Here are a few key points to consider as you begin:

1. How to use the algorithm
   • It starts at the well-child visit and continues on in planned follow-up visits as determined by the patient, family, and provider
   • It’s not a protocol – it is a suggested course of action and provides guidance to be used with clinical judgment

2. Things to think about
   • These kids could be sick
   • Children with a BMI greater than the 85th percentile are at a higher risk for comorbidities
   • There are three ways to fine-tune/augment your assessment:
     Augmented obesity-specific:
     o Family history
     o Review of systems
     o Physical exam
   • For patients with BMI greater than the 85th percentile, laboratory and comorbidity work-up is needed

3. Working with patients and families
   • Be respectful
   • Be empathetic
   • Listen more than you speak
   • Use Motivational Interviewing techniques:
     o Ask open-ended questions
     o Use reflective listening
     o Roll with resistance

4. Use treatment stages as a guide
   • Not every patient is ready to make change
   • Fear tactics don’t work
   • There are no quick fixes
   • Frequent visits over time work best
   • Small behavior changes can have profound effects on health and they are usually much more sustainable
   • Motivational Interviewing works

continued
For patients with a BMI $\geq$ the 85th percentile, include the following in your annual well-child visit:

1. **Augmented obesity-specific family history**
   Does your patient have a first-degree relative with any of the following?
   If yes, they are at a greater risk of comorbidities associated with obesity.
   - □ Heart disease
   - □ Hypertension
   - □ Lipid level abnormalities
   - □ Obesity
   - □ Type 2 Diabetes

2. **Augmented obesity-specific review of systems**

   **SYMPTOMS** | **PROBABLE CAUSES**
   --- | ---
   □ Snoring/sleep disturbances | Obstructive sleep apnea
   □ Abdominal pain | GERD, constipation, gallbladder disease, NAFLD
   □ Menstrual irregularities | Polycystic ovary syndrome
   □ Hip, knee, leg pain | SCFE
   □ Foot pain | Musculoskeletal stress from weight
   □ Polyuria/Polydiopsia | Type 2 diabetes
   □ Anxiety, school avoidance, social isolation | Depression
   □ Severe recurrent headaches | Pseudotumor cerebi
   □ Shortness of breath | Asthma


3. **Augmented obesity-specific physical exam**

   **FINDINGS** | **PROBABLE EXPLANATIONS**
   --- | ---
   □ Elevated blood pressure, make sure to use correct size cuff | Hypertension on 3 or more occasions
   □ Short stature | Underlying endocrine condition
   □ Acanthosis nigricans | Increased risk of insulin resistance
   □ Acne, hirsutism | Polycystic ovary syndrome
   □ Skin irritation, inflammation | Intertrigo
   □ Papilledema, cranial nerve VI paralysis | Pseudotumor cerebi
   □ Tonsillar hypertrophy | Obstructive sleep apnea
   □ Goiter | Hypothyroidism
   □ Wheezing | Asthma
   □ Tender abdomen | GERD, gallbladder disease, NAFLD
   □ Abnormal gait, limited hip range | SCFE
   □ Bowing of tibia | Blount disease
   □ Small hands and feet, polydactyly | Some genetic syndromes
   □ Reproductive (Tanner stage, apparent micropenis, undescended testes) | Premature puberty, may be normal penis buried in fat, Prader-Willi syn.

For patients with a BMI ≥ 85th percentile WITHOUT Risk Factors*:
• Obtain a lipid profile

For patients with a BMI ≥ 85th percentile WITH Risk Factors:
Laboratory Screening and Work-up for Comorbidities
• The 2007 Expert Committee Recommendations state that a \textit{fasting glucose} and \textit{fasting lipid panel} along with ALT and AST should be obtained.
• Additionally, guidelines from the ADA and Endocrine Society recommend using A1C, fasting glucose, or \textit{oral glucose} tolerance to test for diabetes or pre-diabetes.
• For patient convenience, some providers are obtaining non-fasting labs.
• Clinical judgement, local preferences, and availability of testing should be used to help determine the timing of follow-up of abnormal labs.
• Of note, some subspecialty clinics are screening for Vitamin D deficiency and insulin resistance by obtaining labs for \textit{Vitamin D} and \textit{fasting insulin}. The clinical utility and cost effectiveness of such testing is yet to be determined.
• Currently, there are no guidelines on when to start laboratory testing for patients with obesity. Based upon the patient’s health risk, some experts may start screening patients at 2 years of age.

\textbf{Laboratory screening summary}

The recommended tests for patients with BMI ≥ 85th percentile with risk factors:
• Fasting glucose
• Fasting lipid panel
• ALT
• AST

Additional laboratory test should be obtained based upon the patient's signs, symptoms, family history, and medical condition

*Based on behaviors, family history, review of systems, and physical exam, in addition to weight classification.