

New Expert Recommendations for Prevention and Treatment of Childhood Obesity in Primary Care

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Planting the seeds for better health

SUMMARY

This issue brief describes recommendations on prevention, evaluation, and treatment of childhood obesity recently released by a national Expert Committee made up of representatives from fifteen professional organizations. It also outlines action steps for Delaware stakeholders in pediatric health.

Introduction

Childhood obesity is one of the most serious public health crises facing the nation. Over the last 40 years childhood obesity has more than quadrupled in the 6–11 year-old population, rising from 4 to 19 percent, and more than tripled in the 12–19 year-old population, from 5 to 17 percent. Nearly one third of children aged 6 through 19 years are overweight or obese.⁴ The health and economic consequences of obesity could be unprecedented if the epidemic continues.

The childhood overweight and obesity epidemic will increase the prevalence of associated conditions, such as heart disease and type-2 diabetes, and further contribute to the rising cost of health care. Eighty percent of obese adolescents will remain obese throughout adulthood, resulting in an increased risk for diseases including cardiovascular disease and diabetes.⁵ Obesity's rising prevalence is responsible for an almost 30 percent increase in medical expenditures nationally.⁶ At least \$207 million is spent each year to treat obesity-related medical problems in Delaware.⁷

Expert Committee Recommendations

The first national recommendations on the evaluation and treatment of childhood obesity were published in 1998.⁸ Since then, the obesity

epidemic has worsened and in 2005, the American Medical Association, in collaboration with the U.S. Department of Human Services' Health Resources Services Administration and the Centers for Disease Control, convened an Expert Committee to produce updated recommendations. The Committee members were drawn from 15 professional organizations with expertise in obesity-related conditions and included physicians, dietitians and epidemiologists.⁹

This Committee established recommendations for all aspects of child and adolescent obesity care based on scientific evidence and clinical experience. Because the evidence base for prevention and treatment of obesity is still emerging, some recommendations represent a consensus based on the best available information.³

Recommendations on Prevention

The Expert Committee recommends universal prevention, universal screening, and early intervention for childhood overweight and obesity. All children, starting at birth (and prenatally), should be targeted for obesity prevention efforts by health care providers. Pediatric providers are trusted resources for families and can provide information and support so that children develop healthy habits that will lead to a healthy weight.

The Expert Committee recommends that clinicians provide anticipatory guidance to all families on adopting and maintaining specific target behaviors, including:

- Encouraging diets with US Department of Agriculture (USDA) recommended quantities of fruits and vegetables;

About Nemours Health and Prevention Services

Nemours Health and Prevention Services (NHPS) is a division of Nemours, one of the nation's largest pediatric health systems, operating the Alfred I. duPont Hospital for Children and outpatient facilities throughout the Delaware Valley and northern and central Florida. The Nemours A.I. duPont Hospital for Children treats children of all ages suffering from mild to severe obesity through multi-disciplinary and family based methods.

The goal of NHPS is to drive long-term improvements in policies and practices that promote child health, and to leverage community strengths and resources to help children grow up healthy. One of our initial areas of emphasis is the prevention of childhood obesity through promotion of healthy lifestyles, the centerpiece of which is the *5-2-1-Almost None* prescription for a healthy lifestyle (see inside for details).



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New Expert Recommendations Treatment of Childhood

Our Formula for a Healthy Lifestyle: 5–2–1–Almost None

NHPS is taking a leading role to help people understand the causes and health implications of obesity and the best ways to promote healthier lifestyles among children and families.

5-2-1-Almost None is our formula for a healthy lifestyle.



- Eat five or more servings of fruits and vegetables per day.
- Spend no more than two hours per day in front of a screen (TV, video games, recreational computer time).
- Get at least one hour of physical activity per day.
- Drink almost no sugary beverages like soda and sports drinks.

For more information about our work to make Delaware’s Children the Healthiest in the Nation, visit: www.growuphealthy.org

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- Limiting television and other screen time according to American Academy of Pediatrics Guidelines;¹⁰
- Promoting moderate to vigorous physical activity for at least 60 minutes a day;¹¹ and
- Limiting consumption of sugar sweetened beverages.

This guidance is consistent with Nemours’ 5-2-1-Almost None formula for a healthy lifestyle (see left panel). In addition, the Committee also recommends:

- Eating breakfast daily;
- Limiting eating out at restaurants, especially fast-food;
- Encouraging family meals; and
- Limiting portion sizes according to USDA recommendations.

Because it is difficult to change behavior, the Expert Committee encourages physicians and other health care professionals to take a comprehensive approach, by functioning as counselors and using motivational interviewing techniques; documenting BMI on a routine basis; and establishing procedures to deliver obesity prevention messages to all children.

Recommendations on Assessment

The Expert Committee recommends plotting weight, height, and Body Mass Index (BMI) on the appropriate growth chart to obtain percentiles for the child’s age and gender at least once a year. The Committee also reclassified BMI percentile categories. Those previously considered “at-risk for overweight” (85th up to 95th percentile for age and gender) and those previously considered “overweight” are now categorized as “overweight” (85th up to 95th percentile for age and gender) and those previously considered “overweight” are now categorized as

“obese” (\geq 95th percentile for age and gender).

No child wants to be called obese. Yet it is essential that pediatric providers discuss a child’s weight status given that research indicates that parents of overweight and obese children are often unaware of their child’s weight status.¹² Providers need to maintain a non-judgmental attitude and can refer to the full recommendations for advice on sensitive ways of discussing weight management issues with families.³

The Committee recommends assessing all pediatric patients’ physical activity levels and sedentary behaviors at each well-child visit at a minimum. The assessment should include self-efficacy and readiness to change, environment and social support, and barriers to physical activity.

Other criteria involve whether the child is meeting daily recommendations of 60 minutes of at least moderate physical activity and a comparison of the child’s screen time to a standard of less than two hours per day. Screen time includes watching television, playing video games, and using the computer.

Providers should also assess all pediatric patients’ dietary patterns at each well-child visit, at a minimum. The assessment should include excessive consumption of sweetened beverages, frequency of eating outside the home at restaurants or fast food establishments, and consumption of excessive portion sizes.

Recommendations on Treatment

Treating childhood overweight and obesity can help reduce future risk of chronic disease. Interventions at the early stages of disease and with young children are more sustainable than interventions at more advanced stages.

Recommendations for Prevention and Obesity in Primary Care



The Expert Committee recommends a four stage approach to customize weight management for individual children. Current BMI, past attempts at weight loss, motivation, and maturity are used to determine the appropriate intervention. Each stage builds upon the previous one.

The following is the staged approach for children between the ages of 2 and 19 years whose BMI is at or above the 85th percentile and is consistent with the NHPS 5-2-1-Almost None formula for a healthy lifestyle.

Stage 1. Prevention Plus protocol:

At this stage, a primary care physician or allied healthcare provider with some training in pediatric weight management and behavioral counseling should work with the family and child. Dietary and physical activity recommendations include:

- Five or more servings of fruits and vegetables per day;
- No more than two hours of screen time per day, and no television in the child's bedroom;
- One hour or more of daily physical activity; and
- Restriction of sugar-sweetened beverages.

The goal should be weight maintenance with growth that results in a decreasing BMI as age increases. If no improvement is noted after 3 to 6 months, the provider should assess patient/family readiness to change and may advance the patient to Stage 2.

Stage 2. Structured Weight Management protocol:

At this stage, a multidisciplinary team that may include a primary care physician or allied health care provider

RECOMMENDED ACTION STEPS

- 1 Key Delaware stakeholder organizations should endorse the recommendations by signing the Delaware Obesity Prevention and Treatment Commitment document.
- 2 The Expert Committee recommendations should be widely circulated among professionals and shared, as appropriate, with parents and the media.
- 3 Delaware pediatric providers should adapt their clinical practice to the new recommendations.
- 4 Quality improvement opportunities and/or training on the new recommendations should be made available to Delaware practitioners.

highly trained in weight management, as well as a dietitian, a counselor, or a physical therapist can implement Stage 2 recommendations; which include:

- Increased structured daily meals and snacks;
- Supervised active play of at least one hour per day;
- Screen time of one hour or less per day;
- Increased monitoring (e.g, logs for screen time, physical activity, dietary intake) by provider, patient and family.

The goal should be weight maintenance with growth that results in decreasing BMI as age increases. If no improvement is noted after 3 to 6 months, the patient should be advanced to Stage 3.

Stage 3. Comprehensive Multidisciplinary protocol:

At this stage, the patient should optimally be referred to a

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The Delaware Primary Care Initiative on Childhood Overweight

Led by NHPS, the initiative seeks to equip health care providers with knowledge and skills to implement the new recommendations with all patients. The aim is to better prevent, identify and manage childhood overweight and promote healthy eating and physical activity.

The long-term goal of the initiative is to contribute to a statewide effort aimed at reducing the prevalence of overweight among Delaware children.

For more information, visit: www.growuphealthy.org

Changes to HEDIS 2009

Health care providers should note that there is now a greater emphasis on measuring quality of care by focusing on obesity prevention and treatment. The National Committee for Quality Assurance has added two new measures focused on obesity to the Healthcare Effectiveness and Data Information Set (HEDIS).

The HEDIS is the most widely used performance measurement system in health care. The new measures will assess how consistently physicians perform BMI measurements among adults and children and will also, for children, track physician counseling for nutrition and physical activity. The final measures were released in 2008; data for the new measures will be collected in 2009 and made publicly available in 2010.¹³

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multidisciplinary obesity care team. Dietary and physical activity recommendations include:

- Implementing a structured behavioral modification program, including food and activity monitoring and development of short-term diet and physical activity goals; and
- Involving primary caregivers/families in behavioral modification for children under age 12 and training for all primary caregivers/families.

The goal should be weight maintenance or gradual weight loss until BMI is less than 85th percentile. Weight loss should not exceed 1 lb. per month in children aged 2-5 years or 2 lbs. per week in older obese children and adolescents.¹⁴

Implementation of Recommendations

The full report by the Expert Committee provides a detailed description of the goals and methods used in childhood obesity prevention, assessment and treatment. Additional tools, including the Primary Care Provider Toolkit produced by NHPS, are available to assist with incorporating the recommendations into clinical practice.

The full report is available at http://pediatrics.aappublications.org/cgi/reprint/120/Supplement_4/S164

The Toolkit is available at www.nemours.org/department/nhps/five-two-one/pcp.html

Notes

1. Institute of Medicine. (2005). Committee on Prevention of Obesity in Children and Youth. Preventing Childhood Obesity: Health in the Balance. Washington, D.C.: National Academies Press.
2. Epstein LH, Wing RR, Penner BC, Kress MJ. (1985). Effect of diet and controlled exercise on weight loss in obese children. *Journal of Pediatrics*, 107: 358-361.
3. Barlow SE & the Expert Committee. (2007). Expert committee recommendations regarding the prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. *Pediatrics*, 120, S164-S194.
4. Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CH, Flegal KM. Prevalence of overweight and obesity in the United States, 1999-2004. *Journal of the American Medical Association*, 295: 1549-1555. At the time these data were published, the old classification for overweight was still used—individuals with a BMI equal to or greater than 85% and less than 95% were classified as “at risk for overweight” and individuals with a BMI equal to or greater than 95% were classified as “overweight.” Based on the 2007 Expert Committee Recommendations, the authors described the previous category of “at risk of overweight” as “overweight” and those previously referred to as “overweight” are described as “obese.”
5. Guo SS, Wu W, Chumlea WC, Roche AF. (2002). Predicting overweight and obesity in adulthood from body mass index values in childhood and adolescence. *American Journal of Clinical Nutrition*, 76: 653-658.
6. Thorpe KE, Florence CS, Howard DH, Joski P. (2004). The impact of obesity on rising medical spending. *Health Affairs*, 4: W480-W484.
7. Finkelstein EA, Fiebelkorn IA, Wang G. (2004). State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research*, 12: 18-24.
8. The Department of Health and Human Services Health Resources and Service Administration convened an expert committee in 1997 tasked with developing recommendations on the assessment and treatment of childhood obesity.
9. Expert committee members were selected to represent the views of diverse cultural groups.
10. The American Academy of Pediatrics recommends no television watching for children under the age of two and no more than two hours of television watching for children older than two.
11. The Expert Committee recommends other healthy behaviors including eating a diet rich in calcium, high in fiber, with limited energy-dense foods and balanced micronutrients. The Expert Committee also recommends exclusive breastfeeding to 6 months of age and continued breastfeeding until 12 months of age.
12. Rhee KE, De Lago CW, Arscott-Mills T, Mehta SD, Davis RK. (2005). Factors associated with parental readiness to make changes for overweight children. *Pediatrics*, 116, e94-e101.
13. National Committee for Quality Assurance. (2008). Obesity screening measures highlight additions to HEDIS 2009. Retrieved July 2, 2008 from <http://www.ncqa.org/tabid/662/Default.aspx>.
14. The Expert Committee also provides recommendations regarding tertiary care interventions including medications, very low-calorie diets, and weight control surgeries.

