

Patient Counseling Guidelines for Families with Overweight Children and Adolescents

- ✓ Prevention
- ✓ Detection
- ✓ Assessment
- ✓ Management



A Reference Tool for Health Care Practitioners

Promoting Healthy Lifestyle Choices

This reference tool is designed for health care practitioners who work with children and adolescents in the primary care setting. It summarizes current data and recommendations from the scientific literature and expert work groups relating to child and adolescent obesity.

An Alarming Trend

The number of overweight children in the U.S. has doubled in the last two decades and continues to climb. Today, more than 15 percent of U.S. children and adolescents are severely overweight or obese, resulting in serious health consequences.

A Need Identified

A 2002 needs assessment of pediatricians, nurse practitioners and dietitians indicates that less than 20 percent of them currently follow the basic guideline recommending the assessment of body mass index and the tracking of BMI percentile in their pediatric patients.¹

In addition, a recent study conducted by the Maternal and Child Health Bureau documents that health care professionals have expressed a need for effective strategies and tools to address the sensitive issue of healthy weight management with patients and parents.²

Our Commitment to You

In order to reverse this alarming epidemic, healthy behaviors must be introduced, modeled and reinforced in early childhood.

Blue Cross of California is committed to providing you with educational resources and tools to assist you in your effort to stimulate dialogue about these important issues with your patients and their families.

Sincerely,

Ivan Kamil, MD
Medical Director, Blue Cross of California



BlueCross
of California

What Everyone Should Know

Problematic Trends

Obesity has become the most prevalent nutritional disease in the United States.

Leads to Adult Obesity

Overweight children and adolescents have a 30-70 percent risk of growing up to be an overweight adult.

Associated Morbidities

Overweight children have a higher risk of developing diabetes, gallbladder diseases, sleep apnea, asthma and mental disorders.

Economic Burden

Annual hospital costs for obesity-associated illnesses have increased more than threefold from 35 million in 1979-1981 to 127 million in 1997-1999.

Rate of Increase

Prevalence of Overweight Among Children and Adolescents



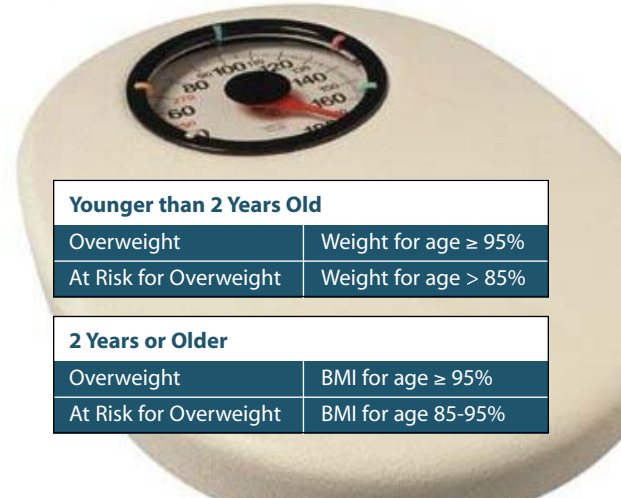
Resources: <http://www.cdc.gov/nccdphp/dnpa/obesity/>

Body Mass Index

Body Mass Index (BMI) is the primary measurement for assessing weight. The BMI calculation, based on the height and weight of the individual, is a helpful indicator of obesity and overweight as well as underweight.

BMI is calculated using the following formula:

$[\text{Weight in pounds} \div \text{height in inches} \div \text{height in inches}] \times 703$



Younger than 2 Years Old

Overweight

Weight for age \geq 95%

At Risk for Overweight

Weight for age $>$ 85%

2 Years or Older

Overweight

BMI for age \geq 95%

At Risk for Overweight

BMI for age 85-95%

Prevention Measures

Research demonstrates that small changes in behavior can result in significant changes in the prevalence of overweight and obesity in the pediatric population.

Optimal Breastfeeding Practices

Recommendations

- ✓ Breastfeed within the first hour of life
- ✓ Breastfeed on demand
- ✓ Do not give infant supplements
- ✓ Appropriate medical follow-up after birth

- ✓ Continue to use breast milk even when the mother and infant are separated
- ✓ Breastfeed exclusively for first six months of life
- ✓ Continue to breastfeed for one or more years

Key Points of Contact

- ✓ Prenatal
- ✓ All Well-Child Checkup visits during the first year of life



Resources: <http://www.cdc.gov/breastfeeding>

Appropriate Introduction to Solid Foods

Recommendations

- ✓ Around six months of age
- ✓ Depends upon developmental readiness

Key Points of Contact

- ✓ At two months of age
- ✓ All Well-Child Checkup visits during the first year of life



Optimal Fruit and Vegetable Intake

Recommendations

- ✓ The National Cancer Institute recommends at least five servings of fruits and vegetables per day
- ✓ Applies to anyone over 12 months old

Key Points of Contact

- ✓ All Well-Child Checkup visits for children older than 12 months

Strategies

- ✓ Offer healthy food choices at home, at school and at special events
- ✓ Model healthy eating behaviors
- ✓ Try to schedule regular family meals
- ✓ Offer picky eaters a variety of healthy food choices and let them choose



Resources: <http://www.cdc.gov/nccdphp/dnpa/5aday/index.htm>

Variety and Reasonable Quantity of Food

Recommendations

- ✓ USDA Food Pyramid

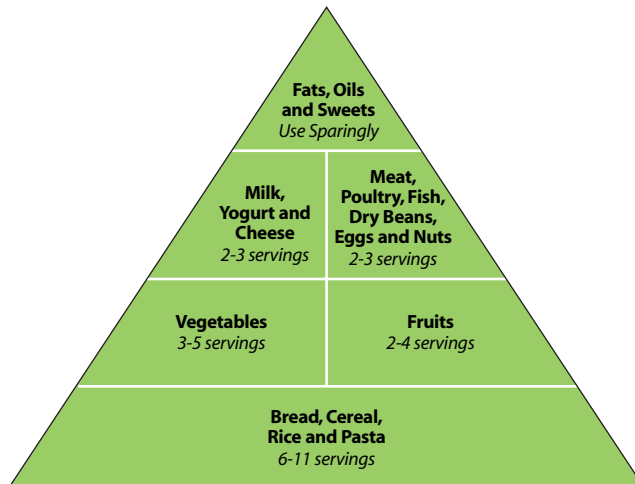
Key Points of Contact

- ✓ Every Well-Child Checkup after two years of age

Strategies

- ✓ Limit high fat foods*
- ✓ Use light or low-fat dairy products such as 1% milk
- ✓ Choose the leanest cuts of meats
- ✓ A little bit of salad dressing goes a long way
- ✓ Eliminate soda
- ✓ Limit juice to 1 cup per day
- ✓ Cut down on portion sizes

Resources: http://www.cdc.gov/nccdphp/dnpa/heal_eat.htm



*But remember that restricting a child's diet too much can interfere with growth and development.⁴

Minimal Television Viewing

Recommendations

- ✓ 0-2 years old:
No television
- ✓ 2 years and older:
Not more than two hours
of television per day

Key Points of Contact

- ✓ Every Well-Child Checkup

Strategies

- ✓ As a family, choose
1-2 hours of television
shows to watch and
turn the television
off when shows finish
- ✓ Do not allow a television
in the child's bedroom
- ✓ Encourage more active
pursuits such as athletics
or playing with friends³



Resources: <http://www.aap.org/policy/re0043.html>

Optimal Physical Activity

Recommendations

- ✓ One hour of moderate exercise per day

Key Points of Contact

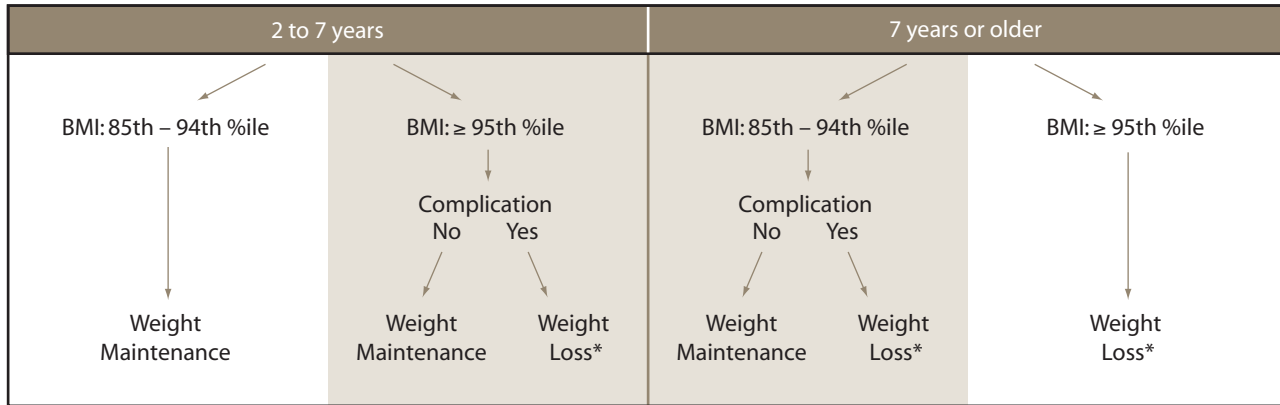
- ✓ Every Well-Child Checkup after two years of age

Strategies

- ✓ Incorporate activity into daily routine
- ✓ Encourage picking a “life sport” that can be enjoyed lifelong, such as bicycling, walking, skating, etc.⁵
- ✓ Include stretching before and after any physical activity



Childhood Overweight Management Decision Tree



*Weight loss approximately 1 pound/month
Weight goal: BMI < 85%

Weight-Management Strategies⁶

When treating pediatric patients, the physician should consider the following guidelines.

Develop an alliance with the family

- ✓ Use a gentle, careful approach. Use the term “overweight” rather than “obese.”

Treat parents also

- ✓ For the very young child (1 to 5 years of age), focus on the parent who controls the child’s diet.
- ✓ For adolescents, intervention should be directed individually to both the patient and the parents.

Use positive reinforcement

- ✓ Use contractual agreements between parents and children, as well as stickers to reward good eating and physical activity behaviors.

Emphasize the importance of family involvement

- ✓ Family-based programs where parents reinforce their children’s physical activity produce best results.

Assessment of Overweight Child

Who are the candidates for in-depth health care provider assessment?

✓ **Any child with a BMI > 85% plus ANY of the following risk factors**

- ✓ Family history of overweight
- ✓ Elevated blood pressure
- ✓ Large increase in BMI (3-4 per year)

✓ **Any child with a BMI \geq 95%**

✓ **Any child with a rapid increase in BMI (3-4 per year)**

Assessment Categories:

- ✓ Family History
- ✓ Psychosocial History
- ✓ Review of Systems
- ✓ Physical Exam



Resources: <http://www.aafp.org/afp/990215ap/861.html>

Are all the pieces of the puzzle known?

Family History

- ✓ Obesity
- ✓ Hypertension
- ✓ NIDDM
- ✓ Dyslipidemia
- ✓ Cardiovascular disease
- ✓ Gall bladder disease

Psychosocial History

- ✓ Tobacco use
- ✓ Depression
- ✓ Eating disorder



Review of Systems

- ✓ **Developmental delay (genetic disorder)**
- ✓ **Poor linear growth**
 - ✓ Hypothyroidism
 - ✓ Cushing's syndrome
 - ✓ Prader-Willi syndrome
- ✓ **Headaches**
 - ✓ Pseudotumor cerebri
- ✓ **Nighttime breathing difficulty**
 - ✓ Sleep apnea
 - ✓ Obesity hypoventilation syndrome
- ✓ **Daytime somnolence**
 - ✓ Sleep apnea
 - ✓ Obesity hypoventilation syndrome
- ✓ **Abdominal pain**
 - ✓ Gall bladder disease
- ✓ **Hip or knee pain**
 - ✓ Slipped capital femoral epiphysis
- ✓ **Oligomenorrhea or amenorrhea**
 - ✓ Polycystic ovary syndrome



Physical Exam

- ✓ **Height, weight, blood pressure and BMI**
- ✓ **Truncal obesity**
 - ✓ Risk of cardiovascular disease
 - ✓ Cushing's syndrome
- ✓ **Dysmorphic features**
 - ✓ Genetic disorders
 - ✓ Prader-Willi syndrome
- ✓ **Acanthosis nigricans**
 - ✓ NIDDM
 - ✓ Insulin resistance
- ✓ **Hirsutism**
 - ✓ Polycystic ovary syndrome
 - ✓ Cushing's syndrome
- ✓ **Violaceous striae**
 - ✓ Cushing's syndrome
- ✓ **Optic disks**
 - ✓ Pseudotumor cerebri
- ✓ **Tonsils**
 - ✓ Sleep apnea
- ✓ **Abdominal tenderness**
 - ✓ Gall bladder disease
- ✓ **Undescended testicle**
 - ✓ Prader-Willi syndrome
- ✓ **Limited hip range of motion**
 - ✓ Slipped capital femoral epiphysis
- ✓ **Lower leg bowing**
 - ✓ Blount's disease



Lab Tests

Fasting Lipid Profile

Diabetes

Screen for diabetes if the child is age 10 or older with a BMI \geq 95% + TWO or more of the following risk factors:

- ✓ Family history of type-2 diabetes in a first or second degree relative
- ✓ Child is of Native American, African American, Hispanic or Asian/Pacific Islander descent

- ✓ Exhibits signs of insulin resistance:
 - ✓ Acanthosis nigricans
 - ✓ Hypertension
 - ✓ Dyslipidemia
 - ✓ Polycystic ovary syndrome

Screening Tests for diabetes and diagnostic criteria:

- ✓ Fasting (8 hours) plasma glucose = 126mg/dl
- ✓ Oral glucose tolerance test (OGTT): 2-hour plasma glucose = 200 mg/dl
- ✓ Casual (random) plasma glucose = 200 mg/dl WITH symptoms of diabetes
- ✓ Hemoglobin A1C

Other Tests

- ✓ Based on history and physical exam

Recommended Reading for the Families of Your Patients

Online Resources

- ✓ Selected nutrition information from the nation's medical societies is available on the Worldwide Web at <http://www.medem.com>.
- ✓ The American Dietetic Association publishes fact sheets including information about the nutritional needs of children on the Worldwide Web at <http://www.eatright.org>

Parenting Books

From the American Academy of Pediatrics:

- ✓ *New Mother's Guide to Breastfeeding*
- ✓ *Caring For Your Baby and Young Child: Birth to Age 5*
- ✓ *Caring for Your School-aged Child*
- ✓ *Caring for Your Teenager*
- ✓ *Guide to Your Child's Nutrition*

From the American Dietetic Association:

- ✓ *Guide to Healthy Eating for Kids*



ABCs of Counseling and Motivating Overweight Children and Families⁷

Ask Open-Ended Questions

- ✓ How do you feel about us talking about your physical activity, TV watching and eating today?
- ✓ Assess what the patient knows
- ✓ How concerned are you about the patient's weight?
- ✓ What practices need to be changed?

Body Language

- ✓ Put patient at ease
- ✓ Use eye contact without barriers
- ✓ Convey respect
- ✓ Counsel in a private setting

Care and Empathy

- ✓ Do not criticize
- ✓ Acknowledge patient's feelings
- ✓ Answer questions without sign of judgment
- ✓ Use language that is nonjudgmental:
 - ✓ Healthier food vs. bad food
 - ✓ Healthier weight vs. ideal weight
 - ✓ Overweight vs. obese



Decision Making

- ✓ Assess readiness:
 - ✎ On a scale of 1-10 how ready are you to make changes? (0-3 not ready, 4-6 unsure, 7-10 ready)
- ✓ Develop a plan for behavior modification for 2-3 behaviors if ready for change, and if child is a teen or adolescent-separate parent and child during some of the planning process
- ✓ Focus on behavior change for a healthy lifestyle rather than on changes of the characteristics of the child or weight
- ✓ Educate regarding the complications of overweight in children and adolescents

Encourage Follow Up Evaluations

- ✓ One month intervals
- ✓ If medical complications exist, refer patient to appropriate specialist
- ✓ If weight loss is recommended, refer patient to dietician
 - ✎ No more than one pound per month with the goals of BMI < 85%
- ✓ If patient is less than two years old and overweight, or has diagnosis of pseudotumor cerebri, OSA or orthopedic problems, refer to pediatric weight loss program.



Additional Resources

American Academy of Family Physicians

<http://www.aafp.org/>

American Medical Association

<http://www.ama-assn.org/>

BMI Calculator and Growth Charts

www.pdacortex.com/STAT_Growth_Charts_Download.htm

BMI Calculator Wheel

www.trowbridge-associates.com/ for \$5.00

A self-study BMI module

<http://www.cdc.gov/growthcharts/>

American Academy of Pediatrics

<http://www.aap.org>

American Dietetic Association

<http://www.eatright.org>

Centers for Disease Control and Prevention

<http://www.cdc.gov/>

Maternal and Child Health Library

<http://www.mchlibrary.info/AZtopics.htm>

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- ² Reference for MCHB study cited in opening letter?
- ³ Children, Adolescents and Television, Committee on Communications, American Academy of Pediatrics, (RE0043), *Pediatrics* 2001; 107: 423-426.
- ⁴ Special Nutritional Concerns: Children Age 6 to 12, American Medical Association, Medem: Medical Library, medem.com.
- ⁵ Exercise and Your Lifestyle, American Academy of Pediatrics, Medem: Medical Library, medem.com.
- ⁶ AACE/ACE position statement on the prevention, diagnosis and treatment of obesity. American Association of Clinical Endocrinologists, American College of Endocrinology, (1998 revision); 1998. 35p.
- ⁷ Adapted from: Slusser W and Kroeger M (1992) in Woodward-Lopez G and Creer AE lactation Management Curriculum: A Faculty Guide for Schools of Medicine, Nursing, and Nutrition. Third edition, 1995 UCSD and Wellstart International.

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- NHANES II (2nd National Health and Nutrition Examination Survey), National Center for Health Statistics, more information is available on the Web @ http://www.cdc.gov/nchs/products/elec_prods/subject/nhanesii.htm.
- NHANES III (3rd National Health and Nutrition Examination Survey), National Center for Health Statistics, more information is available on the Web @ http://www.cdc.gov/nchs/products/elec_prods/subject/nhanesii.htm.

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