



ACSM Sports Medicine Basics

CHILDHOOD OVERWEIGHT & OBESITY



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The global presence of overweight and obese individuals has reached epidemic levels over the last few decades, notably in the U.S. While rates of obesity in preschool age children have leveled off, the prevalence of overweight and obese children ages 2 to 19, in the U.S., is still around 17 percent. Children with overweight or obese parents have a greater chance of being overweight and obese themselves. Also, overweight children and adolescents are more likely to become obese adults.

The comorbidities of obesity in children are the same as in adults: type 2 diabetes, high cholesterol, hypertension, cardiovascular disease, breathing and orthopedic problems. In addition, psycho-social problems such as low self-esteem and teasing from peers can cause lifelong harm to children and their emotional development. Across disciplines, practitioners agree that prevention and early intervention are the keys to improved outcomes in overall health and longevity.

Definition of Overweight & Obese

It is now thought that the risk for obesity may begin before the age of two: maternal habits while pregnant, lack of breastfeeding, poor sleep habits and rapid weight gain in infants and toddlers. Despite cultural beliefs about an infant's body weight, overweight children seldom outgrow it. Assuming parents

take their children to annual well visits, it is up to the pediatricians, physicians assistants (PAs) or nurses to provide the conversation to educate caregivers about improving food, beverage and physical activity choices for kids.

The American Academy of Pediatrics (AAP) and the Centers for Disease Control (CDC) recommend the use of body mass index (BMI) adjusted for age to screen for overweight and obesity in children and teens ages two through 19 years. Children often follow their own growth curve. If your child has been in the 85th to 95th percentile, they are considered at risk for overweight. Children who are > 95th percentile are considered overweight. The term obesity is controversial as a diagnostic term in children and adolescents.

Multifactorial Dilemma

Just as in adults, overweight and obesity are caused by an energy imbalance where calories consumed exceeds calories expended throughout the day. While genetics may play a role, lifestyle habits and behaviors are modifiable choices.

Sugar sweetened beverages, high calorie foods, increased portion sizes and lack of access to affordable, healthy food options, coupled with confusing and conflicting information about fad and "healthy" diets, impact food choices that are not beneficial. Children are

consuming foods that are higher in calories, but low in nutrient quality for vitamins, minerals, fiber and protein. Kids often are not the ones purchasing or preparing the meals they eat. Currently, families tend to eat more packaged, processed and pre-prepared foods, and dine out more; which means they have less control over the ingredients compared to making meals from scratch.

Unsafe places for children to play and increased time spent using technology are the other half of the energy balance equation. This includes time spent at school. Despite research showing that children who are more physically active perform better academically, physical education programs are often sacrificed due to budget cuts and standardized testing performance goals for school districts. Sitting has become the new smoking for children and adults.

In some communities, the environment is not conducive to recreation due to a lack of sidewalks and/or safe parks and playgrounds. When the time constraints of working parents are factored in, the opportunities for children to include additional physical activity in their daily routine decreases.

Prevention and Treatment of Childhood Obesity

Families, health care providers and communities should work toward preventing obesity in the first place. Family behavioral intervention must begin when a child is first identified as at-risk for overweight. Parents and caregivers need to be educated to lead by example, as healthy lifestyle choices impact everyone.

Traditionally, recommendations to maintain body weight and waiting for their height to “catch up” was the norm. However, in part due to multifactorial behavioral causes, weight loss may also be necessary to prevent the likelihood of comorbidities. The Dietary Guidelines (health.gov/dietaryguidelines/2015/) recommend eating mostly plant-based foods that are high in fiber like whole grains, fruits, vegetables, lean protein along with low and no fat I think this is one of the changes that they are not going to focus on dairy fat?? dairy intake. Water is the beverage of choice. The U.S. Physical Activity Guidelines recommend at least 60 minutes of physical activity each day for children and adults.

Technology use should be restricted to no more than two hours per day. In addition, making sure children have at least nine hours of sleep is vital for growing bodies to rest, recharge, renew and repair. Education, participating in physical activities, healthy diets and regular health checkups can aid in prevention and treatment of overweight and obesity.

Education

Children are frequently bombarded with messages within the media. This includes television program content along with commercials that are often for fast food or low-nutrient quality foods. The behavioral choices of children are frequently determined by parents and caregivers; many children who are overweight and obese have one or both parents in the same situation. Weight loss can be difficult for adults, so it is understandable that families have difficulty losing weight. Parents need to lead by example, engage in regular physical activity and make healthier food choices.

Physical Activity

Physical activity has a positive effect on health and is an essential component in the prevention and treatment of overweight and obesity. Physical activity can help to lower blood pressure and cholesterol, decrease fat deposition and help to maintain body weight. Physical activity is important to growth and development of the cardiovascular system, increasing bone density, and improving muscle health. Like adults, children should be physically active most days of the week. Sixty minutes of intermittent, moderate-to-high physical activity daily for children is recommended by the National Association for Sport and Physical Education, the US Department of Health and Human Services and the National Institutes of Health.

Types of Physical Activity

There are many ways to get children and families moving: walking, biking, dancing, jumping rope, basketball, Frisbee and skating all count! Families can spend active time together visiting playgrounds, parks, museums and zoos. Consider taking active vacations together that include hiking, biking, walking, boating and swimming. Involve children in household activities like walking the dog, washing a car, raking leaves, lawn mowing and shoveling snow. Physical activity is an essential part of a healthy lifestyle for the entire family.

Dietary Practices

Children who are overweight and obese need to reduce their daily caloric intake while maintaining a diet that is balanced in nutrients to encourage proper growth and development. Wholesome foods include fruits, vegetables, low-fat or fat-free dairy, high fiber grains, and lean proteins. Consult the U.S. Dietary Guidelines at www.myplate.gov for more information. Consider finding a registered dietitian (RD) in your community for individualized recommendations and guidance (www.eatright.org).

Summary & Conclusions

The prevalence of overweight and obesity continues to threaten the health and well-being of children across the globe. There is a need for parents, caregivers, physicians and schools to identify children who are at risk and initiate lifestyle changes to prevent further escalation of health problems. Lifestyle modifications, as described in this paper, can be part of prevention and treatment for overweight and obesity. This trend can and should be reversed!

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