

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

TARGET POPULATION

Eligibility

Inclusion Criterion

Exclusion Criterion

RECOMMENDATIONS

Recommendation

The Role of the Provider's Office

Imperative: The expert committee endorses the following office practices. routine documentation of BMI. {Rec_1: Imp_1 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Document BMI routinely

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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. {Rec_1: Imp_2 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

establish procedures to deliver obesity prevention messages

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Recommendation

Medical Assessment

Imperative: The BMI percentile, although imperfect, is the recommended screen for body fat in routine office practice. {Rec_2: Imp_3 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Use BMI percentile to screen for body fat

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: Skinfold thickness measurements are not recommended. {Rec_2: Imp_4 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Do not perform Skinfold thickness measurements

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason: they are difficult to perform accurately without careful training and experience and reference data are not readily available.

Logic:

Imperative: waist circumference measurements are not recommended currently. {Rec_2: Imp_5 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Do not measure waist circumference

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason: reference values for children that identify risk over and above the risk from BMI category are not available

Logic:

Imperative: Parental obesity is a strong risk factor for a child's obesity persisting into adulthood, especially for young children. {Rec_2: Imp_6 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: Offices should review and regularly update the family history regarding first-and second-degree relatives {Rec_2: Imp_7 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Executable	Vocab

review and regularly update the family history

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Evidence Quality:

Strength of Recommendation:

Reason:

several obesity-related medical conditions are familial. Family history predicts type 2 diabetes mellitus or insulin 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

Logic:

Imperative: 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. {Rec_2: Imp_8 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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. {Rec_2: Imp_9 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

Assess blood pressure at all health supervision visits

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason: Approximately 13% of overweight children have elevated systolic blood pressure, and 9% have elevated diastolic blood pressure.

Logic:

Imperative: the expert committee recommends a focused assessment of behaviors that have the strongest evidence for association with energy balance and that are modifiable. {Rec_2: Imp_10 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

asses behaviors that have the strongest evidence for association with energy balance and that are modifiable.

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason: Because comprehensive dietary and physical activity assessments, such as diet or physical activity diaries, are impractical in a typical office setting

Logic:

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. {Rec_2: Imp_11 }

IF

Inclusion Criterion:

Exclusion Criterion:

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THEN

Address frequency of eating food prepared outside the home,
 Address ounces, cups, or cans of sugar-sweetened beverages consumed each day
 Address portion size
 Address ounces or cups of 100% fruit juice consumed each day;
 Address frequency and quality of breakfast
 Address consumption of foods that are high in energy density, such as high-fat foods;
 Address number of fruit and vegetable servings consumed each day

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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. {Rec_2: Imp_12 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

Address time spent in moderate physical activity each day
 Address routine activity patterns
 Address sedentary behavior

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Recommendation

Prevention Plus

Imperative: involve the whole family in lifestyle changes {Rec_3: Imp_13 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

involve the whole family in lifestyle changes

Executable	Vocab

Evidence Quality: (CE)

Strength of Recommendation:

Reason:

Logic:

Imperative: help families tailor behavior recommendations to their cultural values {Rec_3: Imp_14 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

help families tailor behavior recommendations to their cultural values

Executable	Vocab

Evidence Quality:

Strength of Recommendation: (suggest)

Reason:

Logic:

Recommendation

Assessment Recommendations

Conditional: 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.”
 {Rec_4: Cond_1 }

IF
 2 to 18 years of age
 BMI of 95th percentile for age and gender
 BMI of 30
THEN
 consider obese

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Conditional: 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.” {Rec_4: Cond_2 }

IF
 BMI of 85th percentile
 95th percentile for age and gender
THEN
 consider overweight; this term replaces “at risk of overweight.”

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Conditional: The expert committee recommends that a thorough physical

examination be performed and 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. {Rec_4: Cond_3 }

IF

identified as overweight or obese

THEN

Measure pulse

Blood pressure

signs associated with comorbidities of overweight and obesity

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Conditional: If the BMI is 85th to 94th percentile for age and gender with no risk factors, then a fasting lipid profile should be obtained. {Rec_4: Cond_4 }

IF

BMI is 85th to 94th percentile for age and gender
no risk factors

THEN

Obtain a fasting lipid profile

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

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. {Rec_4: Cond_5 }

IF

BMI is 85th to 94th percentile for age and gender
risk factors in the history or physical examination

THEN

Measure fasting lipid profile, AST, ALT, and fasting glucose levels

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Conditional: 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. {Rec_4: Cond_6 }

IF

BMI is andgt;95th percentile for age and gender

THEN

Measure fasting lipid profile, AST, ALT, and fasting glucose levels

Decidable	Vocab
Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

The expert committee recommends that physicians and allied

Imperative: 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. {Rec_4: Imp_15 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Assess at a minimum yearly height, weight and BMI for age
Plot those measures on standard growth charts

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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.”
{Rec_4: Imp_16 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

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. {Rec_4: Imp_17 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

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

Executable	Vocab
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Evidence Quality:

Strength of Recommendation:

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

Logic:

Imperative: 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: frequency of eating outside the home, excessive consumption of sweetened beverages, consumption of excessive portion sizes for age {Rec_4: Imp_18 }

IF

Inclusion Criterion:
Exclusion Criterion:

THEN

qualitatively assess dietary patterns at a minimum, at each well-child visit for anticipatory guidance

Executable	Vocab
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Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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. {Rec_4: Imp_19 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

obtain a focused family history for obesity, type 2 diabetes mellitus, cardiovascular disease (particularly hypertension), and early deaths resulting from heart disease or stroke

Executable	Vocab
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Evidence Quality:

Strength of Recommendation:

Reason: to assess the risks of current or future comorbidities associated with a child's overweight or obese status

Logic:

Recommendation

RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Patient-Level Interventions

Conditional: 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); {Rec_5: Cond_7 }

IF

2 to 18 years of age

BMI is 5th to 84th percentile

THEN

Counsel: limiting consumption of sugar-sweetened beverages (consistent evidence)

Decidable	Vocab
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Executable	Vocab
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Counsel: encouraging diets with recommended quantities of fruits and vegetables (mixed evidence)		
Counsel: limiting television and other screen time by allowing no more than 2 hours per day		
Counsel: removing television and computer screens from children's primary sleeping areas (consistent evidence)		
Counsel: eating breakfast daily (consistent evidence)		
Counsel: limiting eating at restaurants, particularly fast food restaurants (consistent evidence)		
Counsel: encouraging family meals in which parents and children eat together (consistent evidence)		
Counsel: limiting portion sizes (consistent evidence)		

Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

Imperative: 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. {Rec_5: Imp_20 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

Counsel: eating a diet rich in calcium		
Counsel: eating a diet high in fiber		
Counsel: eating a diet with balanced macronutrients		
Counsel: initiating and maintaining breastfeeding		
Counsel: participating in 60 minutes of moderate to vigorous physical activity per day		

Executable	Vocab

Counsel: limiting consumption of energy-dense foods.

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Evidence Quality:

Strength of Recommendation: suggests

Reason:

Logic:

Recommendation

RECOMMENDATIONS FOR PREVENTION OF CHILDHOOD OBESITY: Practice-and Community-Level Interventions

Imperative: 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.
{Rec_6: Imp_21 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

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 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

Executable	Vocab
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Evidence Quality:

Strength of Recommendation:

Reason:

Logic:

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. {Rec_6: Imp_22 }

IF

Inclusion Criterion:

Exclusion Criterion:

THEN

actively engaging families with parental obesity or maternal diabetes,
 encouraging an authoritative parenting style
 discouraging a restrictive parenting style regarding child eating
 encouraging parents to model healthy diets and portions sizes, physical activity, and limited television time;
 promoting physical activity at school and in child care settings

Executable	Vocab

Evidence Quality:

Strength of Recommendation:

Reason: because these children are at increased risk for developing obesity even if they currently have normal BMI;

Logic: