al., 2019). Historically, the American healthcare system has discriminated against racial and ethnic minorities in edu-

cation, research, and direct patient care. Structural racism remains an ongoing problem within the healthcare system and is reflected in well-documented health disparities and inequities. As healthcare providers, you will encounter patients impacted by racism on a daily basis. After examining your own biases, you can strive to create a safe space for dialogue with patients, provide support, and refer to resources when appropriate (Trent et al., 2019).

Genomics and Precision Medicine

A growing body of research examines genomics, the study of multiple genes and their interactions with environmental determinants, in predicting disease susceptibility and response to medical treatment. An explosion of genome-wide association studies (GWASs) has linked genomic loci, or single-nucleotide polymorphisms (SNPs) with common diseases such as rheumatoid arthritis, type 1 and type 2 diabetes mellitus, Crohn disease, and schizophrenia (Visscher et al., 2017). Personalized medicine is a term used to describe patient care that considers an individual's genetic susceptibility in preventing and treating disease. In 2015, the Precision Medicine Initiative was launched by the US Department of Health and Human Services to bring researchers, policymakers, and technology innovators together with the goal of developing individualized care. Precision medicine is defined as "an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person" (Garrido et al., 2018). Many believe precision medicine will transform healthcare delivery by leveraging genomics and other molecular technologies with data sharing, advanced data analytics, and digital health platforms (Ginsburg and Phillips, 2018). As healthcare providers learn to integrate precision medicine into their clinical practice, direct-to-consumer genetic testing continues to evolve and has become more affordable and accessible to our patients. Healthcare providers in all disciplines will need to become fluent in the language of genomics and learn how to discuss risks and benefits of genetic testing with their patients and families (Calzone et al., 2013; Demmer and Waggoner, 2014). With this new emphasis, it may be even more important to acknowledge unconscious biases and seek to understand the patient's unique cultural and personal health beliefs and expectations.

Cultural Competence

Culturally competent care requires that healthcare providers be aware of and responsive to patients' background and cultural experiences, including their preferences, values, language, and traditions, among other things (Stubbe, 2020). Many models have been proposed to teach cultural competence. Most include the domains of acquiring knowledge (e.g., understanding the meaning of culture), shaping attitudes (e.g., respecting differences of individuals from other cultures), and developing skills (e.g., eliciting patient's cultural beliefs about health and illness) (Saha et al., 2008). Some of these domains overlap with core aspects of the patient-centered care model (Fig. 1.1). Seeleman et al. (2009) have proposed a framework for teaching

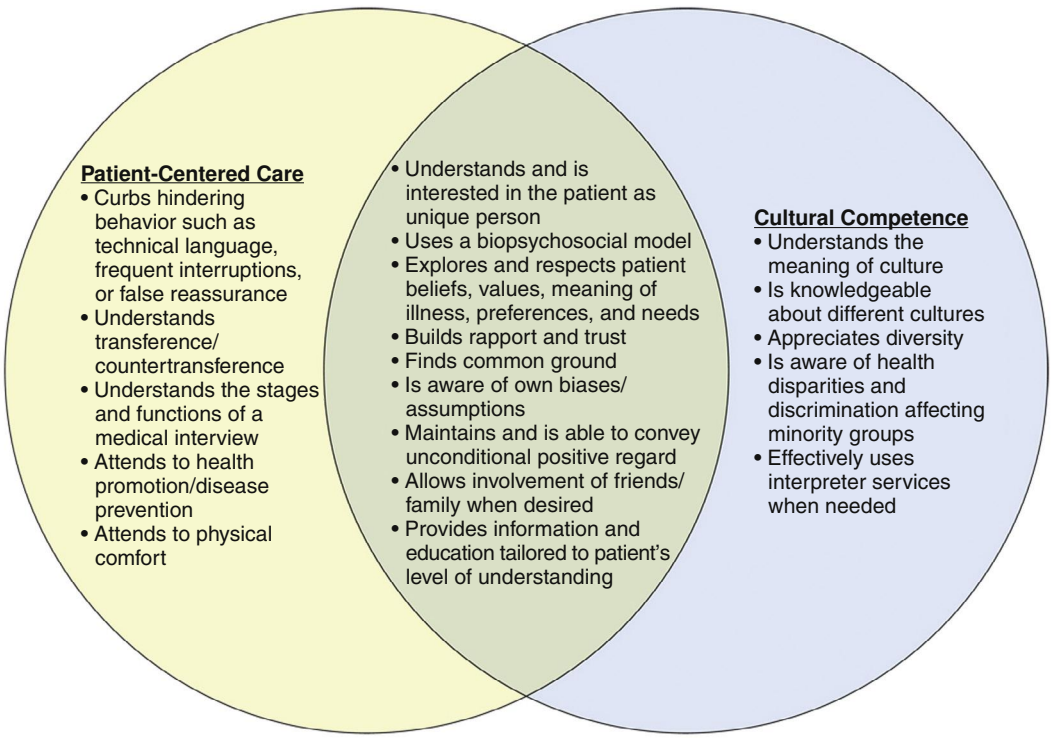

FIG. 1.1 Overlapping concepts of patient-centered care and cultural competence. (From Saha et al., 2008.)

cultural competence that emphasizes an awareness of the social context in which specific ethnic groups live. Assessing the social context includes inquiring about stressors and support networks, sense of life control, and literacy. Healthcare providers need to be flexible and creative in working with patients. Campinha-Bacote's (2011) Process of Cultural Competence Model is another approach and includes five cultural constructs: encounters, desire, awareness, knowledge, and skill. Box 1.1 defines these five constructs.

Cultural Humility

Cultural humility involves the ability to recognize one's limitations in knowledge and cultural perspective and be open to new perspectives. Rather than assuming all patients of a particular culture fit a certain stereotype, healthcare providers should view patients as individuals. In doing so, cultural humility helps to equalize the imbalance in the patient-provider relationship (Borkan et al., 2008). A provider may know many specific details about a patient's particular cultures, yet not show cultural humility. Cultural humility involves self-reflection and self-critique with the goal of having a more balanced, mutually beneficial relationship. It involves meeting patients "where they are" without judgment to avoid the development of stereotypes. Attaining cultural humility is an ongoing process shaped by every patient encounter that involves openness, partnership, and genuine interest in understanding our patients' belief systems and lives (Fahlberg et al., 2016).

The Impact of Culture

The information in Box 1.2 suggests that racial and ethnic differences, as well as social and economic conditions, may affect the provision of specific healthcare services to certain groups and subgroups in the United States. Poverty and inadequate education disproportionately affect various cultural groups (e.g., ethnic minorities and women); socioeconomic disparities negatively affect the health and medical care of individuals belonging to these groups. Although death rates have declined overall in the United States over the past 50 years, the poorly educated and those in poverty still die at higher rates from the same conditions than those who are better educated and economically advantaged. Morbidity, too, is greater among the poor. Data from the 2013 Centers for Disease Control and Prevention (CDC) Health Disparities and Inequalities Report reveal a variety of healthcare disparities. Hispanic and

BOX 1.1 Dimensions of Cultural Competence

CULTURAL ENCOUNTERS—The continuous process of interacting with patients from culturally diverse backgrounds to validate, refine, or modify existing values, beliefs, and practices about a cultural group and to develop cultural desire, cultural awareness, cultural skill, and cultural knowledge.

CULTURAL DESIRE—The motivation of the healthcare professional to "want to" engage in the process of becoming culturally competent, not "have to."

CULTURAL AWARENESS—The deliberate self-examination and in-depth exploration of one's biases, stereotypes, prejudices, assumptions, and "isms" that one holds about individuals and groups who are different from them.

CULTURAL KNOWLEDGE—The process of seeking and obtaining a sound educational base about culturally and ethnically diverse groups.

CULTURAL SKILL—The ability to collect culturally relevant data regarding the patient's presenting problem, as well as accurately performing a culturally based physical assessment in a culturally sensitive manner.

From Campinha-Bacote (2011).

BOX 1.2 The Influence of Age, Race, Ethnicity, Socioeconomic Status, and Culture

Age, gender, race, ethnic group, and, with these variables, cultural attitudes, regional differences, and socioeconomic status influence the way patients seek medical care and the way clinicians provide care. For example, consider the ethnic and racial differences in the treatment of depression in the United States. The prevalence of major depressive disorders is similar across groups; however, compared with White Americans, Black and Latino patients are less likely to receive treatment. Although some of the disparity is related to differing patient attitudes and perceptions of counseling and medication, there is growing evidence suggesting clinician communication style and treatment recommendations differ on the basis of patient race and ethnicity (Shao et al., 2016). Similarly, in the pediatric population, Black and Latino children in the United States also experience health disparities, including lower overall health status and lower receipt of routine medical care and dental care compared with White children. Flores and colleagues (2010), in a systematic literature review, demonstrated that, compared with White children, Black children have lower rates of preventive and population healthcare (e.g., breast-feeding and immunization coverage), higher adolescent health risk behaviors (e.g., sexually transmitted infections), higher rates of asthma emergency visits, and lower mental health service use. There is a clear need to better understand why these differences exist more globally, but removing cultural blindness at the individual patient level is an important first step.

Furthermore, the possible beneficial and harmful effects of many culturally important herbal medicines, which are used but not always acknowledged, must be understood and, in trusting relationships, reported to us if we are to guide their appropriate use. Crossing the cultural divide helps, but skepticism is a barrier. For example, many allopathic medical providers question the notion that complementary and alternative medicine might be a helpful adjuvant therapy for the prevention and treatment of acute otitis media. However, in several randomized controlled studies, xylitol, probiotics, herbal ear drops, and homeopathic treatments have been shown, compared with placebo, to have a greater effect in reducing pain duration and decreasing the use of antibiotics. Although skepticism can be put aside, evidence-driven guidance is still essential. Cultural competence is entirely consistent with that.

Data from Bukutu et al. (2008); Flores (2010); and Shao et al. (2016).

non-Hispanic Blacks were uninsured at a significantly higher rate compared with Asian/Pacific Islanders and non-Hispanic Whites. The infant mortality rate among infants born to non-Hispanic Black women is more than double the rate for infants born to non-Hispanic White women. Compared with White women, a much higher percentage of Black women die from coronary heart disease before age 75 (37.9% vs. 19.4%). This same difference was observed between Black and White men (61.5% vs. 41.5%) (CDC, 2013). Due to societal stigmatization and discrimination, when compared with cisgender populations, transgender and gender diverse individuals are at greater risk for suicidality, being victims of violence, mental health comorbidities, human immunodeficiency virus (HIV)/sexually transmitted infection (STI) exposure, homelessness, and lower rates of insurance coverage (Office of Disease Prevention and Health Promotion [ODPHP], 2010, James et al., 2016). It is critical to understand that, although these disparities have been shown to occur in racial and ethnic minority groups and other marginalized populations, their root causes lie in inequitable access to resources, opportunities, and healthcare and greater physiologic stress (allostatic load) in affected individuals (Williams et al., 2019). These rather stark facts are sufficient to underscore the need for cultural awareness in health and medical care professionals. Cultural and practice differences exist among healthcare professionals as well. Allopathic providers often demonstrate skepticism regarding the use of complementary and alternative medicine (CAM) without considering the possibility of potential benefit to patients.

The Blurring of Cultural Distinctions

Some cultural differences may be malleable in a way that physical characteristics are not. For example, one group of people can be distinguished from another by language (see Clinical Pearl, "Language Is Not All"). However, globalization, the growing diversity of the US population, and evidence of healthcare disparities mandate more and more that we learn one another's languages. Although modern technology and economics may eventually lead to universality in language, we can begin by acknowledging and overcoming our individual biases and cultural stereotypes. Because it is impossible to learn the native languages of all of our patients, when language barriers arise, we must become aware of our resources and know how to effectively use interpreters (Seeleman et al., 2009). Use of medical interpreters has a positive impact on healthcare quality, but we continue to use suboptimal methods of communication (e.g., family members). Although greater adoption of medical interpreter use involves policy and system-level changes, healthcare provider training and encouragement remain critically important (DeCamp et al., 2013).

CLINICAL PEARL

Language Is Not All

A patient who knows the English language, however well, cannot be assumed to know the culture. Consider the diversity of the populations in Britain, India, American Samoa, and South Africa who are English speaking. The absence of a language barrier does not preclude a cultural barrier. You will likely still need to achieve a "cultural translation."

The Primacy of the Individual in Healthcare

The individual patient may be visualized at the center of an indefinite number of concentric circles. The outermost circles represent constraining universal experiences (e.g., death). The circles closest to the center represent the various cultural groups or subgroups to which anyone must, of necessity, belong. The constancy of change forces adaptation and acculturation. The circles are constantly interweaving and overlapping. For example, a common experience in the United States has been the economic gain at the root of the assimilation of many ethnic groups. Although this results in greater homogeneity among the population, an individual's ethnic behaviors or sexual orientation and gender identity will likely be unique. Predicting the individual's character merely on the basis of the common cultural behavior, or stereotype, is not appropriate. Based on the Joint Commission 2010 report, "Checklist to Improve Effective Communication, Cultural Competence, and Patient- and Family-Centered Care Across the Care Continuum," White and Stubblefield-Tave (2016) remind us that unconscious bias, stereotyping, racism, gender bias, and limited English proficiency underlie healthcare inequalities. They offer their own checklist of recommendations for healthcare providers to address these issues with the goal of reducing disparities in care (Box 1.3).

Ethical issues often arise when the care of an individual comes into conflict with the utilitarian needs of the larger community, particularly with the recognition of limited resources and, in the United States, rising healthcare costs. Cultural attitudes of our patients, at times vague and poorly understood, may constrain our professional behavior and confuse the context in which we serve the individual. Box 1.4 offers a guide to help understand the patient's beliefs and practices that can lead to individualized, culturally competent care. Particular attention should be paid to caring for patients who self-identify as lesbian, gay, bisexual, transgender, queer, or questioning and are considered sexual or gender minorities (SGMs). Unfortunately, these individuals face discrimination and disrespect in the healthcare setting. Thus it is imperative that healthcare providers invest time in becoming culturally competent and develop cultural humility to work effectively with SGM patients. Specific responsibilities include providing a welcoming and safe environment, gathering a history with sensitivity and compassion, and performing a physi-

BOX 1.3 Provider Role in Reducing Disparities in Healthcare

This modified "culturally competent checklist" is provided as a guide to help providers partner with patients and families to provide high-quality care. Although some items are simple, others are quite complicated and difficult to achieve. On our path to achieving cultural humility, we should strive to incorporate as many of these recommendations as possible into our routine clinical practice.

1. Humanize your patient.
2. Identify and monitor conscious and unconscious biases.
3. Do a teach-back.
4. Help the patient to learn about his or her disease or condition.
5. Welcome a patient's friend, partner, and/or family members.
6. Learn a few key words and phrases in the most common languages in your area.
7. Use a qualified medical interpreter as appropriate.
8. Be aware of the potential for "false fluency" (clinician language skill should be tested and certified).
9. Seek training in working with an interpreter.
10. Consider the health literacy of one's patients.
11. Respond thoughtfully to patient complaints.
12. Hold one's institutions accountable for providing culturally and linguistically competent care.
13. Advocate that the affiliated institution's analyses of patient satisfaction and outcome include cultural group data and that the results lead to concrete action.
14. Encourage patients to complete patient satisfaction and demographics forms.

Modified from White and Stubblefield-Tave (2016).

cal examination using a "gender-affirming" approach (e.g., using the patient's correct name and preferred pronouns). Box 1.5 provides useful terminology (Center for Excellence for Transgender Health, 2016) and Box 1.6 reviews the social, legal, and medical dimensions of transition for transgender and gender-diverse people.

Interprofessional Care—A Culture Shift in the Health Professions

There is a harmony—a unity—in the care of patients that is not constricted by the cultural and administrative boundaries of the individual health professions. To the extent that we stake out territories of care by allowing individual professional cultures and needs to take precedence over patient needs, we may impede the achievement of harmony. In 2010, the World Health Organization (WHO) published "The Framework for Action on Interprofessional Education and Collaborative Practice." In this publication, interprofessional education is described as training in which "students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes." The WHO believes this type of training can lead to "interprofessional collaborative practice," in which health team members from different professional backgrounds work together to deliver high-quality care. A surge in published curricula on interprofessional education and team-based training for students and faculty has occurred. Although most curricula for nursing and medical students focus on improving communication skills, training programs need to evolve to address cultural humility and valuing diversity in patient populations (Foronda et al., 2016).

The Impact of Culture on Illness

Disease is shaped by illness, and illness—the full expression of the impact of disease on the patient—is shaped by the totality of the patient's experience. Cancer is a disease. The patient dealing with, reacting to, and trying to live with cancer is having an illness—is "ill" or "sick." The definition of "ill" or "sick" is based on the individual's belief system and is determined in large part by his or her enculturation. This is so for a brief, essentially mild episode or for a chronic, debilitating, life-altering condition. If we do not consider the substance of illness—the biologic, emotional, and cultural aspects—we will too often fail to offer complete care. To make the point, imagine that while taking a shower you have conducted a self-examination and, still young, still looking ahead to your career, you have discovered an unexpected mass in a breast or a testicle. How will you respond? How might other individuals respond?

Evidence-Based Practice in Physical Examination

Cultural Adaptations for Screening

We often use a variety of screening tools to identify health concerns and help our patients stay well. These screening tools are based on norms that may not be consistent across cultures. Screening tools may contain cultural biases and result in misleading information. Whenever possible, we should use instruments that have been adapted for and tested with individuals from our patients' specific cultural groups. Fortunately, a variety of instruments have been validated in racial and ethnic subgroups (Manuel et al., 2015). Before implementing a screening tool, it is our responsibility to ensure the instrument is valid and at an appropriate literacy level for our specific patient populations.

The Components of a Cultural Response

When cultural differences exist, try your best to fully understand what the patient means and know exactly what they think you mean in words and actions. Asking the patient if you are unsure demonstrates curiosity and is far better than making an assumption, which could result in a damaging mistake. Avoid assumptions about cultural beliefs and behaviors made without validation from the patient.

Beliefs and behaviors that will have an impact on patient assessment include the following:

- Modes of communication: the use of speech, body language, and space
- Health beliefs and practices that may vary from your own or those of other patients you care for

BOX 1.4 Cultural Assessment Guide: The Many Aspects of Understanding

Health Beliefs and Practices

- How does the patient define health and illness? How are feelings concerning pain, illness in general, or death expressed?
- Are there particular methods used to help maintain health, such as hygiene and self-care practices?
- Are there particular methods being used for treatment of illness?
- What is the attitude toward preventive health measures such as immunizations?
- Are there health topics that the patient may be particularly sensitive to or consider taboo?
- Are there restrictions imposed by modesty that must be respected; for example, are there constraints related to exposure of parts of the body, discussion of sexual health, and attitudes toward various procedures such as termination of pregnancy or vasectomy?
- What are the attitudes toward mental illness, pain, chronic disease, death, and dying? Are there constraints in the way these issues are discussed with the patient or with reference to relatives and friends?
- Is there a person in the family responsible for various health-related decisions such as where to go, whom to see, and what advice to follow?
- Does the patient prefer a health professional of the same gender, age, and ethnic and racial background?

Faith-Based Influences and Special Rituals

- Is there a religion or faith to which the patient adheres?
- Is there a significant person to whom the patient looks for guidance and support?
- Are there any faith-based special practices or beliefs that may affect healthcare when the patient is ill or dying?

Language and Communication

- What language is spoken in the home?
- How well does the patient understand English, both spoken and written?
- Are there special signs of demonstrating respect or disrespect?
- Is touch involved in communication?
- Is an interpreter needed? (If so, this person ideally should be a trained professional and not a family member.)

Parenting Styles and Role of Family

- Who makes the decisions in the family?
- What is the composition of the family? How many generations are considered to be a single family, and which relatives compose the family unit?
- What is the role of and attitude toward children in the family?
- Do family members demonstrate physical affection toward their children and each other?
- Are there special beliefs and practices surrounding conception, pregnancy, childbirth, lactation, and childrearing? Is co-sleeping practiced? (If so, further inquiry is necessary regarding safe sleep practices for infants 12 months and younger.)

Sources of Support Beyond the Family

- Are there ethnic or cultural organizations that may have an influence on the patient's approach to healthcare?
- Are there individuals in the patient's social network that can influence perception of health and illness?
- Is there a particular cultural group with which the patient identifies? Can this be clarified by where the patient was born and has lived?

Dietary Practices

- Who is responsible for food preparation?
- Are any foods forbidden by the culture, or are some foods a cultural requirement in observance of a rite or ceremony?
- How is food prepared and consumed?
- Are there specific beliefs or preferences concerning food, such as those believed to cause or to cure an illness?
- Are there periods of required fasting? What are they?

Modified from Stulc (1991).

BOX 1.5 Gender, Transgender, and Sexuality Terminology

Gender/gender identity: Term used to describe a person's internal sense of self and how they fit into the world from the perspective of gender.

Sex: Refers to the sex assigned at birth, historically based on a cursory visualization of external genitalia. Sex is often used interchangeably with gender, although the terms are not synonymous.

Transgender: Person whose gender identity differs from sex assigned at birth; a transgender man is someone with a male gender identity and a female birth assigned sex; a transgender woman is someone with a female gender identity and a male birth assigned sex.

Gender-diverse: Person whose gender identity differs from that sex assigned at birth but may be more complex or fluid. It can encompass individuals who identify as nonbinary, genderqueer, gender fluid, and a host of other descriptors.

They/them/their: Gender-neutral pronouns used by some who identify as nonbinary (meaning that they do not identify as exclusively male or female within the traditional gender binary of Western European–based culture).

Sexual orientation: Term describing a person's sexual, romantic, emotional, or physical attraction toward other people.

Note: Sexual orientation and gender identity are different dimensions of a person, and each is defined by the individual.
From Center of Excellence for Transgender Health (2016).

- Diet and nutritional practices
- The nature of relationships within a family and community

Attitudes toward autonomy may be based on a patient's cultural background and belief system. The patient-centered care model, still firmly respected in the United States, could be at odds with a more family-centered model that is more likely dominant elsewhere. In Japan, for example, the family is generally considered the legitimate decision-making authority for competent and incompetent patients. Persons of some cultures (e.g., Middle Eastern and Navajo Native American) believe that a patient should not be told of a diagnosis of a metastatic cancer or a terminal prognosis for any reason, but this attitude is not likely to be shared by Americans with European or African traditions. Traditionally, the members of the Navajo culture believe that thought and language have the power to shape reality. Talking about a possible outcome is thought to ensure the outcome. It is important, then, to avoid thinking or speaking in a negative way. The situation can be dealt with by talking in terms of a third person or an abstract possibility. You might even refer to an experience you have had in your own family. Obviously, the conflicts that may arise

BOX 1.6 Healthcare Delivery for Transgender and Gender-Diverse People

In the 21st century, a trend in medicine is to move away from a psychopathologic approach to transgender and gender-diverse (TGD) care. This former historical approach was found to be unsupported by scientific evidence, and it served to foster continued stigma and discrimination faced by TGD people. Being transgender or gender-diverse is not a mental disease or disorder—gender identity disorder was removed from the Diagnostic and Statistics Manual (DSM) in 2013. In the ICD-11, gender incongruence will be removed from mental health and be listed in sexual health. As our knowledge about TGD people evolves, the understanding of healthcare practitioners must also evolve. Within the framework of discussing physical examinations, it is beneficial to change from a perspective that ascribes anatomy to a binary gender or legal sex. Rather, view patients as individuals and "meet them where they are at" holistically.

Transition is a term used by many to describe the process of going from living aligned with one's sex assigned at birth to living aligned with one's gender identity. In general, this process is multidimensional and most often includes social, legal, and medical dimensions.

Social Transition

The process of modifying how one is seen by, and interacts with society, in a gendered way. A person may modify their gender expression (e.g., appearance or mannerisms), come out to others (e.g., family, friends, coworkers, community members), or may use prosthetics (e.g., wigs, breast forms or packers) (UCSF, 2019). Of note for practitioners, a person may also bind the chest for a more masculine appearance or tuck (placing the testes into the inguinal canal) to appear more feminine. Either practice may have clinical implications.

Legal Transition

The process of updating one's government-issued identity documents such as a birth certificate, driver's license, or passport. The requirements to update these documents vary by jurisdiction, including any medically related requirements. Many jurisdictions no longer require genital surgery as a requirement and more are recognizing nonbinary as a legal sex. Of note for practitioners, this means a practitioner should not assume a patient's legal sex simply based on anatomy.

Medical Transition

Many TGD people will not seek any medical care related to their transition or in living as their authentic self. For those who do seek medical care or treatment, the interventions are also highly individual. What may be medically necessary for one person may not be necessary for another person. In general, medical transition may involve mental healthcare and support, hormone therapy, and gender-affirming surgical procedures, as well as hair removal, speech therapy, and fertility preservation, among other specialties (UCSF, 2019). The World Professional Association for Transgender Health (WPATH) Standards of Care provide a person-centered, flexible approach to care. The UCSF Center of Excellence for Transgender Health has created guidelines for primary care providers. The Endocrine Society has established a standard of care for gender-affirming hormone therapy. As of 2020, the use of hormones for gender affirmation remains a US Food and Drug Administration (FDA) off-label use.

Commonly used feminizing hormones include:

- Estrogen
- Spironolactone
- Progesterone
- Leuprolide

Commonly used masculinizing hormone:

- Testosterone

Note: Leuprolide or other gonadotropin-releasing hormone (GnRH) agonist is often used for puberty blocking for TGD adolescents.

Common gender-affirming surgical procedures include:

- Facial surgery (jaw, forehead, nose, cheeks)
- Chest ("top") surgery (breast augmentation or chest masculinization/bilateral mastectomy)
- Genital ("bottom") surgery (orchiectomy, vaginoplasty, hysterectomy, metoidioplasty, phalloplasty)

University of California—San Francisco (UCSF). (2019). Transition roadmap. Retrieved from https://transcare.ucsf.edu/transition-roadmap.

from differing views of autonomy, religion, and information sharing require an effort that is dominated by a clear understanding of the patient's goals. However, it is also important to remember that a patient may not typify the attitudes of the group of origin.

Modes of Communication

Communication and culture are interrelated, particularly in the way feelings are expressed verbally and nonverbally. The same word may have different meanings for different people. For example, in the United States, a "practicing physician" is an experienced, trained person. "However, "practicing" suggests inexperience and the status of a student to an Alaskan Native or to some Western Europeans. Similarly, touch, facial expressions, eye movement, and body posture all have varying significance.

In the United States, for example, people may tend to talk more loudly and to worry less about being overheard than others do. The English, on the other hand, tend to worry more about being overheard and speak in modulated voices. In the United States, people may be direct in conversation and eager to be thought logical, preferring to avoid the subjective and to come to the point quickly. The Japanese tend to do the opposite, using indirection, talking around points, and emphasizing attitudes and feelings. Silence, although sometimes uncomfortable for many of us, affords patients who are Native American time to think; the response should not be forced and the quiet time should be allowed.

Many groups use firm eye contact. The Spanish meet one another's eyes and look for the impact of what is being said. The French, too, have a firm gaze and often stare openly at others. However, this might be thought rude or immodest in some Asian or Middle Eastern cultures. Americans are more apt to let the eyes wander and to grunt, nod the head, or say, "I see," or "uh huh," to indicate understanding. The British tend to avoid touch and are less apt to pat you on the arm in a reassuring way than are, for example, Italians.

These are but a few examples of cultural variation in communication. They do, however, suggest a variety of behaviors within groups. As with any example we might use,

FIG. 1.2 Being sensitive to cultural differences that may exist between you and the patient can help to avoid miscommunication.

they are not to be thought of as rigidly characteristic of the indicated groups. Still, the questions suggested in Box 1.4 can at times provide insight to particular situations and can help avoid misunderstanding and miscommunication.

The cultural and physical characteristics of both patient and healthcare provider may significantly influence communication (Fig. 1.2). Social class, race, age, and gender are variables that characterize everyone; they can intrude on successful communication if there is no effort for mutual knowledge and understanding (see Clinical Pearl, "The Impact of Gender"). The young student or healthcare provider and the older adult patient may have to work harder to develop a meaningful relationship. Recognizing these differences and talking about them, evoking feelings sooner rather than later, can result in a more positive encounter for both patient and provider. It is permissible to ask whether the patient is uncomfortable with you or your background and whether they are willing to talk about it.

CLINICAL PEARL

The Impact of Gender

In a qualitative study examining videotapes of primary care visits, compared with male physicians, female physicians were more "patient-centered" in their communication skills. The greatest amount of patient-centeredness was observed when female physicians interacted with female patients. Elderly hospitalized patients treated by female internists had lower mortality and readmissions compared with those cared for by male internists. On the flip side, compared with a female physician, obese men seen by a male physician were more likely to receive diet and exercise counseling.

From Bertakis and Azari (2012), Pickett-Blakely et al. (2011), and Tsugawa et al. (2017).

Health Beliefs and Practices

The patient may have a view of health and illness and an approach to cure that are shaped by a particular cultural and/or faith belief or paradigm. If that view is "scientific," in the sense that a cause can be determined for every problem in a very precise way, the patient is more apt to be comfortable with Western approaches to health and medical care. However, the scientific view is reductionist and looks to a very narrow, specific cause and effect. A more naturalistic or "holistic" approach broadens the context. It views our lives as part of a much greater whole (the entire cosmos) that must be in harmony. If the balance is disturbed, illness can result. The goal, then, is to achieve balance and harmony. Aspects of this concept are evident among the beliefs of many Hispanics, Native Americans, Asians, and Middle Eastern groups, and they are increasingly evident in people of all ethnic groups in the United States nowadays (Box 1.7). Other groups believe in the supernatural or forces of good and evil that determine individual fate. In such a context, illness may be thought of as a punishment for wrongdoing.

Clearly, there can be a confusing ambivalence in many of us, patient and healthcare provider alike, because our genuine faith-based or naturalistic beliefs may conflict with the options available for the treatment of illness. For example, consider a child with a broken bone, the result of an unintentional injury that occurred while the child was under the supervision of a babysitter. The first need is to tend to the fracture. That done, there is a need to talk with the parents about the guilt they may feel because they were away working. They might think this injury must be God's punishment. It is important to be aware of, to respect, and to discuss without belittlement a belief that may vary from yours in a manner that may still allow you to offer your point of view. This can apply to the guilt of a parent and to the use of herbs, rituals, and religious artifacts. After all, the pharmacopoeia of Western medicine is replete with plants and herbs that we now call drugs (see Clinical Pearl, "Complementary and Alternative Treatments for the Common Cold"). Our difficulty in understanding the belief of another does not invalidate its substance, nor does a patient's adherence to a particular belief preclude concurrent reliance on allopathic or osteopathic health practitioners.

CLINICAL PEARL

Complementary and Alternative Treatments for the Common Cold

Home-based remedies for common colds are widely used. In children, the following therapies may be effective: buckwheat honey, vapor rub, geranium, and zinc sulfate. In adults, *Echinacea purpurea,* geranium extract, and zinc gluconate may be effective. When asking about medications, always remember to ask about use of complementary and alternative therapies. Using a nonjudgmental approach, you may wish to start with the question, "What else have you tried?"

From Fashner et al. (2012).

Family Relationships

Family structure and the social organizations to which a patient belongs (e.g., faith-based organizations, clubs, and schools) are among the many imprinting and constraining cultural forces. The expectations of children and how they grow and develop are key in this regard and often culturally distinct. Determining these family and social

BOX 1.7 The Balance of Life: The "Hot" and the "Cold"

A naturalistic or holistic approach often assumes that there are external factors—some good, some bad—that must be kept in balance if we are to remain well. The balance of "hot" and "cold" is a part of the belief system in many cultural groups (e.g., Middle Eastern, Asian, Southeast Asian, and Hispanic). To restore a disturbed balance (i.e., to treat) requires the use of opposites (e.g., a "hot" remedy for a "cold" problem and vice versa). Different cultures may define "hot" and "cold" differently. It is not a matter of temperature, and the words used might vary: for example, the Chinese have named the forces yin (cold) and yang (hot). The bottom line: We cannot ignore the naturalistic view if many of our patients are to have appropriate care.

Hot and Cold Conditions and Their Corresponding Treatments

COLD CONDITIONS	HOT TREATMENTS	HOT CONDITIONS	COLD TREATMENTS
CONDITIONS	**FOODS**	**CONDITIONS**	**FOODS**
Cancer	Beef	Constipation	Barley water
Cold	Cereals	Diarrhea	Chicken
Earaches	Chili peppers	Fever	Dairy products
Headaches	Chocolate	Infection	Fresh vegetables
Joint pain	Eggs	Kidney problems	Fruits
Malaria	Goat's milk	Rash	Honey
Menses	Liquor	Sore throat	Goat meat
Pneumonia	Onions		Raisins
Stomach cramps	Peas		
Teething			
Tuberculosis			
	MEDICINES AND HERBS		**MEDICINES AND HERBS**
	Anise		Bicarbonate of soda
	Aspirin		Milk of magnesia
	Castor oil		Orange flower water
	Cinnamon		Sage
	Cod liver oil		
	Garlic		
	Ginger root		
	Iron		
	Tobacco		
	Penicillin		
	Vitamins		

Modified from Purnell (2013).

structures needs emphasis in the United States today, with its shift toward dual-income families, single-parent families, and a significant number of teenage parents. The prevalence of divorce (nearly one for every two marriages) and the increasing involvement of both parents in child care in two-parent families suggest cultural shifts that need to be recognized.

One type of already-known behavior may predict another type of behavior. For example, low-income mothers living in an urban setting who take advantage of appropriate prenatal care generally take advantage of appropriate infant care, regardless of educational level (Van Berckelaer et al., 2011). Adolescents who are not monitored by their parents are more likely to smoke, use alcohol and marijuana, be depressed, and initiate sexual activity than are those who are monitored (Dittus et al., 2015; Pesola et al., 2015). Being aware of this sequence of related behaviors is especially important because it may be unrelated to the integrity of the family structure, gender, or background. Parenting style and childrearing practices such as setting boundaries and expectations may be culturally driven. Many adolescents and young adults find comfort in their families' cultural traditions and practices and benefit from their connectedness. In a large study of US college students from immigrant families, compared with their peers, students who retained their heritage practices reported fewer health risk behaviors such as substance use, unsafe sex, and impaired driving (Schwartz et al., 2011). These examples remind us that one individual may belong to many subgroups and that the behaviors and attitudes of a subgroup (e.g., a young person who remains connected to their cultural heritage) can override the impact of the cultural values of the larger group (e.g., youth whose peers are engaged in risk-taking behaviors).

Diet and Nutritional Practices

Beliefs and practices related to food, as well as the social significance of food, play an obvious vital role in everyday life. Some of these beliefs of cultural and/or faith-based significance may have an impact on the care you provide to patients. An Orthodox Jewish patient will not take some medicines, particularly during a holiday period such as Passover, because the preparation of a drug does not meet the religious rules for food during that time. A patient who is Muslim must respect Halal (prescribed diet), even throughout pregnancy. A Chinese person with hypertension and a salt-restricted diet may need to consider a limited use of monosodium glutamate (MSG) and soy sauce. Attitudes toward vitamins vary greatly, with or without scientific proof, in many of the subgroups in the United States. It is still possible to work out a mutually agreed-on management plan if the issues are recognized and freely discussed. This is also possible with attitudes toward home, herbal, and natural—complementary or alternative—therapies. Many will have benefit; others may be dangerous. For example, some herbal medications containing cassia senna may cause liver damage, and other herbal preparations interact with prescribed medications (Posadzki et al., 2013).

Summing Up

As healthcare providers, we face a compelling need to meet each patient on their own terms and to resist forming a sense of the patient based on prior knowledge of the race, religion, gender, ethnicity, gender identity and sexual orientation, or cultures from which that patient

BOX 1.8 Communication

This list of questions, derived over the years from our experience and multiple resources, illustrates the variation in human responses. Try not to be intimidated by the mass of "need to know" cultural issues, but begin reflecting on them as you work with patients to raise your cultural awareness and develop a greater sense of cultural humility.

- How important are nonverbal clues?
- Are moments of silence valued?
- Is touching to be avoided?
- Are handshakes, or even embracing, avoided or desired at meeting and parting?
- What is the attitude toward eye contact?
- Is there a greater than expected need for "personal space"?
- What is the verbal or nonverbal response if your suggestions are not understood?
- Is there candor in admitting lack of understanding?
- What are the attitudes concerning respect for self and for authority figures?
- What are the attitudes toward persons in other groups, such as minorities and majorities?
- What are the language preferences?
- What is the need for "chit-chat" before getting down to the primary concern?
- Is there a relaxed or rigid sense of time?
- What is the degree of trust of healthcare professionals?
- How easily are personal matters discussed?
- Is there, even with you, a wish to avoid discussing income and other family affairs?

Health Customs/Health Practices

- What is the degree of dependence on the healthcare system, for illness alone or also for preventive and health maintenance needs?
- What is generally expected of a health professional and what defines a "good one?"
- What defines health?
- Are there particularly common folk practices?
- Is there a greater (or lesser) inclination to invoke self-care and use home remedies?
- Is there a particular suspicion or fear of hospitals?
- What is the tendency to use alternative care approaches and/or herbal remedies exclusively or as a complement?
- What are the tendencies to invoke the magical or metaphysical?
- Who is ultimately responsible for outcomes, you or the patient?
- Who is ultimately responsible for maintaining health, you or the patient?
- Is there a particular fear of painful or intrusive testing?
- Is there a tendency toward stoicism?
- What is the dependence on prayer?
- Is illness thought of as punishment and a means of penance?
- Is there "shame" attached to illness?
- What is the belief about the origins of illness?
- Is illness thought to be preventable, and, if so, how?
- What is the attitude toward autopsy?
- Does a belief in reincarnation mandate that the body be left intact?
- Are there particular cultural cooking habits that can influence diagnosis or management?
- Is the degree of modesty in both men and women more than you would generally expect?
- Do women, considering modesty, need a much more cautious and protected approach than usual (e.g., during the examination)?

Family, Friends, and the Workplace

- How tightly organized (and multigenerational) is the family hierarchy?
- How tight is the family?
- Is social life extended beyond the family, and, if so, to what degree?
- Does the family tend to be matriarchal or patriarchal?
- What are the relative roles of women and men?
- Are there particular tasks assigned to individual genders (e.g., who does the laundry, family finances, grocery shopping)?
- To what extent are older adults and other authority figures given deference, and how?
- Who makes decisions for the family?
- To what extent is power shared?
- Who makes decisions for the children and adolescents?
- How strongly are children valued?
- Is there a greater value placed on one specific gender?
- How much are self-reliance and personal discipline valued?
- What is the work ethic?
- What is the sense of obligation to the community?
- How is education sought, that is, from school, reading, and/or experience?
- What is the emphasis on tradition and ritual practice?

comes. That knowledge should not be formative in arriving at conclusions; rather, we must draw on it to help make the questions we ask more constructively probing to avoid viewing the patient as a stereotype (Box 1.8). You need to understand yourself well. Your involvement with any patient gives that interaction a unique quality, and your contribution to that interaction, to some extent, makes it different from what it might have been with anyone else. Remember that your attitudes and prejudices, which are largely culturally derived, may interfere with your understanding of the patient and increase the probability of unconscious bias and stereotypic judgment. When you're able to adapt to the unique needs of your patients and display genuine curiosity about their beliefs and values, you will be making strides toward cultural competence. The US Department of Health and Human Services Office of Minority Health provides continuing education, resources, and tools through the "Think Cultural Health" initiative (https://www.thinkculturalhealth.hhs.gov). The RESPECT model is one useful tool to bridge the cultural divide between patients and healthcare providers (Fig. 1.3).

It is not unusual to find tables of information about healthcare-related cultural attitudes for a variety of religious and ethnic groups in reference materials. Although this provides quick access to information about various population groups, our experience suggests that the rigid superficiality in this information often

The RESPECT Model

What is most important in considering the effectiveness of your cross-cultural communication, whether it is verbal, nonverbal, or written, is that you remain open and maintain a sense of respect for your patients. The RESPECT Model[1] can help you remain effective and patient-centered in all of your communication with patients.

Rapport
- Connect on a social level
- See the patient's point of view
- Consciously suspend judgment
  Recognize and avoid making assumptions

Empathy
- Remember the patient has come to you for help
- Seek out and understand the patient's rationale for his/her behaviors and illness
- Verbally acknowledge and legitimize the patient's feelings

Support
- Ask about and understand the barriers to care and compliance
- Help the patient overcome barriers; Involve family members if appropriate
- Reassure the patient you are and will be available to help

Partnership
- Be flexible
- Negotiate roles when necessary
- Stress that you are working together to address health problems

Explanations
- Check often for understanding
- Use verbal clarification techniques

Cultural competence
- Respect the patient's cultural beliefs
- Understand that the patient's views of you may be defined by ethnic and cultural stereotypes
- Be aware of your own cultural biases and preconceptions
- Know your limitations in addressing health issues across cultures
- Understand your personal style and recognize when it may not be working with a given patient

Trust
- Recognize that self-disclosure may be difficult for some patients; Consciously work to establish trust

uide to Providing Effective Communication and Language Assistance Services
www.ThinkCulturalHealth.hhs.gov

OMH U.S. Department of Health and Human Services Office of Minority Health

THINK CULTURAL HEALTH

FIG. 1.3 The RESPECT model.

does not adequately describe the beliefs and attitudes of a particular individual. Our purpose in this chapter is to review many of the questions and frameworks that might be relevant as you prepare to meet and care for your patients. Patient by patient, your insights will develop as you examine your own biases, avoid stereotypes, consider the individual, and become increasingly culturally competent. View cultural competence as a lifelong journey and not a destination or end point in and of itself.

CHAPTER

2 The History and Interviewing Process

This chapter discusses the development of relationships with patients and the building of histories or healthcare narratives. We write of it as "building" a history rather than "taking" one because you and your patient are involved in a joint effort, a partnership, which should have, among other outcomes, a history that truly reflects the patient's perspectives and unique status (Haidet, 2010; Haidet and Paterniti, 2003). In essence, you are capturing the patient's story. This chapter discusses the context of the relationship in emotional, physical, and ethical terms and offers suggestions in verbal and nonverbal behavior that you may adapt to your individual comfort and style. Finally, we offer widely accepted, time-tested approaches to the structure of a history with suggested adaptations for children, adolescents, pregnant persons, older adults, and patients with disabilities. The history is vital to guiding the physical examination and to interpreting physical exam findings.

Developing a Relationship With the Patient

In this chapter we offer instruction in learning about the well and the sick as they seek care. History and physical examination are at the heart of this effort. It is not easy to get the sense of another person or to fully appreciate someone else's orientation in the world. You and the patient may seem to have a similar experience but may in all likelihood interpret it differently (see Clinical Pearl, "'Unique,' Originally Derived From Latin 'Unus,' Meaning 'One'"). On the other hand, you and your patient may come from very different backgrounds without any shared experiences. To prevent misinterpretations and misperceptions, you must make every effort to sense the world of the individual patient as that patient senses it. (See Chapter 1 for additional discussion.)

CLINICAL PEARL

"Unique," Originally Derived From Latin "Unus," Meaning "One"

We use "unique" in that sense of being the only one. Each of us is unique, incomparably different from anyone in the past, present, or future. No relationship, then, has an exact counterpart. Each moment is unique, different from the time before with the same patient.

From *Merriam-Webster's learner's dictionary*, 2016.

The first meeting with the patient sets the tone for a successful partnership as you inform the patient that you really want to know all that is needed and that you will be open, flexible, and eager to deal with questions and explanations. You can also explain the boundaries of your practice and the degree of your availability in any situation. Trust evolves from honesty, candor, and demonstrating dignity and respect toward the patient.

A primary objective is to discover the details about a patient's concern, explore expectations for the encounter, and display genuine interest, curiosity, and partnership. Identifying underlying worries, believing them, and trying to address them optimizes your ability to be of help. You need to understand what is expected of you. If successful, the unique and intimate nature of the interview and physical examination will be reinforced. You will savor frequent tender moments with patients when you recognize that your efforts are going well and that trust is there. We want to help ensure those moments occur.

CLINICAL PEARL

The Patient Relationship

You will, in the course of your career, have numerous relationships with patients. Never forget that each time they are having an experience with you, it is important to them.

Much has been written about technology replacing the history and physical examination in some part, but personalized care of patients goes far beyond any scientific or technical advances. Appropriate care satisfies a need that can be fully met by a human touch, intimate conversation, providing education, and respect for privacy. Personal interactions and physical examination play an integral role in developing meaningful and therapeutic relationships with patients (Kugler and Verghese, 2010).

This actual realization of relationships with patients, particularly when illness compounds vulnerability, cannot be replaced (see Clinical Pearl, "The Patient Relationship").

Because cost containment is also essential, the well-performed history and physical examination can justify the appropriate and cost-effective use of resources. This

underscores the need for judgment and the use of resources in a balance appropriate for the individual patient.

At a first meeting, you are in a position of authority and your patients are vulnerable. You may not have similar perspectives, lifestyles, sexual orientation, or gender identity but you need to understand the patient's if you are to establish a meaningful partnership. This partnership has been conceptualized as patient-centered care, identified by the Institute of Medicine (IOM) as an important element of high-quality care. The IOM report defined patient-centered care as "respecting and responding to patients' wants, needs and preferences, so that they can make choices in their care that best fit their individual circumstances" (IOM, 2001). Box 2.1 identifies questions that represent a patient-centered approach in building a history. Your own beliefs, attitudes, and values cannot be discarded, but you do have to discipline them. You have to be aware of your cultural beliefs, faith, and conscience so that they do not inappropriately intrude as you discuss with patients on a variety of issues. That means knowing yourself (Curlin et al., 2007; Gold, 2010) (see also Chapter 1).

You react differently to different people. Why? How? Do you want to be liked too much? Does thinking about how you are doing get in the way of your effort? Why does a patient make you angry? Is there some frustration in your life? Which of your prejudices may influence your response to a patient? Bias is an example of mental associations that can influence behavior or feelings toward an individual, and encompasses attitudes, stereotypes, and prejudices. Possible sources of bias include race, ethnicity, religion, sexual orientation, gender identification, socioeconomic status, and disabilities. In medicine, these constructs can affect how we care for a patient. If providers are unaware of these biases, then the biases are considered implicit. Implicit biases can be further confounded by stigmatizing diagnoses such as physical handicap, HIV, obesity, psychiatric illness, and substance use disorders. In total, implicit bias is an attribution of certain qualities (prejudices and perceived stigma) by an individual to a person. Implicit bias can be shaped by experience (Greenwald and Banaji, 1995). Implicit bias, if not taken into consideration with each encounter, can lead to discriminatory care without conscious intent (Narayan et al., 2019; Pritlove et al., 2019). Discuss and reflect on potential bias with others you trust rather than make this an introspective effort. You will better control possible barriers to a successful outcome.

Effective Communication

Establishing a positive patient relationship depends on communication built on courtesy, comfort, connection, and confirmation (Box 2.2).

Be courteous; ensure comfort, both physical and emotional; be sure that you have connected with the patient with trust and candor; and confirm that all that has happened during the interaction is clearly understood and your patient is able to articulate the agreed-on plan. That is communication.

BOX 2.1 Patient-Centered Questions

The following questions represent a patient-centered approach in building a history.

- How would you like to be addressed?
- How are you feeling today?
- What would you like for us to do today?
- What do you think is causing your symptoms?
- What is your understanding of your diagnosis? Its importance? Its need for management?
- How do you feel about your illness? Frightened? Threatened? Angry? As a wage earner? As a family member? (Be sure, however, to allow a response without putting words in the patient's mouth.)
- Do you believe treatment will help?
- How are you coping with your illness? Crying? Drinking more? Tranquilizers? Talking more? Less? Changing lifestyles?
- Do you want to know all the details about your diagnosis and its effect on your future?
- How important to you is "doing everything possible"?
- How important to you is "quality of life"?
- Have you prepared advance directives?
- Do you have people you can talk with about your illness? Where do you get your strength?
- Is there anyone else we should contact about your illness or hospitalization? Family members? Friends? Employer? Religious advisor? Attorney?
- Do you want or expect emotional support from the healthcare team?
- Are you troubled by financial questions about your medical care? Insurance coverage? Tests or treatment you may not be able to afford? Timing of payments required from you?
- If you have had previous hospitalizations, does it bother you to be seen by teams of physicians, nurses, and students on rounds?
- How private a person are you?
- Are you concerned about the confidentiality of your medical records?
- Would you prefer to talk to an older/younger, male/female healthcare provider?
- Are there medical matters you do not wish to have disclosed to others?

We suggest that use of these questions should be determined by the particular situation. For example, talking about a living will might alarm a patient seeking a routine checkup but may relieve a patient hospitalized with a life-threatening disease. Cognitive impairment, anxiety, depression, fear, or related feelings as well as racial, gender, ethnic, or other differences should modify your approach.

Seeking Connection. Examine your habits and modify them when necessary so that you are not a barrier to effective communication. Stiff formality may inhibit the patient; a too-casual attitude may fail to instill confidence. Do not be careless with words—what you think is innocuous may seem vitally important to a patient who may be anxious and searching for meaning in everything you say. Consider intellectual and emotional constraints related to how you ask questions and offer information, how fast you talk, and how often you punctuate speech with "uh-huh." The interaction requires the active encouragement of patient participation with questions and responses

BOX 2.2 Communication
Courtesy, Comfort, Connection, Confirmation

Courtesy
- Knock before entering a room.
- Address, first, the patient formally (e.g., Miss, Ms., Mrs., Mr.) It is all right to shake hands.
- Meet and acknowledge others in the room and establish their roles and degree of participation.
- Learn their names.
- Ensure confidentiality.
- Be in the room, sitting, with no effort to reach too soon for the doorknob.
- If taking notes, take notes sparingly; note key words as reminders but do not let note-taking distract from your observing and listening.
- If typing in the electronic medical record, type briefly and maintain eye contact with patient, if possible.
- Respect the need for modesty.
- Allow the patient time to be dressed and comfortably settled after the examination. Follow-up discussion with the patient still "on the table" is often discomfiting.

Comfort
- Ensure physical comfort for all, including yourself.
- Try to have a minimum of furniture separating you and the patient.
- Maintain privacy, using available curtains and shades.
- Ensure a comfortable room temperature or provide a blanket—a cold room will make a patient want to cover up.
- Ensure good lighting.
- Ensure necessary quiet. Turn off the television set.
- Try not to overtire the patient. It is not always necessary to do it all at one visit.

Connection
- Look at the patient; maintain good eye contact if cultural practices allow.
- Watch your language. Avoid professional jargon. Do not patronize with what you say.
- Do not dominate the discussion. Listen alertly. Let the patient order priorities if several issues are raised.
- Do not accept a previous diagnosis as a CC. Do not too readily follow a predetermined path.
- Find out whether the patient has turned from other healthcare providers to come to you.
- Take the history and conduct the physical examination before you look at previous studies or tests. Consider first what the patient has to say.
- Avoid leading or direct questions at first. Open-ended questions are better for starters. Let specifics evolve from these.
- Avoid being judgmental.
- Respect silence. Pauses can be productive.
- Be flexible. Rigidity limits the potential of an interview.
- Assess the patient's potential as a partner.
- Seek clues to problems from the patient's verbal behaviors and body language (e.g., talking too fast or too little).
- Look for the hidden concerns underlying CCs.
- Never trivialize any finding or clue.
- Problems can have multiple causes. Do not leap to one cause too quickly.
- Define any concern completely: Where? How severe? How long? In what context? What soothes or aggravates the problem?

Confirmation
- Ask the patient to summarize the discussion. There should be clear understanding and uncertainty should be eased.
- Allow the possibility of more discussion with another open-ended question: "Anything else you want to bring up?"
- If there is a question that you cannot immediately answer, say so. Be sure to follow up later if at all possible.
- If you seem to have made a mistake, make every effort to repair it. Candor is important for development of a trusting partnership. Most patients respect it.

addressed to social and emotional issues as much as the physical nature of health problems.

At the start, greet the patient. If it is your first meeting, introduce yourself, share the pronouns you use, ask the patient how they would like to be addressed, and what pronouns they use. This introduction (for use with every patient) forms the foundation of the rest of the interaction. By stating how you want to be addressed and your pronoun, you invite the patient to share this information about themselves and avoid assumptions on your part. For transgender and gender-diverse patients, this helps create a welcoming and supportive environment. Welcome others and ask how they are connected to the patient. Begin by asking open-ended questions ("How have you been feeling since we last met?" "What are your expectations in coming here today?" "What would you like to discuss?" "What do you want to make sure we cover in today's visit?"). Resist the urge to interrupt in the beginning. You will be amazed how many times a complete history is provided without prompting. Later, as information accumulates, you will need to be more specific. However, early on, it is entirely appropriate to check the patient's agenda and concerns and let the information flow. It is important not to interrupt the patient at the start of the interview. By initially remaining silent and then asking whether there is "anything else" a few times you will be amazed how the patient's primary concerns are identified early in the visit. Thus, you and the patient can collaboratively set the visit's agenda.

Having clear and agreed-upon goals for each interaction leads to successful communication. You must be a skilled listener and observer with a polished sense of timing and a kind of repose that is at once alert and reassuring. Your nonverbal behavior complements your listening. In the absence of infectious control issues, your face should not be a mask. Be expressive and nod in agreement. It is better to avoid the extremes of reaction (e.g., startle, surprise, or grimacing). Eye contact should be assured and comfortable, and your body language should show that you are emotionally present, open to and engaged

with the patient. You should be comfortably seated close to the patient and, if using an electronic medical record, so you and the patient can both visualize the screen. Do not stand and do not reach for the doorknob (see Clinical Pearl, "Professional Dress and Grooming").

Remember that patients also communicate nonverbally, and understanding this is advantageous to both you and the patient (Henry et al., 2012).

CLINICAL PEARL

Professional Dress and Grooming

Appropriate dress and grooming go a long way toward establishing a first good impression with the patient. Although clean fingernails, modest clothing, and neat hair are imperative, you need not be formal to be neat. You should avoid extremes so that appearance does not become an obstacle in the patient's response to care.

Confidentiality, which is important in all aspects of care, is another essential element. The patient should provide the information. It is important to identify everyone in the room to be sure the patient is comfortable and wants others to participate in the visit. You may want to ask the parent, spouse, or other person to step out of the room so you can have a confidential discussion with the patient. If language is a barrier, a professional interpreter, rather than a family member, should be used (Fig. 2.1A and B).

Gentle guidance and polite redirection are sometimes necessary to keep the visit focused and moving forward (e.g., "Now let's also talk about …" or "I'm sorry to interrupt, but let me make sure I understand …"). Be prepared with questions you think are important to address based on the patient's history and main concerns. If the patient touches on something that does not seem immediately relevant to your purposes (e.g., introducing a possible problem not previously mentioned), be flexible enough to clarify at least the nature of the concern. Some apparent irrelevancies may contain clues to the care-seeking behaviors or concerns that may be hidden beneath the primary concern or concerns may be held until a certain level of trust has developed between you and the patient. The patient's body language will also suggest the intensity of an underlying feeling. Although too many digressions can lead to misspent time, paying attention may save a lot of time later, and information learned may be important to the future plan of care.

Enhancing Patient Responses. Carefully phrased questions can lead to more accurate responses. Ask one question at a time, avoiding a barrage that discourages the patient from being complete or that limits answers to a simple yes or no:

- The open-ended question gives the patient discretion about the extent of an answer: "Tell me about …" "And then what happened?" "What are your feelings about this?" "What else do you need to talk about?"
- The direct question seeks specific information: "How long ago did that happen?" "Where does it hurt?" "Please put a finger where it hurts." "How many pills did you take each time?" and "How many times a day did you take them?"
- The leading question is the most risky because it may limit the information provided to what the patient thinks you want to know: "It seems to me that this bothered you a lot. Is that true?" "That wasn't very difficult to do, was it?" "That's a horrible-tasting medicine, isn't it?" When asking how often something happened, allow the patient to define "often," rather than asking, "It didn't happen too often, did it?"

FIG. 2.1 (A) Interviewing a patient with the help of a live interpreter. (B) Interviewing a patient with the help of a video interpreter. Someone other than a family member should act as interpreter to bridge the language difference between the healthcare provider and the patient. An interpreter can be live, on video, or available telephonically.

Sometimes the patient does not quite understand what you are asking and says so. Recognize the need when it is appropriate to:

- Facilitate—encourage your patient to say more, either with your words or with a silence that the patient may break when given the opportunity for reflection.
- Reflect—repeat what you have heard to encourage more detail.
- Clarify—ask, "What do you mean?"
- Empathize—show your understanding and acceptance. Do not hesitate to say "I understand," or "I'm sorry" if the moment calls for it.
- Confront—do not hesitate to discuss a patient's disturbing behavior.
- Interpret—repeat what you have heard to confirm the patient's meaning.

What you ask is complemented by how you ask it. Take the following actions, if necessary, to clarify the patient's point of view. Do not assume you know what a patient is thinking:

- Ask what the patient thinks and feels about an issue.
- Make sure you know what the chief concern (CC) is.
- Ask about the patient's life situation, so that nothing seemingly extraneous to the CC and present illness has gone unnoticed.
- Suggest at appropriate times that you have the "feeling" that the patient could say more or that things may not be as well as they are reported.
- Suggest at appropriate times that it is all right to be angry, sad, or nervous, and it is all right to talk about it.
- Make sure that the patient's expectations in the visit are met and that there are no further questions.

Make sure your questions are clearly understood. Define words when necessary and choose them carefully. Avoid technical terms if possible. Adapt your language when necessary to the patient's education level. Adapt your terminology, particularly in reference to how a patient identifies or how they describe their anatomy or illness, to mirror the patient's language. Ask the patient to stop you if he or she does not understand what you are talking about. Similarly, do the same if you do not grasp the patient's meaning. For example, a patient may report that he had "low blood" (anemia), "high blood" (hypertension), "bad blood" (syphilis), and "thin blood" (he was taking anticoagulants). It can take a bit of exploring to sort it all out. Do not assume every question needs a complex and technical answer. Avoid medical jargon with all patients, even those who are in the healthcare field.

Moments of Tension: Potential Barriers to Communication

Curiosity About You. Patients will sometimes ask about you. Although you are not the point, you may be comfortable revealing some relevant aspects of your experience ("I have trouble remembering to take medicines too" or "I remember when my children had tantrums"). A direct answer will usually do. Often, simply informing your patients that you have experienced similar life events (e.g., illness, pregnancy, and childbirth) can help alleviate fears and, with further exploration, can help in the identification of the patient's concerns. The message that you are a "real" person can lead to a trust-enhancing or even therapeutic exchange. At the same time, it is wise to exercise caution and remain professional in what and how much you disclose (Lussier and Richard, 2007).

Anxiety. Anxiety has multiple sources, such as an impending procedure, risk-exposure, or anticipated diagnosis. Some disorders will be more likely to cause an intense response, such as those associated with crushing chest pain or difficulty in breathing; with other disorders, just seeing a healthcare professional can cause anxiety. You can help by avoiding an overload of information, pacing the conversation, and presenting a calm demeanor.

Silence. Sometimes intimidated by silence, many healthcare providers feel the urge to break it. Be patient. Do not force the conversation. You may have to move the moment along with an open-ended question ("What seems to worry you?") or a mild nudge ("And after that?"). Remember, though, that silence allows the patient a moment of reflection or time to summon courage. Some issues can be so painful and sensitive that silence becomes necessary and should be allowed. Most people will talk when they are ready. The patient's demeanor, use of hands, facial expressions, or teary eyes will help you interpret the moment. For the teary eyes, be prepared to offer a tissue. Silence may also be cultural: for example, some cultural groups take their time, ponder their responses to questions, and answer when they feel ready. Do not push too hard. Be comfortable with silence and give it reasonable bounds.

Depression. Being sick or thinking that you are sick can be enough to provoke situational depression. Indeed, serious or chronic, unrelenting illness or taking certain prescription medications (e.g., steroids) is often accompanied by depression. A sense of sluggishness in the daily experience; disturbances in sleeping, eating, and social contact; and feelings of loss of self-worth can be clues. In addition to screening for depression at every visit, pay attention. First ask, "When did you start feeling this way?" Then ask, "How do you feel about it?" "Have you stopped enjoying the things you like to do?" "Do you have trouble sleeping?" "Have you had thoughts about hurting yourself?" "Are you depressed?" A patient in this circumstance cannot be hurried and certainly cannot be relieved by superficial assurance. You need not worry about introducing the idea of suicide (see Clinical Pearl, "Adolescent Suicide"). It has most often been considered, if only briefly (see Chapter 7, Risk Factors box, "Suicide").

CLINICAL PEARL

Adolescent Suicide

Suicide is a major cause of mortality in the preteen and teen years, more often in boys. If the thought of it occurs to you, you can be quite sure that it has to the patient too. You can mention it and thus give permission to talk about it. You will not be suggesting anything new. You may actually help prevent it.

Crying and Compassionate Moments. People will cry. Let the emotion proceed at the patient's pace. Resume your questioning only when the patient is ready. If you suspect a patient is holding back, give permission. Offer a tissue or simply say, "It seems like you're feeling sad. It's OK to cry." Name the emotion. Be direct about such a tender circumstance, but gently, not too aggressively or insistently. Do not hesitate to say that you feel for the patient, that you are sorry for something that happened, and that you know it was painful. At times, the touch of a hand or even a hug is in order. Sometimes, a concern—a difficult family relationship, for example—must be confronted. You may have to check an assumption and hope that you have guessed correctly in bringing the patient's feelings to the surface. If uncertain, ask without presupposing what the response might be.

Physical and Emotional Intimacy. It is not easy to be intimate with the emotions and the bodies of others. Cultural norms and behaviors are at once protective of and barriers to trusting relationships. The patient is in a dependent status as well. You cannot be sure of the degree to which a given patient has been "desensitized" to the issues of intimacy. You also cannot be sure of the patient's trauma history. You can acknowledge this while explaining clearly and without apology what you must do for the patient's benefit while ensuring your care is patient-centered and allows for the patient to maintain control. Be careful about the ways in which you use words or frame questions. Box 2.3 discusses a trauma informed care (Roberts et al., 2019). Mirror the patient's language about their anatomy, and respect modesty, using covers appropriately without hampering a complete examination. By being calm and asking questions with professional poise and by being empathetic yet straightforward, explaining the consequences of not performing an examination, such as skipping examination of the genitals, due to modesty or past-trauma concerns, may help keep the necessary from becoming too big an issue.

Inappropriate Attraction. Some patients can be excessively flattering and manipulative and even seductive. Their illness and insecurity beg for extra-special attention. Do not be taken in by this. There are limits to warmth and cordiality. Certainly not all touch is sexually motivated; a heartfelt hug is sometimes just right. Nevertheless, beware of that trap. Avert it courteously and firmly, delivering the immediate message that the relationship is and will remain professional. It takes skill to do this while maintaining the patient's dignity, but there is no room for sexual misconduct in the relationship, and there can be no tolerance for exploitation of the patient in this regard.

Anger. Sometimes the angriest patients (or persons with them) are the ones who may need you the most. Of course, it can be intimidating. Confront it. It is all right to say, "It seems like you're angry. Please tell me why. I want to hear." Speak softly and try not to argue the point. You may not know if or why you made someone angry. Most often, you have done nothing wrong, and the patient's emotion is unrelated to you or the visit. Still, the stress of time, heavy workload, and the tension of caring for the acutely—even terminally—ill can generate your own impatience and potential for anger. Avoid being defensive but acknowledge the problem. Only when appropriate, apologize and ask how to make things better. Explore the feelings. Often, you can continue on a better footing after anger is vented. On occasion, nothing will seem to help. It is then all right to defer to another time or even to suggest a different professional (Thomas, 2003).

Afterward, do not hesitate to talk about the episode with a trusted colleague. It helps. Discussing the incident later may lend insight into behaviors and help prevent the occurrence again. Better ways of responding can be explored.

Avoiding the Full Story. Patients may not always tell the whole story or even the truth, either purposely or unconsciously. Dementia, illness, substance abuse, past experience of, or fear of, discrimination because of sexual orientation or gender identity in healthcare settings, intimate partner violence (IPV), and child abuse are among some of the reasons. Do not push too hard when you think this is happening. Allow the interview to go on and then come back to a topic with gentle questioning. You might say, "I think that you may be more concerned than you are saying" or "I think you're worried about what we might find out." Unless there is concern about the safety of the patient or another individual, learning all that is necessary may not come in one sitting. You may have to pursue the topic at a later visit or perhaps with other members of the family or friends or your professional associates.

Financial Considerations. The cost of care and the resulting drain on resources (and the potential impact on employment or insurance coverage) are often sources of stress for the patient. Talk about them with candor and accurate knowledge. Provide resources (social worker or financial counselor). Otherwise, an appropriate care plan acceptable to the patient cannot be devised or implemented. Pressing circumstances and obligations may still

BOX 2.3 CAGE and CAGE-AID Questionnaire

The CAGE questionnaire was developed in 1984 by Dr. John Ewing, and it includes four interview questions designed to help screen for alcoholism. The CAGE questions were adapted by Dr. Richard Brown in 1991 to include illicit drugs. It is a screening questionnaire to help determine if a more complete assessment is needed.

The CAGE acronym helps practitioners quickly recall the main concepts of the four questions (**C**utting down, **A**nnoyance by criticism, **G**uilty feeling, **E**ye-openers). The CAGE-AID Questionnaire is publicly available and can be downloaded at http://www.integration.samhsa.gov/clinical-practice/screening-tools.

present barriers to appropriate care. (See Clinical Pearl, "Social Determinants of Health")

CLINICAL PEARL

Social Determinants of Health

Social determinants of health (SDOH) are conditions and environments where people live, learn, worship, work, play, and age. SDOH have a major impact on health, functioning, well-being, and quality of life. SDOH contribute to health disparities and inequities. For example, people without access to healthy foods/grocery stores are less likely to have good nutrition and are more likely to have heart disease, diabetes, and obesity. As a result, these individuals have a shorter live expectancy. SDOH can be divided into five domains:

1. Economic stability
2. Education access and quality
3. Healthcare access and quality
4. Neighborhood and working environment
5. Social and community context

Modified from https://health.gov/healthypeople/objectives-and-data/social-determinants-health, https://www.who.int/gender-equity-rights/understanding/sdh-definition/en/, and https://www.cdc.gov/socialdeterminants/index.htm.

The Patient History

A first objective in building the history is to identify those matters the patient defines as problems, the subtle as well as the obvious. You need to establish a sense of the patient's reliability as an interpreter of events. Consider the potential for intentional or unintentional suppression or underreporting of certain experiences that may give context to a problem that is at odds with your expectation. Constantly evaluate the patient's words and behavior. The history is built on the patient's perspective and story, not yours. Make modifications as required for the patient's age and his or her physical and emotional disabilities. There are times that collateral information is needed to fully appreciate the patient's narrative.

Setting for the Interview

Regardless of the setting, make everyone as comfortable as possible. Position yourself so that there are no bulky desks, tables, computer screens, or other electronic equipment between you and the patient (Fig. 2.2). If possible, have a clock placed where you can see it without obviously looking at your watch (preferably behind the patient's chair). Sit comfortably and at ease, maintaining eye contact and a conversational tone of voice. Your manner can assure the patient that you care and that the patient is your primary focus. You can do this only by concentrating on the matter at hand, giving the encounter primacy in your life and putting aside both personal and professional distractions.

Structure of the History

You build the history to establish a relationship with the patient, so that you jointly discover the issues and problems that need attention and priority. A widely accepted approach is provided that can and should be modified to fit the individual circumstance:

- First, the identifiers: name, date, time, age, sex assigned at birth, sexual orientation, gender identity, preferred language, race, source of information, and referral source
- Chief concern (CC)
- History of present illness or problem (HPI)
- Past medical history (PMH)
- Family history (FH)
- Personal and social history (SH)
- Review of systems (ROS)

The CC is a brief statement about why the patient is seeking care. Direct quotes are helpful. It is important, however, to go beyond the given reason and to probe for underlying concerns that cause the patient to seek care. If the patient has a sore throat, why is help sought? Is it the pain and fever, or is it concern caused by past experience with a relative who developed rheumatic heart disease? Many interviewers include the duration of the problem as part of the CC.

Understanding the present illness or problem requires a step-by-step evaluation of the circumstances that surround the primary reason for the patient's visit. A complete history includes an exploration of the patient's overall health before the CC, as well as past medical and surgical experiences. The spiritual, psychosocial, and cultural contexts of the patient's life are essential to an understanding of these events. The patient's family also requires attention—their health, PMH, illnesses, deaths, and the genetic, social, and environmental influences. Careful inquiry about the personal and social experiences of the patient should include work habits and the variety of relationships in the family, school, and workplace. Finally, the ROS includes a detailed inquiry of possible concerns

FIG. 2.2 Interviewing a young adult. Note the absence of an intervening desk or table.

in each of the body's systems, looking for complementary or seemingly unrelated symptoms that may not have surfaced during the rest of the history. Flexibility, the appreciation of subtlety, lack of judgement, and the opportunity for the patient to ask questions and to explore feelings are explicit needs in the process.

Think About It

One question should underlie all of your inquiry: Why is this happening to this particular patient at this particular time? In other words, if many people are exposed to a potential problem and only some of them become ill after the exposure, what are the unique factors in this individual that led to that outcome? For example, if 100 people wake up with a bad headache, and 97 go to work while 3 seek care, what underlying dimension prompted those decisions?

Building the History

Introduce yourself to the patient and accompanying persons if you have not already met, clearly stating your name and your role. If you are a student, say so. Be certain that you know the patient's full name and that you pronounce it correctly. Ask if you are not certain.

Ask the patient how they would like to be addressed, and then address the patient properly (e.g., as Mr., Miss, Mrs., Ms., Mx.) or the manner of address preferred by the patient) and repeat the patient's name at appropriate times. Avoid the familiarity of using a first name when you do not expect familiarity in return. Do not use a surrogate term for a person's name; for example, when the patient is a child, do not address the parent as "Mother" or "Father." It is respectful and courteous to take the time to learn each name.

It is respectful to look at the patient and not at the electronic medical record. Use it if you must but position it so that it does not distract you from the patient. More and more electronic devices for documentation and educational purposes (e.g., capturing a picture of a lesion to follow overtime, demonstrating the findings on an imaging study, showing the trend of a laboratory result over time, or reviewing a website together) are used. Unless you already know the patient and know that there is urgency, proceed at a reasonable pace, asking for the reason for the visit with the intent of learning what their specific expectations of the visit are. Listen, and do not be too directive. You will often be surprised at how much of the story and details you will hear without pushing. Let the patient share his or her full story and reasons for seeking care.

You have begun to give structure to the present illness or problem, giving it a chronologic and sequential framework. Unless there is urgency, go slowly, hear the full story, and refrain from interrupting with what seems the obvious course of questioning. The patient will take cues from you on the leisure you will allow. You must walk a fine line between permitting this leisure and meeting the many time constraints you are sure to have. Fix your attention on the patient, avoid interjecting as much as possible, and do not ask the next question before you have heard the complete answer to the prior one.

The patient's responses may at times be unclear. Seek certainty:

- "Of what you've told me, what concerns you the most?"
- "What do you want to make sure we pay attention to today?"
- "Do you have any ideas about what we ought to do?"
- Or a leading question sometimes, "I think _____ worries you the most. Am I right? Shall we talk about that first?"
- As the interview proceeds, thoroughly explore each positive response with the following questions:
- Where? Where are symptoms located, as precisely as possible? If they seem to move, what is the range of their movement? Where is the patient when the complaint occurs—at work or play, active or resting?
- When? Everything happens in a chronologic sequence. When did it begin? Does it come and go? If so, how often and for how long? What time of day? What day of the week?
- What? What does it mean to the patient? What is its impact? What does it feel like? What is its quality and intensity? Has it been bad enough to interrupt the flow of the patient's life, or has it been dealt with rather casually? What else happened during this time that might be related? What makes it feel better? Worse?
- How? The background of the symptom becomes important in answering the "how" question. How did it come about? Are other things going on at the same time, such as work, play, mealtime, or sleep? Is there illness in the family? Have there been similar episodes in the past? If so, how was it treated or did it resolve without treatment? Is there concern about similar symptoms in friends or relatives? Are there spouse complaints or concerns? How is the patient coping? Are there social supports? Nothing ever happens in isolation.
- Why? Of course, the answer to "why" is the solution to the problem. All other questions lead to this one.

Once you have understood the patient's CC and present problem and you have a sense of underlying issues, you may go on to other segments of the history: the family and past medical histories; emotional, spiritual, and cultural concerns; and social and workplace accompaniments to the present concerns. Remember that nothing in the patient's experience is isolated. Aspects of the present illness or problem require careful integration with the medical and FH. The life of the patient is not constructed according to your outline, with many factors giving shape to the present illness and with one CC possibly involving more than one illness.

A visit should conclude with a review:

- Ask the patient to try to satisfy gaps in your understanding.
- Ask for questions.
- Interpret and summarize what you have heard.
- Ask the patient to summarize for you to ensure complete understanding.

- Repeat instructions and ask to hear them back.
- Explain the next steps: needed examinations and/or studies, appointment times, keeping in touch.

Sensitive Issues

Sensitive issues, which may be difficult to discuss (e.g., sex, sexual orientation, gender identity, drug or alcohol use, concerns about death) are important to address. The following guidelines, keys to any successful interview, are essential in an approach to sensitive issues.

- Provide privacy.
- Do not waffle. Be direct and firm. Avoid asking leading questions.
- Do not apologize for asking a question. But ensure you are asking an appropriate question, in an appropriate manner, for an appropriate reason, at an appropriate time.
- Do not preach. Avoid confrontation. You are not there to pass judgment or proselytize.
- Use language that is understandable to the patient, yet not patronizing (see Clinical Pearl, "Watch the Use of Jargon").
- Do not push too hard.

Afterward, document carefully, using the patient's words (and those of others with the patient) whenever possible. It is all right to take notes, but try to do this sparingly, especially when discussing sensitive issues.

CLINICAL PEARL

Watch the Use of Jargon

Unfortunately, many of us may too often lapse into the use of jargon, the language of our profession that is not accessible to the patient. Patient-demeaning words are worse. Stress, frustration, fatigue, and anger are common underlying causes for these lapses. Know yourself. Understand why you might fall into the habit, and do your best to avoid it.

You must always be ready to explain again why you examine sensitive areas. A successful approach will have incorporated four steps:

1. An introduction, the moment when you bring up the issue, alluding to the need to understand its context in the patient's life.
2. Open-ended questions (that are free of assumptions) that first explore the patient's feelings about the issue—whether, for example, it is alcohol, drugs, sex, cigarettes, education, or problems at home—and then the direct exploration of what is actually happening.
3. A period in which you thoughtfully attend to what the patient is saying and then repeat the patient's words or offer other forms of feedback. This permits the patient to agree that your interpretation is appropriate, thus confirming what you have heard.
4. Finally, an opportunity for the patient to ask any questions that might be relevant.

Alcohol and Drugs. TAPS (Tobacco, Alcohol, Prescription medication, and other Substance use Tool) (https://www.drugabuse.gov/taps/#/), is a two-component screening tool. The first is TAPS-1, and if this is positive it is followed by TAPS-2. TAPS-2 screens for risk level for the substance that was identified in TAPS-1. This tool can be self-administered by an adult patient or given as part of an interview. TAPS is one of several tools on the NIDAMED portal (https://www.drugabuse.gov/nidamed-medical-health-professionals) that can help providers choose brief, evidence-based substance use screening tools. The CAGE-AID questionnaire (Brown and Rounds, 1995) is one model for discussing the use of alcohol (see Box 2.3). CAGE is an acronym for **C**utting down, **A**nnoyance by criticism, **G**uilty feeling, **E**ye-openers. CAGE–AID is the CAGE questionnaire **A**dapted to **I**nclude **D**rugs. Its use does not ensure absolute sensitivity in the detection of a problem. Another common screening tool is the AUDIT-C (Bush et al., 1998) (Box 2.4). It can be used to screen for hazardous drinking or for alcohol use disorders. These Screens can be complemented or supplemented by the TACE model (Box 2.5), particularly in the identification of alcoholism in a pregnant patient (because of the potential for damage to the fetus), or by CRAFFT, for identification of an alcohol problem in adolescents (Box 2.6). There is similarity in all of these questionnaires. You can adapt them to your style and to the particular patient. You can also adapt them to concerns about drugs or substances other than alcohol (see Clinical Pearl, "Screening").

BOX 2.4 AUDIT-C Questionnaire

The three-question AUDIT-C questionnaire is scored on a scale of 0–12 (0 = no alcohol use). In men, a score of 4 or more is considered positive and in women, a score of 3 or more is considered positive (Bradley et al., 2003). The greater the score, the more likely it is that drinking is affecting the patient's health. The AUDIT-C is a modified version of the 10-item Alcohol Use Disorders Identification Test (AUDIT) developed by the World Health Organization and published in 1998. The AUDIT-C is available for use in the public domain at https://apps.who.int/iris/bitstream/handle/10665/67205/WHO_MSD_MSB_01.6a.pdf;jsessionid=639B0C845389D0FF2EBF9D533A61917F?sequence=1.

CLINICAL PEARL

Screening

There is a difference between a screening and an assessment interview. The goal of screening is to find out if a problem exists. They are effective, but they are only the start, and assessment continues after a positive screen. Discovering a problem early may lead to a better outcome.

Intimate Partner Violence. We frequently underestimate the incidence of IPV in the experience of our patients of any age, sexual orientation, or gender identity. IPV includes a range of abusive behaviors perpetrated by someone who is or was involved in an intimate relationship with the victim. It affects primarily women, children, and dependent older adults as victims and, in lesser frequency, men. Intimate

BOX 2.5 TACE Model

The following questions are included in the TACE model:

T How many drinks does it **T**ake to make you feel high? How many when you first started drinking? When was that? What do you prefer: beer, wine, or liquor? (More than two drinks suggests a tolerance to alcohol that is a red flag.)

A Have people **A**nnoyed you by criticizing your drinking?

C Have you felt you ought to **C**ut down on your drinking?

E Have you ever had an **E**ye-opener drink first thing in the morning to steady your nerves or get rid of a hangover?

An answer to T alone (more than two drinks) or a positive response to two of A, C, or E may signal a problem with a high degree of probability. Positive answers to all four signal a problem with great certainty.

From Sokol et al. (1989).

BOX 2.6 CRAFFT Questionnaire

The CRAFFT questionnaire was developed in 2002 as a screening tool for alcohol and substance abuse in adolescents.

The CRAFFT acronym helps practitioners remember the main concepts of the six questions: **C**ar, **R**elax, **A**lone, **F**orget, **F**riends, **T**rouble.

The exact wording of the CRAFFT questions can be found here: Knight JR, Sherritt L, Shrier LA, Harris SK, Chang G: Validity of the CRAFFT substance abuse screening test among adolescent clinic patients, *Arch Pediatr Adolesc Med* 156:607–614, 2002. Available at: http://archpedi.jamanetwork.com/article.aspx?articleid=203511.

partners are usually the perpetrators. Same-sex partners probably have the same prevalence, although underreporting may be more of a problem in this population. Alcohol is a common facilitator. Children exposed to IPV are at increased risk for social and emotional problems. There is significant overlap between IPV and child abuse, so when IPV is detected, child abuse should be considered.

Reluctance to screen for fear of offending patients and families is a misplaced concern. This is occasionally compounded by an inappropriate response to an abused person, such as making too little of their experience or even laying the blame on them. They are twice a victim. Although IPV affects both men and women as victims and perpetrators, more women experience IPV (Nelson et al., 2012), and transgender women are at higher risk of physical and psychological IPV than are cisgender adults (Pitts et al., 2006). Likewise, lesbian, gay, bisexual, and transgender (LGBT) youth are at high risk for being victims of IPV (Whitton et al., 2016; Whitton et al., 2019). Few victims will discuss IPV willingly with a healthcare provider, and the patient is usually the initiator of the discussion. We recommend all individuals be screened. A validated brief Partner Violence Screen (PVS) uses three questions to detect partner violence (MacMillan et al., 2006):

1. Have you been hit, kicked, punched, or otherwise hurt by someone within the past year?
2. Do you feel safe in your current relationship?
3. Is there a partner from a previous relationship who is making you feel unsafe now?

These cover two dimensions of partner violence, and a positive response to any one of them constitutes a positive screen. The first question addresses physical violence. The latter two questions evaluate the individual's perception of safety and estimate their short-term risk of further violence and need for counseling.

Additionally, you may see something suggestive on physical examination and ask the following: "The bruises I see. How did you get them?"

Positive answers require accurate documentation, using words, drawings, and, if possible, photographs and the preservation of any tangible evidence. Positive answers require that the patient's safety be ensured. Ask the following:

- Are you afraid to go home?
- Are there guns or knives at home?
- Is alcohol (or other drugs) part of the problem?
- Has it gotten worse lately?
- Are children involved?

A "yes" answer mandates an intervention that requires utilization of other healthcare professionals such as social workers and mental health providers who may be able to provide more in-depth assessment and linkage to resources. Get the patient's viewpoint. Let them speak; assure them that they are not alone and that you will do your best to help.

A "no" answer may still leave you uncomfortable. Get permission from the patient to document your concern and your suspicion of injury. Be unafraid to ask direct questions about your suspicion ("Where did that bruise come from?"). Ask them to come back to see you again.

Evidence-Based Practice in Physical Examination

Screening for Abuse and Intimate Partner Violence

Data from a systematic review indicate that screening practices by healthcare professionals are inconsistent for several reasons, including the existence of a variety of screening instruments, a lack of consensus on which instrument to use, lack of specificity of risk factors, lack of training, lack of effectiveness studies about what to do if violence is identified, discomfort with screening, and time constraints. Several instruments have been developed for IPV screening, and their diagnostic accuracy has been evaluated in studies of different populations using various reference standards. Six instruments with one to eight items demonstrated sensitivity and specificity greater than 80% in clinical populations of asymptomatic women; results varied between studies and across instruments. The Feldhaus PVS three-item screening instrument had a higher sensitivity and specificity compared with two longer instruments. The HITS (Hurt-Insult-Threaten-Scream) four-item screening instrument for abuse (Box 2.7) demonstrated 86% sensitivity and 99% specificity (English version) and 100% percent sensitivity and 86% specificity (Spanish version).

Studies to develop and evaluate tools are generally lacking to assess screening older and vulnerable adults for abuse. Existing instruments to detect child abuse are not designed for direct administration to the child, missing opportunities to screen older children in the context of usual healthcare.

Data from Chen et al. (2005), Kliegman et al. (2016), and Nelson et al. (2004).

BOX 2.7 Brief Screening Tool for Domestic Violence: HITS

Verbal abuse is as intense a problem as physical violence. **HITS** stands for **H**urt, **I**nsult, **T**hreaten, or **S**cream. The wording of the question is, "In the past year, how often did your partner:
Hurt you physically?"
Insult or talk down to you?"
Threaten you with physical harm?"
Scream or curse at you?"

This approach works for all persons. Infants and children have the protection of the legal mandate for you to report your suspicions. Questioning a child about abuse suffered or witnessed at home can be problematic because you want to avoid suggestion. In general, open-ended questions are comfortably asked of the young or of a parent in their presence:

- Why did you come to see me today? (Do not mention the concern directly.)
- Tell me everything that happened to you, please. (No leading questions.)
- With infants, a bruise or burn with an odd shape or unexpected location is very concerning for child abuse. It is difficult for an infant who is not yet crawling or toddling to break a femur or to have fingerprint-size bruises on the arms, for example.
- Adolescents may endure violence, particularly sexual, at home or away. The clue may be changes in behavior, such as dress and makeup, school effort, sleeping, and eating. Routinely screen adolescents for partner violence. Alcohol or drug use can become an issue. Former friends may be avoided. Most important, take your time and ask the following questions:
  - What sexual experiences have you had?
  - When did you start?
  - Did you want to, or were you forced or talked into it?
  - Do the people you are with ever scare you?
  - Did anyone ever touch you in a sexual way?

Always be available for more conversation. The questions are just a start. Note that the young may also witness as well as endure violence at home, with a profound effect on their lives and behavior. These problems should be dealt with as if the patient were the direct victim. Additionally adolescents may be victims of human trafficking (see below).

The risk of abuse of older adults, often underreported, is greater if the older adult has had a history of mental illness, is physically or cognitively impaired, or is living in a dependent situation with inadequate financial resources. The abusers may have similar risks, perhaps alcohol or drug related. Both groups may have a past history of domestic violence.

Human Trafficking. "Human trafficking involves the use of force, fraud, or coercion to obtain some type of labor or commercial sex act" (https://www.dhs.gov/blue-campaign/what-human-trafficking). It is a significant problem that is often not considered, and adolescents and adult patients should be screened to help identify trafficking victims or people at risk for trafficking victimization. There are guides to help providers use trauma-informed and survivor-informed practices with their screening (https://www.ncjrs.gov/pdffiles1/nij/grants/246713.pdf and https://www.acf.hhs.gov/sites/default/files/otip/adult_human_trafficking_screening_tool_and_guide.pdf). Examples of the screening tools and associated provider guides are: Trafficking Victim Identification Tool (TVIT), The Adult Human Trafficking Screening Tool (AHTST) and the Human Trafficking Screening Tool (HTST) (Dank et al., 2017) screening tool for youth (between the ages of 12 and 24 years). Before using these screening tools with persons who may be victims of human trafficking, the victim's personal safety and comfort should be assured; try not to be judgmental or shocked by details they may reveal and to be understanding when victims do not wish to repeat the details. Trafficking victims have often endured profound physical and psychological injuries.

Spirituality. The basic condition that life imposes is death. It often stirs in us a spiritual or "sacred" feeling—always with us, frequently sublimated, sometimes not. Illness, however mild, may stir that feeling and may carry with it a sense of dread. Faith may be an intimate contributor to one's perspective. An understanding of "spirituality" is, then, integral to the care we offer, but it is complicated by the fact that there is no universally agreed-on definition; each of us brings our own understanding to the care provided.

Many patients want attention paid to spirituality, and faith can be a key factor in the success of a management plan. Others may prefer that you not broach the subject. This requires the same degree of sensitivity and caution as talking about drugs, cigarettes, sex, and alcohol. The questions suggested by Puchalski and Romer (2000) with the acronym FICA and adapted by us suggest an approach:

- **F**aith, Belief, Meaning
  - What is your spiritual or religious heritage? Is the Bible, the Quran, or similar writings important to you?
  - Do these beliefs help you cope with stress?
- **I**mportance and Influence
  - How have these beliefs influenced how you handle stress? To what extent?
- **C**ommunity
  - Do you belong to a formal spiritual or religious community? Does this community support you? In what way? Is there anyone there with whom you would like to talk?
- **A**ddress/Action in Care
  - How do your religious beliefs affect your healthcare decisions (e.g., choice of birth control)? How would you like me to support you in this regard when your health is involved?

Answers to these questions may guide you to involve clergy or other spiritual care providers or to become more deeply involved. There is some evidence that prayer can

aid in healing. You may, if you are asked and are inclined, pray with a patient, although it is best that you not lead the prayer. You may even suggest it if the patient is sorely troubled and you understand the need. There are, however, boundaries. Except for very few of us, we are not theologians, and it is inappropriate to go beyond the limits of our professional expertise.

Auster (2004) suggests sensitivity on our part when patients ask about our personal beliefs and express their wish to talk only with someone of their own faith. You might say, "I want to help you as best I can, so please tell me why you ask about my faith" or, more directly, "I understand your feeling. Would it help if I found another person for you?" Let your sense of the situation guide you (Fosarelli, 2003; Puchalski and Romer, 2000).

Sexuality and Gender Identity

Patients should be told that discussion is routine and confidential. Questions about the patient's sexual history may first be indirect, addressing feelings rather than facts. "Are you satisfied with your sexual life, or do you have worries or concerns? Many people do." Although this is a leading question, it does not suggest what the patient's feelings should be. Rather, if there are concerns about sex, it may be comforting to know that one is not alone. The age of the patient should not deter discussion. Do not assume sexual practices or concerns for anybody, particularly older adults. It is also important to ask questions about a patient's sexual orientation and gender identity.

Identity. You should directly ask about patient's sexual orientation and gender identity. In general, patients support healthcare providers asking questions related to sexual orientation and gender identity and understand the importance of healthcare providers' knowing their patients (Cahill et al., 2014).

The sexual orientation and gender identity of a patient must be known if appropriate continuity of care is to be offered. About 10% of the individuals you serve are likely to be other than heterosexual and/or cisgender (i.e., gay, lesbian, bisexual, or transgender) (Makadon, 2011; Ward et al., 2014). Working with sexual and gender minorities (SGM) demands knowing yourself regarding any potential feelings about cisgender-heteronormativity, homophobia, biphobia, and transphobia that you may have. Apprehension these patients may feel in revealing their information should be respected. Reassuring, nonjudgmental words help: "I'm glad you trust me. Thank you for telling me." It is also supportive if the healthcare setting offers some recognition of the patients involved (e.g., by making relevant informational pamphlets available in waiting areas).

- Trust can be better achieved if questions are "gender neutral":
  - Tell me about your living situation.
  - Are you sexually active?
  - In what way?
- Rather than:
  - Are you married?
  - Do you have a boyfriend/girlfriend?

If you use a nonjudgmental approach, a variety of questions applicable to any patient understanding the patient's situation becomes possible. The patient's vernacular may be necessary. Once the barrier is broken, you can be more direct, asking, for example, about frequency of sexual intercourse, problems in achieving orgasm, variety and numbers of "partners" (a non–gender-linked term), masturbation, and particular likes and dislikes. Identifying risk factors for unintentional pregnancy and sexually transmitted infections (STIs) are an important part of the sexual history.

Outline of the History

The outline offered is a guide derived from multiple sources. It is not rigid, and you can decide what meets the needs of your patient and your style. Take advantage of patient's photographs and videos that complement what you learn in the history.

Chief Concern or the Reason for Seeking Care. This answers the question, "Why are you here?" (See Clinical Pearl, "Chief Complaint or Chief Concern?"). Follow-up questions ask about duration (e.g., "How long has this been going on?" or "When did these symptoms begin?"). The patient's age, gender identity, sexual orientation, marital status, previous hospitalizations, military/veteran status, and occupation should be noted for the record. Other concerns may surface. A seemingly secondary issue may have greater significance than the original concern because the driving force for the CC may be found in it. What really made the patient seek care? Was it a possibly unexpressed fear or concern? Each hint of a care-seeking reason should be thoroughly explored (Box 2.8).

CLINICAL PEARL

Chief Complaint or Chief Concern?

Many of us do not view patients as "complainers" and prefer to express the "chief complaint" differently, adopting "chief concern," "presenting problem," or "reason for seeking care" as a more appropriate term. Feel free to use the words that suit you best or are most appropriate in your healthcare setting.

History of Present Illness or Problem. You will often find that it is easiest to question the patient on the details of the current problem immediately after hearing the CC. Sometimes it may be of value to take the patient's past and FH before returning to the present. The specific order in which you obtain the patient's story is not critical. You want the patient's version without the use of leading questions. Box 2.9 suggests many of the variables that can influence the patient's version.

BOX 2.8 The Basis of Understanding

The following are vital questions that probe the unique experience of each patient:
Why is this happening with this particular person at this time?
How is this patient different from other patients?
Can I assume that what is generally true for others is true for this patient?
How does this bear on my interpretation of possible problems and solutions?

BOX 2.9 Factors That Affect the Patient's Expression of Illness

Disease is a real condition that prevents the body or mind from working normally (Merriam-Webster.com). Illness is the unique way in which a disease is expressed by the afflicted individual. An infinite number of variables come into play and may even cause illness without disease:

- Recent termination of a significant relationship because of death, divorce, or other stressors such as moving to a new city
- Physical or emotional illness or disability in family members or other significant individuals
- Inharmonious spousal or family relationships
- School problems and stresses
- Poor self-image
- Drug and alcohol misuse
- Poor understanding of the facts of a physical problem and its treatment
- Influence from social media
- Peer pressure (among adults as well as adolescents and children)
- Secondary gains from the complaints of symptoms (e.g., indulgent family response to complaints, providing extra comforts or gifts, solicitous attention from others, distraction from other intimidating problems)

At any age, such circumstances can contribute to the intensity and persistence of symptoms or, quite the opposite, the denial of an insistent, objective complaint. The patient may then be led to seek help or, at other times, to avoid it.

A complete HPI will include the following:

- Chronologic ordering of events
- State of health just before the onset of the present problem
- Complete description of the first symptoms. The question "When did you last feel well?" may help define the time of onset and provide a date on which it might have been necessary to stop work or school, miss a planned event, or be confined to bed.
- Symptom analysis: Questions in the following categories assist the patient in specifying characteristics of the presenting symptom(s): location, duration, intensity, description/character, aggravating factors, alleviating factors.
- Description of a typical attack, including its persistence. If the present problem involves intermittent attacks separated by an illness-free interval, ask the patient to describe a typical attack (e.g., onset, duration, variation in intensity and associated symptoms, such as pain, chills, fever, jaundice, hematuria, or seizures) and any variations. Then ask the patient to define inciting, exacerbating, or relieving factors such as specific activities, positions, diet, or medications.
- Possible exposure to infection, toxic agents, or other environmental hazards
- Impact of the illness on the patient's usual lifestyle (e.g., sexual experience, leisure activity, ability to perform tasks or cope with stress), an assessment of the ability to function in the expected way with an indication of the limitations imposed by illness
- Immediate reason that prompted the patient to seek care, particularly if the problem has been long-standing
- Appropriate relevant system review
- Medications: current and recent, including dosage of prescription, home remedies, and nonprescription medications
- Use of complementary or alternative therapies and medications
- A review, at the end of the interview, of the chronology of events, seeking the patient's confirmations and corrections (If there appears to be more than one problem, the process should be repeated for each one.)

Past Medical History. The PMH is the baseline for assessing the present concern.

- General health
- Gender identity: as described by the patient (e.g., male, female, non-binary, queer, among many other terms); the sex they were assigned at birth; pronouns; history of gender-affirming care (e.g. hormones and/or gender-affirming surgeries)
- Childhood illnesses: measles, mumps, pertussis, chickenpox, scarlet fever, acute rheumatic fever, diphtheria, poliomyelitis, asthma
- Major adult illnesses or chronic diseases: tuberculosis, hepatitis, diabetes, hypertension, myocardial infarction, heart disease, stroke, respiratory disease, tropical or parasitic diseases, other infections; any nonsurgical hospital admissions
- Immunizations: polio; diphtheria, pertussis, and tetanus toxoid; influenza; hepatitis A; hepatitis B; rotavirus, measles, mumps, rubella; varicella; herpes zoster vaccine; pneumococcus; meningococcus; human papillomavirus; bacille Calmette-Guérin; last tuberculosis or other skin tests; annual influenza; unusual reactions of any sort to immunizations or travel-related immunizations (e.g., typhoid, yellow fever)
- Surgery: dates, hospital, diagnosis/indication, complications
- Serious injuries and resulting disability; obtain complete details if present problem has potential medicolegal relation to an injury
- Limitation of ability to function as a result of past events
- Medications: past, current, and recent medications, including dosage of prescription, home remedies and

nonprescription medications (when not mentioned in present problem); ask the patient why they take each medication; this allows for an opportunity to identify education gaps if the patient does not understand why the medication is prescribed/recommended.
- Allergies and the nature of reactions, especially to medications, but also to environmental allergens and foods
- Transfusions: reactions and the nature of reactions, date, and number of units transfused
- Recent screening tests (e.g., cholesterol, Pap smear/human papilloma virus (HPV) testing, colonoscopy, mammogram)
- Emotional status: mood disorders, psychiatric problems

Evidence-Based Practice in Physical Examination

History Taking

There is evidence that the risk for type 2 diabetes or cardiovascular disease is detectable in childhood and that the diseases share risk factors, including obesity and dyslipidemia. Other studies suggest that these risks can be reduced in childhood. The pathway to detecting risk is the FH. Adults with one or more second-degree relatives with diabetes or cardiovascular disease are at high risk. So, too, are children with similar histories. The FH provides insight into the genetic effects on health and disease and offers clues that can lead to prevention strategies.

From Yang et al. (2010).

Family History. Blood relatives in the immediate or extended family with illnesses with features similar to the patient's are an immediate concern. If a disease "runs in the family," such as sickle cell disease, ask about everyone from grandparents to cousins and children. A pedigree diagram helps illustrate the family members with the disorder (see Chapter 5). A thorough and well-done FH is the essence of genetics (Pyeritz, 2012). Determine the health and, if applicable, the cause of death of first-degree relatives (parents, children, and siblings), including age at death; after that, second-degree relatives (grandparents, grandchildren, aunts, nieces, uncles, and nephews); and then third-degree relatives (first cousins). There should be at least three generations in the pedigree.
- Include the following in your list of illnesses: heart disease, high blood pressure, cancer (including the type), tuberculosis, stroke, sickle cell disease, cystic fibrosis, epilepsy, diabetes, gout, kidney disease, thyroid disease, asthma or other allergic condition, forms of arthritis, blood diseases, STIs, familial hearing, visual or other sensory problems.
- In particular, determine whether cancers have been multiple, bilateral, and occurring more than once in the family and at a young age (younger than age 50 years).
- Note the age and outcome of any illness.
- Note the ethnic and racial background of the family.
- Note the age and health of the patient's spouse/partner or the child's parents.

Personal and Social History

- Personal status: birthplace, where raised, home environment when young (e.g., parental divorce or separation, socioeconomic class, cultural and ethnic background), education, position in family, marital status, general life satisfaction, hobbies and interests, occupation, activities, sources of stress or strain (see Clinical Pearl, "Who Are You?")

CLINICAL PEARL

Who Are You?

We cannot assume how patients define themselves, e.g. gender, ethnically or cultural affiliation, without asking them. "Male," "Female," "Cisgender," "Transgender," or "Hispanic," "non-Hispanic," "black," "white," "Latino," and "Asian," among many other designations, are subject to a variety of interpretations. Just ask, "How do you see yourself?" "How do you define yourself?" "I respect your values and beliefs; what do I need to know to provide care for you?" Remember not to stereotype just because a patient is a member of a culture. Each person is his or her own unique culture.

- Habits: nutrition and diet; regularity and patterns of eating and sleeping; quantity of coffee, tea, tobacco, alcohol; use of street drugs (e.g., frequency, type, and amount); ability to perform activities of daily living (ADLs) (see Functional Assessment for All Patients). The extent of cigarette use can be reported in "pack-years," the number of packs a day multiplied by the number of years (e.g., 1.5 packs per day × 10 years =15 pack-years; see Evidence-Based Practice in Physical Examination, "Smoking Cessation").
- Self-care: exercise (quantity and type), use of home, herbal, natural, complementary or alternative therapies
- Sexual history: concerns with sexual feelings and performance, frequency of intercourse, ability to achieve orgasm, number and variety of partners, specific sexual practices, modes of birth control, protection against STIs and past STIs. ("Partner" is a gender-free term, appropriate in the early stages of discussion; see Clinical Pearl, "The Five Ps of a Sexual History.")

CLINICAL PEARL

The Five Ps of a Sexual History

The five Ps stand for:
- Partners
- Practices
- Protection from STIs
- Past history of STIs
- Prevention of pregnancy (if necessary)

These are the areas that you should openly discuss with your patients. You will need to ask additional questions that are appropriate to each patient's special situation or circumstances.

From Centers for Disease Control and Prevention (2012): *Guide to taking a sexual history.* Available at: http://www.cdc.gov/std/treatment/SexualHistory.pdf.

- Home conditions: housing, economic condition, types of furnishings (e.g., carpeting and drapes), pets and their health
- Occupation: description of usual work (and present work if different); list of job changes; work conditions and hours; physical or mental strain; duration of employment; present and past exposure to heat and cold or industrial toxins (especially lead, arsenic, chromium, asbestos, beryllium, poisonous gases, benzene, and polyvinyl chloride or other carcinogens and teratogens); any protective devices required (e.g., ear plugs, goggles or masks); excessive screen time
- Environment: travel and other exposure to contagious diseases, residence in tropics, water and milk supply, other sources of infection if applicable
- Military service: branch of service, military occupational specialty/job in the military, dates and geographic area of assignments/deployments, current status (active duty, reserves, retired, veteran). Box 2.10 highlights veteran specific histories to assess for common problems and unique risks for people that have served in the Military.
- Religious and cultural preferences: any religious proscriptions concerning food, medical care; spiritual needs
- Access to care: transportation and other resources available to patient, type of health insurance coverage (if any), worries in this regard, primary care provider, customary pattern of seeking care
- Social needs: insurance/medication coverage, food insecurity, housing instability, employment assistance needs

It is important to have candid discussion of issues.

Evidence-Based Practice in Physical Examination

Smoking Cessation

Abundant evidence indicates that patients in a trusting relationship with nurses, physicians, or other health professionals will respond positively to even brief, simple advice about smoking cessation.

Pooled data from 17 trials of brief advice versus no advice (or usual care) detected a significant increase in the rate of quitting (relative risk [RR] 1.66). Among 11 trials where the intervention was more intensive, the estimated effect was higher (RR 1.84), but there was no statistical difference between the intensive and minimal subgroups. Direct comparison of intensive versus minimal advice showed a small advantage of intensive advice (RR 1.37). The bottom line is that it pays to offer even minimal advice if given respectfully and earnestly. Simple advice has an effect on cessation rates. The challenge is to incorporate smoking cessation interventions as part of standard practice.

From Stead et al. (2013).

Review of Systems. Identify the presence or absence of health-related issues in each body system. You may not ask all of the questions relevant to each system each time you take a given patient's history. Nevertheless, many should be asked, particularly at the first interview. A targeted ROS is appropriate in some circumstances. More comprehensive questions for particular circumstances in each system are detailed in subsequent chapters. Negative responses to ROS questions are as important as positive responses.

- General constitutional symptoms: pain, fever, chills, malaise, fatigue, night sweats, sleep patterns, weight (i.e., average, preferred, present, change)
- Skin, hair, and nails: rash or eruption, itching, pigmentation or texture change; excessive sweating, abnormal nail or hair growth
- Head and neck
- General: frequent or unusual headaches, their location; dizziness, syncope, severe head injuries; concussions, periods of loss of consciousness (momentary or prolonged)
- Eyes: visual acuity, blurring, diplopia, photophobia, pain, recent change in appearance or vision; glaucoma; use of eye drops or other eye medications; history of trauma

BOX 2.10 Have You Ever Served?

"Have you ever served" is an initiative to address special health needs of military veterans. It provides specific histories to assess veterans for both common health concerns and unique healthcare risks encountered by them.

Initial Intake Questions

Have you or has someone close to you ever served in the military?

- When did you serve?
- Which branch?
- What did you do while you were in the military?
- Were you assigned to a hostile or combative area?
- Did you experience enemy fire, see combat, or witness casualties?
- Were you wounded, injured, or hospitalized?
- Did you participate in any experimental projects or tests?
- Were you exposed to noise, chemicals, gases, demolition of munitions, pesticides, or other hazardous substances?
- Have you ever used Veterans Affairs (VA) for healthcare?
- When was your last visit to the VA?
- Do you have a service-connected disability or condition? Do you have a claim pending? If so, what is the nature of the claim?
- Do you have a VA primary care provider?
- Do you have a safe place to go when you leave today?
- Do you need assistance in caring for yourself or members of your household?

General Areas of Concern for All Veterans

Post-Traumatic stress
Military Sexual Trauma
Blast Concussions/Traumatic Brain Injury
Suicide risk

Unique Health Risks

These relate to exposures experienced by veterans at specific times or locations which increase their risk for development of cancers, Hepatitis C, respiratory illnesses, and other health conditions.

Modified from American Academy of Nursing. For further information, specific history questions and additional resources visit https://www.haveyoueverserved.com/

- Ears: hearing loss, pain, discharge, tinnitus, vertigo, infections
- Nose: sense of smell, frequency of colds, obstruction, epistaxis, postnasal discharge, sinus pain
- Throat and mouth: hoarseness or change in voice, frequent sore throats, bleeding or swelling of gums, recent tooth abscesses or extractions, soreness of tongue or buccal mucosa, ulcers, disturbance of taste, dental care
- Lymph nodes: enlargement, tenderness, suppuration
- Chest and lungs: pain related to respiration; dyspnea, cyanosis, wheezing, cough, sputum (character and quantity), hemoptysis, night sweats, exposure to tuberculosis; indication, date and result of last chest x-ray
- Breasts: development, pain, tenderness, discharge, lumps, galactorrhea, presence of implants, mammogram results
- Heart and blood vessels: chest pain or distress, precipitating causes, timing and duration, relieving factors, palpitations, dyspnea, orthopnea (number of pillows needed), edema, hypertension, previous myocardial infarction, estimate of exercise tolerance, past electrocardiogram or other cardiac tests and their results
- Peripheral vasculature: claudication—frequency, severity, tendency to bruise or bleed, thromboses, thrombophlebitis
- Hematologic: anemia, bruising, any known abnormality of blood cells
- Gastrointestinal: appetite, digestion, intolerance for any class of foods, dysphagia, heartburn, nausea, vomiting, hematemesis; regularity of bowels, constipation, diarrhea, change in stool color or contents (e.g., clay-colored, tarry, fresh blood, mucus, undigested food); flatulence, hemorrhoids; jaundice, history of ulcer, gallstones, polyps, tumor; previous diagnostic imaging (indication, where, when, results)
- Diet: appetite, likes and dislikes, restrictions (e.g., preferential, religious, allergy, or other disease), vitamins and other supplements, use of caffeine-containing beverages (e.g., coffee, tea, and cola); an hour-by-hour detailing of food and liquid intake (sometimes a written diary covering several days of intake may be necessary)
- Endocrine: thyroid enlargement or tenderness, heat or cold intolerance, unexplained weight change, diabetes, polydipsia, polyuria, distribution and changes in facial or body hair, increased hat and glove size, skin striae
- Genitourinary: dysuria, flank or suprapubic pain, urgency, frequency, nocturia, hematuria, polyuria, dark or discolored urine, hesitancy, dribbling, loss in force of stream, passage of stone; edema of face; stress incontinence; hernias; STIs (type, and treatment); presence of implants/implant functionality
- Musculoskeletal: joint stiffness, pain, restriction of motion, swelling, redness, heat, bony deformity
- Neurologic: syncope, seizures, weakness or paralysis, abnormalities of sensation or coordination, tremors, loss of memory
- Psychiatric: depression, mood changes, difficulty concentrating, anxiety, agitation, tension, suicidal thoughts, irritability, sleep disturbances

People Assigned Female at Birth

- Menses: age at menarche, regularity, duration and amount of flow, dysmenorrhea, last menstrual period (LMP), intermenstrual discharge or bleeding, itching, date of last Pap smear and/or HPV test and result, age at menopause, libido, frequency of intercourse, pain during intercourse, sexual difficulties, infertility
- Pregnancies: number, living children, multiple births, miscarriages, abortions, duration of pregnancy, each type of delivery, any complications during any pregnancy or postpartum period or with neonate; use of oral or other contraceptives

People Assigned Male at Birth

- Puberty onset, difficulty with erections, emissions, testicular pain, libido, infertility

Concluding Questions. Give the patient further opportunity. "Is there anything else that you want me to know?" If there are several issues, ask, "What problem concerns you most?" When situations are vague, complicated, or contradictory, it may be helpful to ask "What do you think is the matter with you?" or "What worries you the most about how you are feeling?"

Adaptations for Age, Pregnancy, and Possible Disabilities

There are pervasive concerns common to all patients, particular concerns common to some, and unique concerns that distinguish any one individual.

Infants and Children

Many young children love it when you get down on the floor to play with them. They often have anxieties and fears that must be eased (Fig. 2.3). Use language that they understand. When they are old enough, allow them to actively participate in the interview. Starting at age 7 years, children can be dependable reporters on some aspects of their health (Olson et al., 2007). The older the child, the more productive it becomes to ask questions and to give information directly. The older child and the adolescent may seem passive and sometimes appear resistant to some degree. This may suggest a wish to be alone with you, which may help to get a more accurate history. Be proactive and arrange for this routinely (see Clinical Pearl, "Twins or More").

CLINICAL PEARL

Twins or More

Your patients may be twins, triplets, or more! Each is an individual entitled to separate consideration. Ensure that each has confidential and separate time with you.

FIG. 2.3 Interviewing a child with his parent. Note that the interviewer is sitting close to the patient and that the child is secure on his parent's lap.

Family dynamics become evident during history taking and may even lead to clues that a parent is in need of help. For example, an excessively tearful parent who does not seem to be having much pleasure in a child or seems self-absorbed, unresponsive, and uncommunicative—or even hostile—may be depressed. Your responsibility goes beyond the child. It is appropriate to screen the mother for depression (Weiss-Laxer et al., 2016) and suggest ways to help (see Chapter 7). Respect parental concerns about their children and do what is needed to ease worry.

There are aspects of the history concerning the young that may complement the approach suggested for adults or vary from it. They are as follows.

Chief Concern. A parent or other responsible adult (Box 2.11) often makes a threesome. The relationship of that person should be recorded. However, the child should be included as much as possible and as is age appropriate. The latent fears underlying any CCs of the adults and children should be explored.

History of Present Illness. The degree and character of the reaction to the problem on the part of parent/guardian and child should be noted.

Past Medical History

- Note general health: age of the child and/or the nature of the problem determine the approach to questioning
- Patient's health during pregnancy:
  - General health as related by the patient if possible, extent of prenatal care, gravidity, parity
  - Specific diseases or conditions: infectious disease (approximate gestational month), weight gain, edema, hypertension, proteinuria, bleeding (approximate gestational month), preeclampsia
  - Medications, hormones, vitamins, special or unusual diet, general nutritional status
  - Quality of fetal movements and time of onset
  - Emotional and behavioral status (e.g., attitudes toward pregnancy and children)
  - Radiation exposure
  - Use of illicit drugs

BOX 2.11 Consent by Proxy

Infants, children, and many adolescents are minors. They may come to you accompanied by someone other than their custodial parent or guardian, often a grandparent or other member of their extended family. Sometimes your informant might be a babysitter, an au pair or nanny, or, in the event of divorce and remarriage, a noncustodial parent, stepparent, or friend. Does that person have the right to consent to your care for the child? Learn about the policy and procedure for consent in your healthcare setting.

- Birth
  - Duration of pregnancy
  - Place of delivery
  - Labor: spontaneous or induced, duration, analgesia or anesthesia, complications
  - Delivery: presentation, forceps, vacuum extraction, spontaneous, or cesarean section; complications
  - Condition of infant, time of onset of cry, Apgar scores if available
  - Birth weight of infant

Patient Safety

Putting Prevention Into Practice

Take time to consider prevention. Consider how you can include prevention-related advice when talking with your patient or surrogate. For example, infants should sleep alone on their backs in a crib or bassinet to decrease the risk of sudden infant death syndrome. Additionally, child safety seats are frequently used incorrectly. Their correct use should be reviewed.

- Neonatal period
  - Congenital anomalies; baby's condition in hospital, oxygen requirements, color, feeding characteristics, vigor, cry; duration of baby's stay in hospital and whether infant was discharged with the patient who gave birth; bilirubin phototherapy; prescriptions (e.g., antibiotics)
  - First month of life: jaundice, color, vigor of crying, bleeding, convulsions, or other evidence of illness
  - Degree of early bonding: opportunities at birth and during the first days of life for the parents to hold, talk to, and caress the infant (i.e., opportunities for both parents to relate to and develop a bond with the baby)
  - The feelings of the patient after giving birth: loss of laughter; unreasonable anxiety or sense of panic; excessive crying and sadness; sleeplessness; feelings of guilt; suicidal ideation, clues singly but most often in combination may be related to postpartum depression
- Feeding
  - Formula or breast milk, reason for changes, if any; type of formula and how it is prepared, amounts offered and consumed; frequency of feeding and weight gain

  - Present diet and appetite; age of introduction of solids; age when child achieved three feedings per day; present feeding patterns, elaboration of any feeding problems; age weaned from bottle or breast; type of milk and daily intake; food preference; ability to feed self; cultural variations
- Development: Obtain the age when the child achieved common developmental milestones:
  - Holds head erect while in sitting position
  - Rolls over from front to back and back to front
  - Sits alone and unsupported
  - Stands with support and alone
  - Walks with support and alone
  - Uses words
  - Talks in sentences
  - Dresses self

Expand the list when indicated. Parents may have baby books, which can stimulate recall, or photographs may be helpful. Additional developmental information to inquire about includes the following:

- Age when toilet-trained: approaches to and attitudes regarding toilet training
- School: grade, performance, problems
- Dentition: age of first teeth, loss of deciduous teeth, eruption of first permanent teeth; last dental visit
- Growth: height and weight in a sequence of ages; changes in rates of growth or weight gain
- Pubertal development: present status. In females, development of breasts, nipples, sexual hair, menstruation (onset, cycle, regularity, pain, description of menses), acne; in males, development of sexual hair, voice changes, acne, nocturnal emissions
- Puberty suspension/suppression in gender-diverse or transgender minors
- Illnesses: immunizations, communicable diseases, injuries, hospitalizations

Family History

- Pregnant patient's gestational history listing all pregnancies, together with the health status of living children. For deceased children, include date, age, cause of death, and dates and duration of pregnancies in the case of miscarriages.
- Patient's health during pregnancies and the ages of parents at the birth of this child.
- Are the parents consanguineous? Again, a pedigree diagram helps (see Chapter 5).

Personal and Social History

- Behavioral status: child care or school adjustment; masturbation, nail biting, thumb sucking, breath holding, temper tantrums, pica, tics, rituals; bed wetting, constipation or fecal soiling of pants; playing with fire; reactions to prior illnesses, injuries, or hospitalization
- An account of a day in the life of the patient (from parent, child, or both) is often helpful in providing insights. Box 2.12 emphasizes the particular needs of children who are adopted or are in foster care.
- Family circumstances: parents' occupations, the principal caretakers of the child, whether parents are divorced or separated, educational attainment of parents; spiritual orientation; cultural heritage; food preparation and by whom; adequacy of clothing; dependence on relief or social agency
- Setting of the home: number of rooms in house and number of persons in household; sleep habits, sleeping arrangements available for the child, possible environmental hazards

BOX 2.12 Adoption and Foster Care

Patients who are adopted or in foster care may not have a sufficient history available. Learn as much as you can. Our outline for history taking is a starter and should be filled out by an exploration of the circumstances that led to adoption or foster care. Do this with care. Some adoptive parents may not yet have shared the knowledge with their children. The trials of the adoptive parents as they sought a child, the process of adoption, the country of origin of the adoptee, and the particular concerns of all involved must be explored.

The needs of foster children vary considerably from those who are adopted. The history may be offered by a social worker, and the issues you encounter will differ in variety and intensity. Foster parents have varying experience, and foster children have often lived in more than one home. Invariably, difficult social circumstances underlie the separation from their parents. The probable lack of stability and security and incomplete knowledge of past illnesses or other conditions make it more difficult to understand the full range of the child's complex and urgent needs.

Review of Systems.

In addition to the usual concerns, inquire about any past medical or psychologic or education testing of the child (Box 2.13). Ask about the following:

- Skin: eczema, seborrhea, "cradle cap"
- Ears: otitis media (frequency, laterality)
- Nose: snoring, mouth breathing, allergic reaction
- Teeth: dental care
- Genitourinary: bedwetting

Adolescents

Adolescence, the time from puberty to maturity, is different from childhood and adulthood both physically and psychosocially. It is a time made vulnerable by a tendency to experiment with risky behaviors. Adolescents may be reluctant to talk and have a clear need for confidentiality. All adolescent patients should be given the opportunity to discuss their concerns with you privately. At the start of the visit, it is wise to let the parent or other caregiver know you will be asking them to step out of the room to provide this important opportunity for the adolescent. The visit can be an opportunity to provide a safe space for teens to talk with their caregivers about sensitive issues with your support. Every effort should be made to maintain confidentiality. The limits regarding confidentiality should be clearly

BOX 2.13 Violence or Traumatic Events in Childhood

Witnessing or experiencing violence or injury is a fact of life for many children and is a barrier to appropriate growth and development. Talk about the event in a straightforward, simple, and direct fashion:

- Can you tell me what happened?
- What did you see? What did you hear?
- What scared you the most?
- What were you doing when it happened?
- Do you ever dream about it?
- Do you think about it during the day?
- Do you worry it will happen again?
- Whom do you talk to when you feel worried or scared?
- Why do you think it happened?
- For the older child and adolescent:
- How do you think it changed your life?

These questions are not value-laden and are not too constraining. The child is free to talk if you can be comfortable with the silences that may often ensue. Parents can also respond to the same questions to fill out the story, and you can then learn how they dealt with the circumstance and what they observed in their child's behavior.

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discussed. Information that suggests the adolescent's safety or the safety of another is at risk may be reasons to "break" confidentiality.

If a parent/guardian is present, acknowledge the patient first. In the beginning it is helpful to talk about what is happening in the patient's day-to-day experiences. Do not force conversation because adolescents do not respond readily to confrontation. On the other hand, you will often sense a need to talk and an inability to get the words out. Silences can be long, sometimes sheepish, occasionally angry, and not always constructive.

The peer group and the desire to be like peers take on a dominant role during middle adolescence. Experimentation with risky behaviors begins, and frequent arguments with parents are common. Immature decision making can lead to destructive, life-changing experiences and lifelong bad habits. During late adolescence with approaching adulthood, a more thoughtful consideration of consequences ordinarily occurs, along with a more secure sense of self and an ability to establish intimate relationships and to start planning a career.

The adoption of risky behaviors depends on a number of factors:

- Peer pressure
- Loosening attachment to parents
- Poor school performance
- Nonparticipation in school extracurricular activities
- Poor self-esteem
- Need to act older
- Susceptibility to advertising, the internet, or social media

These issues may make it difficult to transcend the barrier imposed by age in caring for the adolescent (see Clinical Pearl, "Identification of Concerns by Adolescents"). Make generous use of open-ended questions, and do not force an adolescent to talk.

CLINICAL PEARL

Identification of Concerns by Adolescents

Previsit screeners or questionnaires allow the adolescent to identify his or her concerns prior to the start of the visit. Sometimes allowing an opportunity to write a concern or allowing a choice of concerns presented in written, silent fashion may help (Box 2.14). Then you can phrase the appropriate questions and make the transition to a verbal discussion reasonably comfortable. Take an open-ended approach, always indicating a sense of alliance and partnership.

Flexibility, respect, and confidentiality are key; otherwise, little productive discussion will result. On occasion, the patient may ask to talk with someone of the same gender, and this should be facilitated if possible. Box 2.15 provides useful screening tools for adolescent issues. You can use them as a guide for an exploratory interview. Some questions that you can ask to structure the interview include the following:

- "How are things at home?" "Tell me about your living situation." Do not assume the family structure. Do not ask directly about who else lives in the house. The open-ended question at the start can lead to greater specifics later on.
- "How is school?" "Are you working?" "What is it about school that appeals to you?" "What is it about school that doesn't appeal to you?" You may expect to hear somewhat more about jobs outside of school and ideas about the future when the patient approaches 20 years of age.
- "Tell me about your friends." "Where do you go with them?" "What do you do with them?" "To what groups do you belong?" "How would a friend describe you?"
- "What types of computer and electronic games do you play?"
- "What are you good at doing?"

Open-ended conversations about home, school, jobs, activities, and friends can suggest the areas that may trouble the adolescent (e.g., sex, drugs, bullying, suicidal ideation). Talk does not always flow easily as the adolescent transitions from dependency to independency, from parent/guardian to peer group, and ultimately to self, but you can help.

Pregnant Persons

Care during the prenatal period depends on the commitment of the patient to both patient and fetal health, in partnership with the healthcare provider. The patient's approach to pregnancy is influenced by many factors, including previous experiences with childbearing and childrearing; the relationship with the patient's parent and other individuals significant to the patient's life; the patient's desire for children; and the patient's present life circumstances. The interaction of the patient with the fetus increases the complexity of care. The initial interview

BOX 2.14 Adolescents' Concerns

The following subjects list may be of concern to adolescents. These are highly charged issues mandating the effort for discussion but requiring sensitivity, knowledge of adolescent language, and an unforced approach.

- Bed wetting
- Menstrual pain
- Concern with height or weight: too short, too tall, underweight, overweight
- Concern with breast size: too big, too small
- Concern with penis size: too small
- Worry about pregnancy
- Questions about sexual orientation
- Questions about gender identity
- Interpersonal violence
- Sex? Ready or not?
- HIV, AIDS
- Gambling
- Smoking
- Substance use and abuse
- Parents' attitudes and demands
- Friends and their pressures
- Bullying
- School: not doing well, excessive work
- What am I going to do in life?
- Thoughts about dying

BOX 2.15 Screening Tools for Adolescent Issues

HEEADSSS

- **H**ome environment
- **E**ducation, employment
- **E**ating
- **A**ctivities (peer-related), affect, ambitions, anger
- **D**rugs
- **S**exuality
- **S**uicide/depression
- **S**afety from injury and violence

PACES

- **P**arents, peers
- **A**ccidents, alcohol/drugs
- **C**igarettes
- **E**motional issues
- **S**chool, sexuality

CRAFFT: (Car, Relax, Alone, Forget, Friends, Trouble)[a]

- Have you ridden in a CAR driven by someone who was high or had been using drugs and alcohol?
- Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?
- Do you ever use drugs or alcohol when you are ALONE?
- Do you FORGET things you did while using drugs or alcohol?
- Do your family and FRIENDS ever tell you that you should cut down your drinking or drug use?
- Have you ever gotten into TROUBLE while using drugs or alcohol?

NOTE: HEEADSSS, PACES, and CRAFFT are screening tools and are not substitutes for earnest conversation in a trusting relationship.

[a] Knight JR, Sherritt L, Shrier LA, Harris SK, Chang G: Validity of the CRAFFT substance abuse screening test among adolescent clinic patients, *Arch Pediatr Adolesc Med* 156:607–614, 2002.

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includes past history, assessment of health practices, identification of potential risk factors, and assessment of the patient's knowledge, expectations, and perceptions as they affect pregnancy.

If you use an electronic device or preprinted history form to gather the history, bridge the distance by talking comfortably and at some length with the patient, particularly the patient's expectations and concerns. There will, of course, be much "laying on of hands" as the pregnancy matures.

Basic Information

- Patient's age, ethnicity
- Marital status, partner, or relationship, and involvement in the pregnancy
- LMP
- Previous usual/normal menstrual period (PUMP or PNMP)
- Expected date of confinement/delivery (EDC)
- Occupation
- Parent(s) of the baby and his/her occupation (if applicable)

History of Present Illness or Problem. Obtain a description of the current pregnancy and identify previous medical care. Identify specific problems (e.g., bleeding or spotting, nausea, vomiting, fatigue, or edema). Include information about illness, injuries, surgeries, or accidents or other injuries since conception.

Obstetric History. Information on each previous pregnancy (gravidity and parity) includes the date of delivery; length of pregnancy; weight and gender of infant(s); type of delivery (e.g., spontaneous vaginal; cesarean delivery and type of scar [an evaluation of the competency of the scar is needed for women attempting vaginal birth after cesarean delivery]); or spontaneous, therapeutic, or elective abortion and the type of procedure; length of labor; and complications in pregnancy or labor, postpartum, or with the infant. It is also important to determine whether any previous children have been removed from the home (i.e., due to abuse or neglect or inability to care for the children).

Menstrual History. In addition to previous information, include age at menarche, characteristics of the cycle, unusual bleeding, and associated symptoms. If known, include dates of ovulation and conception, and the use of contraceptives before or during conception.

Gynecologic History. Record the date of the most recent Pap smear and HPV test along with any history of abnormalities, treatments, or gynecologic surgery. A sexual

history includes age of first intercourse and whether it was consensual, number of sex partners, safe-sex methods, partner orientation, and, if a minor, age of partner. Information regarding the types of contraceptives used and reason for discontinuing them, along with plans for use postpartum, is obtained. Any history of infertility should be explored. If any STIs are reported, discuss the type, dates, treatments, and complications. Give full attention to any history of sexual assault.

Past Medical History. The same information identified previously for adults is obtained, with the addition of risk factors for HIV, hepatitis, herpes, tuberculosis, and exposure to environmental and occupational hazards.

Family History. Obtain a FH of genetic conditions, multiple births, gestational diabetes, preeclampsia/eclampsia or pregnancy-induced hypertension (PIH), and/or congenital anomalies.

Personal and Social History. Other children, pets (cats can carry toxoplasmosis, which be teratogenetic to the fetus). In addition, obtain information about feelings toward the pregnancy, whether it was planned, consideration of adoption or abortion, gender preference, social and spiritual resources, experiences with parenting, experience with and plans for labor and breast-feeding, and history of past or present abuse in relationships (IPV).

Review of Systems. Perform a complete review of all systems because the effects of pregnancy are seen in all systems. Give special attention to the reproductive system (including breasts) and cardiovascular systems (documentation of prepregnancy blood pressure if possible). Assess the endocrine system for signs of diabetes and thyroid dysfunction. Assess the urinary tract for infection, and review kidney function. Assess respiratory function because it may be compromised later in pregnancy or with tocolytic therapy for preterm labor. Evaluate dental care needs because treatment of periodontitis can prevent preterm birth and/or low birth weight (George et al., 2011).

Risk Assessment. Identify conditions from the history and physical examination or circumstances that threaten the well-being of the patient and/or fetus. These include gestational diabetes, preterm labor, preeclampsia/eclampsia, pregnant patient malnutrition and vitamin deficiency, and use of potentially teratogenetic agents such as lithium valproic acid or angiotensin-converting enzyme inhibitors.

Postpartum. Postpartum depression is a significant mental health problem, and universal screening for this problem is recommended (see Chapter 7). The clues are similar to those of depression in other circumstances—feeling down, depressed, or hopeless, sleep disturbance, loss of energy, eating disturbance, trouble concentrating, restlessness, sad mood, anxiety, fatigue, feelings of worthlessness, inappropriate guilt, and suicidal ideation. A cluster of these symptoms should strongly postpartum depression (O'Connor et al., 2016; O'Hara and McCabe, 2013).

BOX 2.16 Competency to Make Medical Decisions

Patients or their surrogates have the right to decide the extent of care they will accept under your guidance. Many may have lost the ability to make relevant competent decisions. To give informed consent, patients must be well informed about what is proposed, and they must be able to voluntarily give consent. Competency to make medical decisions is used interchangeably with the word capacity. In a report from the President's Commission for the Study of Ethical Problems in Medicine, clinical decision-making capacity includes three specific elements: the patient has a set of values and goals, the patient is able to understand and communicate information, and the patient is able to reason and deliberate about the choice being made by the patient. Competency may fluctuate from hour to hour or day to day, depending on the age and the physical/emotional circumstance. It is often necessary to seek consultative help in deciding a patient's status. The law in your state may require this, and it may ultimately be left to a judge to decide on legal competence. It is important to recognize that the patient who disagrees with you is not necessarily incompetent, and the patient who agrees with you is not necessarily competent.

From Appelbaum (2007), Magauran (2009), and President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (1982).

Older Adults

A change in knowledge, experience, cognitive abilities, and personality may occur with aging (Box 2.16). It is important to anticipate the effect these changes may have on the interview. However, physiologic age and chronologic age may not match. It is equally important to recognize that not all adults experience the same changes, they do not occur at the same rate, and some abilities may not decline with age.

Some older adults have sensory losses, such as hearing, that make communication more difficult. Position yourself so that the patient can see your face. Speak clearly and slowly, taking care to always face the patient while you are talking. Shouting magnifies the problem by distorting consonants and vowels. In some instances, a written interview may be necessary. Impaired vision and light-dark adaptation are a problem with written interview forms. Ensure large print and ample lighting with a source that does not glare or reflect in the eyes.

Some older adults may be confused or experience memory loss, particularly for recent events. Take whatever extra time is needed. Ask short (but not leading) questions, and keep your language uncomplicated and free of double negatives. Consult other family members to clarify discrepancies or to fill in the gaps. On the other hand, older patients have a lifetime of experience that may be a rich source of wisdom and perspective. Listen for it.

The history is more complex and increasingly subtle with the chronic, progressive, and debilitating problems that occur

with aging. Symptoms may be less dramatic, vague or nonspecific. Confusion may be the only indication of a major problem. Pain may be unreliably reported because, with age, its perception varies. The excruciating pain usually associated with pancreatitis, for example, may be perceived as a dull ache, and myocardial infarction can occur without any pain. Some patients may not report symptoms because they attribute them to old age or because they believe that nothing can be done. They may have lived with a chronic condition for so long that it has been part of their expectation of daily living.

Patient Safety

Multiple problems needing multiple medications increase risk for iatrogenic disorders. A medication history with attention to interactions of drugs, diseases, and aging is needed for prescribed and over-the-counter medications and herbal preparations. It is particularly helpful to have patients (of all ages) bring in their medication bottles. Encourage patients with complex medication needs or several healthcare providers to use a single pharmacy (if possible) so that the computer database available to the pharmacist can flag drug–drug interactions.

Routinely include functional assessment as part of the older adult's history (see "Functional Assessment for All Patients" and individual chapters with functional assessment specific to systems). Questions concerning the ability to take care of one's daily needs are part of the ROS. The personal and SH should include other dimensions of functional capacity such as social, spiritual, and economic resources; recreational activity; sleep patterns; environmental control; and use of the healthcare system. Maintaining function is a compelling concern of older adults.

For all ages, a cognitive impairment that deprives the patient of the ability to join in the decision-making process emphasizes the need for a designated healthcare agent (medical power of attorney for healthcare) and/or advance directives (a document outlining the patient's wishes regarding extraordinary means of life support). Be aware of the specific rules governing these issues in your state. Encourage the patient and family to pursue these documents if steps have not yet been taken.

FUNCTIONAL ASSESSMENT

Functional Assessment for All Patients

Quite simply, functional assessment is an attempt to understand a patient's ability to achieve the basic ADLs. This assessment should be made for all older adults and for any person limited by disease or disability, acute or chronic. A well-taken history and a meticulous physical examination can bring out subtle influences, such as tobacco and alcohol use, sedentary habits, poor food selection, overuse of medications (prescribed and non-prescribed), and less than obvious emotional distress. Even some physical limitations may not be readily apparent (e.g., limitations of cognitive ability or of the senses). Keep in mind that patients tend to overstate their abilities and, quite often, to obscure reality.

When performing a functional assessment, consider a variety of disabilities: physical, cognitive, psychologic, social, and sexual. An individual's social and spiritual support system must be as clearly understood as the physical disabilities. There are a variety of physical disabilities, including the following:

- Mobility
  - Difficulty walking standard distances: ½ mile, 2–3 blocks, ½ block, across a room
  - Difficulty climbing stairs, up and down
  - Problems with balance
- Upper extremity function
  - Difficulty grasping small objects, opening jars
  - Difficulty reaching out or up overhead, such as taking something off a shelf
- Household chores
  - Heavy (vacuuming, scrubbing floors)
  - Light (dusting)
  - Meal preparation
- ADLs
  - Eating
  - Toileting
  - Selecting proper attire and putting on clothes
  - Grooming and bathing
  - Maintaining continence
  - Walking and transferring (moving from bed to [wheel] chair, chair to standing)
- Instrumental ADLs
  - Shopping
  - Medication management
  - Money management
  - Transportation (driving or navigating public transit)
  - Preparing meals
  - Using telephone and other communication devices
  - Housework and basic home maintenance

Any limitations, even mild, in any of these areas will affect a patient's independence and autonomy and, to the extent of the limitation, increase reliance on other people and on assistive devices. These limitations indicate the loss of physical reserve and the potential loss of physical function and independence that indicate the onset of frailty. The patient's social support system and material resources are then integral to the development of reasonable management plans. (See Clinical Pearl, "Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)".)

CLINICAL PEARL

Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)

ADLs and IADLs represent key life tasks that people need to perform, in order to live at home and be fully independent. Below is a mnemonics to aid in remembering examples of ADLs and IADLs.

DEaTTH SHAFT (DEaTTH=ADLs, SHAFT=IADLs)
Dressing
Eating
Tabulating
Toileting
Hygiene
Shopping
Housekeeping
Accounting
Food preparation
Transportation

The Frail. Frailty has its onset with the loss of physical reserve and the increased risk for loss of physical function and independence. Its prevalence increases with age, particularly past 80 years. Frailty is characterized by weakness, weight loss, low activity, and diminished ability to respond to stress and is associated with adverse health outcomes. It is considered an at-risk state caused by the age-associated accumulation of deficits. With multisystem dysregulation, decreased physiologic reserves, and increased vulnerability to stressors, frailty shares features of normal aging (Bandeen-Roche et al., 2015). Nonetheless, age and frailty are not necessarily synonymous.

Patients With Disabilities

You must adapt to the needs of all patients of any age with disabling physical or emotional states (e.g., deafness, blindness, depression, psychosis, developmental delays, or neurologic impairments). They may or may not be effective historians but respect them regardless. Their perspectives and attitudes matter. Involve each fully to the limit of emotional and mental capacity or physical ability (Fig. 2.4). Still, when necessary, use the family, other health professionals involved in care, and the patient's record for collateral information. Some of the most common communication barriers can be overcome by keeping the following in mind:

- Family members are often available to make the patient more comfortable and to provide information.
- Persons with impaired hearing often read, write, sign, wear hearing aids, and/or read lips, but you must speak slowly and clearly enunciate each word. A translator who signs may also be used.
- Persons with visual impairment usually can hear, and talking louder to make a point does not help. Remember that you must always vocalize what you are trying to communicate; gestures may not be seen.

FIG. 2.4 Interviewing a patient with a physical disability. Note the uncluttered surroundings; be sure the patient in a wheelchair has room to maneuver.

BOX 2.17 Types of Histories

A "complete" history is not always necessary. You may already know the patient well and may be considering the same problem over time. Therefore, adjust your approach to the need at the moment. There are variations:

- The **complete history** makes you as thoroughly familiar with the patient as possible. Most often, this history is recorded the first time you see the patient.
- The **inventory history** is related to but does not replace the complete history. It touches on the major points without going into detail. This is useful when it is necessary to get a "feel" for the situation, and the entire history taking will be completed in more than one session.
- The **problem (or focused) history** is taken when the problem is acute, possibly life-threatening, requiring immediate attention so that only the need of the moment is given full attention.
- The **interim history** is designed to chronicle events that have occurred since your last meeting with the patient. Its substance is determined by the nature of the problem and the need of the moment. The interim history should always be complemented by the patient's previous record.
- Key information to gather regardless of the type of history includes current medications and allergies.

- Aging, debilitating illness, and frailty increase dependency on others, worry about tomorrow, and grieving for what has been lost. Recognize these concerns and the sense of loss in both the patient and the caregivers. You can acknowledge this and offer to talk about it.

The Next Step

Once the history (Box 2.17) has been built, move on to the physical examination, the laying on of hands, which is discussed in subsequent chapters. These chapters are segmented and are not meant to reflect the natural flow that you will develop with experience. Do not be intimidated because your patients expect you to be perfect. Just be disciplined, alert, and recognize that your value judgments are not necessarily imbued with wisdom.

CHAPTER 3

Examination Techniques and Equipment

This chapter provides an overview of the techniques of inspection, palpation, percussion, and auscultation that are used throughout the physical examination. In addition, general use of the equipment for performing physical examination is discussed (Box 3.1). Specific details regarding techniques and equipment as they relate to specific parts of the examination can be found in the relevant chapters. This chapter also addresses special issues related to the physical examination process.

Precautions to Prevent Infection

Because persons of all ages and backgrounds may be sources of infection, it is important to take proper precautions when examining patients. Standard Precautions are to be used for the care of all patients in any setting in which healthcare is delivered. These precautions are designed to prevent the transmission of HIV, hepatitis B, and other blood-borne pathogens based on the principle that all blood, body fluids, secretions, excretions except sweat, non-intact skin, and mucous membranes may contain transmissible infectious agents. Standard Precautions include the following:

- Hand hygiene
- Personal protective equipment (PPE): use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure
- Respiratory hygiene/cough etiquette
- Safe injection practices
- Safe handling of potentially contaminated equipment or surfaces in the patient's environment. Guidelines for Standard Precautions are summarized in Table 3.1. Use precautions to protect yourself and patients.

A second tier of precautions, Transmission-Based Precautions, are designed to supplement Standard Precautions in the care of patients who are known or suspected to be infected by epidemiologically important pathogens that are spread by airborne or droplet transmission or by contact with dry skin or contaminated surfaces. The emergence of novel viral infections underscores the need to always exercise hand hygiene, follow appropriate respiratory precautions and utilize designated PPE.

Guidelines and recommendations for the prevention of healthcare-associated infections are available from the Centers for Disease Control and Prevention (https://www.cdc.gov/infectioncontrol/basics/index.html).

Latex Allergy

Allergic reactions to latex can be potentially serious, although rarely fatal from anaphylaxis. Latex allergy occurs when the body's immune system reacts to proteins found in natural rubber latex. Latex products also contain added chemicals, such as antioxidants, that can cause irritant or delayed hypersensitivity reactions. Box 3.2 describes the various types of latex reactions.

Healthcare providers are at risk of developing latex allergy because of exposure to latex in the form of gloves and other equipment and supplies. Sensitization to the latex proteins occurs by direct skin or mucous membrane contact or through airborne exposure. Box 3.3 contains a summary of recommendations to protect you from latex exposure in the workplace. Be aware that some patients who have had multiple procedures or surgeries performed are at higher risk of developing latex allergy. Those patients with latex allergies are at risk when exposed to latex gloves if worn by the clinician. Direct contact is not necessary; inhalation of latex airborne molecules from powder-filled latex gloves can trigger an allergic reaction.

Patient Safety

The Vulnerability of the Health Professional

Healthcare providers do not have better immune systems than other people, although we sometimes behave as though we do. Nor are we invincible against the everyday work-related injuries. We stand a much better chance of staying well if we are scrupulous in protecting ourselves:

- Follow Standard Precautions.
- Use personal protective equipment (PPE) when appropriate.
- Minimize latex exposure.
- Use good body mechanics or lift devices in transferring or assisting patients into various positions. NO EXCEPTIONS!

Examination Technique

Patient Positions and Draping

Most of the physical examination is conducted with the patient in seated and supine positions. Other positions are used for specific aspects of the examination. Special positioning requirements are discussed in the relevant chapters.

BOX 3.1 What Equipment Do You Need to Purchase?

Students are confronted by a large number and variety of pieces of equipment for physical examination. A commonly asked question is "What do I really need to buy?" The answer depends somewhat on the expectations from your educational program and where you will be practicing. If you are in a clinic setting, for example, wall-mounted ophthalmoscopes and otoscopes are provided. This is not necessarily true in a hospital setting.

The following list is intended only as a guideline to the equipment that you will use most often and should personally own. The price of stethoscopes, otoscopes, ophthalmoscopes, and blood pressure equipment can vary markedly. Different models, many with optional features, can affect the price. Because these pieces of equipment represent a significant monetary investment, evaluate the quality of the instrument, consider the manufacturer's warranty and support, and decide on the features that you will need.

- Stethoscope
- Ophthalmoscope
- Otoscope
- Blood pressure cuff and manometer
- Centimeter ruler
- Tape measure
- Reflex hammer
- Tuning forks: 500–1000 Hz for auditory screening; 100–400 Hz for vibratory sensation
- Penlight
- Near vision screening chart

Seated. When seated, position the drape to cover the patient's lap and legs. You can move it to uncover parts of the body as they are examined.

Supine. In the supine position, the patient lies on his or her back, with arms at the sides and legs extended. The drape should cover the patient from chest to knees or toes. Again, you can move or reposition the drape to give appropriate exposure.

Prone. The patient lies on the stomach. This position may be used for special maneuvers as part of the musculoskeletal examination. Drape the patient to cover the torso.

Dorsal Recumbent. This position may be used for examination of the genital or rectal areas. The patient lies supine with knees bent and feet flat on the table. Place the drape in a diamond position from chest to toes. Wrap each leg with the corresponding lateral corner of the "diamond." Turn back the distal corner of the drape to perform the examination.

Lateral Recumbent. This is a side-lying position, with legs extended or flexed. The left lateral recumbent position (patient's left side is down) may be used in listening to heart sounds or palpating the spleen. This position can also be used for examination of the rectum or obtaining a rectal temperature. The patient starts in a lateral recumbent position. The torso is rolled toward a prone position; the top leg is flexed sharply at the hips and knee, and the bottom leg is flexed slightly. Drape the patient from shoulders to toes.

Lithotomy. The lithotomy position is generally used for the pelvic examination. Variations of positioning are discussed in Chapter 19. Begin with the patient in the dorsal recumbent position, with feet at the corners of the table. Help the patient to stabilize the feet in the stirrups and slide the buttocks down to the edge of the table. Drape in the diamond position as with the dorsal recumbent position.

Inspection

Inspection is the process of observation. Your eyes and nose are sensitive tools for gathering data throughout the examination (Box 3.4). Take time to practice and develop this skill. Challenge yourself to see how much information you can collect through inspection alone. As the patient enters the room, observe the gait and stance and the ease or difficulty with which getting onto the examining table are accomplished. These observations alone will reveal a great deal about the patient's neurologic and musculoskeletal integrity. Is eye contact made? Is the demeanor appropriate for the situation? Is the clothing appropriate for the weather? The answers to these questions provide clues to the patient's emotional and mental status. Color and moisture of the skin or an unusual odor can alert you to the possibility of underlying disease. These preliminary observations require only a few seconds, yet provide basic information that can influence the rest of the examination.

Inspection—unlike palpation, percussion, and auscultation—can continue throughout the history-taking process and during the physical examination. With this kind of continuity, observations about the patient can constantly be modified until a complete picture is created. Be aware of both the patient's verbal statements and body language right up to the end of the encounter. The stance, stride, firmness of handshake, and eye contact can tell you a great deal about the patient's perception of the encounter (see Clinical Pearl, "The Handshake").

CLINICAL PEARL

The Handshake

Although a nice gesture (coupled with appropriate hand washing), be careful not to harm your patients by squeezing too tightly, especially those patients with conditions that may involve their hands—rheumatoid arthritis or osteoarthritis, for example. A good rule of thumb is to reciprocate the pressure applied by the patient, but not exceed it.

TABLE 3.1 Recommendations for Application of Standard Precautions for the Care of All Patients in All Healthcare Settings

COMPONENT	RECOMMENDATIONS
Hand hygiene	Use soap and water when hands are visibly soiled (e.g., blood, body fluids), or after caring for patients with known or suspected *Clostridium difficile* or norovirus during an outbreak. Otherwise, the preferred method of hand hygiene in clinical situations is with an alcohol-based hand rub (ABHR) Use hand hygiene • Before contact with a patient. • Before performing an aseptic task (e.g., insertion of IV, preparing an injection). • After contact with the patient or objects in the immediate vicinity of the patient. • After contact with blood, body fluids or contaminated surfaces. • If hands will be moving from a contaminated-body site to a clean body site during patient care. • After removal of personal protective equipment (PPE).
Use of Personal protective equipment (PPE)	PPE, other than respirators, should be removed and discarded prior to leaving the patient's room or care area. If a respirator is used, it should be removed and discarded (or reprocessed if reusable) after leaving the patient room or care area and closing the door. Hand hygiene should be performed immediately after removal of PPE.
Gloves	For potential contact with blood, body fluids, mucous membranes, non-intact skin or contaminated equipment. Do not wear the same pair of gloves for the care of more than one patient. Do not wash gloves for the purpose of reuse.
Gown	Wear a gown to protect skin and clothing during procedures or activities where contact with blood or body fluids is anticipated. Do not wear the same gown for the care of more than one patient.
Mouth, nose, eye protection	Wear mouth, nose and eye protection during procedures that are likely to generate splashes or sprays of blood or other body fluids especially during suctioning, endotracheal intubation, or lumbar puncture.
Safe Injection practices	• Use aseptic technique when preparing and administering medications. • Cleanse the access diaphragms of medication vials with alcohol before inserting a device into the vial. • Never administer medications from the same syringe to multiple patients, even if the needle is changed or the injection is administered through an intervening length of intravenous tubing. • Do not reuse a syringe to enter a medication vial or container. • Do not administer medications from single-dose or single-use vials, ampoules, or bags or bottles of intravenous solution to more than one patient. • Do not use fluid infusion or administration sets (e.g., intravenous tubing) for more than one patient. • Dedicate multidose vials to a single patient whenever possible. If multidose vials will be used for more than one patient, they should be restricted to a centralized medication area and should not enter the immediate patient treatment area (e.g., operating room, patient room/cubicle). • Dispose of used sharps at the point of use in a sharps container that is closable, puncture-resistant, and leak-proof. • Wear a facemask (e.g., surgical mask) when placing a catheter or injecting material into the epidural or subdural space (e.g., during myelogram, epidural or spinal anesthesia).
Safe handling of potentially contaminated equipment or surfaces in the patient environment	• Establish policies and procedures for routine cleaning and disinfection of environmental surfaces in the facility. Policies and procedures should also address prompt and appropriate cleaning and decontamination of spills of blood or other potentially infectious materials. • Select EPA-registered disinfectants or detergents/disinfectants with label claims for use in healthcare. • Follow manufacturer's recommendations for use of cleaners and EPA-registered disinfectants (e.g., amount, dilution, contact time, safe use, and disposal).
Respiratory hygiene/cough etiquette (source containment of infectious respiratory secretions in symptomatic patients, beginning at initial point of encounter, e.g., triage and reception areas in emergency departments and physician offices)	Instruct symptomatic persons to cover mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacle; observe hand hygiene after soiling of hands with respiratory secretions; wear surgical mask if tolerated or maintain spatial separation, >3 feet if possible. Implement measures to contain respiratory secretions in patients and accompanying individuals who have signs and symptoms of a respiratory infection, beginning at point of entry to the facility and continuing throughout the duration of the visit. Post signs at entrances with instructions to patients with symptoms of respiratory infection to: Inform HCP of symptoms of a respiratory infection when they first register for care; cover their mouths/noses when coughing or sneezing; use and dispose of tissues.

*During aerosol-generating procedures on patients with suspected or proven infections transmitted by respiratory aerosols, wear a fit-tested N95 or higher respirator in addition to gloves, gown, and face/eye protection.
From Siegel et al, 2007; Centers for Disease Control and Prevention: The guide to infection prevention for outpatient settings, update 2019. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html.

BOX 3.2 Types of Latex Reactions

Irritant contact dermatitis—Chemical irritation that does not involve the immune system. Symptoms are usually dry, itching, irritated areas on the skin, typically the hands.

Type IV dermatitis (delayed hypersensitivity)—Allergic contact dermatitis that involves the immune system and is caused by the chemicals used in latex products. The skin reaction usually begins 24–48 hours after contact and resembles that caused by poison ivy. The reaction may progress to oozing skin blisters.

Type I systemic reactions—True allergic reaction caused by protein antibodies (immunoglobulin E antibodies) that form as a result of interaction between a foreign protein and the body's immune system. The antigen-antibody reaction causes release of histamine, leukotrienes, prostaglandins, and kinins. These chemicals cause the symptoms of allergic reactions. Type I reactions include the following symptoms: local urticaria (skin wheals), generalized urticaria with angioedema (tissue swelling), asthma, eye/nose itching, gastrointestinal symptoms, anaphylaxis (cardiovascular collapse), chronic asthma, and permanent lung damage.

BOX 3.3 Summary of Recommendations for Workers to Prevent Latex Allergy

- Use NONLATEX gloves for activities not likely to involve infectious materials. Hypoallergenic gloves are not necessarily latex free, but they may reduce reactions to chemical additives in the latex.
- For barrier protection when handling infectious materials, use powder-free latex gloves with reduced protein content.
- Use vinyl, nitrile, or polymer gloves appropriate for infectious materials.
- When wearing latex gloves, do not use oil-based hand creams or lotions because they may cause glove deterioration.
- After removing gloves, wash hands with mild soap and dry thoroughly.
- Use good housekeeping practices to remove latex-containing dust from the workplace.
- Take advantage of latex allergy education and training provided.
- If you develop symptoms of latex allergy, avoid direct contact with latex gloves and products

From National Institute for Occupational Safety and Health, 1998.

BOX 3.4 The Sense of Smell: The Nose as an Aid to Physical Examination

The first observation when entering an examining room may be an odor, obvious and pervasive. A foreign body that has been present in a child's nose may cause this. Distinctive odors provide clues leading to the diagnosis of certain conditions, some of which need early detection if life-threatening sequelae are to be avoided. However, do not rush to premature diagnosis. Appreciate these odors for what they are—clues that must be followed up with additional investigation. Examples of odor clues follow:

CONDITION	SOURCE OF ODOR	TYPE OF ODOR
Inborn errors of metabolism	Phenylketonuria	Mousy
	Tyrosinemia	Fishy
Infectious diseases	Tuberculosis	Stale beer
	Diphtheria	Sweetish
Ingestions of poison or intoxication	Cyanide	Bitter almond
	Chloroform and salicylates	Fruity
Physiologic nondisease states	Sweaty feet	Cheesy
Foreign bodies (e.g., in the nose or vagina)	Organic material (e.g., bead in a child's nose)	Foul-smelling discharge

The odors may range from objectionable to bland to rather pleasant. The examiner often is the one to determine the characterization of the odor.
From Kippenberger et al, 2012.

Some general guidelines will be helpful as you proceed through the examination and inspect each area of the body. Adequate lighting is essential. The primary lighting can be either daylight or artificial light, if the light is direct enough to reveal color, texture, and mobility without distortion from shadowing. Secondary, tangential lighting from a lamp that casts shadows is also important for observing contour and variations in the body surface.

TABLE 3.2 Areas of the Hand to Use in Palpation

TO DETERMINE	USE
Position, texture, size, consistency, fluid, crepitus, form of a mass, or structure	Palmar surface of the fingers and finger pads
Vibration	Ulnar surfaces of hand and fingers
Temperature	Dorsal surface of hand

Inspection should be unhurried. Give yourself time to carefully observe what you are inspecting. Pay attention to detail and note your findings. An important rule to remember is that you must expose what you want to inspect. Often, necessary exposure calls for modesty, convenience, or haste at the cost of important information. Part of your job is to look and observe critically.

Knowing what to look for is essential to the process of focused attention. Be willing to validate inspection findings with your patient. The ability to narrow or widen your perceptual field selectively will come with time, experience, and practice.

Palpation

Palpation involves the use of the hands and fingers to gather information through the sense of touch. Certain parts of your hands and fingers are better than others for specific types of palpation (Table 3.2). The palmar surface of the fingers and finger pads is more sensitive than the fingertips. Use this surface whenever discriminatory touch is needed for determining position, texture, size, consistency, masses, fluid, and crepitus. The ulnar surface of the hand and fingers is the most sensitive area for distinguishing vibration. The dorsal surface of the hands is best for estimating temperature. Of course, this estimate provides only a crude measure—use it to compare temperature differences among parts of the body.

Specific techniques of palpation are discussed in more detail as they occur in each part of the examination (see Clinical Pearl, "Right-Sided Examination?"). Palpation may be either light or deep and is controlled by the amount of pressure applied with the fingers or hand. Short fingernails are essential to avoid discomfort or injury to the patient.

CLINICAL PEARL

Right-Sided Examination?

It is the convention, at least in the United States, to examine patients from the right side and to palpate and percuss with the right hand. We continue with this convention, if only to simplify description of a procedure or technique. We feel no obligation to adhere strictly to the right-sided approach. Our suggestion is that students learn to use both hands for examination and that they be allowed to stand on either side of the patient, depending on both the patient's and examiner's convenience and comfort. The important issue is to develop an approach that is useful and practical and yields the desired results.

TABLE 3.3 Percussion Tones

TONE	INTENSITY	PITCH	DURATION	QUALITY	EXAMPLE WHERE HEARD
Tympanic	Loud	High	Moderate	Drumlike	Gastric bubble
Hyperresonant	Very loud	Low	Long	Boomlike	Emphysematous lungs
Resonant	Loud	Low	Long	Hollow	Healthy lung tissue
Dull	Soft to moderate	Moderate to high	Moderate	Thudlike	Over liver
Flat	Soft	High	Short	Very dull	Over muscle

Touch is in many ways therapeutic, and palpation is the actuality of the "laying on of hands." Our advice for a gentle approach with warm hands is not only practical but also symbolic of your respect for the patient and for the privilege the patient gives you.

Percussion

Percussion involves striking one object against another to produce vibration and subsequent sound waves. In the physical examination, your finger functions as a hammer, and the impact of the finger against underlying tissue produces the vibration. Sound waves are heard as percussion tones (called resonance) that arise from vibrations 4 to 6 cm deep in the body tissue. The density of the medium through which the sound waves travel determines the degree of percussion tone. The more dense the medium, the quieter the percussion tone. The percussion tone over air is loud, over fluid less loud, and over solid areas soft. The degree of percussion tone is classified and ordered as listed in Table 3.3 and as follows:

- Tympany
- Hyperresonance
- Resonance
- Dullness
- Flatness

Tympany is the loudest, and flatness is the quietest. Quantification of the percussion tone is difficult, especially for the beginner. For points of reference, as noted in Table 3.3, the gastric bubble is considered to be tympanic; air-filled lungs (as in emphysema) to be hyperresonant; healthy lungs to be resonant; the liver to be dull; and muscle to be flat. Degree of resonance is more easily distinguished by listening to the sound change as you move from one area to another. Because it is easier to hear the change from resonance to dullness (rather than from dullness to resonance), proceed with percussion from areas of resonance to areas of dullness. A partially full milk carton is a good tool for practicing percussion skills. Begin with percussion over the air-filled space of the carton, appreciating its resonant quality. Work your way downward and listen for the change in sound as you encounter the milk. This principle applies in percussion of body tissues and cavities.

The techniques of percussion are the same regardless of the structure you are percussing. Immediate (direct) percussion involves striking the finger or hand directly against the body. Indirect or mediate percussion is a technique in which the finger of one hand acts as the hammer (plexor) and a finger of the other hand acts as the striking surface. To perform indirect percussion, place your nondominant hand on the surface of the body with the fingers slightly spread. Place the distal phalanx of the middle finger firmly on the body surface with the other fingers slightly elevated off the surface. Snap the wrist of your other hand downward, and with the tip of the middle finger, sharply tap the interphalangeal joint of the finger that is on the body surface (Fig. 3.1). You may tap just distal to the interphalangeal joint if you choose but decide on one and be consistent because the sound varies from one to the other. Percussion must be performed against bare skin. If you are not able to hear the percussion tone, try pressing harder against the patient's skin with your finger that lies on the body surface. Failing to press firmly enough is a common error. On the other hand, pressing too hard on an infant or very young chest can obscure the sound.

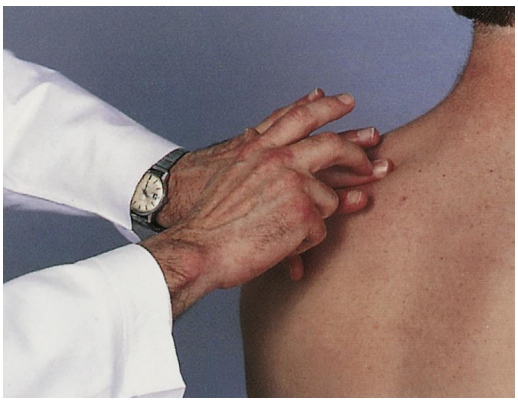

FIG. 3.1 Percussion technique: tapping the interphalangeal joint. Only the middle finger of the examiner's nondominant hand should be in contact with the patient's skin surface.

Several points are essential in developing the technique of percussion. The downward snap of the striking finger originates from the wrist and not the forearm or shoulder. Tap sharply and rapidly; once the finger has struck, snap the wrist back, quickly lifting the finger to prevent dampening the sound. Use the tip and not the pad of the plexor finger (short fingernails are a necessity). Percuss one location several times to facilitate

BOX 3.5 Common Percussion Errors

Percussion requires practice. In learning percussion, beginning healthcare providers often make the following errors:

- Failing to exert firm pressure with the finger placed on the skin surface
- Failing to separate the hammer finger from other fingers
- Snapping downward from the elbow or shoulder rather than from the wrist
- Tapping by moving just the hammer finger rather than the whole hand
- Striking with the finger pad rather than the fingertip of the hammer finger
- Failing to trim the fingernail of the hammer finger

interpretation of the tone. Like other techniques, percussion requires practice to obtain the skill needed to produce the desired result. Box 3.5 describes common percussion errors. In learning to distinguish between the tones, it may be helpful to close your eyes to block out other sensory stimuli, concentrating exclusively on the tone you are hearing.

You can also use your fist for percussion. Fist percussion is most commonly used to elicit tenderness arising from the liver, gallbladder, or kidneys. In this technique, use the ulnar aspect of the fist to deliver a firm blow to the flank and back areas. Too gentle a blow will not produce enough force to stimulate the tenderness, but too much force can cause unnecessary discomfort, even in a well patient. The force of a direct blow can be mediated by use of a second hand placed over the area. Practice on yourself or a colleague until you achieve the desired middle ground.

Auscultation

Auscultation involves listening to sounds produced by the body. Some sounds, such as speech, are audible to the unassisted ear. Most others require a stethoscope to augment the sound. Specific types of stethoscopes, their use, and desired characteristics are discussed later in the section on stethoscopes.

Some general principles apply to all auscultatory procedures. The environment should be quiet and free from distracting noises. Place the stethoscope on the naked skin because clothing obscures the sound. Listen not only for the presence of sound but also its characteristics: intensity, pitch, duration, and quality. The sounds are often subtle or transitory, and you must listen intently to hear the nuances. Closing your eyes may prevent distraction by visual stimuli and narrow your perceptual field to help you focus on the sound. Try to target and isolate each sound, concentrating on one sound at a time. Take enough time to identify all the characteristics of each sound. Auscultation should be carried out last, except with the abdominal examination, after other techniques have provided information that will assist in interpreting what you hear (see Clinical Pearl, "Unexpected Findings").

CLINICAL PEARL

Unexpected Findings

Respect your judgment and your instinct when you identify a physical examination finding you had not expected to find. Pay attention when this occurs, even if it does not seem to make sense or you cannot explain it easily. The flip side—not finding a previously documented "abnormal" finding—may simply be a learning opportunity, or it may reflect a change in the patient's condition. It is OK if you say "I couldn't hear that" or "I'm not sure I felt that." If in doubt, have someone else check it with you.

One of the most difficult achievements in auscultation is learning to isolate sounds. You cannot hear everything all at once. Whether it is a breath sound, a heartbeat, or the sequence of respirations and heartbeats, each segment of the cycle must be isolated and listened to specifically. After the individual sounds are identified, they are put together. Do not anticipate the next sound; concentrate on the one at hand. Auscultation of the lungs is discussed in Chapter 14, of the heart in Chapter 15, and of the abdomen in Chapter 18.

Modifications for Patients With Disabilities

Each disability affects each person differently; therefore, it is important for healthcare providers to educate themselves about relevant aspects of a patient's disability. Sensitivity in asking only pertinent questions about the disability will increase the patient's comfort and cooperation.

Keep some considerations in mind about the environment and the encounter. Speak directly to the patient, if they have capacity. Often people will address a disabled person's spouse, friend, attendant, or an interpreter instead of speaking directly to the person. Remove or rearrange the furnishings in the examination room to provide space, such as that needed for a wheelchair. Take the paper covering off the examination table if it is a bother during transfers and positioning. Equipment such as a high-low examination table or a particularly wide examination table or a slide board can be obtained to facilitate safer, easier transfers and positioning. Obstetric or foot stirrups can be padded or equipped with a strap to increase the patient's comfort and safety during a pelvic examination. For the pelvic examination, a patient can wear an easily removable skirt or pair of pants. A button-up or zippered shirt will facilitate the breast examination. Musculoskeletal exams of the lower extremities can be accomplished with the patient wearing shorts. It is appropriate to suggest to your patient or the caregiver that such clothing be worn for future visits.

Patients With Mobility Impairments

The patient is the expert in transferring from the wheelchair or in using assistants to climb onto the examination table. Transfers are relatively simple if the patient,

BOX 3.6 Transfer Guidelines

Guidelines for the Assistant

The patient/parent/caregiver should direct the transfer and positioning process.

Assistants should not overestimate their ability to lift.

Keep in mind that not all nonambulatory patients need assistance.

Assistants should keep their backs straight, bend their knees, and lift with their legs.

It may be helpful to perform a test lift or to practice the transfer by lifting the patient just over the wheelchair before attempting a complete transfer.

Assistants who feel that they may drop a patient during a transfer should not panic. It is important, whenever possible, to explain what is happening to reassure the patient throughout the situation. Assistants will usually have time to lower the patient safely to the floor until they can get additional help.

Guidelines for the Patient

Explain clearly the preferred transfer method and direct the healthcare provider and assistants during the process.

Assistants can help by preparing equipment. Because many people are not familiar with wheelchairs or supportive devices, the patient may need to explain to the healthcare providers and assistants how they can handle belongings. Patients who use wheelchairs should explain how to apply the brakes, detach the footrests and armrests, or turn off the motor of an electric wheelchair. Have the patient who wears adaptive devices (e.g., leg braces or supportive undergarments) explain how to remove them, if necessary, and where to put them if the patient cannot do so.

Patients who use urinary equipment should direct assistants in the moving or straightening of catheter tubing. The patient may wish to unstrap the leg bag and place it on the table beside or across the abdomen for proper drainage while supine. Assistants should be reminded not to pull on the tubing or allow kinks to develop.

Have the patient inform the healthcare provider and assistants when he or she is comfortable and balanced after the transfer is completed.

All parties should be aware of jewelry, clothing, tubing, or equipment that might catch or otherwise interfere with the transfer.

assistant, and healthcare provider all understand the method that will best suit the patient's disability, the room space, and the examination table (Box 3.6). You need to know your own physical limits for lifting or moving a patient—always seek assistance if uncertain. This will avoid falls and injuries to both you and the patient.

Pivot Transfer. Stand in front of the patient, take the patient's knees between your own knees, grasp the patient around the back and under the arms, raise the patient to a vertical position, and then pivot from wheelchair to the table. The examination table must be low enough for the patient to sit on; therefore, a hydraulic high-low table may be needed when using this transfer method.

Cradle Transfer. While bending or squatting beside the patient, put one arm under the patient's knees and the other arm around the back and under the armpits. Stand and carry the patient to the table.

Two-Person Transfer. In all two-person transfers, the assistants must be careful to work together to lift the patient over the arms of the wheelchair from a sitting position onto the examination table. A stronger, taller person should always lift the upper half of the patient's body.

- *Method 1* requires the patient to fold the arms across the chest. The assistant standing behind the patient, kneels, putting his or her elbows under the patient's armpits, and grasps the patient's opposite wrists. The second assistant lifts and supports the patient under the knees.
- *Method 2* can be used if the patient cannot fold the arms. The assistant standing behind the patient puts his or her own hands together around the patient, if possible, so that there is less likelihood of losing hold of the patient. The second assistant lifts and supports the patient under the knees.
- *Cradle transfer* is a variation of the one-person cradle transfer. Two assistants grasp each other's arms behind the patient's back and under the knees and then stand and carry the patient to the table.

Equipment. Some persons with mobility impairments use a slide board, which forms a bridge to slide across from the wheelchair to the examination table. For this method to work, the table and chair must be approximately the same height. Most examination tables, however, are quite a bit higher than wheelchairs. Some examining rooms have high-low examination tables that can be adjusted to a height that will facilitate the safest and easiest transfer. A wider table, even if it is not adjustable in height, can also make transfers and positioning easier.

Patients With Sensory Impairment

At the beginning of the visit by a patient with a hearing or speech impairment, discuss the communication system that will be used (e.g., a sign language interpreter, word board, talk box, or typing questions on the computer screen). Specialized educational materials (e.g., Braille or audiotaped information, or three-dimensional anatomic models) can be acquired to make information accessible to sensory-impaired patients.

Impaired Vision. Remember to identify yourself upon entering the examination room and inform the patient when you are leaving the room. A red-tipped white cane and guide animal are mobility aids used by many persons with visual impairments. If a patient is accompanied by a guide animal, do not pet or distract the animal, which is trained to respond only to its owner. A patient may prefer to keep the guide animal or white cane nearby in the examination room. Do not move either of these without the patient's permission. Before the examination, ask whether the patient would like to examine any equipment or instruments that will be used during the examination. If three-dimensional models are available, they can be used to acquaint the patient with the examination process (e.g.,

with the genital examination). During the examination, the patient may feel more at ease if you maintain continuous tactile or verbal contact (e.g., by keeping a hand on the arm or by narrating what is taking place during the examination).

Some patients with visual impairments will want to be oriented to their surroundings, whereas others may not. Each should be encouraged to specify the kind of orientation and assistance needed. Verbally describe and assist the patient in locating where to put the clothes, where the various furnishings are positioned, how to approach the examination table, and how to get positioned on the table.

Impaired Hearing or Speech. Federal regulations require healthcare providers to provide effective communication, using auxiliary aids and services that ensure communication with patients who have a hearing loss is as effective as communication with others. The patient should choose which form of communication to use during the examination (e.g., qualified interpreters, assistive listening devices, written materials, television decoders, telecommunications devices for the deaf). Although a patient may use an interpreter throughout most of the visit, they may decide not to use the interpreter during parts of the actual examination. If an interpreter is used, you and the patient should decide where the interpreter should stand or sit. When working with an interpreter, speak at a regular speed and directly to the patient instead of to the interpreter. Qualified interpreters may be live or virtual. As with language interpreters, family members are not appropriate.

Special Concerns for Patients With Spinal Cord Injury or Lesion

Bowel and bladder concerns and other conditions such as autonomic dysreflexia (hyperreflexia), hypersensitivity, and spasticity should be given special attention during the examination process.

Bowel and Bladder Concerns. Some patients do not have voluntary bladder or bowel movements. A bladder or bowel routine could affect the pelvic or rectal examination. The physical stimulation of a speculum, bimanual, or rectal examination can mimic the stimulation for the bowel routine and cause a bowel movement during the examination. An indwelling catheter need not be removed during the examination unless it is not working; if it is removed, another catheter should be available for insertion. Likewise, it is not necessary to remove the catheter during a pelvic examination as it will not interfere.

If a patient uses intermittent catheterization to manually open the bladder sphincter at regular intervals during the day, tactile stimulation in the pelvic area during the examination could cause the bladder sphincter to open and produce incontinence.

Autonomic Dysreflexia. Autonomic dysreflexia, also called hyperreflexia, is a potentially life-threatening condition associated with high-level spinal cord injury (T6 or higher), which can occur even after the acute injury phase. Symptoms include severe high blood pressure, sweating, blotchy skin, nausea, or goose bumps due to stimulation of the bowel, bladder, or skin below the spinal lesion. Some causes of dysreflexia that may occur during the physical examination include reactions to a cold, hard examination table or cold stirrups; insertion and manipulation of a vaginal speculum; pressure during the bimanual or rectal examination; or tactile contact with hypersensitive areas. If the patient experiences high blood pressure, identify and remove the source of the stimulation. Sit the patient upright with legs dangling. Remove tight or constrictive clothing. Once the dysreflexia ceases, you and the patient should mutually decide whether to continue the examination. If the examination is continued and dysreflexia recurs, stop the examination and reschedule for another time. If the blood pressure does not decrease with removal of stimulus, or if the dysreflexia symptoms persist and lead to a throbbing headache or nasal obstruction, treat the situation as a medical emergency. Do not leave a patient experiencing any degree of dysreflexia unaccompanied.

Think About It

Autonomic Dysreflexia

Autonomic dysreflexia occurs because of dysregulation of the autonomic nervous system. Cutaneous or visceral stimulation below the level of the spinal cord injury initiates afferent impulses that elicit reflex sympathetic nervous system activity. The sympathetic response leads to diffuse vasoconstriction, typically to the lower two-thirds of the body, causing a rise in blood pressure. In the compromised autonomic nervous system, the normal compensatory parasympathetic response cannot travel below the level of the spinal cord injury. Sitting the patient upright and removing any tight clothing or constrictive devices orthotactically helps lower blood pressure by inducing pooling of blood in the abdominal and lower extremity vessels.

Hypersensitivity. To help prevent possible discomfort or spasms, ask the patient about hypersensitive areas of the body before the examination. Some patients may experience variable responses (e.g., spasms or pain) to ordinary tactile stimulation. Often, you can avoid sensitive areas or use an extra amount of lubricant jelly to decrease friction or pressure.

Spasticity. Spasms may range from slight tremors to quick, violent contractions. Spasms may occur during a transfer, while assuming an awkward or uncomfortable position, or from stimulation of the skin with an instrument. If spasm occurs during the examination, gently support the area (usually a leg, an arm, or the abdominal

region) to avoid any injury to the patient. Allow the spasms to resolve before continuing the examination. A feeling of physical security can decrease spasm intensity or frequency. A patient who experiences spasms should never be left alone on the examination table. Have an assistant stand near the examination table and maintain physical contact with the patient to provide a feeling of safety.

Equipment

Weight Scales and Height Measurement Devices

Height and weight of adults are measured on a standing platform scale with a height attachment. Scales can be manual or electronic. Note what the patient is wearing: adults and older children should wear lightweight clothing for more accurate measurement.

The manual scale uses a system of adding and subtracting weight in increments as small as 0.1 kg to counterbalance the weight placed on the scale platform. Calibrate the scale to zero before the patient mounts the platform by moving both the large and small weights to zero. Level and steady the balance beam by adjusting the calibrating knob. Pull up the height attachment, before the patient steps on the scale, and then position the headpiece at the patient's crown Place a paper towel on the platform before the patient steps on it to avoid the potential transmission of organisms from bare feet.

With electronic scales, weight is calculated electronically and provided as a digital readout (Fig. 3.2). These scales are automatically calibrated each time they are used.

The infant platform scale is used for measuring weights of infants and small children (Fig. 3.3). It works the same as the adult scale but measures in grams. Scales can be manual or electronic. The scale has a platform with curved sides in which the child may sit or lie. Place paper under the child, and never leave the child unattended on the scale. Weigh the infant either nude or with only a diaper for accuracy of weight.

Infant lengths can be measured by using an infant measuring device that comes with a rigid headboard and movable footboard (Fig. 3.4A). An alternative to the rigid measuring device is a commercially available measure mat, consisting of a soft rubber graduated mat attached to a plastic headboard and footboard (see Fig. 3.4B). Place the measuring board on the table so that the headboard and footboard are perpendicular to the table. Position the infant supine on the measuring board with the head against the headboard and knees held straight. Move the footboard until it touches the bottom of the infant's feet. The infant's length can be read in either inches or centimeters. Be sure to clean the mat between uses.

Infants can also be measured by placing them on a pad or disposable paper sheet and making a mark at the top of the head and another at the heel of the extended leg. Then measure the length from marking to marking.

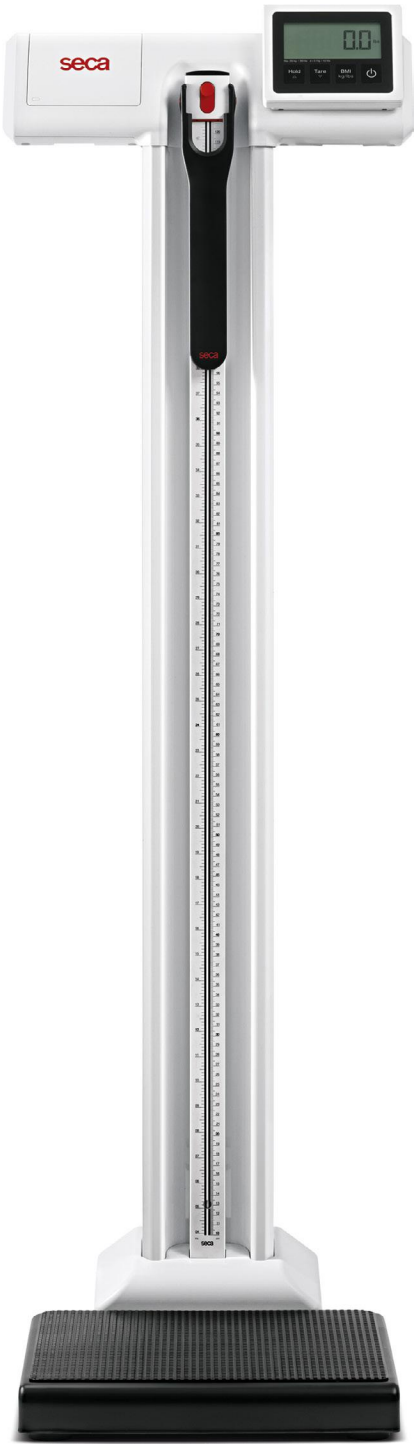

FIG. 3.2 Platform scale with height attachment.

FIG. 3.3 Infant platform scale.

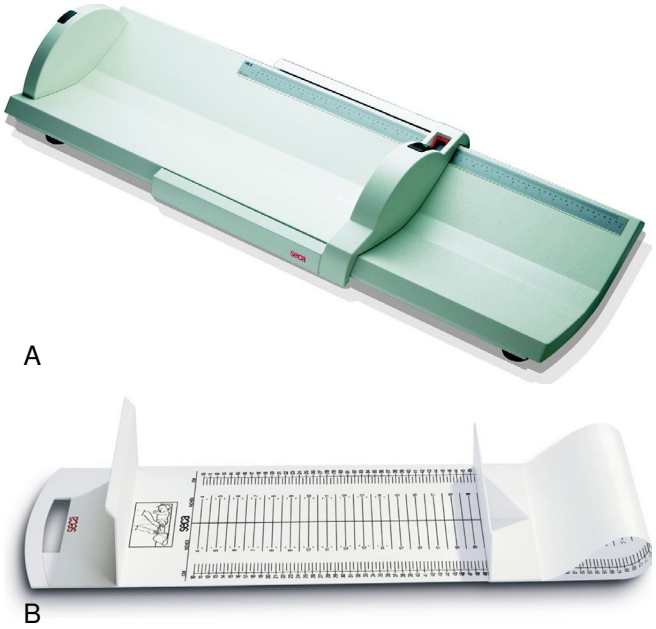

FIG. 3.4 Devices used to measure length of an infant. (A) Infant length board. (B) Measure mat. (A, Courtesy Perspective Enterprises, Inc., Portage, MI. B, Courtesy Seca North America, Medical Scales and Measuring Systems, Seca Corp.)

Once a child is able to stand erect without support, use a stadiometer, a stature-measuring device, to measure height. The device consists of a movable headpiece attached to a rigid measurement bar and platform. Standing height is measured barefoot. With the child standing with the shoulders, buttocks, and heels in alignment, lower the head piece to the crown of the child's head (Fig. 3.5). Devices can be mobile or attached to the wall. Height is calibrated either manually or digitally. Digital touchless models use sonar technology to triangulate the top of the head and provide a digital readout.

FIG. 3.5 Device used to measure height of a child. (Courtesy Perspective Enterprises, Portage, MI.)

Thermometer

Electronic temperature measurement has decreased the time required for accurate temperature readings. One piece of equipment that contains an electronic sensing probe can be used for measurement of rectal, oral, and axillary temperatures (Fig. 3.6A). The probe, covered by a disposable sheath, is placed under the tongue with the mouth tightly closed, in the rectum, or in the axillary space with the arm held close to the torso. A temperature reading (in either Fahrenheit or Celsius) is revealed on a digital display within 15 to 60 seconds, depending on the model used.

Professional grade infrared thermometers are also available, which infer temperature from the thermal radiation from the patient source such as the temporal artery or the tympanic membrane, which shares its blood supply with the hypothalamus in the brain. The measurements

FIG. 3.6 Devices for electronic temperature measurement. (A) Rectal, oral, or axillary thermometer. (B) Tympanic membrane thermometer. (Courtesy Welch Allyn, Inc., Skaneateles Falls, NY.)

obtained vary somewhat from those obtained by oral or rectal routes (see Fig. 3.6A) (El-Radhi, 2014; Grasim et al., 2013; Hamilton et al., 2013; Niven et al., 2015). In some situations, as with very young infants or with the critically ill, traditional routes of measurement may be more accurate; in other situations, such as with children in an outpatient setting, an infrared thermometer is preferred. For tympanic membrane temperature measurement, a specially designed probe similar in shape to an otoscope is required. Gently place the covered probe tip at the external opening of the ear canal. Do not try to force the probe into the canal or to occlude it. The temperature is displayed in a few seconds.

Stethoscope

Auscultation of most sounds requires a stethoscope. Three basic types are available: acoustic, magnetic, and electronic (also called digital).

The acoustic stethoscope is a closed cylinder that transmits sound waves from their source and along its column to the ear (Fig. 3.7). Its rigid diaphragm has a natural frequency of around 300 Hz. It screens out low-pitched sounds and best transmits high-pitched sounds such as the second heart sound. The bell end piece has a natural frequency that varies with the amount of pressure exerted. It transmits low-pitched sounds when very light pressure is used. With firm pressure, the skin converts it to a diaphragm end piece. The chest piece contains a closure valve so that only one end piece, either the diaphragm or bell, is operational at any one time (thus preventing inadvertent dissipation of sound waves).

The stereophonic stethoscope, a type of acoustic stethoscope, is used to differentiate between the right and left auscultatory sounds using a two-channel design. With a single tube, diaphragm, and bell, it looks and functions like an acoustic stethoscope. However, the right and left ear tubes are independently connected to right and left semicircular microphones in the chest piece.

The magnetic stethoscope has a single end piece that is a diaphragm. It contains an iron disk on the interior surface; behind this is a permanent magnet. A strong spring keeps the diaphragm bowed outward when it is not compressed against a body surface. Compression of the diaphragm activates the air column as magnetic attraction is established between the iron disk and the magnet. Rotation of a dial adjusts for high-, low-, and full-frequency sounds.

The electronic stethoscope picks up vibrations transmitted to the surface of the body and converts them into electrical impulses. The impulses are amplified and transmitted to a speaker, where they are reconverted to sound. Newer versions of the electronic stethoscope can also provide additional features such as extended listening ranges, digital readout, sound recording and storage, playback, murmur interpretation, visual display, tubeless connection, and electronic device linkage (Fig. 3.8).

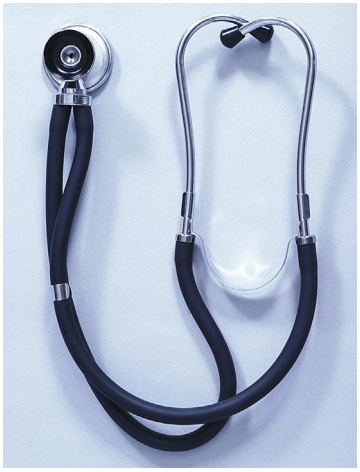

FIG. 3.7 Acoustic stethoscope.

FIG. 3.8 Electronic stethoscope. (Courtesy Thinklabs One.)

The traditional and most commonly used is the acoustic stethoscope, which comes in several models. The ability to auscultate accurately depends in part on the quality of the instrument, so it is important that the stethoscope have the following characteristics:

- The diaphragm and bell are heavy enough to lie firmly on the body surface.
- The diaphragm cover is rigid.
- The bell is large enough in diameter to span an intercostal space in an adult and deep enough so that it will not fill with tissue.
- The bell and diaphragm are pediatric-sized for use in children
- A rubber or plastic ring is around the bell edges to ensure secure contact with the body surface.
- The tubing is thick, stiff, and heavy; it conducts better than thin, elastic, or very flexible tubing.
- The length of the tubing is between 30.5 and 40 cm (12 and 18 inches) to minimize distortion.
- The earpieces fit snugly and comfortably. Some instruments have several sizes of earpieces and some have hard and soft earpieces. The determining factors are