U.S. Preventive Services Task Force

Screening for Obesity in Children and Adolescents: Recommendation Statement

▶ See related Putting Prevention into Practice on page 737.

This summary is one in a series excerpted from the Recommendation Statements released by the U.S. Preventive Services Task Force (USPSTF). These statements address preventive health services for use in primary care clinical settings, including screening tests, counseling, and preventive medications.

EB CME

This clinical content conforms to AAFP criteria for evidence-based continuing medical education (EB CME). See CME Quiz on page 671.

A collection of USPSTF recommendation statements reprinted in *AFP* is available at http://www.aafp.org/afp/uspstf.

The complete version of this statement, including supporting scientific evidence, evidence tables, grading system, members of the USPSTF at the time this recommendation was finalized, and references, is available on the USPSTF Web site at http://www.uspreventiveservicestaskforce.org/.

Summary of Recommendation and Evidence

The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians screen children six years and older for obesity, and offer them or refer them to comprehensive, intensive behavioral interventions to promote improvement in weight status *(Table 1)*. **B Recommendation.**

Rationale

Importance. *Since the 1970s, childhood and adolescent obesity has increased three- to sixfold. Approximately 12 to 18 percent of children and adolescents two to 19 years of age are obese (defined as having an age- and gender-specific body mass index [BMI] at or above the 95th percentile). BMI values are used to determine a percentile score on the basis of population-based references, such as those developed by the Centers for Disease Control and Prevention (CDC). The 2000 CDC growth charts that are used to calculate BMI were developed with data from five national health examination surveys that occurred from 1963 to 1994, and with supplemental data from surveys that occurred from 1960 to 1995.*[1]

Detection. *Previously, the USPSTF found adequate evidence that BMI was an acceptable measure for identifying children and adolescents with excess weight.*

Benefits of detection and early intervention/treatment. *The USPSTF found adequate evidence that multicomponent, moderate- to high-intensity behavioral interventions can effectively yield short-term (up to 12 months) improvements in weight status for children and adolescents six years and older who are obese. Inadequate evidence was found regarding the effectiveness of low-intensity interventions.*

Harms of detection and early intervention/treatment. *There is adequate evidence that the harms of behavioral interventions are no greater than small.*

USPSTF assessment. *The USPSTF concludes that there is moderate certainty that the net benefit is moderate for screening for obesity in children six years and older, and for offering or referring children to moderate- to high-intensity interventions to improve weight status.*

Clinical Considerations

Patient population. This recommendation applies to children and adolescents six to 18 years of age. The USPSTF is using the following terms to define categories of increased BMI: overweight is defined as an age- and gender-specific BMI between the 85th and 94th percentiles, and obesity is defined as an age- and gender-specific BMI at or above the 95th percentile. The USPSTF did not find sufficient evidence for screening children younger than six years.

Screening tests. In 2005, the USPSTF found adequate evidence that BMI was an acceptable measure for identifying children and adolescents with excess weight. BMI is calculated from a person's measured weight and height.

Treatment. The USPSTF found that effective comprehensive weight-management programs incorporated counseling and other interventions that targeted diet and physical activity. Interventions also used behavioral management techniques to assist in behavior change. Interventions that focused on younger children incorporated parental involvement as a component. Moderate- to high-intensity programs involved more than 25 hours of contact with the child and/or the family over a six-month period. Results included improved weight status, defined as an absolute and/or relative decrease in BMI 12 months after the

Table 1. Screening for Obesity in Children and Adolescents: Clinical Summary of the USPSTF Recommendation

Population	Children and adolescents six to 18 years of age
Recommendation	Screen children six years and older for obesity. Offer or refer for intensive counseling and behavioral interventions. Grade: B
Screening tests	BMI is calculated from weight in kilograms divided by the square of the height in meters. Height and weight, from which BMI is calculated, are routinely measured during health maintenance visits. BMI percentile can be plotted on a chart or obtained from online calculators. Overweight = age- and gender-specific BMI between the 85th and 94th percentile Obesity = age- and gender-specific BMI at or above the 95th percentile
Timing of screening	No evidence was found on appropriate screening intervals.
Interventions	Refer patients to comprehensive moderate- to high-intensity programs that include dietary, physical activity, and behavioral counseling components.
Balance of harms and benefits	Moderate- to high-intensity programs were found to yield modest weight changes. Limited evidence suggests that these improvements can be sustained for one year after treatment. Harms of screening were judged to be minimal.
Relevant recommendations from the USPSTF	Recommendations on other pediatric and behavioral counseling topics can be found at http://www.uspreventiveservicestaskforce.org/.

BMI = body mass index; USPSTF = U.S. Preventive Services Task Force.

NOTE: *For the full recommendation statement and supporting documents, visit http://www.uspreventiveservicestaskforce.org/.*

beginning of the intervention. Most participants were obese, and it is not known whether these results can be applied to children who are overweight but not obese. In addition, evidence was limited on the long-term sustainability of BMI changes achieved through behavioral interventions and on the trajectory of weight gain in children and adolescents. Interventions generally took place in referral settings, and the results can only be generalized to children who follow through on treatment. Low-intensity interventions, defined as 25 contact hours or less over a six-month period, did not result in significant improvement in weight status.

Interventions that combined pharmacologic agents (sibutramine or orlistat) with behavioral interventions resulted in modest short-term improvement in weight status in children 12 years and older. There were no long-term data on the maintenance of improvement after discontinuation of medications. The magnitude of the harms of these drugs in children could not be estimated with certainty. Adverse effects included elevated heart rate, elevated blood pressure, and adverse gastrointestinal effects. Sibutramine, a centrally acting appetite suppressant, has been approved by the U.S. Food and Drug Administration (FDA) for use in adolescents 16 years and older. Orlistat, a lipase inhibitor, has been approved by the FDA for use in adolescents 12 years and older. Neither sibutramine nor orlistat has been approved for use in pediatric populations younger than 12 years.

Screening intervals. No evidence was found regarding appropriate intervals for screening. Height and weight, from which BMI is calculated, are routinely measured during health maintenance visits.

This recommendation statement was first published in *Pediatrics.* 2010;125(2):361-367.

The "Other Considerations," "Discussion," and "Recommendations of Others" sections of this recommendation statement are available at http://www.uspreventiveservicestaskforce.org/uspstf/uspschobes.htm.

EDITOR'S NOTE: On October 8, 2010, Abbott Laboratories and the U.S. Food and Drug Administration notified health care professionals and patients about the voluntary withdrawal of Meridia (sibutramine) from the U.S. market because of clinical trial data indicating an increased risk of heart attack and stroke. Physicians are advised to stop prescribing Meridia to their patients, and patients should stop taking this medication. Patients should talk to their health care professional about alternative weight loss and weight loss maintenance programs.

REFERENCE

1. Kuczmarski RJ, Ogden CL, Guo SS, et al. 2000 CDC Growth Charts for the United States: methods and development. *Vital Health Stat 11.* 2002;(246):1-190. ■