Bright Futures

IMPLEMENTATION TIP SHEET

Promoting Physical Activity

As with adults, physical activity is important for infant, child, and adolescent health. According to the American Academy of Pediatrics (AAP), evidence shows that regular physical activity promotes higher levels of cardiorespiratory fitness, stronger muscles and bones, lower body fat, improved cognition and memory, better academic performance, and reduced symptoms of depression. Such activity also gives all children a better chance for a healthy adulthood free of chronic conditions like substance use disorders, heart disease, hypertension, and type 2 diabetes. AAP notes

> *Studies have confirmed the benefit of physical activity on children's cardiorespiratory fitness, lipid profiles, insulin sensitivity, and serum glucose concentrations in individuals with obesity as well as associations with more optimal cardiovascular profiles in the most physically active children. Importantly, for the developing child, aerobic activity and strength training result in increased muscle mass and decreased fat mass. Physical activity also increases bone density and improves balance, protecting against falls and injury both in childhood and later in life. …Less widely appreciated, physical activity benefits behavioral, cognitive, and social aspects of child health. Increased physical activity has also been shown to be associated with decreased rates of smoking and fewer symptoms of depression, and increased rates of inactivity and sedentary activity can predict future alcohol and drug use in adolescents.*[1-4]

AAP reported that as recently as 2016, less than half of children and 8% of adolescents were meeting the 2008 Physical Activity Guidelines from the U.S. Department of Health and Human Services of 60 minutes daily of moderate-to-vigorous physical activity. AAP noted, "With rates of obesity rising over the last decades, annual relative increases of 4.8% in the incidence of type 2 diabetes mellitus,[1,5] and declines in estimated life expectancy at time of birth since 1993, the role of physical activity on child, and later adult, health remains an important component of preventive care and disease treatment."[1,6,7]

For children and adolescents with disabilities and chronic illnesses, there may be additional barriers to regular participation in physical activity. In addition to safety precautions related to the particular disability, caregivers may overestimate risks, and there may be issues with the availability of funds/reimbursement or appropriate programs targeted to the child's particular needs, among other concerns. Assessments may occur over a period of time with the participation of the child's multidisciplinary team, rather than during a single visit. According to a clinical report from AAP on this topic, pediatric health care professionals can create "physical activity prescriptions" for children and adolescents with disabilities "on the basis of the child's preferred activities, functional status, need for adaptation of the activity and the recreational opportunities available in the community."[8]

ABOUT BRIGHT FUTURES

Bright Futures is a national health promotion and prevention initiative, led by the American Academy of Pediatrics (AAP) and supported by the Maternal and Child Health Bureau, Health Resources and Services Administration. The *Bright Futures Guidelines* provide theory-based and evidence-driven guidance for all preventive care screenings and well-child visits. Bright Futures content can be incorporated into many public health programs such as home visiting, child care, school-based health clinics, and many others. Materials developed especially for families are also available. Learn more about Bright Futures and get Bright Futures materials by visiting aap.org/brightfutures.

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Pediatric health care professionals can identify opportunities for physical activity assessment and prescription for children facing barriers to activity. Those most at risk for inactivity include children who live in urban and rural environments, historically marginalized children, adolescent girls, and children and youth with special health care needs. School-based physical activity interventions often are the most promising approach to increasing physical activity for these children and adolescents, according to AAP.

The tips below provide ways in which pediatric health care professionals can use physical activity guidelines in their practice settings and advocate for opportunities for parents and families, schools, and communities to play a role.

TIPS

1. **Assess a child's level of gross motor skills, physical activity, and physical literacy as part of health supervision visits, including dietary and sleep behaviors.**
   - Ask nonjudgmental questions and use reflective listening to determine child, adolescent, and/or family beliefs and values that have implications for physical activity. Consider the impact of social determinants on physical activity and level of physical literacy on the child and family.
   - Use standard screening tools and refer children/adolescents for appropriate follow-up treatment in the event of identified developmental delays or deficits.
   - Discuss the role and benefits of physical activity with respect to various aspects of well-being, including physical and social growth and development, management of other health conditions, mental health, school performance, behavioral management, and risk-behavior reduction specifically related to the child/adolescent.
2. **Provide health promotion and prevention guidance to infants/children/adolescents and their families.**
   - Help infants/children/adolescents and their families set goals, establish a monitoring system, and use positive reinforcement.
   - Encourage active play and physical activity throughout the day.
   - Consider and discuss the special needs of infants/children/adolescents with disabilities and how to encourage regular physical activity. Refer to the National Center on Health, Physical Activity and Disability for resources and services, including free-to-access videos on physical activity and physical education.
3. **Promote effective opportunities for physical activity at home and in the school and community.**
   - Refer families to community-based recreational and activity programs, such as sports clubs, recreation centers, parks, walking and biking trails, skate parks, and playgrounds.
   - Refer children/adolescents with disabilities to local adaptive and therapeutic recreation programs.
   - Advocate for such programs and activities with health care and community-based organizations, insurance providers, and schools.
4. **Set a personal example.**
   - Model appropriate healthy behaviors and encourage parents to do the same.
5. **Incorporate physical activity assessment and guidance into medical school curricula and resident/trainee education.**
   - Curricula/education can include exercise prescription and assessing physical activity, incorporating the recommended frequency, intensity, duration, and type of activity. Such prescriptions and methods should include consideration of the particular child's current health, fitness, and preferences.

Physical Activity Guidelines Applicable to Infants, Children, and Adolescents[9]

Age	Summary of Anticipatory Guidance
Birth to 1 year[10]	• Encourage and stimulate activity several times per day through interactive floor-based play (eg, supervised "tummy time"). • Encourage opportunities to promote skill development in movement.
1–3 years[10]	• ≥60 minutes per day—unstructured physical activity • ≥30 minutes per day—structured physical activity (intentionally directed by an adult) • Should not be sedentary for >60 minutes at a time except when sleeping
3–5 years	• 3+ hours per day of activity (light, moderate, or vigorous) • Encourage a variety of activity types to enhance growth and development.
6–17 years	• ≥60 minutes per day and, depending on age, interest, and intensity, could include – *Moderate or vigorous aerobic activity daily.* Playing games such as tag; playing on a playground; riding a tricycle or bicycle; walking, running, skipping, jumping, and dancing; swimming; playing games that require catching, throwing, and kicking; gymnastics/tumbling; hiking; playing baseball/softball; house/yard work; and video games that require continuous movement. – *Vigorous activities at least 3 days per week.* Any of the above activities listed under "moderate," as well as jumping rope, skiing, martial arts, soccer, basketball, or tennis. – *Muscle-strengthening activities at least 3 days per week.* Playing games such as tug of war, climbing on playground equipment, gymnastics, resistance exercises, use of weight machines or handheld weights, rope or tree climbing, and some forms of yoga. – *Bone-strengthening activities at least 3 days per week*. Hopping, skipping, jumping rope, running, gymnastics, and sports that involve jumping or rapid changes of direction.
Child/adolescent not meeting guidelines	• Gradually reduce sedentary behaviors and increase activity, variety, and intensity in ways the child enjoys.

MAKE THE MOST OF HEALTH SUPERVISION VISITS BY USING THE BRIGHT FUTURES TOOL & RESOURCE KIT

The *Bright Futures Tool & Resource Kit*, 2nd Edition, provides the forms and materials that health care professionals need to carry out preventive health supervision and health screening for infants, children, and adolescents. These materials can help health care professionals discuss healthy weight with families. Its Core Tools provide valuable resources that help health care professionals focus on healthy weight during the health supervision visit, such as the following forms organized by age visits. Reviewing parents and adolescents' responses on the **Previsit Questionnaires** gives insights related to physical activity and related healthy weight and nutrition, providing a foundation for discussion during the visit. The **Visit Documentation Form** is a convenient resource for documenting activities during the visit and can be adapted for use in electronic health record systems. The **Parent-Patient Education Handout** can help reinforce the discussion and provide additional information on promoting physical activity.

ADDITIONAL RESOURCES

- Physical Activity Assessment and Counseling in Pediatric Clinical Settings
- Physical Activity Guidelines for Americans, 2nd Edition
- The Crucial Role of Recess in School
- Promoting the Participation of Children and Adolescents With Disabilities in Sports, Recreation, and Physical Activity
- Healthy Active Living for Families (HALF) – Recommendations by Age
- Building a Foundation for Healthy Active Living (self-paced modules)
- Healthy Growth App
- HealthyChildren.org – Ages & Stages Fitness sections
- U.S. Department of Agriculture resources

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