Algorithm for the Assessment, Prevention, and Management of Childhood Obesity in Patients 2 Years and Older

Adapted from the 2007 Expert Committee Recommendations, American Academy of Pediatrics, Institute for Healthy Childhood Weight

### Assess Behaviors

**Healthy Eating**
- Fruits and vegetables
- Sugary drink consumption

**Active Living Behaviors**
- Physical activities
- Screen time
- Sleep habits

### Determine Weight Classification

**Measure height and weight**
- Calculate and graph Body Mass Index (BMI)
- Determine BMI percentile

#### Healthy Weight
- (BMI 5-84%)
  - Family History
  - Review of Systems
  - Physical Exam

#### Overweight
- (BMI 85-94%)
  - Augmented, Obesity-Specific
    - Family History
    - Review of Systems
    - Physical Exam

#### Obese
- (BMI ≥ 95%)
  - Augmented, Obesity-Specific
    - Family History
    - Review of Systems
    - Physical Exam

### Determine Health Risk

- **NO**
  - Routine Care
    - Provide Prevention Counseling:
      - 5 – fruits and vegetables
      - 2 – hours or less of screen time
      - 1 – hour or more of physical activity
      - 0 – sugary drinks
    - Screen for genetic dyslipidemia between ages 9-11 and again between 18-21 (non-fasting lipid profile)
    - Follow up as needed
  - Maintain weight and BMI
    - Crossing 2 percentile lines is a risk for obesity
    - Reassess annually

- **YES**
  - Screen for Related Conditions
    - Liver function, BMP (fasting)
    - Blood sugar levels
    - Hemoglobin A1c
    - Lipid panel (fasting)
    - Use clinical judgment in testing for obesity related conditions
    - See Patient History Checklist (over)
  - Follow up after 3-6 months or sooner if results are abnormal

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Patient History Checklist for Childhood Obesity

In addition to the questions usually included in your patient history, it is important to address the following with overweight and obese patients:

1. **Review of Systems**
   - **Constitutional**
     - Sleep habits
     - Fatigue/lethargy
   - **Respiratory**
     - Snoring
     - Wheezing/coughing
     - Difficulty breathing
   - **Cardiovascular**
     - Chest pain
   - **Gastrointestinal**
     - Abdominal pain
     - Vomiting
     - Constipation
   - **Skin**
     - Acanthosis nigricans
     - Striae
   - **Neurologic**
     - Developmental delay
   - **Genitourinary**
     - Menarche
     - Oligomenorrhea
     - Amenorrhea
   - **Musculoskeletal**
     - Knee/hip pain
     - Limp

2. **Current Health Habits**
   - **Nutrition:** 24 hour diet recall
     - Fruits and vegetable consumption
     - Sugary beverages
     - Milk consumption (type and quantity)
     - Family meals
     - Eating out habits
   - **Physical Activity**
     - Type and quantity
   - **Screen Time**
     - Type and quantity
     - Is there a TV or computer in the room where the child sleeps?

3. **Family History: Emphasize obesity-related issues**
   - **Obesity**
   - **Diabetes**
   - **Hypertension**
   - **Cardiovascular disease**
   - **Depression**

4. **Obesity-Related Conditions**
   - **Cardiovascular**
     - Dyslipidemia
     - Hypertension
   - **Endocrine**
     - PCOS
     - Precocious puberty
     - Prediabetes/metabolic syndrome
     - Premature adrenarche
     - Type 2 diabetes
   - **Neurological**
     - Pseudotumor cerebri
   - **Gastrointestinal**
     - Cholelithiasis
     - Constipation
     - GERD
     - Steatohepatitis
   - **Orthopedic**
     - Blount’s disease
     - SCFE
   - **Pulmonary**
     - Asthma
     - Sleep apnea
   - **Psychological/Behavioral**
     - Anxiety
     - Binge eating disorder
     - Depression
     - Teasing/bullying
   - **Skin**
     - Acanthosis nigricans
     - Hirsutism
     - Intertrigo

Remember that you can and should code for these comorbidities.