Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report

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(1) Ovorvious	Provide a structured abstract that includes the guideline's release date, status (original, revised, updated), and
Overview	print and electronic sources.
material	
Release Date	December 2007
Status	Empty
Available in Electronic Format	Empty
Available in Print Format	Empty
Bibliographic citation	Empty
Contact Information	Empty
Adapted From Another Guideline	Empty
(2)	Describe the primary disease/condition and intervention/ service/ technology that the guideline addresses. Indicate
Focus	any alternative preventive, diagnostic or therapeutic interventions that were considered during development.
Primary disease or	
condition	3 areas of focus: prevention, assessment, and treatment of childhood overweight and obesity.
Alternative Strategies Available	Empty
Comparable Guideline	Empty
(3) Goal	Describe the goal that following the guideline is expected to achieve, including the rationale for development of a guideline on this topic.
Goal	These new recommendations use current, evidence-based data, as well as clinical experience when evidence does not exist, to provide
Goui	updated practical guidance to practitioners IN 1997, when the Department of Health and Human Services Health Resources and Service Administration convened the first expert
Rationale	committee to develop recommendations on the evaluation and treatment of child and youth obesity, few studies of this problem had been conducted to provide evidence for the recommendations. Since then, increasing scientific attention has resulted in an expanded body of literature on the causes, comorbidities, and treatment of this problem. The condition remains frustrating and difficult to treat but, with more-current scientific information available, in 2005 the American Medical Association, in collaboration with the Health Resources and Service Administration and the Centers for Disease Control and Prevention (CDC), convened a new expert committee that was charged with providing revised recommendations.
Outcomes or Performance Measures Considered	Empty
(4) Users/Setting	Describe the intended users of the guideline (e.g., provider types, patients) and the settings in which the guideline is intended to be used.
Users	Empty
Care Setting	Empty
(5) Target population	Describe the patient population eligible for guideline recommendations and list any exclusion criteria.
Population Target	Empty
Eligibility	Empty
Inclusion criteria	Empty
Exclusion criteria	Empty
(6) Developer	Identify the organization(s) responsible for guideline development and the names/credentials/potential conflicts of interest of individuals involved in the guideline's development.
•	American Medical Association, in collaboration with the Health Resources and Service Administration and the Centers for Disease Control
Name of Developer	and Prevention (CDC)
Name of Committee	Representatives from 15 national health care organizations formed the expert committee The steering committee, composed of representatives from the American Medical Association, the Health Resources and Service Administration, and the CDC, invited these member organizations because they serve children at high risk of obesity, they represent experts in obesity-related conditions, or they represent experts in aspects of obesity treatment. Special care was taken both to ensure that a broad range of disciplines, including medicine, nutrition, nursing, psychology, and epidemiology, was represented and to capture the interests of diverse cultural groups.
Committee Expertise	The steering committee, composed of representatives from the American Medical Association, the Health Resources and Service Administration, and the CDC, invited these member organizations because they serve children at high risk of obesity, they represent experts in obesity-related conditions, or they represent experts in aspects of obesity treatment. Special care was taken both to ensure that a broad range of disciplines, including medicine, nutrition, nursing, psychology, and epidemiology, was represented and to capture the interests of diverse cultural groups.

(7)	Identify the funding source/sponsor and describe its role in developing, and/or reporting the guideline. Disclose
Funding	potential conflict of interest.
source/sponsor	
Source of Funding	Empty American Medical Association, in collaboration with the Health Resources and Service Administration and the Centers for Disease Control
Name of Developer	and Prevention (CDC)
Role Of Sponsor	Empty
Conflict Of Interest	The author has indicated she has no financial relationships relevant to this article to disclose.
(8)	Describe the methods used to search the scientific literature, including the range of dates and databases searched,
Evidence	and criteria applied to filter the retrieved evidence.
collection	
Description of Evidence Collection	Empty
Number of Source Documents	Empty
Evidence Time Period	Empty
Criteria for Selecting Evidence	Empty
(9)	Describe the criteria used to rate the quality of evidence that supports the recommendations and the system for
Recommendation	describing the strength of the recommendations. Recommendation strength communicates the importance of
grading criteria	adherence to a recommendation and is based on both the quality of the evidence and the magnitude of anticipated benefits or harms.
Recommendation Grading Criteria	Empty
Evidence Quality Rating Scheme	he writing groups provided a broad rating of the evidence, so that readers can appreciate the limitations of these recommendations and watch for new studies that will refine them. The rating categories were as follows: recommends with consistent evidence (CE), that is, multiple studies generally show a consistent association between the recommended behavior and either obesity risk or energy balance; recommends with mixed evidence (ME), that is, some studies demonstrated evidence for weight or energy balance benefit but others did not show significant associations, or studies were few in number or small in sample size; suggests, that is, studies have not examined the association of the recommendation with weight or energy balance, or studies are few, small in number, and/or without clear findings; however, the expert committee thinks that these recommendations could support the achievement of healthy weight and, if future studies
Recommendation Strength Rating Scheme	disprove such an effect, then these recommendations are likely to have other benefits and are unlikely to cause harm. Empty
(10)	
Method for	
synthesizing	Describe how evidence was used to create recommendations, e.g., evidence tables, meta-analysis, decision analysis.
evidence	
Description of Evidence Combination	Each multidisciplinary writing group reviewed the current literature to develop the recommendations. Because the science continues to lag behind the obesity epidemic, many gaps in evidence-based recommendations remain. With few exceptions, randomized, controlled, intervention trials have not been performed to prove or to disprove the effect of a particular behavior on weight control in obese children. The available studies often examine associations between health behaviors and weight or between health behaviors and energy balance. Even less evidence exists about the process of addressing obesity in a primary care setting. The purpose of the expert committee was to offer practical guidance to clinicians by providing recommendations in all areas of obesity care, including those that lack the best possible evidence When evidence of an effect on obesity was not available, the writing groups considered the literature, clinical experience, the likelihood of other health benefits, the possible harm, and the feasibility of implementing a particular strategy before including it. When health benefits, the possible harm, and the feasibility of implementing a particular strategy before including it.
Methods To Reach Judgment	Empty
(11) Pre-release review	Describe how the guideline developer reviewed and/or tested the guidelines prior to release.
External Review	The writing groups presented their recommendations to the expert committee for discussion and revision in May 2006. Once consensus was reached, the committee members then presented the recommendations to their member organizations for endorsement (see "Acknowledgments" for expert committee and writing group participants).
Pilot testing	Empty
Formal Appraisal	Empty
(12) Update plan	State whether or not there is a plan to update the guideline and, if applicable, an expiration date for this version of the guideline.
Expiration	Empty
Scheduled Review	Empty
(13)	Define unfamiliar terms and those critical to correct application of the guideline that might be subject to
Definitions	misinterpretation.
Definitions	Empty
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Term - Meaning	
(14)	State the recommended action precisely and the specific circumstances under which to perform it. Justify each
Recommendations	recommendation by describing the linkage between the recommendation and its supporting evidence. Indicate the
and rationale	quality of evidence and the recommendation strength, based on the criteria described in 9.
Recommendation	The Role of the Provider's Office - <i>Imperative</i> - The expert committee endorses the following office practices, routine documentation of BMI.
Action	Document BMI routinely
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	The Role of the Provider's Office - <i>Imperative</i> - The expert committee endorses the following office practice establishment of procedures to deliver obesity prevention messages to all children. When the patient's individual risk of obesity is low, these messages can promote appropriate general health or wellness, rather than weight control.
Action	establish procedures to deliver obesity prevention messages
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - The BMI percentile, although imperfect, is the recommended screen for body fat in routine office practice.
Action	Use BMI percentile to screen for body fat
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Medical Assessment - Imperative - Skinfold thickness measurements are not recommended.
Action	Do not perform Skinfold thickness measurements
Reference	Empty
Reason	hey are difficult to perform accurately without careful training and experience and reference data are not readily available.
Quality of Evidence	Empty
Recommendation	Medical Assessment - Imperative - waist circumference measurements are not recommended currently.
Action	Do not measure waist circumference
Reference	Empty
Reason	reference values for children that identify risk over and above the risk from BMI category are not available
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - Parental obesity is a strong risk factor for a child's obesity persisting into adulthood, especially for young children.
Action	Empty
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Medical Assessment - Imperative - Offices should review and regularly update the family history regarding first-and second-degree relatives
Action	review and regularly update the family history
Reference	Empty
Reason	several obesity-related medical conditions are familial. Family history predicts type 2 diabetes mellitus or insu lin resistance, and the prevalence of childhood diabetes is especially high among several ethnic and racial backgrounds common in the United States, including Hispanic, black, and North American Indian.53 Cardiovascular disease and cardiovascular disease risk factors (hyperlipidemia and hypertension) are also more common when family history is positive.5
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - A review of systems and a physical examination represent an inexpensive way to screen for many of these conditions, although some conditions are without symptoms or signs.
Action	Empty
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - Blood pressure should be assessed at all health supervision visits, and offices should have large cuffs, including thigh cuffs, which allow accurate assessment of blood pressure for severely obese youths.
Action	Assess blood pressure at all health supervision visits
Reference	Empty
Reason	Approximately 13% of overweight children have elevated systolic blood pressure, and 9% have elevated diastolic blood pressure.
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - the expert committee recommends a focused assessment of behaviors that have the strongest evidence for association with energy balance and that are modifiable.
Action	asses behaviors that have the strongest evidence for association with energy balance and that are modifiable.
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Reference	Empty
Reason	Because comprehensive dietary and physical activity assessments, such as diet or physical activity diaries, are impractical in a typical
Quality of Evidence	office setting
Quality of Evidence	Empty Medical Assessment Invariation For acting habation assessment the following habations should be addressed frequency of acting food
Recommendation	Medical Assessment - Imperative - For eating behavior assessment, the following behaviors should be addressed frequency of eating food prepared outside the home, including food in restaurants, school and work cafeterias, and fast food establishments and food purchased for "take out"; • ounces, cups, or cans of sugar-sweetened beverages consumed each day; portions that are large for age (qualitative assessment); • ounces or cups of 100% fruit juice consumed each day; frequency and quality of breakfast; consumption of foods that are high in energy density, such as high-fat foods; number of fruit and vegetable servings consumed each day; and number of meals and snacks consumed each day and quality of snacks.
Action	Address frequency of eating food prepared outside the home,
Action	Address ounces, cups, or cans of sugar-sweetened beverages consumed each day
Action	Address portion size
Action	Address ounces or cups of 100% fruit juice consumed each day;
Action	Address frequency and quality of breakfast
Action	Address consumption of foods that are high in energy density, such as high-fat foods;
Action	Address number of fruit and vegetable servings consumed each day
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Medical Assessment - <i>Imperative</i> - For physical activity assessment, the following behaviors should be addressed: time spent in moderate physical activity each day (including organized physical activity and unstructured activity, including play), to estimate whether the goal of 60 minutes of moderately vigorous activity each day is achieved; routine activity patterns, such as walking to school or performing yard work; sedentary behavior, including hours of television, videotape/DVD, and video game viewing and computer use to determine whether viewing is andgt;2 hours per day.
Action	Address time spent in moderate physical activity each day
Action	Address routine activity patterns
Action	Address sedentary behavior
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Prevention Plus - Imperative - involve the whole family in lifestyle changes
Action	involve the whole family in lifestyle changes
Reference	Empty
Reason	Empty
Quality of Evidence	(CE)
Recommendation	Prevention Plus - <i>Imperative</i> - help families tailor behavior recommendations to their cultural values
Action	help families tailor behavior recommendations to their cultural values
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - Conditonal - the expert committee recommends that individuals 2 to 18 years of age with BMI of 95th percentile for age and gender or BMI of 30 (whichever is smaller) should be considered obese and individuals with BMI of 85th percentile but 95th percentile for age and gender should be considered overweight; this term replaces "at risk of overweight."
Decision Variable	2 to 18 years of age
Decision Variable	BMI of 95th percentile for age and gender
Decision Variable	BMI of 30
Action	consider obese
Reference	Empty
Reason	Empty
Strength of Recommendation	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - Conditonal - the expert committee recommends individuals with BMI of 85th percentile but 95th percentile for age and gender should be considered overweight; this term replaces "at risk of overweight."
Decision Variable	BMI of 85th percentile
Decision Variable	95th percentile for age and gender
Action	consider overweight; this term replaces "at risk of overweight."
Reference	Empty
Reason	Empty
Strength of Recommendation	Empty
Quality of Evidence	Empty
	Assessment Recommendations - Conditonal - The expert committee recommends that a thorough physical examination be performed and

Recommendation	that, for a child identified as overweight or obese, the following measurements be included, in addition to the aforementioned recommendations on BMI: (a) pulse, measured in the standard pediatric manner; (b) blood pressure, measured with a cuff large enough that 80% of the arm is covered by the bladder of the cuff; and (c) signs associated with comorbidities of overweight and obesity (see the assessment report).2 Waist circumference is not recommended for routine use. Although high waist circumference can indicate insulin resistance and other comorbidities of obesity and may be useful to characterize risks for obese children, measurement is difficult and appropriate cutoff values are uncertain.
Decision Variable	identified as overweight or obese
Action	Measure pulse
Action	Blood pressure
Action	signs associated with comorbidities of overweight and obesity
Reference	Empty
Reason	Empty
Strength of	Empty
Recommendation	<u> </u>
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - <i>Conditional</i> - If the BMI is 85th to 94th percentile for age and gender with no risk factors, then a fasting lipid profile should be obtained.
Decision Variable	BMI is 85th to 94th percentile for age and gender
Decision Variable	no risk factors
Action	Obtain a fasting lipid profile
Reference	Empty
Reason	Empty
Strength of Recommendation	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - Conditional - If the BMI is 85th to 94th percentile for age and gender with risk factors in the history or physical examination, then AST, ALT, and fasting glucose levels should also be measured.
Decision Variable	BMI is 85th to 94th percentile for age and gender
Decision Variable	risk factors in the history or physical examination
Action	Measure fasting lipid profile, AST, ALT, and fasting glucose levels
Reference	Empty
Reason	Empty
Strength of Recommendation	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - Conditonal - If the BMI is andgt;95th percentile for age and gender, even in the absence of risk factors, then all of the tests listed for 85th to 94th percentile BMI with risk factors should be performed.
Decision Variable	BMI is andgt;95th percentile for age and gender
Action	Measure fasting lipid profile, AST, ALT, and fasting glucose levels
Reference	Empty
Reason	Empty
Strength of Recommendation	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - <i>Imperative</i> - The expert committee recommends that physicians and allied health care providers perform, at a minimum, a yearly assessment of weight status for all children and that this assessment include calculation of height, weight (measured appropriately), and BMI for age and plotting of those measures on standard growth charts.
Action	Assess at a minimum yearly height, weight and BMI for age
Action	Plot those measures on standard growth charts
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - <i>Imperative</i> - the expert committee recommends that individuals 2 to 18 years of age with BMI of 95th percentile for age and gender or BMI of 30 (whichever is smaller) should be considered obese and individuals with BMI of 85th percentile but 95th percentile for age and gender should be considered overweight; this term replaces "at risk of overweight."
Action	Empty
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - Imperative - The expert committee recommends the use of 99th percentile BMI values for age as cutoff points (indicated by using a table with cutoff points for the 99th percentile BMI according to age and gender), to allow for improved accessibility of the data in the clinical setting and for additional study.
Action	use 99th percentile BMI values for age as cutoff points to allow for improved accessibility of the data in the clinical setting and for additional study
Reference	Empty

Reason	use of 99th percentile BMI values for age as cutoff points (indicated by using a table with cutoff points for the 99th percentile BMI according to age and gender), to allow for improved accessibility of the data in the clinical setting and for additional study
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - <i>Imperative</i> - The expert committee recommends that qualitative assessment of dietary patterns for all pediatric patients be conducted at each well child visit for anticipatory guidance and readiness to change and identification of the following specific dietary practices, which may be targets for change: frequencyy of eating outside the home, excessive consumption of sweetened beverages, consumption of excessive portion sizes for age
Action	qualitatively assess dietary patterns at a minimum, at each well-child visit for anticipatory guidance
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	Assessment Recommendations - <i>Imperative</i> - The expert committee recommends that physicians and allied health care providers obtain a focused family history for obesity, type 2 diabetes mellitus, cardiovascular disease (particularly hypertension), and early deaths resulting from heart disease or stroke, to assess the risks of current or future comorbidities associated with a child's overweight or obese status.
Action	obtain a focused family history for obesity, type 2 diabetes mellitus, cardiovascular disease (particularly hypertension), and early deaths resulting from heart disease or stroke
Reference	Empty
Reason	to assess the risks of current or future comorbidities associated with a child's overweight or obese status
Quality of Evidence	Empty
Recommendation	RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Patient-Level Interventions - <i>Conditonal</i> - 1. The expert committee recommends that physicians and allied health care providers counsel the following for children 2 to 18 years of age whose BMI is 5th to 84th percentile: (a) limiting consumption of sugar-sweetened beverages (consistent evidence); (b) encouraging diets with recommended quantities of fruits and vegetables (mixed evidence); (c) limiting television and other screen time by allowing no more than 2 hours per day, as advised by the American Academy of Pediatrics (consistent evidence), and removing television and computer screens from children's primary sleeping areas (consistent evidence);
Decision Variable	2 to 18 years of age
Decision Variable	BMI is 5th to 84th percentile
Action	Counsel: limiting consumption of sugar-sweetened beverages (consistent evidence)
Action	Counsel: encouraging diets with recommended quantities of fruits and vegetables (mixed evidence)
Action	Counsel: limiting television and other screen time by allowing no more than 2 hours per day
Action	Counsel: removing television and computer screens from children's primary sleeping areas (consistent evidence)
Action	Counsel: eating breakfast daily (consistent evidence
Action	Counsel: limiting eating at restaurants, particularly fast food restaurants (consistent evidence)
Action	Counsel: encouraging family meals in which parents and children eat together (consistent evidence)
Action	Counsel: limiting portion sizes (consistent evidence)
Reference	Empty
Reason	Empty
Strength of	
Recommendation	Empty
Quality of Evidence	Empty
Recommendation	RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Patient-Level Interventions - <i>Imperative</i> - 2. The expert committee also suggests that providers counsel families to engage in the following behaviors: (a) eating a diet rich in calcium; (b) eating a diet high in fiber; (c) eating a diet with balanced macronutrients (energy from fat, carbohydrates, and protein in proportions appropriate for age, as recommended by Dietary Reference Intakes); (d) initiating and maintaining breastfeeding; (e) participating in 60 minutes of moderate to vigorous physical activity per day for children of healthy weight (the 60 minutes can be accumulated throughout the day, rather than in single or long bouts; ideally, such activity should be enjoyable to the child); and (f) limiting consumption of energy-dense foods.
Action	Counsel: eating a diet rich in calcium
Action	Counsel: eating a diet high in fiber
Action	Counsel: eating a diet with balanced macronutrients
Action	Counsel: initiating and maintaining breastfeeding
Action	Counsel: participating in 60 minutes of moderate to vigorous physical activity per day
Action	Counsel: limiting consumption of energy-dense foods.
Reference	Empty
Reason	Empty
Quality of Evidence	Empty
Recommendation	RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Practice-and Community-Level Interventions - <i>Imperative</i> - 1. The expert committee recommends that physicians, allied health care professionals, and professional organizations (a) advocate for the federal government to increase physical activity at schools through intervention programs from grade 1 through the end of high school and college and through the creation of school environments that support physical activity in general and (b) support efforts to preserve and to enhance parks as areas for physical activity, inform local development initiatives regarding the inclusion of walking and bicycle paths, and promote families' use of local physical options by making information and suggestions about physical activity alternatives available in doctors' offices.
Action	advocate for the federal government to increase physical activity at school
	support efforts to preserve and to enhance parks as areas for physical activity, inform local development initiatives regarding the inclusion
Action	of walking and bicycle paths, and promote families' use of local physical options by making information and suggestions about physical activity alternatives available in doctors' offices

Reason	Empty
Quality of Evidence	Empty
Recommendation	RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Practice-and Community-Level Interventions - Imperative - 2. The expert committee recommends the use of the following techniques to aid physicians and allied health care providers who may wish to support obesity prevention in clinical, school, and community settings: (a) actively engaging families with parental obesity or maternal diabetes, because these children are at increased risk for developing obesity even if they currently have normal BMI; (b) encouraging an authoritative parenting style (authoritative parents are both demanding and responsive) in support of increased physical activity and reduced sedentary behavior, providing tangible and motivational support for children; (c) discouraging a restrictive parenting style (restrictive parenting involves heavy monitoring and controlling of a child's behavior) regarding child eating; (d) encouraging parents to model healthy diets and portions sizes, physical activity, and limited television time; and (e) promoting physical activity at school and in child care settings (including after-school programs) by asking children and parents about activity in these settings during routine office visits.
Action	actively engaging families with parental obesity or maternal diabetes,
Action	encouraging an authoritative parenting style
Action	discouraging a restrictive parenting style regarding child eating
Action	encouraging parents to model healthy diets and portions sizes, physical activity, and limited television time;
Action	promoting physical activity at school and in child care settings
Reference	Empty
Reason	because these children are at increased risk for developing obesity even if they currently have normal BMI;
Quality of Evidence	Empty
(15)	
Potential benefits	Describe anticipated benefits and potential risks associated with implementation of guideline recommendations.
and harms	
Health Outcomes	Empty
Cost Analysis	Empty
Description of Harms and Benefits	Empty
Quantification of Harms and Benefits	Empty
Alternative Practices Risks	Empty
(16) Patient preferences	Describe the role of patient preferences when a recommendation involves a substantial element of personal choice or values.
Role of Patient Preferences	Empty
(17)	Provide (when appropriate) a graphical description of the stages. and decisions in clinical care described by the
Algorithm	guideline.
Algorithm	Empty
Action Steps	Empty
Conditional Steps	Empty
Alternative Steps	Empty
Synchronization Step	Empty
(18)	Describe anticipated barriers to application of the recommendations. Provide reference to any auxiliary documents
Implementation considerations	for providers or patients that are intended to facilitate implementation. Suggest review criteria for measuring changes in care when the guideline is implemented.
Implementation Plan	Empty
Implementation Strategy	Empty
Supporting Documents	Empty
Patient Resources	Empty
Anticipated Enabler	Empty
Anticipated Barrier	Empty
Quick Reference Guide	Empty —
Technical Report	Empty