



Bright Futures in Practice

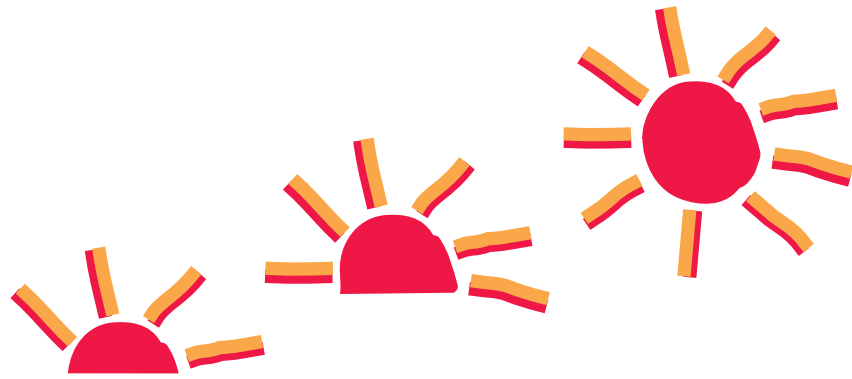
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NUTRITION

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Bright Futures in Practice: Nutrition

Second Edition

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Editors

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The mission of the National Center for Education in Maternal and Child Health is to provide national leadership to the maternal and child health community in three key areas—program development, policy analysis and education, and state-of-the-art knowledge—to improve the health and well-being of the nation's children and families. The Center's multidisciplinary staff work with a broad range of public and private agencies and organizations to develop and improve programs in response to current needs in maternal and child health, address critical and emergent public policy issues in maternal and child health, and produce and provide access to a rich variety of policy and programmatic information. Established in 1982 at Georgetown University, NCEMCH is part of the Georgetown Public Policy Institute. NCEMCH is funded primarily by the U.S. Department of Health and Human Services through the Health Resources and Services Administration's Maternal and Child Health Bureau.

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Bright Futures Children's Health Charter

Principles developed by advocates for children have been the foundation for initiatives to improve children's lives. Bright Futures participants have adopted these principles in order to guide their work and meet the unique needs of children and families in the 21st century.

Every child deserves to be born well, to be physically fit, and to achieve self-responsibility for good health habits.

Every child and adolescent deserves ready access to coordinated and comprehensive preventive, health-promoting, therapeutic, and rehabilitative medical, mental health, and oral health care. Such care is best provided through a continuing relationship with a primary health professional or team, and ready access to secondary and tertiary levels of care.

Every child and adolescent deserves a nurturing family and supportive relationships with other significant persons who provide security, positive role models, warmth, love, and unconditional acceptance. A child's health begins with the health of his parents.

Every child and adolescent deserves to grow and develop in a physically and psychologically safe home and school environment free of undue risk of injury, abuse, violence, and exposure to environmental toxins.

Every child and adolescent deserves satisfactory housing, good nutrition, a quality education, an adequate family income, a supportive social network, and access to community resources.

Every child deserves quality child care when her parents are working outside the home.

Every child and adolescent deserves the opportunity to develop ways to cope with stressful life experiences.

Every adolescent deserves the opportunity to be prepared for parenthood.

Every child and adolescent deserves the opportunity to develop positive values and become a responsible citizen in his community.

Every child and adolescent deserves to experience joy, have high self-esteem, have friends, acquire a sense of efficacy, and believe that she can succeed in life. She should help the next generation develop the motivation and habits necessary for similar achievement.

Bright Futures: A Historical Perspective

What Is Bright Futures?

Bright Futures is a vision, a philosophy, a set of expert guidelines, and a practical developmental approach to providing health supervision for children of all ages, from birth through adolescence. Bright Futures is dedicated to the principle that every child deserves to be healthy and that optimal health involves a trusting relationship between the health professional, the child, the family, and the community as partners in health practice.

The Bright Futures project, which began in 1990, is guided by the Health Resources and Services Administration's Maternal and Child Health Bureau, with additional program support from the Centers for Medicare and Medicaid (formerly the Health Care Financing Administration).

Bright Futures Mission

The mission of Bright Futures is to promote and improve the health and well-being of infants, children, adolescents, families, and communities.

Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents

Under the leadership of Morris Green, four interdisciplinary panels of experts developed comprehensive health supervision guidelines for infants, children, and adolescents. These guidelines were reviewed by nearly 1,000 health professionals, educators, and child health advocates throughout the United States. In 1994, *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* was published.

The Bright Futures guidelines provide a comprehensive, family-centered, and community-based blueprint for health supervision of infants, children, and adolescents. It contains developmentally appropriate guidelines to promote health, reduce morbidity and mortality, improve health outcomes, and foster partnerships among health professionals, families, and communities.

The Bright Futures guidelines were revised to incorporate current scientific knowledge in health practice, and a second edition of *Bright Futures: Guidelines for Health Supervision of*

Infants, Children, and Adolescents was published in January 2000.

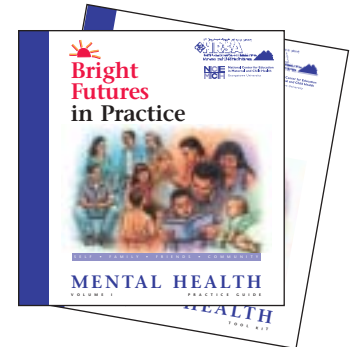
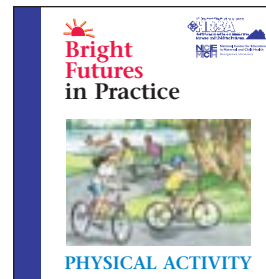
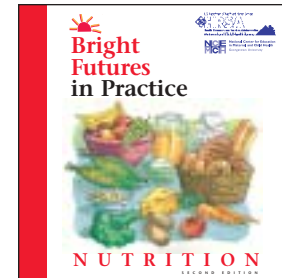
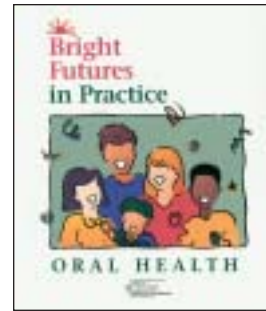
Developed under the guidance of Judith S. Palfrey, the second edition reflects the American Academy of Pediatrics' updated screening guidelines for health supervision visits, and provides

expanded guidelines on infant sleep position, nutrition, physical activity, and violence and injury prevention. It also includes screening guidelines for hearing, vision, iron-deficiency anemia, elevated blood lead levels, hyperlipidemia, hypertension, and sexually transmitted diseases. The revised second edition, published in January 2002, features the latest immunization schedule and the CDC growth charts.



Bright Futures in Practice Series

The Building Bright Futures project was launched in 1995 to implement the Bright Futures health supervision guidelines by publishing practical tools and materials and providing technical assistance and training. Using *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* as a cornerstone document, a series of implementation guides have been developed. The first implementation guide in the series, *Bright Futures in Practice: Oral Health*, was published in 1996, followed by the first edition of *Bright Futures in Practice: Nutrition* (2000), *Bright Futures in Practice: Physical Activity* (2001), and *Bright Futures in Practice: Mental Health* (2002), a two-volume set.



Building Bright Futures

Bright Futures in Practice: Nutrition is offered in the spirit of health promotion. This comprehensive implementation guide is based on three critical principles consistent with the Bright Futures conceptual framework:

1. Nutrition must be integrated into the lives of infants, children, adolescents, and families.
2. Good nutrition requires balance.
3. An element of joy enhances nutrition, health, and well-being.

The guidelines, philosophy, and goals of the Bright Futures project arose from an understanding that the health of infants, children, and adolescents is affected by their environment and the communities in which they live. In isolation, interventions may have some impact, but in concert with the environment and community, they are more effective and powerful. *Bright Futures in Practice: Nutrition* weaves nutrition principles into all aspects of daily life. It incorporates a clear understanding that food availability, family and cultural customs, and external social pressures (e.g., those created by the media) all influence children's and adolescents' eating behaviors. Integrating good nutrition into the lives of infants, children, and adolescents requires effort in many settings: the home, child care facilities, the school system, and the community. *Bright Futures in Practice: Nutrition* provides suggestions for promoting good nutrition in all of these domains.

Balance is central to good nutrition and good health: the balance of calories, protein, fat, carbohydrates,

vitamins, and minerals in the diet; the balance of dependence and independence of the parent and infant, child, or adolescent; the balance of expert advice and common sense; and the balance of cultural norms and secular trends. The contributors to *Bright Futures in Practice: Nutrition* worked very hard to achieve a balanced presentation about nutrition for infants, children, and adolescents. They have described ways in which food and nutrition can be balanced for good health.

To integrate healthy nutrition and balance into people's lives, a sense of joy is fundamental. The contributors to *Bright Futures in Practice: Nutrition* value the sense of wonder and joy in infants, children, adolescents, families, and communities. Nutrition planning, and preparing and sharing food, are seen as happy events that bring people together—the infant at the mother's breast, the family at the dinner table, and the community at the clam bake.

Bright Futures in Practice: Nutrition provides a thorough overview of nutrition supervision during infancy, early childhood, middle childhood, and adolescence. Each chapter contains current information on nutrition needs of infants, children, adolescents, and their families. We hope that the guide's emphasis on nutritional integration, balance, and joy will improve the lives of infants, children, adolescents, and their families.

Judith S. Palfrey, M.D.
Former Chair, Building Bright Futures

Creating a Lifelong Foundation for Healthy Eating

To meet the challenge of developing nutrition guidelines for infants, children, and adolescents, in June 1996 the Bright Futures team convened a multidisciplinary panel of health professionals, including educators, clinicians, public health officials, and representatives from family organizations. The panel focused on two key issues:

1. What do families need to do to promote the nutrition status of infants, children, and adolescents?
2. What do health professionals and communities need to do to become more effective in promoting the nutrition status of infants, children, and adolescents?

The goal was to develop nutrition guidelines for the infancy through adolescence developmental periods. Nutrition guidelines based on the best available scientific research, professional standards, and expert opinions were developed and sent for review to more than 150 individuals from a variety of health agencies and organizations.

Bright Futures in Practice: Nutrition presents the resulting nutrition guidelines and tools designed for use by a wide array of health professionals, including dietitians, nutritionists, nurses, and physicians. The guide can also serve as a practical, educational resource for families and communities.

Bright Futures in Practice: Nutrition emphasizes health promotion, disease prevention, and early recognition of nutrition concerns of infants, children, and adolescents. The guide also highlights how partnerships among health professionals, families, and communities can improve the nutrition status of infants, children, and adolescents.

Bright Futures in Practice: Nutrition builds on the nutrition guidelines presented in *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. The nutrition guide is a practical tool for applying concepts and principles essential to nutrition supervision. It also supports the *Healthy People 2010* objectives for the nation, and can be used to develop and implement programs and policies for the health and well-being of infants, children, and adolescents. *Bright Futures in Practice: Nutrition* represents a vision for the new millennium, a direction for integrating nutrition into health services in the 21st century.

Together, health professionals, families, and communities can work to improve the nutrition status of our nation's infants, children, and adolescents and build a foundation for lifelong healthy eating behaviors—a foundation that encourages infants, children, and adolescents to enjoy eating healthy food and encourages children and adolescents to value family meals and feel good about themselves.

What Is *Bright Futures in Practice: Nutrition*?

Optimal nutrition is important for sustenance, good health, and well-being throughout life. As the relationships among diet, health, and disease prevention have become clearer, nutrition and the promotion of healthy eating behaviors have received increased attention.

The nutrition status of infants, children, and adolescents affects their growth and development and resistance to disease. Lifelong eating behaviors and physical activity patterns are often established in early childhood. Therefore, it is important for children and adolescents to build the foundation for good health by choosing a healthy lifestyle, including practicing healthy eating behaviors and participating in regular physical activity.

A Developmental and Contextual Approach

Nutrition needs to be approached from two perspectives: (1) the development of infants, children, and adolescents and (2) the context of their daily lives and environment. The guidelines in *Bright Futures in Practice: Nutrition* represent a developmental and contextual approach for helping children and adolescents develop positive attitudes toward food and practice healthy eating behaviors.

The developmental approach, which is based on the unique social and psychological characteristics of each developmental period, is critical for understanding children's and adolescents' attitudes toward food and for encouraging healthy eating behaviors.

The contextual approach emphasizes the promotion of positive attitudes toward food and healthy eating behaviors by providing children, adolescents, and their families with consistent nutrition messages. Consistency, combined with flexibility, is essential for handling the challenges of early childhood. During middle

childhood and adolescence, it is important for parents to encourage their children and adolescents to become more responsible for their own health and to help them develop the skills they need to practice healthy eating behaviors.

Bright Futures in Practice: Nutrition recommends that food and eating be viewed as both health-enhancing and pleasurable. Food provides more than just energy and sustenance. It holds innumerable symbolic, emotional, social, and personal meanings. Food is connected with nurturing, family, culture, tradition, and celebration. Promoting positive attitudes toward food and healthy eating behaviors in children and adolescents involves recognizing the multiple meanings of food and creating an environment that encourages the enjoyment of food. Family meals are emphasized because they help build on family strengths and promote unity, social bonds, and good communication.

Partnerships Among Health Professionals, Families, and Communities

Encouraging healthy eating behaviors in children and adolescents is a shared responsibility. One of the principles of *Bright Futures in Practice: Nutrition* is that, together, health professionals, families, and communities can make a difference in the nutrition status of infants, children, and adolescents.

Today, many families face the challenges of balancing work and home life and dealing with hectic schedules. Health professionals can help families learn how to fit nutritious meals and snacks into their busy lives. To be most effective, strategies need to be tailored to the family's individual needs.

The family is the predominant influence on children’s and adolescents’ attitudes toward food and their adoption of healthy eating behaviors. The family exerts this influence by

- Providing the food.
- Transmitting attitudes, preferences, and values about food, which affect lifetime eating behaviors.
- Establishing the social environment in which food is shared.

Parents want to know how they can contribute to their infants’, children’s, and adolescents’ health and are looking for guidance; however, they are faced with contradictory nutrition information. Dietary recommendations can be misunderstood or misinterpreted, especially when adult guidelines are applied to children and adolescents.

Bright Futures in Practice: Nutrition will help health professionals revise standards of practice, promote the development of new nutrition programs, and provide the information children and adolescents need to develop positive attitudes toward food and practice healthy eating behaviors. The guide can serve as a resource for training health professionals and students. Sections of the guide—particularly the Frequently Asked Questions at the end of the Infancy, Early Childhood, Middle Childhood, and Adolescence chapters and the tools on nutrition risk, food

safety, body image, and federal food assistance and nutrition programs—can serve as a resource for educating families.

Throughout the nutrition guide, we use the term “parent” to refer to the adult or adults responsible for the care of the infant, child, or adolescent. In some situations this person could be an aunt, uncle, grandparent, custodian, or legal guardian.

The community can be invaluable in helping children and adolescents develop positive attitudes about food and practice healthy eating behaviors. *Bright Futures in Practice: Nutrition* can be used in a variety of community settings (e.g., clinics, health and child care centers, hospitals, schools, colleges and universities). Community settings and events that provide a variety of healthy, affordable, and enjoyable foods can be instrumental in communicating positive nutrition messages.

Where We Go from Here

There are many opportunities for promoting the nutrition status of infants, children, and adolescents. It is our sincere hope that *Bright Futures in Practice: Nutrition* will be useful to health professionals, families, and communities as they strive to ensure the health and well-being of the current generation and of generations to come.

Bright Futures in Practice: Nutrition Vision and Goals

The vision and goals of *Bright Futures in Practice: Nutrition* are to

- ☀️ Improve the nutrition status of infants, children, and adolescents.
- ☀️ Identify desired health and nutrition outcomes that result from positive nutrition status.
- ☀️ Set guidelines to help health professionals promote the nutrition status of infants, children, and adolescents.
- ☀️ Encourage partnerships among health professionals, families, and communities to promote the nutrition status of infants, children, and adolescents.
- ☀️ Describe the roles of health professionals in delivering nutrition services within the community.
- ☀️ Identify opportunities for coordination and collaboration between health professionals and the community.



How This Guide Is Organized

The guide is divided into the following sections.

Introduction

This section provides information on promoting good nutrition and physical activity as essential components of a healthy lifestyle; establishing a framework for understanding how culture affects food choices and nutrition; and building partnerships among health professionals, families, and communities to improve the nutrition status of infants, children, and adolescents.

Nutrition Supervision

This section outlines critical nutrition issues in infancy, early childhood, middle childhood, and adolescence. Each chapter contains an overview of the developmental period; nutrition supervision information (including interview questions, screening and assessment, and counseling); desired health and nutrition outcomes; and a list of frequently asked questions with answers that can be used as a handout for families.

Nutrition Issues and Concerns

This section provides an overview of common nutrition issues and concerns that affect infants, children, and adolescents.

Nutrition Tools

This section provides nutrition screening tools, strategies, and resources to help health professionals, families, and communities promote the nutrition status of infants, children, and adolescents.

Indexes

This section provides developmental and topic indexes and lists the tools that appear in the guide.



How This Guide Can Be Used

Bright Futures in Practice: Nutrition can be used in many settings, including university-based training programs, health clinics, community health centers, nutrition education programs, and child care facilities. Potential uses of the information fall into four main areas: clinical, community, policy, and education and training.

Clinical

Uses

- Incorporate into each nutrition supervision visit.
- Incorporate into each health supervision visit, as outlined in *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*.
- Develop and evaluate nutrition programs.
- Implement standards of practice and protocol.
- Educate children, adolescents, and their families.
- Refer families to nutrition resources.
- Support studies to determine the efficacy of Bright Futures nutrition guidelines.

Examples

- Develop nutrition standards of care for Early and Periodic Screening, Diagnostic and Treatment (EPSDT) services.
- Incorporate nutrition screening, assessment, and counseling information into health encounter forms.
- Incorporate “Desired Outcomes” (e.g., “gradually increases variety of foods eaten”) from the nutrition supervision chapters to track developmental milestones on health encounter forms.
- Measure the child’s height and weight, determine body mass index (BMI), and plot these on a CDC

growth chart at each health supervision visit. (See Tool M: CDC Growth Charts, p. 282.)

- Implement recommendations for screening, assessment, and treatment of hypertension.
- Develop protocol for iron-deficiency anemia screening.

Community

Uses

- Provide anticipatory guidance to families on healthy eating behaviors.
- Provide information to program staff to educate families about nutrition.
- Develop and evaluate nutrition education programs.
- Refer families to nutrition resources.
- Help schools incorporate nutrition education into their curricula.
- Implement standards of practice and protocol.

Examples

- Develop a resource guide for parents with infants or children participating in WIC to promote a healthy feeding relationship between parents and their children.
- Promote partnerships among health professionals and members of the community interested in food safety (e.g., food service workers, school nurses, child care providers, restaurant owners).
- Develop recommendations for preventing dehydration and heat illness among children and adolescents. Dietitians and other health professionals, physical education teachers, coaches, and parents could use information from the nutrition guide to develop “fact sheets” for distribution throughout the community.

- Help children and adolescents in group homes and juvenile justice facilities obtain a wider range of healthy food choices, access to physical activity, and knowledge of the relationships among body weight, fitness, body image, and substance use.
- Promote partnerships among health professionals, families, and the community (e.g., PTA members, principals, teachers, food service personnel, coaches) interested in promoting healthy nutrition in schools.

Policy

Uses

- Provide information to policymakers, program administrators, and community leaders on nutrition issues and concerns.
- Obtain support for nutrition policies and programs.
- Develop standards of practice and protocol for nutrition programs.

Examples

- Incorporate recommendations in state nutrition education guidelines and regulations.
- Revise health care guidelines for managed care settings to cover nutrition screening, assessment, and counseling for infants, children, and adolescents.
- Focus advocacy efforts on preventing early childhood caries and promoting community water fluoridation.
- Support studies to determine the cost-effectiveness of Bright Futures nutrition guidelines.
- Develop coverage and care appropriate for infants, children, and adolescents provided by the State Children’s Health Insurance Program (SCHIP).

Education and Training

Uses

- Educate and train other health professionals and paraprofessionals.
- Provide in-service education and training to staff.
- Use the nutrition guide as a textbook or reference.

Examples

- Add a cultural awareness component to nutrition counseling training, using “Keys to Good Cross-Cultural Communication” (pp. 18–19).
- Plan monthly nutrition case conferences in clinical training programs, using the nutrition supervision chapters and Tool D: Key Indicators of Nutrition Risk for Children and Adolescents to evaluate nutrition risk. Use “Desired Outcomes” from the nutrition supervision chapters to evaluate developmental milestones and formulate nutrition care plans.

Acknowledgments

The Bright Futures project is a major initiative of the Maternal and Child Health Bureau (MCHB), Health Resources and Services Administration, U.S. Department of Health and Human Services.

As part of the project's current phase, Building Bright Futures, outstanding leaders in nutrition and health worked together to develop this guide—*Bright Futures in Practice: Nutrition*—a unique and original contribution to the field.

In 2000 and 2001, *Bright Futures in Practice: Nutrition* was distributed across the country. The guide has been used by states, colleges and universities, health centers and clinics, and community programs to provide nutrition education and training and to promote nutrition policy. The nutrition guide was so popular that the inventory was quickly depleted. To keep this valuable resource available, *Bright Futures in Practice: Nutrition*, Second Edition, was produced. This new edition reflects changes in practice and policy, incorporates information on human immunodeficiency virus (HIV), and integrates the nutrition guide and user's guide into one volume.

The guide received support and commitment from MCHB, especially from Peter C. van Dyck, associate administrator for maternal and child health, and M. Ann Drum, division director.

Executive Steering Committee members who contributed to the second edition were Catherine Cowell, M. Ann Drum, Ardys Dunn, Katrina Holt, Brenda Lisi, Patricia McGill Smith, Bonnie Spear, and Mary Story.

This collaborative effort would not have been possible without the leadership, vision, and guidance of Mary Story, chair of *Bright Futures in Practice: Nutrition*. It has been an honor to work with her.

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Health (NCEMCH). Her tireless efforts in organizing the work of the Executive Steering Committee, contributors, and reviewers and in writing and editing are very much appreciated.

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I also extend my sincere appreciation to Sarah Kolo, project assistant, for her valuable assistance with the second edition.

It has been a most rewarding experience for me to be a part of this effort.


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Organizational Support

-  Ambulatory Pediatric Association
-  American Academy of Child and Adolescent Psychiatry
-  American Academy of Pediatric Dentistry
-  American Academy of Pediatrics
-  American Academy of Physician Assistants
-  American Alliance for Health, Physical Education, Recreation, and Dance
-  American Association for Health Education
-  American College of Nurse-Midwives
-  American Dental Hygienists' Association
-  American Dietetic Association
-  American Medical Association
-  American Medical Women's Association
-  American Public Health Association
-  American School Health Association
-  Association of Graduate Programs in Public Health Nutrition
-  Association of Maternal and Child Health Programs
-  Association of State and Territorial Health Officials
-  Association of State and Territorial Public Health Nutrition Directors
-  Child Welfare League of America
-  CityMatCH
-  Family Voices
-  Federation for Children with Special Needs
-  March of Dimes
-  National Association for Sport and Physical Education
-  National Association of Community Health Centers
-  National Association of County and City Health Officials
-  National Association of Pediatric Nurse Practitioners
-  National Association of School Psychologists
-  National Organization of Nurse Practitioner Faculties
-  National Parent Network on Disabilities
-  National PTA

 National WIC Association

 Society for Adolescent Medicine

 Society for Developmental and Behavioral Pediatrics

 Society for Nutrition Education

 Society of Pediatric Nurses

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