

Supporting Physical Activity for Children and Youth with Special Health Care Needs

Promoting health and wellbeing for children and youth with special health care needs is a critical part of their ongoing healthcare. Too often treating the child’s illness or addressing ongoing needs for special services take the focus off the importance of health promotion issues that need to be addressed in the care of all children. While addressing acute health care needs is necessary, so is assuring good health and wellbeing across the life span.

Physical activity is an important part of every child’s development and wellbeing.^{2,5} It is an integral part of how children and youth learn and stay healthy. For children with special health care needs or disabilities, getting enough physical activity and exercise to grow, learn, and stay healthy can be challenging.^{1,2}

Children and youth in general are not getting the recommended daily amount of physical activity. Only 77% of school elementary-middle school aged children reported

having any physical activity during their ‘free time’ in a 7-day period.¹⁰ Only 29% of high school students were getting an hour of physical activity a day with boys more active than girls at the recommended levels.¹⁰ Even fewer were getting any vigorous physical activity.¹⁰

Children with special needs are more likely to be obese and less likely to be physically active than children without special needs.^{7,12} Nearly 75% of individuals across the life span with disabilities do not get enough physical activity to benefit their health.⁷

There is evidence that children and youth who participate in regular physical activity feel better about themselves, have fewer mental health issues or depression, experience improvement of some symptoms of conditions (increased attention and concentration, reduction of asthma), and have more opportunities for social participation with peers.^{2,5}

BENEFITS OF PHYSICAL ACTIVITY FOR CHILDREN AND ADOLESCENTS^{5,9}

- Stronger muscles
- Healthy body weight
- Reduced anxiety and depression
- Reduced chance of chronic disease across the lifespan (e.g. diabetes, hypertension)
- Better school performance

RECOMMENDATIONS: The Physical Activity Guidelines for Americans recommends children and adolescents get at least 60 minutes of daily physical activity.^{9,17}

Infants (0–12 months old)	Toddlers (12–36 months old)	Preschoolers (3–5 years old)	Children 6 Years Old to Adolescent
<ul style="list-style-type: none"> • Daily interaction with caregivers that helps them explore their environment • Activities that promotes learning to the large and small muscles of the body in safe, supervised settings 	<ul style="list-style-type: none"> • Should not be sedentary for more than 60 minutes at a time except to sleep • Should get at least 30 minutes total of structured physical activity daily • At least 60 minutes or more of unstructured movement and play in safe, supervised settings 	<ul style="list-style-type: none"> • At least 60 minutes total of structured physical activity • 60 minutes or more of unstructured movement and play in safe, supervised settings 	<ul style="list-style-type: none"> • 60 minutes or more per day of sustained moderate to vigorous aerobic physical activity that includes muscle strengthening (climbing) and bone strengthening activities (jumping) at least 3 times per week • Hiking, skateboarding, running, skipping, hand bicycle, and other adapted sport activities (e.g., beep ball, wheelchair racing, etc.) • Vigorous physical activity (running, organized sports) at least 3 times per week

Barriers

Children and youth, with special health care needs may encounter barriers to physical activity in common with all children.^{1,11} These include:

- Lack of physical environment that provides equipment, dedicated spaces and safe places to play in their neighborhoods.
- Limited opportunities built into the day at child care, school, or at home for physical activity.
- Few role models of physical activity level by the child's parents or main care givers.

There are an additional set of barriers for children and youth with special health care needs that may limit their physical activity including:

- Lack of access to places or programs in the community willing or able to make the kinds of accommodations and safe guards that children and youth with special health care needs may need to participate.
- Child's special health care needs may impact the types and extent of physical activity.
- Caregivers' worry that because their children are sick, physical activity could be harmful.

How Can Health Care Providers Support Physical Activity for Children with Special Health Care Needs⁸

It is important for health care providers to regularly discuss participation in physical activity with children and youth with special health care needs and their families. They can provide information and reassurance that there are ways for all children, who are not acutely ill, to meet the recommendations for physical activity.

Effectively supporting children and youth with special health care needs and their families begins with knowledge. Health care providers should build knowledge about the following:

- Recommended age-appropriate guidelines for physical activity (see above).
- Condition specific advantages and potential barriers to participation in physical activity.
- Resources in their local communities that provide appropriate sports and physical activity programs for children with special health care needs (see below).

Health care providers can also support children and youth with special health care needs by being able to identify strategies to minimize risk of exacerbating symptoms and sustaining injuries that can be implemented by families, child care settings, schools and community activity programs. (See **Appendix A**. It is always important to assess each individual's needs.) When health care providers perform pre-participation evaluations for children and youth with special health care needs they can collaborate with and get input from the child, the family, schools, child care providers, therapists, coaches and others to build an integrated approach for safe physical activity. For all children and youth it is important for providers to talk to families about their levels of physical activity and the importance of providing a role model for their children and help them problem-solve ways to overcome barriers in their own lives.

Local Resources that Promote Physical Activity

The following is a list of services that have confirmed provisions for accommodating children with special health care needs:

Organization	Description	Telephone & Website
DC Department of Parks & Recreation Aquatics Division	Provides residents and visitors of the District with safe, well-maintained aquatic facilities and programs that offer a diverse and comprehensive scope of water related activities. DPR Aquatics offers residents of all ages and abilities a variety of high-quality programming from aqua aerobics and swim instruction to scuba and water polo.	(202) 671-1289 http://dpr.dc.gov/service/aquatics-division
DC Department of Parks & Recreation Sports, Health, & Fitness	Enhances the quality of life and wellness of the District of Columbia residents and visitors by providing equal access to affordable and quality recreational services and by organizing programs, activities and events. This division oversees and manages all DPR sports leagues, teams and games for youth, adults and seniors; along with all of DPR's fitness facilities and health and wellness programs.	(202) 671-0314 http://dpr.dc.gov/service/sports-health-fitness For additional information on offerings for children with special health care needs contact Lakisha Newby at (202) 698-1794.
Potomac Community Resources	Provides therapeutic, recreational, social, and respite care programs for teens (ages 15+) and adults with developmental differences, as well as information about community resources for families; serves DC residents.	(301) 365-0561 http://pcr-inc.org
Boys & Girls Clubs of Greater Washington	In partnership with the Metropolitan Police Department, the DC Region provides youth ages 5 to 18 with high-impact, affordable programs and caring adult mentorship to keep kids on the path to great futures, emphasizing academic success, good character and citizenship, and healthy lifestyles.	202-540-2300 www.bgcgw.org/dc/#

Local Resources that Promote Physical Activity Continued

Organization	Description	Telephone & Website
THEARC (Town Hall Education Arts Recreation Campus)	THEARC is a home away from home for the many underserved children and adults of East of the River, enabling them to participate in dance classes, music instruction, fine arts, academics, continuing education, mentoring, tutoring, recreation, medical and dental care, and other services at a substantially reduced cost or no cost at all.	202-889-5901 www.thearcdc.org
Washington DC Jewish Community Center	Facilities include aquatic center, sports, and fitness programs; Also offer parenting center, preschool, camps, and after school programs. To discuss your child's specific accommodation needs (i.e., children with special health care needs), please contact the Preschool Director at 202-777-3271.	202-777-3278 http://washingtondcjjcc.org/kids-and-parents

Local Resources Designed for Children with Disabilities/Other Special Healthcare Needs

Organization	Description	Telephone & Website
Best Buddies Capital Region	A nonprofit organization dedicated to establishing a global volunteer movement that creates opportunities for one-to-one friendships, integrated employment and leadership development for people with intellectual and developmental disabilities (IDD).	(703) 533-9420 www.bestbuddiesvirginia.org
Camp Breathe Happy (by Breathe DC)	A fun, active, and educational one-week day camp for disadvantaged DC children ages 8 to 12 who have asthma; it provides the opportunity to enjoy a variety of traditional camps activities, including games, social events and field trips, while at the same time learning how to manage their asthma. Children also learn to identify their specific individual asthma triggers, recognize the signs and symptoms of an impending asthmatic episode, and the importance and proper use of medications.	(202) 574-6789 http://breathedc.org/camp-breathe-happy
Community Resources for Individual with Disabilities	Guide to parks, sports, and recreation for individuals with disabilities in the DC-Maryland-Virginia area.	(703) 228-4740 http://parks.arlingtonva.us/therapeutic-recreation/therapeutic-recreation-communityresources

Local Resources Designed for Children with Disabilities/Other Special Healthcare Needs Continued

Organization	Description	Telephone & Website
Special Olympics District of Columbia	Provides year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community.	(202) 408-2640 www.specialolympicsdc.org
The Adaptive Sports and Fitness Program (MedStar National Rehabilitation Network)	Helps maximize participation for individuals with disabilities in recreational and competitive sports. Through these programs, participants are able to build self-confidence, improve health and wellbeing, and gain greater independence. Programs are open to anyone with a physical disability at no cost. They provide coaching, training, equipment and travel assistance in 9 sports. They provide circuit training, open gym and cardio fitness classes both at the hospital and in the community. They also host adaptive sports tournaments and special events throughout the year.	(202) 877-1420 www.medstarnrh.org/our-services/adaptive-sports-fitness/services/adaptive-sports-fitness-program/#q={
The Arc of DC	The Arc of DC advocates for the rights and full community participation of all people with intellectual and developmental disabilities.	(202) 636-2950 www.arcdc.net/what-we-do

Other Helpful Guidelines and Resources

Organization	Description	Telephone & Website
National Association for Sport and Physical Education	Physical activity guidelines supporting NASPE's position that all children birth to age five should engage in daily physical activity that promotes health-related fitness and movement skills.	www.naeyc.org/files/yc/file/200605/NASPEGuidelinesBTJ.pdf
National Center on Physical Activity and Disability	A public health practice and resource center on health promotion for people with disability, NCHPAD seeks to help people with disability and other chronic health conditions achieve health benefits through increased participation in all types of physical and social activities, including fitness and aquatic activities, recreational and sports programs, adaptive equipment usage, and more.	Toll Free: 1-800-900-8086 www.ncpad.org
National Center of Medical Home Initiatives for Children with Special Needs	Reviews the benefits of recreation for children with disabilities, provides information on national initiatives, and identifies Web sites of organizations such as Special Olympics and the National Center on Physical Activity and Disability.	Toll Free: 1-800-433-9016 ext. 7605 www.medicalhomeinfo.org/how/care_delivery/cyshcn.aspx

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¹⁰Physical Activity Guidelines for Americans Midcourse Report Subcommittee of the President's Council on Fitness, Sports & Nutrition. Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth. Washington, DC: U.S. Department of Health and Human Services, 2012, <http://www.health.gov/paguidelines/midcourse/pag-midcourse-report-final.pdf>.

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APPENDIX A**Condition Specific Considerations for Children with Specific Health Care Needs**

Condition	Especially for Doctors...	Discuss with Families...
Asthma	<p>Provide appropriate testing to assess exercise induced symptoms with more in depth testing such as Eucapnic voluntary hyperventilation testing for those pursuing athletic activities.¹⁵</p> <p>Develop with families and children treatment approaches to address exercise induced symptoms and safety considerations.¹⁵</p>	<p>Child is able to participate in any physical activity if symptoms are well controlled.¹⁵</p> <p>Swimming is less likely to trigger exercise-induced bronchospasm (EIB) than running.¹⁵</p> <p>Should keep an accurate history of symptoms, trigger exposures, treatments and course of recovery from episodes of bronchospasm.¹⁵</p> <p>Proper timing of medication use before exercise.¹⁵</p> <p>Should not scuba dive if they have asthma symptoms or abnormal pulmonary function tests (PFT).¹⁵</p>
Cystic Fibrosis (CF)	<p>Those with severe CF should undergo exercise testing to identify maximal heart rate, levels at which oxygen desaturation and ventilation limits occur, exercise-related bronchospasm and response to therapy.¹⁵</p> <p>Recommend child drinks flavored sodium chloride-containing fluids above thirst levels to prevent hyponatremic dehydration. Those with diabetes mellitus require additional carbohydrates during prolonged exercise.¹⁵</p>	<p>Child should be encouraged to participate in any physical activity. Consultation with a sport medicine physician or pediatric respirologist is suggested.¹⁵</p> <p>Should have individualized exercise programs that include strength training.¹⁵</p> <p>Coughing during exercise should not necessarily stop activity.¹⁵</p> <p>Should absolutely avoid scuba diving.¹⁵</p> <p>Those with an enlarged spleen or diseased liver should avoid contact or collision sports.¹⁵</p>
Juvenile Idiopathic Arthritis (JIA)	<p>Suggest individualized training (especially for children with severe joint disease) within a group exercise format for physical/social benefit.</p> <p>Physiotherapists on pediatric rheumatology health care teams should coordinate individual exercise programs.¹⁵</p> <p>Consider radiographic screening for C1-C2 instability before participation in collision/contact sports if they have neck arthritis. If present, further evaluation is required.¹⁵</p>	<p>Child can safely participate in sports without disease exacerbation.¹⁵</p> <p>Should participate in moderate fitness, flexibility and strengthening exercises.¹⁵</p> <p>Can participate in impact activities and competitive contact sports if their disease is well controlled and they have adequate physical capacity.¹⁵</p> <p>Should be encouraged to be physically active as tolerated. Those with moderate to severe impairment or actively inflamed joints should limit activities within pain limits.¹⁵</p> <p>Should gradually return to full activity following a disease flare.¹⁵</p> <p>Should wear appropriately fitted mouth guards during activities with jaw and dental injury risk (per general population), especially if they have jaw involvement.¹⁵</p> <p>Should wear appropriate eye protection (per general population) during activities with ocular injury risk.¹⁵</p>

APPENDIX A Continued

Condition	Especially for Doctors...	Discuss with Families...
Hemophilia	<p>Provide assessment of joint and muscle function before sport selection. If restrictions are required, counsel children and their families about safe alternatives.¹⁵</p> <p>Carefully assess, in consultation with a sport medicine physician and/or pediatric hematologist, before sanctioning participation in contact or collision sports such as martial arts, hockey or football.¹⁵</p>	<p>Use of appropriate factor prophylaxis to reduce the risk of bleeding in sport.¹⁵</p> <p>Developing a written plan with coach, parent, or school before sport participation to prevent or treat bleeds.¹⁵</p> <p>Following acute bleed, physical activity should be avoided until joint pain or swelling has resolved. Return to sport requires consultation with provider to do individualized assessment and appropriate rehabilitation.¹⁵</p>
Sickle-Cell Disease	<p>Encourage children to participate fully to the best of their ability and according to their tolerance level.</p> <p>Provide recommendations for participation with more frequent rest periods and increased hydration.¹³</p>	<p>Discussion with the physical education teacher about the physical discomforts associated with SCD and any symptoms a child has had in the past with physical activity to address teacher expectations. This should include discussion of the fact that as a result of low hemoglobin level (anemia), children with SCD will tire faster than their peers with physical activity.¹³</p> <p><i>Special precautions for swimming:</i> Children with SCD can participate in swimming classes. However, they should limit the time in the pool to 30 minutes. After getting out of the water, they must dry off and change into dry clothing right away. They should not run around in cold, wet swimsuits that lead to a decreased body temperature, potentially resulting in bone pain.¹³</p> <p><i>Special precautions for hot weather:</i> When exposed to very hot temperatures, such as during a sporting event in the summer, they can participate, but with frequent rest breaks and increased hydration.¹³</p> <p><i>Special precautions for winter activities:</i> They should be allowed to participate in winter activities, but should be dressed well in layers appropriate for the temperature of the day. Areas of increased loss of body heat, such as fingers, toes, head, and ears should all be well covered. They should be excused from participating at temperatures less than -5°C.¹³</p>
Down Syndrome (General Exercise Guidelines)	<p>Assess each child to evaluate contraindications and precautions when initiating the program.¹⁴</p> <p>Take into consideration the effects of medications on the body in relation to exercise.¹⁴</p> <p>Work with child's programs to create an emergency procedure plan.¹⁴</p>	<p>Obtain physician consent for child's participation in any given activity.¹⁴</p> <p>Seek programs and activities that include the following:</p> <ul style="list-style-type: none"> • If exercise machines are involved, they are labeled with pictures and there is adequate supervision.¹⁴ • Augmented constant supervision.¹⁴ • Ensure constant monitoring of heart rate through exercise duration.¹⁴ • Provide more visual guidance than verbal instruction.¹⁴ • Incorporate motivational techniques (i.e., token reward system) to improve adherence.¹⁴ • Gradually elevate the program's level of intensity.¹⁴