

Health, Safety *and* Nutrition

for the **YOUNG CHILD**

LYNN R. MAROTZ

10e



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***Health, Safety, and Nutrition for the Young
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Preface

Children's state of wellness has an unquestionable effect on their development and ability to learn. Our understanding of the factors that shape and influence a child's well-being, including nutrition, environmental conditions, and emotional and social development continues to improve as a result of ongoing research and new discoveries. In turn, this information has led to noteworthy changes in our views about health, approaches to health care, and the critical importance of addressing health education during the early years. It has also contributed to the development of numerous resources (e.g., National Health Education Standards, MyPlate, Healthy People 2030, NAEYC's Standards for Early Childhood Professional Preparation, National Health and Safety Performance Standards for Child Care) that currently guide personal and classroom practices. Additionally, our knowledge of wellness and the importance of promoting healthy lifestyle behaviors draw increasing attention to the pivotal role that teachers play in identifying children's health needs, creating high-quality environments that are safe and support learning, and providing comprehensive health education in schools.

Health, Safety, and Nutrition for the Young Child, now in its tenth edition, has become the standard text in the early childhood field. Its comprehensive approach and well-documented student/teacher-oriented focus continue to make it the best-selling, full-color textbook about children's well-being. Most importantly, this book provides students and teachers with a functional understanding of children's health, safety, and nutritional needs and guides them in implementing effective classroom practices. It also emphasizes the importance of respecting and partnering with all families to help children establish healthy lifestyles and achieve their learning potential. *Health, Safety, and Nutrition for the Young Child* accomplishes this by addressing all three essential components of children's wellness in one book:

- ▶ promoting children's **health** through awareness, assessment, and the early identification and intervention of acute and chronic health conditions; supporting positive development of all children across domains; and, providing meaningful preventive health education
- ▶ creating and maintaining **safe indoor and outdoor learning environments** and fostering children's understanding and development of protective safety behaviors
- ▶ meeting children's essential **nutritional needs** by planning healthy meals, providing safe and nutritious food, and educating children about the importance of consuming a nutritious diet.

Extensive resources, lesson plans, teacher checklists, references, case studies, and educational materials for families are provided throughout the book to aid busy students and practicing teachers in making a difference in children's lives.

The Intended Audience

First and foremost, *Health, Safety, and Nutrition for the Young Child* is written on behalf of young children everywhere. Ultimately, it is the children who benefit from having families and teachers who know how to protect and promote their safety and well-being. The term *families* is used throughout the text in reference to the diverse caring environments in which children of all races,

ethnicities, and abilities are currently being raised and that may or may not include their biological parents. The term *teachers* is used inclusively to describe all adults who care for and work with young children—including educators, therapists, coaches, camp leaders, administrators, health care providers, legislators, and concerned citizens—whether they work in early education centers, home-based programs, recreation activities, public or private schools, community agencies, or after-school programs. The term *teacher* acknowledges the important educational role that families play in their children's daily lives. Its use also recognizes the valuable contributions of the many educators who dedicate their lives to children.

Health, Safety, and Nutrition for the Young Child is written for several primary audiences:

- ▶ Students and preservice teachers who have chosen a career in early education
- ▶ Experienced teachers in community schools, home-based programs, early childhood centers, Head Start programs, clinics, and agencies that serve young children, and before- and after-school programs
- ▶ Allied health professionals and child advocates who work in any role that touches children's lives
- ▶ Families, who are children's most important teachers!

Organization and Key Content

The tenth edition of *Health, Safety, and Nutrition for the Young Child* maintains its original purpose which is to focus attention on the three critical areas that influence children's well-being: promoting children's health (Unit 1); creating high-quality, safe learning environments (Unit 2); and, supporting children's nutrition (basic and applied), healthy eating behaviors, and nutrition education (Units 3 and 4). This arrangement maximizes student learning and offers instructors flexibility in designing their courses. However, the interrelatedness of these three subject areas must not be overlooked despite their artificial separation in the book.

Chapter content is presented in a clear, concise, and thought-provoking manner. It reflects the latest research developments and applications regarding children and wellness within a culturally diverse and family-oriented framework. Information about many key topics, including national health initiatives, children's mental health, bullying, fostering resilience and social-emotional competence, brain development, childhood obesity, emergency and disaster preparedness, and food safety have been updated. Additional information about children who have special health challenges and school-aged children has also been provided. Without a doubt, this comprehensive book is a resource that no teacher (new or experienced) should be without!

New and Updated Features

The tenth edition continues to include numerous pedagogical features, including tables, figures, checklists, summaries, review questions, and application activities designed to engage students, reinforce learning, and enhance their ability to apply the information in contemporary educational settings:

- ▶ **Chapter Content Linked to National Association for the Education of Young Children Professional Preparation Standards**—NAEYC standards, identified at the onset of each chapter, are provided to help students understand how chapter content relates to the association's professional education framework and how it affects their role as teachers of young children. The Key Elements associated with Standards that are relevant to chapter content have not been included at this time because they are currently undergoing review and revision. Readers will be able to access this information on the book's MindTap site when NAEYC releases the new Key Elements.

- ▶ **Learning Objectives**—are identified at the beginning of each chapter. The objectives describe what students can expect to learn in each major chapter section and how they will demonstrate and apply newly acquired knowledge and skills.
- ▶ **New Connecting to Everyday Practice features**—present contemporary issues that will challenge students' ability to analyze and apply information they have learned in each chapter. Thought-provoking questions are included to encourage self-reflection and group discussion.
- ▶ **New Case Studies**—engage students in applying what they have learned to address common everyday experiences they are likely to encounter as teachers.
- ▶ **Did You Get It? Quizzes**—allow students to measure their performance against the learning objectives in each chapter. One question for each learning objective is featured in the textbook to encourage students to go to MindTap, take the full quiz, and check their understanding.
- ▶ **Updated Teacher Checklists**—are a well-received feature that provides teachers with quick, efficient access to critical information and best practices. Beginning practitioners will find these concise reference lists especially helpful for learning new material. Experienced teachers and administrators will appreciate their simplicity and easy access for classroom use and staff training purposes. Many of the Teacher Checklists are available as Digital Downloads.
- ▶ **Classroom Corner Teacher Activities**—showcase lesson plans aligned with the National Health Education Standards. Learning objectives, materials lists, and step-by-step procedures are provided to save teachers preparation time and present children with meaningful learning experiences.
- ▶ **Did You Know . . . ?**—offers interesting factoids in a marginal feature that will peak student curiosity and interest in chapter content.
- ▶ **Updated Monthly Calendar of National Health, Safety, and Nutrition Observances**—provides a month-by-month listing of national observances and related website resources that teachers can use when planning learning experiences for children. This information is located in Appendix B.
- ▶ **Updated Children's Book List**—is an extensive, updated collection of children's books that teachers and parents can use to promote children's literacy skills while teaching them about various health, safety, and nutrition topics. This resource is located in Appendix D and includes titles that address topics such as dental health, mental health, self-care, safety, nutrition, special needs, and physical activity/fitness.
- ▶ **Partnering with Families**—is a feature provided in every chapter to underscore the importance of engaging and including families in children's health, safety, and nutrition education. Information on an array of topics is provided in letter format that busy teachers can download, copy, and send home or share with families in a newsletter, program handbook, website posting, parent conference, or bulletin board display.
- ▶ **New Chapter References**—guide readers to empirical research articles and relevant publications. Students are encouraged to locate and read more about topics that are discussed in each chapter.

Chapter-by-Chapter Changes

Chapter 1 *Children's Well-Being: What It Is and How to Achieve It*

- ▶ New information on national health programs and initiatives, including Healthy People 2030, Children's Health Insurance Program, Every Student Succeeds Act (ESSA), and Whole School Whole Community Whole Child (WSCC).
- ▶ Emphasis placed on health promotion and its effect on children's learning, development, and lifelong behavior.

- ▶ New information about stress and its damaging effect on DNA, media and social violence, cultural influences on health, and children's mental health.
- ▶ New *Connecting to Everyday Practice* feature that addresses school expulsions and suspensions.

Chapter 2 Daily Health Observations

- ▶ *Teacher Checklists* that detail important observations related to children's health.
- ▶ New references that emphasize the teachers' role in early identification and intervention.
- ▶ New *Connecting to Everyday Practice* feature that draws attention to the link between children's health and the academic achievement gap.

Chapter 3 Assessing Children's Health

- ▶ Continued emphasis is placed on the teacher's role in identifying health problems (e.g., vision, hearing, language, nutrition) that affect children's learning.
- ▶ *Teacher Checklists* provide easy access to critical information.
- ▶ New research information about children's vision disorders, immunizations, and revised immunization schedules.
- ▶ New *Connecting to Everyday Practice* feature that raises awareness about poverty and its effect on children's well-being.

Chapter 4 Caring for Children with Special Medical Conditions

- ▶ New section on lead poisoning and the new international seizure classification system.
- ▶ Updated information on the signs, symptoms, and management strategies for addressing common chronic childhood diseases and medical conditions.
- ▶ New *Connecting to Everyday Practice* feature that draws attention to meeting children's medical needs in school settings.

Chapter 5 The Infectious Process and Environmental Control

- ▶ Updated information on childhood immunizations and the new recommended immunization schedule (and chart).
- ▶ New information about classroom infection control practices, including hand washing, diapering procedures, classroom pets, water tables, and green cleaning products.
- ▶ New *Connecting to Everyday Practice* feature that raises awareness about the potential for communicable disease epidemics and the importance of implementing strict preventive control procedures in school settings.

Chapter 6 Childhood Illnesses: Identification and Management

- ▶ New information on Sudden Unexpected Infant Deaths (SUIDs), Sudden Infant Death Syndrome (SIDS), and new infant sleep guidelines.
- ▶ New information regarding ear infections and West Nile and Zika diseases.
- ▶ New references that reflect the latest research.
- ▶ New *Connecting to Everyday Practice* feature that draws attention to recommendations not to give children over-the-counter cough and cold medications.

Chapter 7 Creating High-Quality Environments

- ▶ Updated safety information for creating high-quality indoor and outdoor learning environments for children. New research regarding the use of synthetic turf on play yards.
- ▶ New guidelines for the selection and use of appropriate safety restraint systems (e.g., car seats, booster seats) based on children's height and weight.
- ▶ Continued emphasis on the importance of outdoor play and physical activity for the prevention of childhood obesity, chronic diseases, and behavior problems.
- ▶ New *Connecting to Everyday Practice* feature that addresses the physical environment and its effect on children.

Chapter 8 Safety Management

- ▶ New regulations that govern the manufacturing of children's furniture and toys, including imported products, as well as updated safety features to consider when purchasing children's furniture.

- ▶ Updated information on emergency and disaster preparedness and school safety, including strategies for helping children to cope following an event.
- ▶ *New Connecting to Everyday Practice* feature that addresses building security.

Chapter 9 *Management of Injuries and Acute Illness*

- ▶ *Updated* emergency and first aid techniques from the American Heart Association and American Red Cross.
- ▶ *New Connecting to Everyday Practice* feature that addresses concussions.
- ▶ *New references throughout the chapter* draw attention to contemporary research.

Chapter 10 *Maltreatment of Children: Abuse and Neglect*

- ▶ *Updated* research regarding the immediate and long-term physical, emotional, cognitive, and economic effects that maltreatment has on children's development.
- ▶ *New* figures, tables, and an updated book list that can be used to address maltreatment with children and build their resilience.
- ▶ *New Connecting to Everyday Practice* feature about cultural healing practices that could be interpreted as being abusive.

Chapter 11 *Planning for Children's Health and Safety Education*

- ▶ *New* information about the teacher's role in the learning environment.
- ▶ Additional teacher resources and children's book lists to use for lesson planning.

Chapter 12 *Nutrition Guidelines*

- ▶ *New* information about the revised Dietary Guidelines for Americans, Canadian Food Guide, and Healthy People 2030 initiatives. The *new* food label and menu labeling laws are also discussed.
- ▶ Continued emphasis is placed on eating locally and the role of physical activity in health promotion.
- ▶ *New* tables, figures, and *Case Study*.

Chapter 13 *Nutrients that Provide Energy (Carbohydrates, Fats, and Proteins)*

- ▶ *New* information about the use of artificial sweeteners in children's food products.
- ▶ *New* recommendations regarding children and low-fat diets.
- ▶ *New Application Activities* and *New Connecting to Everyday Practice* features that raise questions about sugar and its role in obesity.

Chapter 14 *Nutrients that Promote Growth and Regulate Body Functions (Proteins, Vitamins, Minerals, and Water)*

- ▶ *New* information about at-risk nutrients and children's diets.
- ▶ *New Application Activities* and *new Connecting to Everyday Practice* features that challenge students to apply chapter content to real-life situations.

Chapter 15 *Feeding Infants*

- ▶ *New* emphasis on the feeding relationship and its effect on infants' biological, learning, and developmental needs.
- ▶ *New* information about revised labels on children's food products.
- ▶ *New* section on children's food allergies and early feeding practices.
- ▶ Additional information about colic and ear infections.
- ▶ *New* tables, figures, and *Teacher Checklists* with updated information about infant serving sizes and recommended meal pattern.
- ▶ *New Connecting to Everyday Practice* feature focused on the development of salt preferences.

Chapter 16 *Feeding Toddlers, Preschoolers, and School-Age Children*

- ▶ *New* CACFP guidelines for feeding preschool and school-age children aligned with the national standards.

- ▶ New information about dietary practices and their relationship to early hypertension, cardiovascular heart disease, and diabetes.
- ▶ Additional information on increasing children's acceptance of unfamiliar foods and media's influence on children's food preferences and eating habits.

Chapter 17 *Planning and Serving Nutritious and Economical Meals*

- ▶ New meal planning guidelines based on revised National School Lunch Program and CACFP requirements.
- ▶ New meal reimbursement rates.
- ▶ Updated references citing contemporary research.

Chapter 18 *Food Safety*

- ▶ New food safety concerns, research, and practices.
- ▶ New figures highlighting pesticide residues on fresh produce, common causes of food-borne illnesses, and foods commonly associated with food-borne illness.
- ▶ Updated information regarding national and international efforts to improve food supply safety, including commercial food production practices.
- ▶ New *Connecting to Everyday Practice* feature about backyard poultry and an increase in *Salmonella* infections.

Chapter 19 *Nutrition Education: Rationale, Concepts, and Lessons*

- ▶ New resources for teaching children about nutrition.
- ▶ Continued emphasis placed on family engagement and educating children about healthy eating and physical activity.
- ▶ Lesson plans that include updated children's book lists.
- ▶ New *Connecting to Everyday Practice* and *Case Study* features.

Pedagogy and Learning Aids

Each chapter includes additional pedagogical features based on sound educational principles that encourage active student-centered learning, mastery, and application. The features also reflect student differences in learning needs, abilities, and styles.

- ▶ **Bulleted lists** are used extensively throughout the book to present important information in a concise, easy-to-access format.
- ▶ **Multicultural color photographs** taken on location at centers and schools show children as they work and play in developmentally appropriate settings.
- ▶ **Full-color illustrations** and tables reinforce and expand on important chapter content.
- ▶ A bulleted **Summary** concludes each chapter and recaps the main points of discussion.
- ▶ **Terms to Know** are highlighted in color throughout the chapters. Each term is defined on the page where it initially appears and also in a comprehensive glossary located at the end of the book.
- ▶ **Chapter Review** offers thought-provoking questions to reinforce student learning and comprehension. Questions can also be used for group discussion.
- ▶ **Case Studies** present real-life situations that require students to analyze and apply basic theory to solving everyday problems.
- ▶ **Application Activities** provide in-class and field projects that encourage students to practice and reinforce what they have learned in each chapter.
- ▶ **Helpful Web Resources** take advantage of technology to extend student learning beyond the pages of this book and to access valuable resource materials.

Ancillaries for Students

MindTap™: The Personal Learning Experience

MindTap for Marotz, *Health, Safety, and Nutrition for the Young Child*, 10e represents a new approach to teaching and learning. A highly personalized, fully customizable learning platform with an integrated ePortfolio, MindTap helps students to elevate thinking by guiding them to:

- ▶ Know, remember, and understand concepts critical to becoming a great teacher;
- ▶ Apply concepts, create curriculum and tools, and demonstrate performance and competency in key areas in the course, including national and state education standards;
- ▶ Prepare artifacts for the portfolio and eventual state licensure, to launch a successful teaching career; and
- ▶ Develop the habits to become a reflective practitioner.

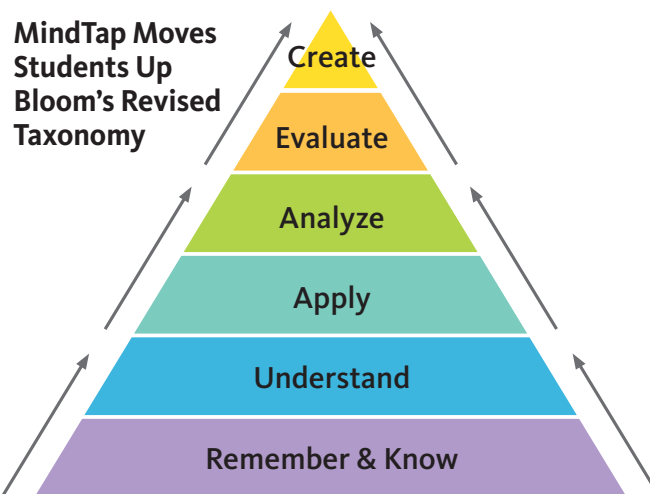
As students move through each chapter's Learning Path, they engage in a scaffolded learning experience, designed to move them up Bloom's Taxonomy, from lower- to higher-order thinking skills. The Learning Path enables preservice students to develop these skills and gain confidence by:

- ▶ Engaging them with chapter topics and activating their prior knowledge by watching and answering questions about authentic videos of teachers teaching and children learning in real classrooms;
- ▶ Checking their comprehension and understanding through Did You Get It? assessments, with varied question types that are autograded for instant feedback;
- ▶ Applying concepts through mini-case scenarios—students analyze typical teaching and learning situations, and then create a reasoned response to the issue(s) presented in the scenario; and
- ▶ Reflecting about and justifying the choices they made within the teaching scenario problem.

MindTap helps instructors facilitate better outcomes by evaluating how future teachers plan and teach lessons in ways that make content clear and help diverse students learn, assessing the effectiveness of their teaching practice, and adjusting teaching as needed. MindTap enables instructors to facilitate better outcomes by:

- ▶ Making grades visible in real time through the Student Progress App so students and instructors always have access to current standings in the class.
- ▶ Using the Outcome Library to embed national education standards and align them to student learning activities, and also allowing instructors to add their state's standards or any other desired outcome.
- ▶ Allowing instructors to generate reports on students' performance with the click of a mouse against any standards or outcomes that are in their MindTap course.
- ▶ Giving instructors the ability to assess students on state standards or other local outcomes by editing existing or creating their own MindTap activities, and then by aligning those activities to any state or other outcomes that the instructor has added to the MindTap Outcome Library.

MindTap for Marotz, *Health, Safety, and Nutrition for the Young Child*, 10e helps instructors easily set their course since it integrates into the existing Learning Management System and saves instructors time by allowing them to fully customize any aspect of the learning path. Instructors can change the order of the student learning activities, hide activities they don't want for the course, and—most importantly—create custom assessments and add any standards, outcomes, or content they do want (e.g., YouTube videos, Google docs). Learn more at www.cengage.com/mindtap.



Anderson, L. W., & Krathwohl, D. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.

Ancillaries for Instructors

Instructor's Manual

An online Instructor's Manual accompanies this book. It contains information to assist the instructor in course design, including sample syllabi, discussion questions, teaching and learning activities, field experiences, learning objectives, and additional online resources.

Online Test Bank

Extensive multiple choice, true/false, short answer, completion, and essay questions accompany each chapter and provide instructors with varied strategies for assessing student learning.

Online PowerPoint Slides

These vibrant PowerPoint lecture slides for each chapter assist with your lectures by providing concept coverage using images, figures, and tables directly from the textbook!

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- ▶ Author, edit, and manage test bank content from multiple Cengage Learning solutions.
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Lynn R. Marotz received a Ph.D. from the University of Kansas, an M.Ed. from the University of Illinois, and a B.S. in Nursing from the University of Wisconsin. She served as the health and safety coordinator and associate director of the Edna A. Hill Child Development Center (University of Kansas) for 35 years. She has worked closely with students in the Early Childhood teacher education program and taught undergraduate and graduate courses in the Department of Applied Behavioral Science, including issues in parenting, health/safety/nutrition for the young child, administration, and foundations of early childhood education. She provides frequent inservice training in first aid, children's safety, recognizing child abuse, childhood obesity, and identifying children's health problems for early childhood students and community educators.

Lynn has authored several invited chapters on children's health and development, nutrition, and environmental safety in national and international publications and law books. In addition, she is the co-author of *Developmental Profiles-Pre-Birth through Adolescence*, *Parenting Today's Children: A Developmental Perspective*, *Motivational Leadership*, and *By the Ages*. She has been interviewed for numerous articles about children's nutrition and well-being that have appeared in national trade magazines and has served as a consultant for children's museums and training film productions. Her research activities focus on childhood obesity and children's health, safety, and nutrition. She has presented extensively at international, national, and state conferences and held appointments on national, state, regional and local committees and initiatives that advocate on behalf of children and their families and early childhood teachers. However, it is her daily interactions with children and their families, students, teachers, colleagues, and her beloved family that bring true insight, meaning, and balance to the material in this book.



UNIT

1

Promoting Children's Health: Healthy Lifestyles and Health Concerns



- 1 Children's Well-Being: What It Is and How to Achieve It
- 2 Daily Health Observations
- 3 Assessing Children's Health
- 4 Caring for Children with Special Medical Conditions
- 5 The Infectious Process and Environmental Control
- 6 Childhood Illnesses: Identification and Management

chapter

1

Children's Well-Being: What It Is and How to Achieve It



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Standards Linked to Chapter Content

- ▶ #1 Promoting child development and learning
- ▶ #2 Building family and community relationships
- ▶ #4 Using developmentally effective approaches to connect with children and families
- ▶ #5 Using content knowledge to build a meaningful curriculum
- ▶ #6 Becoming a professional
- ▶ Field Experience

Learning Objectives

After studying this chapter, you should be able to:

- LO 1-1** Define the preventive health concept and describe several national programs that address children's health needs.
- LO 1-2** Explain how health, safety, and nutrition are interrelated and discuss factors that influence the quality of each.
- LO 1-3** Describe typical growth and developmental characteristics of infants, toddlers, preschool-age, and school-age children.
- LO 1-4** Discuss ways that teachers can be proactive in promoting children's wellness in the areas of injury prevention, oral health, physical activity, and mental health.

Our ideas about health, disease, and the health care system are undergoing significant change. Individuals are beginning to realize that they must assume a more proactive role in maintaining personal health and cannot continue to rely upon the medical profession to always make them well. In part, this change is fueled by escalating medical costs, a lack of health insurance, and disabling conditions for which there are no current cures. In addition, and perhaps even more significant, are research findings that demonstrate positive health outcomes when people adapt healthy lifestyle behaviors (Byrne et al., 2016; Fuemmeler et al., 2017).

1-1 The Preventive Health Concept

The concept of **preventive health** recognizes that individuals are able to reduce or eliminate many factors that threaten personal wellness (Figure 1-1). It implies that children and adults are able to make choices and engage in behaviors that improve the quality of life and lessen the risk of chronic disease. This includes practices such as establishing healthful dietary habits (eating more fruits, vegetables, whole grains, and low-fat dairy products), implementing safety behaviors (wearing seat belts, limiting sun exposure), engaging in daily physical activity, and seeking early treatment for occasional illness and injury.

preventive health – personal and social behaviors that promote and maintain well-being.

FIGURE 1-1 Examples of preventive health practices.

A preventive health approach involves a combination of personal practices and national initiatives.

On a personal scale:

- eating a diet low in animal fats and high in plant-based foods
- consuming a wide variety of fruits, vegetables, and grains
- engaging in aerobic and muscle-strengthening activities regularly
- practicing good oral hygiene
- using proper hand washing techniques
- avoiding substance abuse (e.g., alcohol, tobacco, drugs)
- keeping immunizations up-to-date

On a national scale:

- regulating vehicle emissions
- preventing chemical dumping
- establishing safety standards and inspecting food supplies
- measuring air pollution
- providing immunization programs
- fluoridating drinking water
- monitoring disease outbreaks

The early years are a critical time for children to establish preventive behaviors. Young children are typically more receptive to new ideas, curious, eager to learn, and have fewer unhealthy habits to overcome. Teachers, families, and health care providers can capitalize on these qualities and help children to develop practices that will foster a healthy, safe, and productive lifetime.

Although the preventive approach emphasizes an individual role in health promotion, it also implies a shared responsibility for addressing social and environmental issues that affect the quality of everyone's well-being, including:

- ▶ poverty and homelessness
- ▶ food insecurity
- ▶ inequitable access to medical and dental care
- ▶ adverse effects of media advertising
- ▶ substance abuse (e.g., alcohol, tobacco, drugs)
- ▶ food safety
- ▶ air and water pollution
- ▶ discrimination based on diversity
- ▶ violence and unsafe neighborhoods

In addition to helping children learn about these complex issues, adults must also demonstrate their commitment by supporting social actions, policies, and programs that contribute to healthier environments and lifestyles for society as a whole.

1-1a National Health Initiatives

The positive health outcomes that are achievable through preventive practices continue to attract increased public interest, especially with respect to young children. Poor standards of health, safety, and nutrition have long been known to interfere with children's ability to learn and to ultimately become healthy, productive adults. As a result, a number of large-scale programs have been established to address children's health needs and to improve their access to preventive services. Descriptions of several initiatives follow; information about federal nutrition programs for children is located in Appendix C.

Healthy People 2030 The nation's plan for improving the standard of health for its citizens is outlined in the *Healthy People 2030* initiative (HHS, 2018). It supports and strengthens the same underlying philosophy of health promotion and disease prevention presented in the original *Healthy People 2000 and 2020 documents*. The new plan challenges communities to increase public health awareness and improve accessibility to preventive health services by encouraging better collaboration and coordination among agencies. It urges individuals to assume a more active role in achieving personal wellness, especially with regard to the prevention of obesity, diabetes, mental health, and substance use. Many of the topics and behavioral indicators identified in the *Healthy People 2030* plan have direct application for schools and early childhood programs (Table 1–1). For example, teaching anger management skills, increasing outdoor play and physical activity in children's daily schedules, serving nutritious foods, providing more health and nutrition education, and creating safe learning environments are activities that reflect teachers' commitment to the *Healthy People 2030* ideals.

▼ Early childhood is a prime time for teaching preventive health practices.



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Children's Health Insurance Program The Children's Health Insurance Program (CHIP) provides low-cost health insurance to approximately 9 million children whose families earn too much to qualify for Medicaid but cannot afford private insurance coverage. The program is aimed at improving children's health and ability to learn through early identification and better access to preventive health care (Thompson, 2017). Services covered by the program include free or low-cost medical and dental care, immunizations, prescriptions, mental health treatment, and hospitalization.

CHIP is administered in each state through a combination of state and federal appropriations. Each state must submit a Child Health Plan describing how the program will be implemented, how eligibility will be determined, and how eligible children will be located. Congress recently passed a bill reauthorizing funding for the program through the fiscal year 2023 (Kaiser Family Foundation, 2018).

Healthy Child Care America The primary objective of the Healthy Child Care America (HCCA) initiative is to foster high-quality improvements in out-of-home early childhood programs. HCCA, supported by the U.S. Department of Health and Human Services, the Child Care Bureau, and the Maternal and Child Health Bureau, was established in 1995 to coordinate the mutual interests of health professions, early education professionals, and families in

TABLE 1–1 Healthy People 2030 Leading Health Indicators

Areas targeted for improving individual's health and well-being include the following:

- access to health services
- clinical preventive services
- environmental quality
- injury and violence
- maternal, infant, and child health
- mental health
- nutrition, physical activity, and obesity
- oral health
- reproductive and sexual health
- social determinants
- substance abuse
- tobacco

Source: *Healthy People 2030 Leading health indicators*. (2018). U.S. Department of Health & Human Services.

addressing children's health and safety. The program is administered by the American Academy of Pediatrics (AAP) and has been instrumental in launching several large-scale educational campaigns, including Moving Kids Safely in Child Care, Tummy Time, Back to Sleep (for parents), Back to Sleep in Child Care Settings, and the Health Futures curriculum. Grant-supported offices, located in every state, have been established to evaluate and strengthen existing community infrastructure and to assist with new initiatives for improving children's health and safety in early childhood programs and access to preventive health care. Extensive resource information is available on their website (<http://www.healthychildcare.org>).

National Health and Safety Performance Standards for Child Care National concern for children's welfare led to a collaborative project among the American Academy of Pediatrics (AAP), the American Public Health Association (APHA), and the National Resource Center for Health and Safety in Child Care and Early Education (NRC) to develop health, safety, and nutrition guidelines for out-of-home child care settings. The resulting document, *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care* (3rd ed.), continues to identify quality standards and procedures for ensuring children's health and safety while they attend organized out-of-home care (Table 1–2) (AAP, APHA, & NRC, 2011). The complete document can be accessed at www.nrckids.org.

The current oversight system allows individual states to establish their own child care licensing standards which has resulted in significant differences in program quality. The National Health and Safety Performance Standards attempt to address regulatory inconsistencies by proposing a uniform set of standards based on what researchers have identified as best practices. The National Association for the Education of Young Children (NAEYC) has endorsed and aligned their accreditation criteria with the National Health and Safety Performance Standards (NAEYC, 2012).

Every Student Succeeds Act (ESSA) The Every Student Succeeds Act (ESSA) (2015) amends the Elementary and Secondary Education Act (ESEA) of 1965 and replaces the former No Child Left Behind (NCLB) Act of 2001. The revised law's intention is to assure American children a high-quality education that will prepare them to succeed in college and careers (U.S. Department of Education, 2015). It continues to support improved educational outcomes for all children, especially those who are economically disadvantaged and/or high-need (e.g., migratory, homeless, neglected, delinquent), and shifts authority for compliance in achieving these objectives from the federal government to individual states. The law also addresses schools' role in meeting children's health needs (e.g., drug and violence prevention, mental

TABLE 1–2 National Health and Safety Performance Standards

Comprehensive guidelines address the following areas of child care:

- staffing – child staff ratios, credentials, and training
- activities for healthy development – supervision, behavior management, partnerships with families, health education
- health promotion and protection – sanitation and hygiene practices, safe sleep, illness and medication management
- nutrition and food services – nutritional requirements, food safety, nutrition education
- facilities, supplies, equipment, and environmental health – space and equipment requirements, indoor/outdoor settings, maintenance
- playgrounds and transportation – space, water areas, toys, transportation safety
- infectious diseases – respiratory, blood-borne and skin conditions, immunizations
- children with special health care and disability needs – inclusion, eligibility for special services, facility modifications, assessment, service plans
- policies – health/safety, emergency plans, personnel, child records
- licensing and community action – regulatory agencies, teacher/caregiver support

Source: Adapted from AAP, APHA, & NRC. (2011). *Caring for our children: National health and safety performance standards* (3rd ed.). Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association. The complete document is available at <http://nrckids.org>.

health services, bullying and harassment, healthy lifestyle skills education, positive behavior support, teachers' sexual abuse awareness) and creating safe school conditions. It continues to acknowledge families as children's first and most important teachers, the educational contributions of early childhood programs, and the importance of fostering early literacy skills to ensure children's readiness for, and success in, school. In addition, the law included a \$250 million federal grant program to help states establish early childhood programs, improve early childhood literacy initiatives, and coordinate educational efforts with Head Start and early childhood programs.

Whole School, Whole Community, Whole Child (WSCC) The Whole School, Whole Community, Whole Child model replaces and expands upon the previous Coordinated School Health Program (CSHP) (Figure 1–2). The redesign acknowledges the significant effect that health has on children's development and learning ability. It assumes an **ecological**, preventive, and comprehensive approach, and aims to address children's health, safety, and academic needs in community school settings (CDC, 2016). The new WSCC model identifies 10 program components and places a strong emphasis on cooperation and collaboration among schools, families,

FIGURE 1–2 Whole school, whole community, whole child model.



Figure available at <https://www.cdc.gov/healthyyouth/wsc/>

ecological – a systems approach that acknowledges the ways in which people and their environment relate to, interact with, and influence, one another.

Did You Get It?

The Children's Health Insurance Program provides low-cost health insurance coverage, and the Healthy Child Care America initiative focuses on the _____ of child care programs.

- a. regulation
- b. improvement
- c. licensing
- d. coordination

government agencies, and community partners in achieving these objectives. The ultimate goal is to support children in attaining personal, academic, and lifetime success.

Let's Move! The *Let's Move!* initiative was established in 2010 by then First Lady Michelle Obama to address the problem of childhood obesity in the United States. The program encourages children and their families to achieve a healthier lifestyle by improving eating habits and increasing physical activity. Schools are challenged to provide healthier meals for children, provide more opportunities for physical activity, and incorporate more health and nutrition education into their curriculum.

A companion initiative, *Let's Move! Child Care*, was launched the following year and continues to challenge child care providers to adapt similar improvement measures, including reducing screen time, increasing children's engagement in physical activity, encouraging healthier food choices and beverage options, and supporting breast feeding. Additional information, children's activities, and extensive classroom resources can be accessed on their website (<https://healthykidshealthyfuture.org/5-healthy-goals>).

▼ Active play is essential for children's health and development.



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1-2 Health, Safety, and Nutrition: An Interdependent Relationship

Health, safety, and nutrition are closely intertwined and dependent upon one another. The status of each has a direct effect on the quality of the others. For example, children who receive all essential nutrients from a healthful diet are more likely to reach their growth potential, benefit from learning opportunities, experience fewer illnesses, and have ample energy for play. In contrast,

children whose diet lacks critical nutrients such as protein and iron may develop anemia, which can lead to fatigue, diminished alertness, growth and academic failure, and loss of appetite. When children lack interest in eating, their iron intake is further compromised. In other words, nutritional status has a direct effect on children's health and safety, and, in turn, influences the dietary requirements needed to restore and maintain well-being.

A nutritious diet also plays an important role in injury prevention. The child or adult who arrives at school having eaten little or no breakfast may experience low blood sugar, which can cause fatigue, decreased alertness, and slowed reaction times and, thus, increase an individual's risk of accidental injury. Similarly, overweight children and adults are more likely to sustain injuries due to excess weight, which may restrict physical activity, slow reaction times, and increase fatigue with exertion.

1-2a What Is Health?

Definitions of **health** are as numerous as the factors that affect it. In years past, the term referred strictly to an individual's physical well-being and the absence of illness. Contemporary

health – a state of wellness. Complete physical, mental, social, and emotional well-being; the quality of one health element affects the state of the others.

definitions view health from a broader perspective and recognize it as a state of physical, emotional, social, economic, cultural, and spiritual well-being. Each interactive component is assumed to make an equally important contribution to health and to affect the functional activity of the others. For example, a stressful home environment may be contributing to a child's asthma attacks, stomachaches, or headaches. In turn, a child's repeated illnesses or chronic disability can profoundly affect the family's emotional, financial, social, and physical stability and well-being.

The current health concept also recognizes that children and adults do not live in isolation, but are active participants in multiple groups, including family, peer, neighborhood, ethnic, cultural, recreational, religious, and community. Children's health, development, and opportunities for learning are directly influenced by the positive and negative experiences that occur in each setting. For example, children growing up in a poor, urban neighborhood may be at greater risk for becoming obese because they have fewer safe places for outdoor play and limited access to fresh fruits and vegetables. In other words, children's health and development must be considered in the context of their social and environmental conditions.

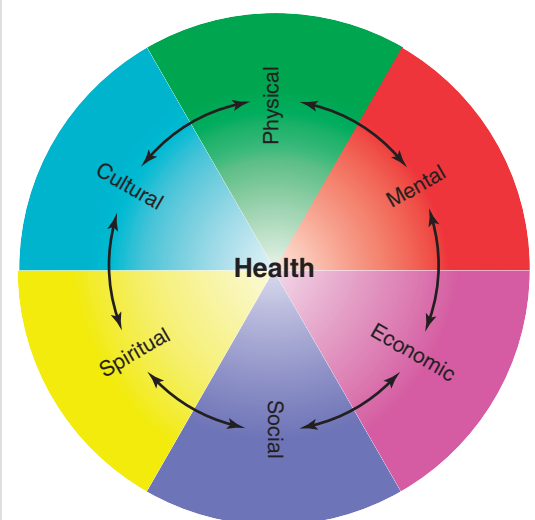
1-2b What Factors Influence Children's Health?

Health is a dynamic and complex state. It is a product of continuous interactions between an individual's genetic makeup, environmental conditions, and personal experiences (Figure 1-3). For example, an infant's immediate and long-term health and cognitive development are influenced by his or her mother's personal lifestyle practices during pregnancy: her diet; use or avoidance of alcohol, tobacco, and certain medications; routine prenatal care; and exposure to communicable illnesses or toxic stress. Mothers who fail to maintain a healthy lifestyle during pregnancy are more likely to give birth to infants who are born prematurely, have low birth weight, or experience a range of special challenges (Bird et al., 2017; Mas et al., 2017). These children also face a significantly greater risk of developing chronic health problems and early death. In contrast, a child who is born healthy, raised in a nurturing family, consumes a nutritious diet, lives in a safe environment, and has numerous opportunities for learning and recreation is more likely to enjoy a healthy life.

Heredity Characteristics transmitted from biological parents to their children at the time of conception determine all of the genetic traits of a new, unique individual. **Heredity** sets the limits for growth, development, and health potential. It explains, in part, why children in one family are short while those from another family are tall or why some individuals have allergies or require glasses while others do not.

Understanding how heredity influences health can also be useful for assessing an inherited tendency, or **predisposition**, to certain health problems, such as heart disease, deafness, cancer, diabetes, lactose intolerance, or mental health disorders. Although a family history of heart disease or diabetes may increase one's risk, it does not imply that an individual will necessarily develop the condition. Many lifestyle factors, including physical activity, diet, sleep, and stress levels, interact with genetic material (genes) and may alter the child's chances of developing or not developing heart disease or any number of other chronic health disorders.

FIGURE 1-3 Health is an interactive and continuously changing state.



heredity – the transmission of certain genetic material and characteristics from biological parents to a child at the time of conception.

predisposition – having an increased chance or susceptibility.

▼ Heredity sets the limits for a child's growth, development, and health potentials.



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Environment Although heredity provides the basic building materials that predetermine the limits of one's health, environment plays an equally important role. Environment encompasses a combination of physical, psychological, social, economic, and cultural factors that collectively influence the way individuals perceive and respond to their surroundings. In turn, these experiences shape an individual's behavior and potential health outcomes.

Examples of several environmental factors that support and promote healthy outcomes include:

- ▶ making nutritious food choices
- ▶ participating in daily physical and recreational activities
- ▶ getting 8 to 9 hours of uninterrupted nighttime sleep
- ▶ having access to quality medical and dental care
- ▶ reducing stress levels
- ▶ residing in homes, child care facilities, schools, and workplaces that are clean and safe
- ▶ forming stable and meaningful relationships

There are also many environmental factors that have a negative effect on health. For example, exposure to chemicals and pollution, abuse, illness, obesity, prenatal alcohol exposure, **sedentary** lifestyles, poverty, acute and chronic stress, **food insecurity**, violence, or unhealthy dietary choices can interfere with children's optimal growth and development.

1-2c Safety

The term safety refers to behaviors and measures that are taken to protect an individual(s) from unnecessary harm. It is especially important that adults who work with young children view this responsibility seriously. Unintentional injuries are the leading cause of death among children from birth to 14 years in the United States and Canada and, sadly, many of these instances are avoidable (CDC, 2015b). Young children are especially vulnerable to unexpected and serious injury because their developmental skills seldom match their level of enthusiasm and curiosity. Every adult who works with, or cares for, young children has a significant responsibility to maintain the highest standards of supervision and environmental safety.

Factors Affecting Children's Safety Protecting children's safety requires a keen awareness of their skills and abilities at each developmental stage (Marotz & Allen, 2016). For example, knowing that toddlers enjoy hand-to-mouth activities should alert teachers to continuously monitor the environment for small objects or poisonous substances that could be ingested. Understanding that preschoolers are spontaneous and exceedingly curious should cause adults to take extra precautions to prevent children from wandering away or straying into unsupervised water sources. Children who have developmental disabilities or sensory disorders are at increased risk of sustaining unintentional injury and must be monitored continuously (Ehrhardt et al., 2017; Humphreys, Tottenham, & Lee, 2018). In-depth discussions of environmental safety and safety management are presented in Chapters 7 and 8.

sedentary – unusually slow or sluggish; a lifestyle that implies inactivity.

food insecurity – uncertain or limited access to a reliable source of food.

1-2d Nutrition

The term *nutrition* refers to the science of food, its chemical components **nutrients**, and their relationship to health and disease. It includes all processes involved in obtaining nutrients from foods—from the ingestion, digestion, absorption, transportation, and utilization of nutrients to excretion of unused by-products. Nutrients are essential for life and have a direct effect on a child's nutritional status, behavior, health, and development.

Nutrients play critical roles in a variety of vital body functions, including:

- ▶ supplying energy
- ▶ promoting growth and development
- ▶ improving resistance to illness and infection
- ▶ building and repairing body tissue

A wide variety of foods must be consumed in the recommended amounts to meet the body's needs for essential nutrients. However, many family and environmental conditions, including financial resources, transportation, geographical location, cultural and religious preferences, convenience, and nutrition knowledge, can affect the quality of a child's diet. Most children in the United States live in a time and place where food is reasonably abundant. Yet, there is increasing concern about the number of children who may not be getting enough to eat or whose diets do not include nutritious foods (Eicher-Miller & Zhao, 2018). Also, because many young children spend the majority of their waking hours in out-of-home child care programs or school classrooms, care must be taken to ensure that their nutrient needs are being met in these settings.

Nutrition's Effect on Children's Behavior, Learning, and Well-being Children's nutritional status has a significant effect on their behavior and cognitive development. Well-nourished children are typically more alert, attentive, physically active, and better able to benefit from learning experiences. Poorly nourished children may appear quiet and withdrawn, or exhibit hyperactive and disruptive behaviors in the classroom (Liu & Raine, 2017). They are also more prone to injury because of decreased alertness and slower reaction times (Witt et al., 2017). Children who are overweight also face a range of social, emotional, and physical challenges, including difficulty participating in physical activities, ridicule, emotional stress, and peer exclusion. Additional information about children's specific nutrient needs and challenges associated with over- and under-consumption of foods is presented in Chapters 12 through 19.

Children's **resistance** to infection and illness is also directly influenced by their nutritional status (Ibrahim et al., 2017). Well-nourished children experience fewer illnesses and recover more quickly when they are sick. Children who consume an unhealthy diet are more susceptible to infections and illness and often require longer time to recuperate. Frequent illness can interfere with a child's appetite, which may limit his or her intake of nutrients that are important for the recovery process. Thus, poor nutrition can create a cycle of increased susceptibility to illness and infection, nutritional deficiency, and prolonged recovery.

Teachers have an exceptional opportunity to protect and promote children's well-being. Their knowledge of children's development and health, safety, and nutritional needs can be applied when planning learning activities, classroom environments, meals and snacks, and supervision. In addition, teachers can implement sanitation and early identification practices to reduce children's unnecessary exposure to illness and infection. Furthermore, they can support the concept of preventive health by serving as positive role models and providing children with learning experiences that encourage a healthy lifestyle.

Did You Know...

that children who eat breakfast have better problem-solving skills, more energy, lower obesity rates, and feel more cheerful?

nutrients – the chemical substances in food.

resistance – the ability to avoid infection or illness.

▼ Nutritional status also affects children's behavior.



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Did You Get It?

What is the relationship between the roles of heredity and environment in determining an individual's health and well-being?

- a. They play equal, interrelated roles.
- b. They play unrelated roles.
- c. Heredity plays a greater role than environment.
- d. Environment plays a greater role than heredity.

1-3 Children's Growth and Development

When teachers understand typical growth and developmental patterns, they are better able to identify and address children's diverse needs and to help children master critical skills. They can create learning experiences and set developmentally appropriate goals for children that foster positive self-esteem. They are able to design high-quality environments that are safe and encourage children's mastery of new skills. In addition, they are able to use this knowledge to promote children's well-being by identifying health problems and abnormal behaviors and teaching healthy practices.

The terms "average" or "normal" are often used to describe children's growth and development. However, such a child probably does not exist. Every child is a unique individual—a product of diverse experiences, environments, interactions, and heredity. Collectively, these factors can lead to significant differences in the rate at which children grow and acquire various skills and behaviors (Marotz & Allen, 2016).

Norms provide a useful reference for understanding, monitoring, and promoting children's growth and development. They represent the average or approximate age when the majority of children demonstrate a given skill or behavior. Thus, the term **normal** implies that although

norms – an expression (e.g., weeks, months, years) of when a child is likely to demonstrate certain developmental skills.

normal – average; a characteristic or quality that is common to most individuals in a defined group.

many children are able to perform a given skill by a specific age, some will be more advanced whereas others may take somewhat longer, yet they are still considered to be within the normal range.

1-3a Growth

The term **growth** refers to the many physical changes that occur as a child matures. Although the growth process takes place without much conscious control, there are many factors that affect its quality and rate:

- genetic potential
- emotional stimulation and attachment
- cultural influences
- socioeconomic factors
- adequate nutrition
- parent responsiveness
- health status (i.e., illness)

Infants (0–12 months) The average newborn weighs approximately 7 to 8 pounds (3.2–3.6 kg) at birth and is approximately 20 inches (50.8 cm) in length. Growth is rapid during the first year; an infant's birth weight nearly doubles by the fifth month and triples by the end of the first year. For example, an infant who weighs 8 pounds (3.6 kg) at birth will weigh approximately 16 pounds (7.3 kg) at 5 months and 24 pounds (10.9 kg) at 12 months.

An infant's length increases by approximately 50 percent during the first year. Thus, an infant measuring 21 inches (53.3 cm) at birth should reach an approximate length of 31.5 inches (80 cm) by 12 months of age. A majority of this gain occurs during the first 6 months when an infant may grow as much as 1 inch (2.54 cm) per month.

An infant's head appears large in proportion to the rest of the body due to rapid brain growth. **Head circumference** is measured at regular intervals to ensure that brain growth is proceeding at a rate that is neither too fast nor too slow. Measurements should reflect a gradual increase in size so that by age 1, the head and chest circumferences are nearly equal.

Additional changes that occur during the first year include the growth of hair and eruption of teeth (four upper and four lower). The infant's eyes begin to focus and move together as a unit by the third month, and vision becomes more acute. Special health concerns for infants include the following:

- nutritional requirements
- adequate provisions for sleep
- **attachment**
- early brain development
- safety and injury prevention
- identification of birth defects and health impairments

At no other time in children's lives will they grow as much or as quickly as they do during the first year. A nutritious diet, adequate sleep, a nurturing environment, and responsive caregiving are especially important to foster growth during this critical period. (See Chapter 15.)

Toddlers (12–30 months) Toddlers continue to make steady gains in height and weight, but at a much slower rate than during infancy. Their weight increases an average of 6 to 7 pounds (2.7–3.2 kg) per year; by 2 years, toddlers have nearly quadrupled their birth weight. They also

growth – increase in size of any body part or of the entire body.

head circumference – distance around the largest part of the head; used to monitor brain growth and development.

attachment – an emotional connection established between infants and their parents and/or primary caregivers.

▼ **Toddlers need plenty of sleep to meet their high energy demands.**



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grow approximately 3 to 5 inches (7.6–12.7 cm) in height per year. Their body proportions begin to change and contribute to a more erect appearance.

Eruption of “baby teeth,” or **deciduous teeth**, is complete by the end of the toddler period. (Deciduous teeth consist of a set of twenty temporary teeth.) Toddlers can begin learning how to brush their new teeth with close adult supervision. Special attention should also be paid to additional preventive measures such as providing foods that promote dental health; are colorful, appealing, and easily chewed; and, include all of the essential nutrients. Foods from all food groups—fruits, vegetables, dairy, protein, whole-grains—should always be part of the toddler’s daily meal pattern.

High activity levels make it essential for toddlers to get at least 10 to 12 hours of uninterrupted nighttime sleep and 1 to 2 hour-long naps each day. Insufficient sleep has been linked to an increase in learning and behavior problems, risk of injury, and a variety of health

problems including obesity (Cho et al., 2017). Safety awareness and injury prevention continue to be major concerns that demand close adult supervision.

Preschoolers/Early School-age (2 1/2–8 years) During the preschool and early school-age years, a child’s appearance becomes more streamlined and adult-like in form. Head size remains relatively constant, while the child’s trunk (body) and extremities (arms and legs) continue to grow. The head gradually appears to separate from the trunk as the neck lengthens. Legs grow longer and at a faster rate than the arms, adding extra inches to the child’s height. The toddler’s characteristic chubby body shape becomes more defined as muscle tone and strength increase, giving the preschooler a flatter abdomen and straighter posture.

Gains in weight and height are relatively slow but steady throughout this period. By 3 years of age, children weigh approximately five times their birth weight. Ideally, preschoolers should gain no more than 4 to 5 pounds (1.8–2.3 kg) per year. They begin to grow taller during this period and gain an average of 2 to 2.5 inches (5.1–6.4 cm) in height per year. By 6 years, children have nearly doubled their original birth length (from approximately 20 inches to 40 inches [50.8–101.6 cm]). By age 7, girls are approximately 42 to 46 inches (106.7–116.8 cm) tall and weigh 38 to 47 pounds (17.2–21.3 kg); boys are 44 to 47 inches (111.8–119.4 cm) tall and weigh 42 to 49 pounds (19.1–22.2 kg). This combination of rapid growth and muscle development causes children to appear longer, thinner, and more adult-like.

It is important that preschool-age children continue to consume a nutritious diet. High activity levels replace the rapid growth of earlier years as the primary demand for calories. A general rule for estimating a child’s daily caloric needs is to begin with a base of 1,000 calories and add an additional 100 calories per birthday. (For example, a 7-year-old would need approximately 1,700 calories). Adults should carefully monitor children’s food intake and encourage healthy eating habits because decreased appetite, inconsistent eating habits, and considerable media influence are often evident during the preschool years.

Adequate sleep continues to be essential for children’s optimal growth and development. When days are long and tiring or unusually stressful, children’s need for sleep may be even greater. Most preschool and school-aged children require 8 to 12 hours of uninterrupted nighttime sleep in addition to daytime rest periods, although bedtime and afternoon naps often become a source of adult-child conflict. Preschool children may become so involved in play

deciduous teeth – a child’s initial set of teeth; these teeth are temporary and gradually begin to fall out at around 5 years of age.

activities that they are reluctant to stop for sleep. Nevertheless, young children benefit from brief rest breaks during their normal daytime routine. Planned quiet times, with books, puzzles, quiet music, or a small toy, may be an adequate substitute for older children.

By the time children reach school-age, they begin to enjoy one of the healthiest periods of their lives. They generally experience fewer colds and upper respiratory infections. Children's visual acuity continues to improve, they grow taller at a fairly rapid rate, their muscle mass increases, hair becomes darker, and permanent teeth begin to erupt.

▼ Preschoolers' fine motor skills are improving in control, accuracy, and speed.



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1-3b Development

In the span of 1 year, remarkable changes take place in the infant's **development**. The child progresses from a stage of complete dependency on adults to one marked by the acquisition of language and the formation of rather complex thought patterns. Infants also become more social and outgoing near the end of the first year, and seemingly enjoy and imitate the adults around them.

The toddler and preschool periods reflect a continued refinement of language, perceptual, motor, cognitive, and social achievements. Improved motor and verbal skills enable the toddler to explore, test, and interact with the environment for the purpose of determining personal identity, or autonomy.

Preschool-age children are becoming more self-sufficient and able to perform self-care and fine motor tasks with improved strength, speed, accuracy, control, and ease. Friends and friendships are increasingly important as preschool children expand their sphere of acquaintances beyond family members. Children are now able to participate in the socialization process as they begin to develop a conscience and learn emotional control.

A strong desire to achieve motivates 6-, 7-, and 8-year-olds. Participation in sports and other vigorous activities provides opportunities for children to practice and improve their motor skills. Adult approval and rewards continue to serve an important role in helping children build self-confidence and self-esteem. During this stage, children also begin to establish gender identity through meaningful social interactions.

A summary of major developmental achievements is presented in Table 1–3. It should be remembered that such a list represents accomplishments that a majority of children can perform at a given age. It should also be noted that not every child achieves all of these tasks. Many factors, including nutritional adequacy, opportunities for learning, access to appropriate medical and dental care, a nurturing environment, cultural expectations, and family support, exert a strong influence on the nature and rate of children's skill acquisition.

Early Brain Development An infant's brain begins to form during the earliest weeks of a pregnancy. Its genetic composition is affected by various maternal practices (e.g., diet, sleep, prenatal care, physical activity, weight gain, smoking, alcohol or drug use, stress, mental health) prior to and during this period (Glynn et al., 2018; Kwiatkowski et al., 2018). At birth, an infant's brain weighs approximately 25 percent of what their adult brain will eventually weigh and contains

development – commonly refers to the process of intellectual growth and change.

TABLE 1-3 Major Developmental Achievements

Age	Achievements
2 months	<ul style="list-style-type: none"> • lifts head up when placed on stomach • follows moving person or object with eyes • imitates or responds to smiling person with occasional smiles • turns toward source of sound • begins to make simple sounds and noises • grasps objects with entire hand; not strong enough to hold on • enjoys being held and cuddled
4 months	<ul style="list-style-type: none"> • has good control of head • reaches for and grasps objects with both hands • laughs out loud; vocalizes with coos and giggles • waves arms about • holds head erect when supported in a sitting position • rolls over from side to back to stomach • recognizes familiar objects (e.g., bottle, toy)
6 months	<ul style="list-style-type: none"> • grasps objects with entire hand; transfers objects from one hand to the other and from hand to mouth • sits alone with minimal support • reaches for, grasps, and holds objects (e.g., rattles, bottle) in a deliberate manner • plays games and imitates (e.g., peek-a-boo) • shows signs of teeth beginning to erupt • prefers primary caregiver to strangers • babbles using different sounds • raises up and supports weight of upper body on arms
9 months	<ul style="list-style-type: none"> • sits alone; able to maintain balance while changing positions; picks up objects (e.g., bits of cracker, peas) with pincer grasp (first finger and thumb) • begins to crawl • attempts to say words such as "mama" and "dada" • hesitates when unfamiliar persons approach • explores new objects by chewing or placing them in mouth
12 months	<ul style="list-style-type: none"> • pulls up to a standing position • may "walk" by holding on to objects • stacks several objects one on top of the other • responds to simple commands and own name • babbles using jargon in sentence-like form • uses hands, eyes, and mouth to investigate new objects • can hold own eating utensils (e.g., cup, spoon)
18 months	<ul style="list-style-type: none"> • crawls up and down the stairs one at a time • walks unassisted; has difficulty avoiding obstacles in pathway • is less fearful of strangers • enjoys being read to; likes toys for pushing and pulling • has a vocabulary consisting of approximately 5–50 words, can name familiar objects • helps feed self; manages spoon and cup
2 years	<ul style="list-style-type: none"> • runs, walks with ease; can kick and throw a ball; jumps in place • speaks in two- to three-word sentences (e.g., "dada", "bye-bye"); asks simple questions; knows about 200 words • displays parallel play • achieves daytime toilet training • voices displeasure
3 years	<ul style="list-style-type: none"> • climbs stairs by using alternating feet • hops and balances on one foot • feeds self • helps dress and undress self; washes own hands and brushes teeth with help • is usually toilet trained • asks and answers questions; is quite curious • enjoys drawing, cutting with scissors, painting, clay, and make-believe

TABLE 1-3 Major Developmental Achievements (*continued*)

Age	Achievements
4 years	<ul style="list-style-type: none"> • throws and bounces a ball • states name; recognizes self in pictures • dresses and undresses self; helps with bathing; manages own tooth brushing • enjoys creative activities: paints, draws with detail, models with clay, builds imaginative structures with blocks • rides a tricycle with confidence, turns corners, maintains balance • climbs, runs, and hops with skill and vigor • enjoys friendships and playing with small groups of children • enjoys and seeks adult approval • understands simple concepts (e.g., shortest, longest, same)
5 years	<ul style="list-style-type: none"> • expresses ideas and questions clearly and with fluency • has vocabulary consisting of approximately 2,500–3,000 words • substitutes verbal for physical expressions of displeasure • dresses without supervision • seeks reassurance and recognition for achievements • engages in active and energetic play, especially outdoors • throws and catches a ball with relative accuracy • cuts with scissors along a straight line; draws in detail
6 years	<ul style="list-style-type: none"> • plays with enthusiasm and vigor • develops increasing interest in books and reading • displays greater independence from adults; makes fewer requests for help • forms close friendships with several peers • exhibits improved motor skills; can jump rope, hop and skip, ride a bicycle • enjoys conversation • sorts simple objects by color and shape
7 and 8 years	<ul style="list-style-type: none"> • enjoys friends; seeks their approval • shows increased curiosity and interest in exploration • develops greater clarity of gender identity • is motivated by a sense of achievement • begins to reveal a moral consciousness
9–12 years	<ul style="list-style-type: none"> • uses logic to reason and problem-solve • energetic; enjoys team activities, as well as individual projects • likes school and academic challenge, especially math • learns social customs and moral values • is able to think in abstract terms • enjoys eating any time of the day

Adapted from Marotz, L., & Allen, K. E. (2016). *Developmental profiles: Pre-birth through adolescence* (8th ed.). Boston, MA: Wadsworth Cengage Learning.

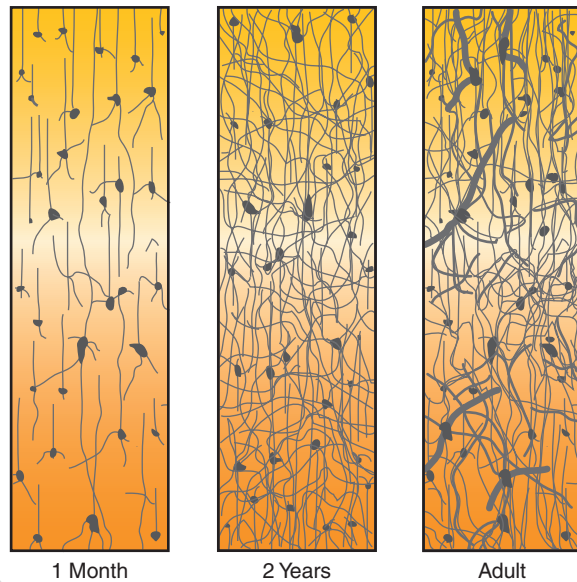
more than 100 billion brain cells or **neurons**. At this point, the brain is relatively unorganized and dysfunctional because few meaningful pathways have been established. This explains why young infants are not able to walk, talk, or care for themselves. Complex electrical connections begin to form between neurons in response to positive and negative experiences. Each time the same experience is repeated, the neural pathway becomes stronger (Figure 1-4). Connections and pathways that are seldom used undergo a process called pruning and gradually fade away. This process of adding and deleting neural connections reaches peak activity between the ages of 3 and 16 years and transforms the brain's architecture from an otherwise disorganized system into one capable of profound thought, emotions, movement, and learning.

The majority of brain development occurs during the first 2 to 5 years of a child's life, when the brain's **plasticity** makes it more receptive to shaping and change. Note how quickly young children learn to speak another language and how adults often struggle to do the same, and you

neurons – specialized cells that transmit electrical impulses or signals.

plasticity – the brain's ability to organize and reorganize neural pathways.

FIGURE 1-4 Everyday experiences cause new neural connections to be formed and strengthened.



will understand how this concept works. Researchers have also identified what they believe to be sensitive periods, or “windows of opportunity,” during which neural connections in certain regions of the brain are thought to form more readily than they will later on. For example, vision and hearing connections peak between 2 and 4 months, whereas those governing emotional regulation begin to form months later. Sensory and learning pathways established during these sensitive periods are critical to the normal development of more advanced skills (Ismail, Fatemi, & Johnson, 2017). For example, the visual system must be fully developed and functional before children are able to read or to play softball. An infant raised in a darkened room with few visual opportunities (e.g., mobiles, pictures, toys) will not form the network connections in the brain’s sensory region that are conducive to the same quality of learning.

Neuroscientists have contributed significantly to our understanding of brain development and the practices that optimize its performance. Nutrition, especially during a mother’s pregnancy and the first two years of a child’s life, is of critical importance. Healthy brain and central nervous

system development require specific proteins, minerals, and fats supplied in breast milk and formula (Bernard et al., 2017). Malnutrition that occurs during infancy and toddlerhood can cause an irreversible decrease in brain cell production (and intelligence) and interfere with normal nervous system development. Poor nutrition affects brain function, behavior, and learning and can increase children’s vulnerability to conditions such as lead poisoning (Kordas et al., 2018).

Although the brain’s genetic foundation is in place at birth, it is the ongoing experiences in a child’s environment that shape and determine how well the brain will ultimately perform. Safe, responsive caregiving enables infants to form strong attachments and neural connections that are important for learning and emotional regulation. Children’s environments and the quality of available learning opportunities also exert a direct influence on brain development. When children are surrounded with language, encouraged to explore and be creative, presented with varied and enriching play experiences, and reinforced for their efforts, they are building strong neural pathways that are linked directly to cognitive development, self-esteem, and school success.

Did You Get It?

The fact that most brain development occurs between ages 2 and 5 is quite apparent when you observe the contrast between a young child and an adult attempting to master which task?

- a. mathematics
- b. inference and reasoning
- c. learning a foreign language
- d. reading skills

1-4 Promoting a Healthy Lifestyle

Today, concern for children’s health and welfare is a shared vision. Changes in current lifestyles, family structures, cultural diversity, philosophies, and expectations have necessitated the collaborative efforts of families, teachers, and service providers to address children’s well-being. Communities are also valued members of this partnership and must assume a proactive role in creating environments that are safe, enriching, and healthy places for children to live.

How can families and teachers determine whether or not children are healthy? What qualities or indicators are commonly associated with being a healthy or a **well child**? Growth and developmental norms always serve as a starting point. Again, it must be remembered that norms simply represent an average, not exact, age when most children are likely to achieve a given skill.

well child – a child who enjoys a positive state of physical, mental, social, and emotional health.

Healthy children are more likely to exhibit characteristic behaviors and developmental skills appropriate for their age. They tend to be well-nourished, have energy to play, experience continued growth, and have fewer illnesses. Developmental norms are also useful for anticipating and addressing children's special health needs, including injury prevention, body mechanics and physical activity, oral health, and mental well-being.

1-4a Injury Prevention

Unintentional injuries, especially those involving motor vehicles, pose the greatest threat to the lives of young children (Thakrar et al., 2018). They are responsible for more than one-half of all deaths among children under 14 years of age in the United States. Each year an additional 1 million children sustain injuries that require medical attention, and many are left with permanent disabilities (CDC, 2017b).

An understanding of normal growth and development is essential when planning for children's safety. Many characteristics that make children delightful to work with are the same qualities that make them prone to injury. Children's skills are seldom as well developed as their determination, and in their zealous approach to life, they often fail to recognize inherent dangers (Almeida et al., 2017). Their inability to judge time, distance, and speed accurately contributes to many injuries, especially those resulting from falls, as a pedestrian, or while riding a bike. Limited problem-solving abilities make it difficult for children to anticipate the consequences of their actions. This becomes an even greater challenge when infants or children with developmental disabilities are present. For these reasons, adults have an obligation to provide continuous supervision and to maintain safe environments for all children at all times. Safety considerations and protective measures will be discussed in greater detail in Chapter 7.

1-4b Body Mechanics and Physical Activity

Correct posture, balance, and proper body alignment are necessary for many physical activities that children engage in, such as walking, jumping, running, skipping, standing, and sitting. Teaching and modeling appropriate body mechanics can help children avoid problems related to poor posture that may develop later in life.

Orthopedic problems (those relating to skeletal and muscular systems) are not common among young children. However, there are several conditions that warrant early diagnosis and treatment:

- ▶ birth injuries, such as hip dislocation, fractured collarbone
- ▶ abnormal or unusual walking patterns, such as limping or walking pigeon-toed
- ▶ bowed legs
- ▶ knock-knees
- ▶ flat feet
- ▶ unusual curvature of the spine
- ▶ unequal length of extremities (arms and legs)

Some irregularities of posture disappear spontaneously as young children mature. For example, it is not uncommon for infants and toddlers to have bowed legs or to walk slightly pigeon-toed. However, by age 3 or 4, these problems should correct themselves. If they do persist beyond the age of 4, children should be evaluated by a health professional to prevent permanent deformities.

Children's posture and body mechanics serve as excellent topics for classroom discussions, demonstrations, rhythm and movement activities, games, and art projects. Sharing this information in newsletters or posting it on bulletin boards or a website enables families to reinforce

▼ Adults must supervise children closely to ensure their safety.



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▼ Children should be discouraged from sitting in the “W” position.



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correct practices at home. Children can begin to learn basic body mechanics, including:

- ▶ Sitting squarely in a chair, resting the back firmly against the chair back and with both feet flat on the floor.
- ▶ Sitting on the floor with legs crossed (in front) or with both legs extended straight ahead. Children should be discouraged from kneeling or sitting in a “W” position because this can place additional stress on developing joints. Have children sit in a chair with feet planted firmly on the ground or provide them with a small stool that can be straddled (one leg on each side); this forces children to sit in a correct position. Alternative seating supports may be required for children who have muscular or neurological disabilities.
- ▶ Standing with the shoulders square, the chin up, and the chest out. Body weight should be distributed evenly over both feet to avoid placing stress on one or the other hip joints.
- ▶ Lifting and carrying heavy objects by using the stronger muscles of the arms and legs rather than weaker back muscles. Standing close to an object that is to be lifted with feet spread slightly apart provides a wider support base. Stooping down to lift (with your legs); bending over at the waist when lifting places strain on back muscles and increases the risk of injury.

Correct posture and body mechanics are also important skills for parents and teachers to practice (Teacher Checklist 1-1). Because they perform many bending and lifting activities throughout the day, using proper technique can reduce chronic fatigue and work-related injury.

Exercising regularly also improves muscle strength and makes it easier to complete demanding physical tasks.

Vigorous physical activity should be an essential part of every child's day. It has a positive effect on children's growth, mental health, weight management, and behavior by relieving excess energy, stress, and boredom (Aadland et al., 2017). Introducing children to a variety of sports,



TEACHER CHECKLIST 1-1

Proper Body Mechanics for Adults

- Use the correct technique when lifting children; flex the knees and lift using leg muscles; avoid lifting with back muscles, which are weaker.
- Adjust the height of children's cribs and changing tables to avoid bending over.
- Provide children with step stools so they can reach water fountains and faucets without having to be lifted.
- Bend down by flexing the knees rather than bending over at the waist; this reduces strain on weaker back muscles and decreases the risk of possible injury.
- Sit in adult-sized furniture with feet resting comfortably on the floor to lessen strain on the back and knees.
- Transport children in strollers or wagons rather than carrying them.
- Exercise regularly to improve muscle strength, especially back muscles, and to relieve mental stress.
- Lift objects by keeping arms close to the body versus extended; this also reduces potential for back strain.

games, and other forms of physical activity also provides them with early opportunities to discover those they enjoy and are likely to continue. Teachers should review classroom schedules and always look for ways to incorporate more physical activity into daily routines. Current guidelines recommend that children get a daily minimum of 180 cumulative minutes of aerobic activity (of any intensity), including at least 60 minutes that is of moderate intensity (CDC, 2015a). It is important that families and teachers serve as positive role models for children by also participating in a variety of physical activities daily.

1-4c Oral Health

Children's oral health continues to be a major priority in the *Healthy People 2030* objectives. Yet, there are many children who seldom visit a dentist because their families cannot afford dental insurance or costly preventive care. Children from low-income and minority groups experience a significantly higher rate of tooth decay due to a lack of access to preventive dental treatment (Harris, Pennington, & Whitehead, 2017). Neglected dental care can result in painful cavities and infected teeth, interfere with concentration and academic performance, and affect children's behavior and self-esteem. There are many adults who erroneously believe that "baby teeth," or deciduous teeth, do not require treatment because they will eventually fall out (Figure 1-5). This is an unfortunate assumption because children's temporary teeth are necessary for:

- chewing
- proper spacing for permanent teeth
- shaping the jaw bone
- speech development

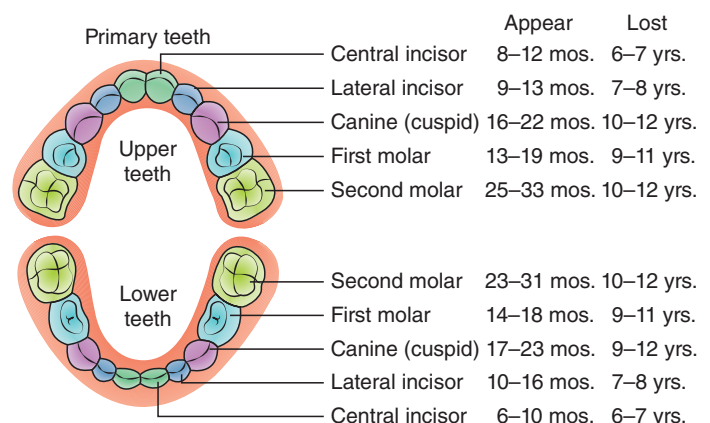
Advancements in pediatric dentistry and educational efforts have resulted in significant improvements in children's dental health. Practices, such as consuming a nutritious diet during pregnancy, scheduling regular dental visits, the use of sealants, adding fluoride to drinking water supplies and toothpastes, and applying fluoride directly to teeth have collectively reduced the incidence of children's dental caries and gum disease.

Diet has an unquestionable effect on children's dental health. Proper tooth formation depends on an adequate intake of protein and minerals, particularly calcium and fluoride. Highly refined and sticky carbohydrates should be consumed in moderation to limit their negative effect on healthy teeth. These types of carbohydrates are commonly found in cakes, cookies, candies, gum, soft drinks, sweetened cereals, and dried fruits (e.g., raisins, dates, prunes). Replacing sweets in children's diet with fresh fruits and vegetables reduces the risk of dental caries and also promotes healthier eating habits. Children's medications and chewable vitamins are often sweetened with added sugars so it is important that tooth brushing follow their ingestion.

Dietary practices also play an important role in the prevention of baby bottle tooth decay (BBTD). Extensive cavity development can occur when sugars in formula, breast milk, juices, and/or sweetened drinks come in frequent or prolonged contact with a child's teeth or gums. Practices that increase the risk of developing BBTD include putting an infant to bed with a bottle, lengthy breastfeeding at night, and allowing toddlers to carry around a sippy cup containing fruit juice, soda, or other sweetened drink.

Oral hygiene practices implemented early in children's lives also contribute to healthy tooth development. Food particles can be removed from an infant's gums and teeth by wiping them with a

FIGURE 1-5 Approximate age when teeth erupt and are lost.





TEACHER CHECKLIST 1-2

Promoting Children's Tooth Brushing

Make tooth brushing appealing and fun for children by:

- letting children pick out their favorite tooth brush (color and/or character) and label it with their name
- placing tooth brushes where they are accessible to children
- providing a footstool or chair so children can comfortably reach the sink
- demonstrating the correct tooth-brushing procedure and having children imitate; set a timer and brush your teeth together on occasions



CAUTION

Supervise children closely to prevent them from slipping or falling.

- recording a favorite song (e.g., "London Bridge," "Itsy Bitsy Spider," or "Wheels on the Bus") and play it while each child brushes his or her teeth. (Check the Internet for free song downloads). This can make tooth brushing more fun for children.
- making a habit of having children wash their hands and brush their teeth following a meal/snack
- designing a chart where children can place a check mark or sticker each time they brush.

small, wet washcloth after feedings. A small, soft brush and water can be used for cleaning an older infant's teeth.

Most toddlers can begin to brush their own teeth with a soft brush and water at around 15 months of age (Teacher Checklist 1-2). However, the use of toothpaste is not recommended

before age 2; most toddlers do not like its taste and are unable to spit it out after brushing. When a child is first learning tooth brushing skills, an adult should brush over the teeth after at least one of the brushings each day to be sure all areas are clean. Teeth can also be kept clean between brushings by rinsing with water after meals and eating raw foods, such as apples, pears, and celery, that provide a natural cleansing action.

Preschool children are generally able to brush their teeth with minimal supervision, but it may still be advisable for an adult to provide a quick follow-up brushing. Although children's technique may not always be perfect, they are beginning to establish a lifelong tooth brushing habit. Proper brushing technique and fluoride-based toothpastes (pea-size application) have proven to be effective in reducing dental cavities. However, children must be supervised closely so they do not swallow the toothpaste. Ingesting too much fluoride over time can result in dental **fluorosis**, which causes white or brown spots to form on developing teeth (Mahat & Bowen, 2017). The question of whether young children should learn to floss their teeth is best answered by the child's dentist. Although the practice is regarded as beneficial, much depends on the child's maturity and fine motor skills. Flossing is usually recommended once the permanent teeth begin to erupt and spaces between teeth disappear. Parents should assist children who are too young to manage this procedure by themselves.

▼ Improving children's oral health is an important goal of Healthy People 2030.



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fluorosis – white or brown spots that form on children's teeth due to excessive fluoride intake.

Routine dental checkups are also an important component of preventive health care, but they are not a substitute for daily oral hygiene practices and a healthful diet. Children's first visit to the dentist should be scheduled at around 12 to 15 months of age and every 6 to 12 months thereafter. Initial visits should be pleasant experiences that acquaint a child with the dentist, routine examinations, and cleanings without undergoing painful dental work. Children are more likely to maintain a favorable attitude toward dental care and to approach visits with less fear and anxiety if early experiences are positive.

During routine visits, dentists clean, apply a fluoride varnish, and inspect the child's teeth for potential problems. They also review the child's tooth brushing technique, diet, and personal habits, such as thumb sucking or grinding that may affect tooth development. The fluoridation of municipal water supplies and use of sealants (a plastic-like material applied to permanent molar grooves) have also made significant contributions to a decline in childhood tooth decay.

1-4d Mental Health and Social-Emotional Competence

The wellness model recognizes a close relationship between a child's emotional and physical well-being. This association continues to receive greater attention due to the increase in behavior problems, school dropout rates, substance abuse, violence, gang membership, depression, and child suicide. Approximately one in five children in the United States experiences mental health problems, and one in ten have disorders that seriously interfere with learning (CDC, 2017a). Children who live in dysfunctional or economically challenged families, or who have a disability, are at highest risk for developing mental health problems (National Center for Children in Poverty, 2017a; Post et al., 2017).

A strong positive relationship exists between a child's mental health status and **self-concept**. Young children typically view themselves solely in terms of physical qualities, such as having brown hair, blue eyes, or being tall. By age 5 or 6, children begin to include social comparisons with peers as part of their self-definition; they can run faster than Tyshan, build higher towers than Mei, or draw flowers better than Abetzi. Nine- and 10-year-olds exhibit a higher order of self-evaluation that is more analytical: "I like to play baseball, but I don't field or hit the ball as well as Tori, so I probably won't be asked to play on a team."

A child's self-image and mental health are continuously being shaped and reshaped by complex interactions among biological (e.g., personality traits, physical well-being, illness, disability) and environmental factors (e.g., family structure, ethnicity, culture, poverty, household conditions). Each experience yields information that has a positive or negative influence on a child's outlook and behavior. For example, a child who has cerebral palsy and is teased because he doesn't walk like other children may withdraw from group activities, develop a negative self-concept, and become depressed unless positive support is provided. In contrast, a child who is athletically talented and frequently befriended is likely to be confident and to have a positive self-concept.

Promoting Children's Social and Emotional Development Families and teachers play a major role in promoting children's social-emotional development. They improve children's chances for achieving positive outcomes by providing learning opportunities that build on individual strengths and interests. Children are more likely to experience success, take pride in their accomplishments, and feel good about themselves when adults set realistic goals and expectations. However, children's efforts should be acknowledged even when they have been unsuccessful. Failures and mistakes must be accepted as opportunities for learning and for offering positive guidance and support. In doing so, children begin to learn important life-long lessons about initiative, risk-taking, problem-solving, and handling adversity. However, caution must be exercised never to judge children solely on their accomplishments (or failures) or to make comparisons with other children, but to recognize each child as a unique and valued individual.

self-concept – a person's belief of who they are, how they are perceived by others, and how they fit into society.

▼ Teachers have many opportunities to promote children's mental health by teaching important social skills.



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Teachers occupy a strategic position for reinforcing children's development of social-emotional competence. They are able to create opportunities for children to acquire and practice effective communication, self-control, problem-solving, and decision-making skills in a supportive environment. Teachers also foster children's social-emotional competence by creating safe and respectful classrooms that convey positive attitudes, address children's individual needs, provide constructive feedback, and are conducive to learning. In addition, they play an integral role in:

- modeling positive mental health behaviors.
- implementing sound mental health principles by being accepting, responsive, and supportive.
- preventing emotional problems by teaching children effective social, communication, anger management, and problem-solving skills.
- identifying and referring children who may exhibit signs of emotional problems, such as excessive or uncontrollable frustration, aggressive behavior, or difficulty making and keeping friends.
- working collaboratively with families to locate community resources.
- advocating for community mental health services.

When children develop positive self-esteem and confidence in their own abilities, they are more likely to experience a trajectory of personal and academic success.

Teachers as Role Models Adults must never overlook their importance as role models for young children. Their personal behaviors and response styles exert a powerful and direct influence on children's social-emotional development.

Teachers must carefully examine their own emotional state if they are to be successful in helping children achieve positive **self-esteem**. They, too, must have a strong sense of self-worth and confidence in what they are doing. They should be aware of personal biases and prejudices, be able to accept constructive criticism, and recognize their strengths and limitations. They must have effective communication skills and be able to work collaboratively with families of diverse

self-esteem – an individual's sense of value or confidence in himself or herself.

backgrounds, community service providers, health care professionals, and other members of the child's educational team.

If teachers are to serve as positive role models, they must also exercise the same control over their emotions that they expect of children. Personal problems and stressors must remain at home so that full attention can be focused on the children. Teachers must respect children as individuals—who they are, and not what they are able or not able to do—because every child has qualities that are endearing and worthy of recognition. Teachers must also be impartial in their treatment of children; favoritism cannot be tolerated.

Working with young children can be rewarding, but it can also be stressful and demanding in terms of the patience, energy, and stamina required. Noise, children's continuous requests, long hours, staff shortages, mediocre wages, and occasional conflicts with families or co-workers are everyday challenges. Physical demands and unresolved stress can gradually take their toll on teachers' health, commitment, and daily performance. Eventually, this can lead to job burn-out and negative interactions with colleagues and children (Lieny, Buettner, & Grant, 2018). For these reasons, it is important that teachers identify sources of stress in their jobs and take steps to address, reduce, or eliminate them to the extent possible (Kim, Youngs, & Frank, 2018; Marotz & Lawson, 2007). (See Teacher Checklist 1-3.)

Emotional Climate A classroom's emotional climate—the positive or negative feelings one senses—can have a significant impact on children's social-emotional development. Consider the following situations and decide which classroom you would find most inviting:

Kate enters the classroom excited and eager to tell her teacher about the tooth she lost last night and the quarter she found under her pillow from the “tooth fairy.” Without any greeting, the teacher hurries to check Kate in and informs her that she is too busy to talk right now, but maybe later. When the teacher is finished checking Kate she instructs her “to find something to do without getting into trouble.” Kate quietly walks away to put her coat in her cubbie.

Ted arrives and seems reluctant to leave his mother for some reason this morning. The home provider immediately senses his distress and walks over to greet Ted and his mother. “Ted, I am so glad that you came today. We are going to learn about farm animals and build a farm with the wooden blocks. I know that blocks are one of your favorite activities. Perhaps you would like to build something small for your mother before it is time for her to go home.” Ted eagerly builds a barn with several “animals” in the yard around it and proudly looks to his mother for approval. When Ted's mother is ready to leave, he waves good-bye.

Clearly, the teacher's actions in the two examples created a classroom atmosphere that had a different effect on each child's behavior. Children are generally more receptive and responsive to teachers who are warm, nurturing, and sensitive to their needs. Exposure to



TEACHER CHECKLIST 1-3

Strategies for Managing Teacher Stress

- Seek out training opportunities where you can learn new skills and improve your work effectiveness.
- Learn and practice time management techniques.
- Develop program policies and procedures that improve efficiency and reduce sources of tension and conflict.
- Join professional organizations; expand your contacts with other teachers, acquire new ideas, and advocate for young children.
- Take steps to improve your personal well-being—get plenty of sleep, eat a nutritious diet, and participate in some form of physical activity (outside of work) each day.
- Develop new interests, hobbies, and other outlets for releasing tension.
- Practice progressive relaxation techniques. Periodically, concentrate on making yourself relax and think about something pleasing.
- Plan time for yourself each day—read a good book, watch a movie or favorite TV program, go for a long walk, paint, go shopping, play golf, or participate in some activity that you enjoy.

Did You Know...

that time spent outdoors in natural environments improves attention and attitude while reducing stress, behavior problems, and crime?

negative adult responses, such as ridicule, sarcasm, or threats is harmful to children's emotional development and simply teaches inappropriate behaviors. However, an emotional climate that fosters mutual cooperation, respect, trust, acceptance, and independence will promote children's social-emotional skill development.

A teacher's communication style and understanding of cultural differences also affect the emotional climate of a classroom. Treating all children as if they were the same is insensitive and can encourage failure, especially if a teacher's expectations are inconsistent or incompatible with the child's cultural background. For example, knowing that children in some Hispanic cultures are taught primarily through non-verbal instruction (modeling) may explain why a child who is only given verbal directives may not respond to this approach. Some children are reluctant to participate in group activities or to answer a teacher's question because this is counter to the way they have been raised. Unless the teacher understands these cultural differences, such behaviors could easily be misinterpreted as defiance or inattention. When teachers make an effort to learn about individual children and their families, they are able to create a climate that supports each child's learning and healthy social-emotional development.

The way in which the curriculum is planned and implemented also contributes to the emotional climate. Children's chances for achieving success are improved when learning activities are developmentally appropriate and matched to children's individual needs and interests.

Stress All children experience a host of stressful situations as they learn to master new skills, understand social convention, and/or encounter conflict. This type of developmental stress is a natural part of children's lives and can be healthy when it is used as a learning experience. It provides children with opportunities to acquire valuable coping and problem-solving skills if stress is experienced in a safe, secure, and supportive environment.

Scientists have gained a better understanding of stress and its effects on children's physical and mental development. The term **toxic stress** or traumatic stress has been used to describe adverse situations that elicit strong emotional reactions and increase children's risk of long-term physical, behavioral, and mental health disorders (Shonkoff, 2017). Toxic stressors can include abusive treatment, neglect, poverty, chronic illness, violence, natural disasters, and war. Chronic food insecurity, maternal depression, and parental substance abuse are also known to contribute to children's distress and to psychological problems that may last for years. Even more troubling are research findings that link children's early exposure to traumatic, intense, frequent, and/or chronic stress to permanent damage caused to their genetic makeup (DNA) (Berens, Jensen, & Nelson, 2017).

Some children feel overwhelmed and experience undue anxiety in response to everyday events, such as:

- separation from their families
- new experiences—for example, moving, enrolling in a new school, having a mother return to work, being left with a sitter, or the birth of a sibling
- chronic illness and hospitalization
- divorce of parents
- death of a pet, family member, or close friend
- conflict of ideas; confrontations with family, friends, or teachers
- overstimulation due to hectic schedules, participation in too many extracurricular activities
- learning problems

Children's immature brain development, limited experience and coping skills, and differences in temperament influence their understanding and ability to manage stress in a healthy manner. Sudden behavior changes are often an early indication that a child is experiencing

toxic stress – stress over which children have no control or adult support; it is intense, frequent, and often prolonged.

▼ The classroom atmosphere has a direct effect on children's behavior and development.



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significant tension or inner turmoil. Observable signs can range from less serious behaviors—nail biting, hair twisting, excessive fear, crying, prolonged sadness, and anxiety—to those that are of significant concern—repeated aggressiveness, destructiveness, withdrawal, depression, nightmares, psychosomatic illnesses, or poor performance in school. Brief episodes of these behaviors are usually not cause for concern, but children should be referred for professional evaluation if they persist.

Teachers can help children who are experiencing acute or chronic stress by showing additional patience, understanding, and support. Children also find comfort in knowing they are safe, secure, and able to count on teachers and parents to be accepting, even at times when their emotional control may fail. Additional coping strategies are outlined in Table 1–4.

Bullying Most school-age children report that they have been subjected to occasional verbal or physical bullying from their peers. Bullying differs from occasional name-calling and social

TABLE 1–4 Stress Management for Children

1. Encourage children to talk about what is causing them to feel tense or upset.
2. Empower children by helping them to identify and express feelings appropriately.
3. Nurture positive thinking and an “I know I can do this” attitude.
4. Prepare children for stressful events (e.g., doctor’s visit, moving, flying for the first time, attending a new school) by role-playing or rehearsing what to expect. Practice “what if’s”: “What should you do if you get lost?” “What can you do if you are afraid?”
5. Maintain predictable schedules, including mealtimes and bedtimes as much as possible.
6. Make sure children are receiving a nutritious diet and engaging in brief periods of vigorous physical activity (an effective stress reliever).
7. Schedule unstructured play time when children are free to do what they want.



CONNECTING TO EVERYDAY PRACTICE

Early Childhood: Expulsion and Suspension

Jalyn's mother had just returned from lunch when she received a telephone call at work informing her that she was to come and pick her son up as soon as possible. The preschool teacher explained that Jalyn, age 3½, had pushed another child off of a tricycle and thrown sand at several other children that morning despite multiple warnings. This wasn't the first time the teacher had reported concerns about Jalyn's "disruptive behavior" to his mother. She also reminded his mother about the school's "three-times and you-are-out" policy and that they could no longer tolerate his "unruly, noncompliant" behavior. The teacher's request presented a troublesome dilemma for Jalyn's mother who only recently had begun working at a local company. She was expected to attend an important meeting with her boss later in the day.

Jalyn's situation is not unusual. Thousands of young children are expelled or suspended from preschool and kindergarten programs every year for behaviors that teachers describe as "unmanageable." As a result, this group experiences the highest expulsion and suspension rates among children of all ages. Boys, especially those of color, and children who have a developmental disability or have experienced personal trauma (e.g., abuse, household dysfunction, poverty, violent communities) are most likely to be involved (Martin, Bosk, & Bailey, 2018). Researchers have noted that teachers' perceptions of children's behavior, their lack of training in positive behavior guidance, and challenging classroom environments often play a significant role in this escalating trend (Gilliam & Reyes, 2018).

School expulsions and suspensions are disruptive for families and the affected children. For example, Jalyn's mother must now decide how to juggle her immediate work and parental responsibilities. She is also forced to consider whether or not Jalyn may have a behavior problem and if she can quickly locate another program that will accept him. In the meantime, Jalyn is missing out on important learning opportunities. Studies have shown that children who are repeatedly expelled or suspended from school tend to form poorer self-esteem and social outcomes. They are also more likely to develop negative attitudes toward school, experience academic failure, drop out of school, and engage in antisocial behaviors.

Think About This:

- ▶ Would you consider Jalyn's behavior to be typical or atypical for a child of his age? Explain.
- ▶ How might stress and group size potentially influence a teacher's decision to expel a child from the program? What other school-related factors might also contribute to this decision?
- ▶ In what ways may expulsion and suspension practices affect children's brain development?
- ▶ What effective strategies could Jalyn's teacher use to address his "unacceptable" behaviors and support positive social-emotional development?

rejection in that it is usually intentional, repetitive, and ongoing. Girls are more likely to engage in verbal taunting directed toward another girl whereas boys tend to use physical aggression to intimidate other males.

Researchers have identified two types of bullies: those who are self-assured, impulsive, lacking empathy, angry, and controlling; and, those who are passive and willing to join in once another child initiates the bullying (Jenkins, Demaray, & Tennant, 2017). Children who bully often come from environments where poverty, domestic violence, inconsistent supervision, and a lack of social support or parental concern are more common. As a result, they have had limited opportunities to develop effective interpersonal skills, impulse control, and problem-solving abilities.

Children who are targeted by bullies may be singled out because they are perceived to be socially withdrawn or loners, passive and lacking in self-confidence, having a disability or special needs, not likely to stand up for themselves, and easily hurt (emotionally). They are more often from economically disadvantaged families, smaller in physical size than their peers, and seen as having fewer friends. Warning signs that a child is being victimized may include frequent complaints of health problems, change in eating and/or sleeping habits, reluctance to attend school or to participate in group activities, and declining academic performance.

Prevention programs have been implemented in many schools to reduce bullying behavior and to create environments where children feel safe. Educational efforts address both the victims and perpetrators and are designed to teach mutual respect, reinforce effective social and communication skills, reduce harassment, and improve children's self-esteem (Menesini & Salmivalli, 2017; Saracho, 2017). Children who are being bullied learn how to respond in these situations by avoiding bullies, walking away, practicing conflict resolution, and always informing a trusted adult.

Childhood Depression Some children are unsuccessful or unable to cope with acute anxiety or chronic stress. They may develop a sense of persistent sadness and hopelessness that begins to affect the way they think, feel, and act. These may be early signs of childhood depression and can include:

- ▶ apathy or disinterest in activities or friends
- ▶ loss of appetite
- ▶ difficulty sleeping
- ▶ complaints of physical discomforts, such as headaches, stomachaches, vomiting, diarrhea, ulcers, repetitive tics (twitches), or difficulty breathing
- ▶ lack of energy or enthusiasm
- ▶ indecision
- ▶ poor self-esteem
- ▶ uncontrollable anger

Children who have learning and behavior disorders or a family history of mental health conditions are at an increased risk for developing depression. Children as young as 3 may begin showing early signs of depression particularly when their mothers also suffer from this condition (Monti & Rudolph, 2017).

The onset of childhood depression may occur abruptly following a traumatic event, such as parental divorce, death of a close family member or friend, abusive treatment, or chronic illness. However, it may also develop slowly over time, making the early signs more difficult to notice. In either case, teachers must be knowledgeable about the behaviors commonly associated with childhood depression so children can be identified and referred for professional care. Depression requires early identification and treatment to avoid serious and debilitating effects on children's social, emotional, and cognitive development and to prevent long-term mental health disorders.

Childhood Fears Most childhood fears and nightmares are a normal part of the developmental process and are eventually outgrown as children mature. Basic fears are relatively consistent across generations and cultures, although they vary somewhat from one developmental stage to the next. For example, a 3-month-old infant seldom displays any fear, whereas 3-year-olds often are fearful of the dark or "monsters under the bed." Fears that reflect real-life events, such as fire, kidnapping, thunderstorms, or homelessness, are more common among 5- and 6-year-olds, whereas 10- and 11-year-olds may express fears related to appearance and social rejection (Marotz & Allen, 2016). Some fears are unique to an individual child and may stem from personal experiences, such as witnessing a shooting, vicious dog attack, or being involved in a car accident.

Fears and nightmares often peak during the preschool years, a time when children have a heightened imagination and are attempting to make sense of their world. Children's literal interpretation of the things they see and hear can also contribute to misunderstanding and fear.

For example, children are likely to believe that an adult who says, “I am going to give you away if you misbehave one more time” will actually do so.

It is important for adults to acknowledge children's fears and to accept that they are truly real to the child. Children need consistent adult reassurance and trust to overcome their fears, even though it may be difficult to remain patient and supportive when a child repeatedly awakens at 2:00 every morning! Children also find comfort in talking about things that frighten them and rehearsing what they might do, for example, if they were to become lost at the supermarket or if it began to thunder.

Poverty and Homelessness Approximately 21 percent of all U.S. children currently live in families that fall below the national poverty level; an additional 43 percent live in low-income families (National Center for Children in Poverty, 2017b). The adults in many of these families are either unemployed, working in low-wage jobs, recent immigrants, classified as minorities (especially Hispanic, Native American, and African American), or a single parent, usually a mother. Living in a single- versus a two-parent family places children at the highest economic risk for poverty. Children residing in rural areas also experience a high poverty rate, but they comprise an often overlooked group (Robinson et al., 2017). Economic problems and high unemployment have forced many rural families into bankruptcy (Greder et al., 2017). Collectively, these developments have caused families with young children to become the new majority of today's homeless population.

Poverty places additional burdens on the already challenging demands of parenting. Struggles to provide children with basic food, clothing, shelter, health care, and nurturing are often compromised by increased stress, fear, and conflict. Ultimately, these pressures can contribute to family tension, domestic violence, child maltreatment, and an inability to provide the love and nurturing support that children require.

The impact of poverty on children's growth and development has both immediate and long-term consequences. Children born into poverty experience a higher rate of birth defects, early death, and chronic illnesses, such as anemia, asthma, and lead poisoning (Gilman et al., 2017). In addition, the quality of their diet, access to health and dental care, and mental health status are often compromised. Children living in poverty are also more likely to experience abuse or neglect, learning and behavior problems, teen pregnancy, substance abuse, high dropout rates, and reduced earning potential as adults. Ultimately, the cumulative effects of poverty can threaten children's chances of growing up to become healthy, educated, and productive adults.

Violence Children today live in a world where daily exposure to violence is not uncommon. The incidence of crime, substance abuse, gang activity, and access to guns tends to be greater in neighborhoods where poverty exists and can result in unhealthy urban environments where children's personal safety is at risk. Children living in these settings are also more likely to become victims of child abuse or to witness domestic violence. Their families exhibit a higher rate of dysfunctional parenting skills, are often less responsive and nurturing, and use discipline that is either lacking, inconsistent, or punitive and harsh (Carvalho, Fernandes, & Re, 2018). Parents in these situations are also less likely to be supportive of children's education or to assume an active role in school activities. As a result, many children who grow up in poverty are at greater risk of experiencing learning problems, engaging in criminal activity as adults, and developing serious mental health disorders. Teachers who understand this potential can be instrumental in helping children to overcome some adversity by reaching out and strengthening their resiliency skills as well as assisting families in locating supportive community resources (Teacher Checklist 1-4).

Children growing up in violent and disadvantaged environments face challenges not only at home but also at school. Younger children are more likely to attend child care programs and schools that are of poorer quality than their counterparts in higher income neighborhoods

**TEACHER CHECKLIST 1-4****Strategies for Increasing Children's Resilient Behaviors**

- Be a positive role model for children; demonstrate how you expect them to behave in challenging situations.
- Avoid displays of anger and the use of physical punishment.
- Accept children unconditionally; avoid being judgmental.
- Help children to develop and use effective communication skills.
- Listen carefully to children; show them that you value their thoughts and ideas.
- Establish developmentally appropriate expectations for children's behavior and enforce them consistently.
- Use positive behavior guidance strategies that are developmentally appropriate and based on natural or logical consequences.
- Help children to understand and express their feelings; encourage them to have empathy for others.
- Help children to establish realistic goals, set high expectations for themselves, and have a positive outlook.
- Promote problem-solving skills; help children to make informed decisions.
- Reinforce children's efforts with acknowledgment and encouragement.
- Give children responsibility; assign household tasks and classroom duties.
- Encourage parents to involve children in activities outside of the home.
- Help children to believe in themselves, to feel confident rather than seeing themselves as failures or victims.

(Neuman, Kaefer, & Pinkham, 2018). In addition, children of all ages often have fewer opportunities to engage in learning and enrichment experiences at home. Researchers have observed that children living in disadvantaged households are more likely to have delayed language development and literacy skills due to a lower rate of parent-child interactions and lack of available reading materials (Gonzalez et al., 2017). This combination sets many children up for early school failure.

Media Violence Children are frequently exposed to sources of extreme violence and death in movies, video games, cartoons, on television, and on the Internet. Researchers have observed an increase in aggressive behaviors after children have viewed violent media entertainment (Anderson et al., 2017; Gentile, Bender, & Anderson, 2017). Although no singular link has been established with adult criminal activity, repeated exposure to media violence and death has been shown to significantly reduce children's empathy to this behavior. For these reasons, families are encouraged to limit media viewing to 1 hour of high-quality programming daily for children 2 to 5 years, choose and monitor content carefully, and help children to understand media as a form of fantasy entertainment (AAP, 2016). Television and other media entertainment formats (e.g., CD movies, video games, smartphones, iPads) with the exception of video-chatting are not recommended for children under 18 months. Young children learn best through hands-on experience and have considerable difficulty understanding abstract content viewed on an electronic screen.

1-4e **Resilient Children**

Children face many challenges as they grow up in this complex world. Stress, violence, uncertainty, and negative encounters are everywhere. What makes some children more vulnerable to the negative effects of stress and aversive treatment or more likely to develop inappropriate behaviors? Many factors, including genetic predisposition, malnutrition, prenatal exposure to drugs or alcohol, poor attachment to primary caregivers, physical and/or learning disabilities, and/or an irritable personality, have been suggested as possible explanations. Researchers have also studied home environments and parenting styles that make it difficult for some children to achieve normal developmental tasks and positive self-esteem (Iruka, Marco, & Garrett-Peters, 2018).

Why are other children better able to overcome the negative effects of an impoverished, traumatic, violent, or stressful childhood? This question continues to be a focus of study as researchers attempt to learn what conditions or qualities enable some children to be more **resilient** in the face of adversity. Although much remains to be understood, several important protective factors have been identified. These include having certain personal characteristics (such as above-average intelligence, positive self-esteem, and effective social and problem-solving skills), having a strong and dependable relationship with a parent or parent substitute, and having a social support network outside of one's immediate family (such as a church group, organized sports, Boys and Girls clubs, or various youth groups).

Competent parenting is, beyond a doubt, one of the most important factors necessary for helping children to cope with and overcome adversity and its potentially damaging consequences (Domitrovich et al., 2017; Kao & Caldwell, 2017). Children who grow up in an environment where families are caring and emotionally responsive, provide meaningful supervision and discipline that is consistent and developmentally appropriate, offer encouragement and praise, and help children learn to solve problems in a peaceful way are more likely to demonstrate resilient behavior. Teachers, likewise, can promote resiliency by establishing classrooms where children feel accepted, respected, and supported in their efforts.

Management Strategies Understandably, all children undergo occasional periods of emotional instability or undesirable behavior. Short-term or one-time occurrences are usually not cause for concern. However, when a child consistently demonstrates abnormal or antisocial behaviors, an intervention program or counseling therapy may be necessary.

At times, it may be difficult for families to recognize or acknowledge abnormal behaviors in their own children. Some emotional problems develop slowly over time and may therefore be difficult to distinguish from normal behaviors. Some families find it difficult to talk about or to admit that their child has an emotional disturbance. Others, unknowingly, may be contributing to their children's problems because of dysfunctional (e.g., abusive, unrealistic, inconsistent, or absent) parenting styles.

For whatever reasons, it may be teachers who first identify children's abnormal social and emotional behaviors based on their understanding of typical development, careful observations, and documentation of inappropriate conduct. They also play an instrumental role in promoting children's emotional health by providing stable and supportive environments that foster children's self-esteem and self-confidence. They model and help children develop socially appropriate behaviors. They teach conflict resolution, problem-solving, and communication skills so children will be able to cope effectively with daily problems. In addition, teachers can use their expertise to help families acknowledge children's problems, counsel them in positive behavior management techniques, strengthen parent-child relationships, and assist them in arranging professional counseling or other needed services. Although most families welcome an opportunity to improve their parenting skills, the benefit to high-risk or dysfunctional families may be even greater.

Did You Get It?

Children who are living in _____ families are at increased risk for developing mental health disorders.

- a. minority
- b. dysfunctional
- c. dual-earner
- d. rural