How do I know if my patients are sick with obesity?

Using the AAP algorithm to guide assessment and management of patients with overweight and obesity.

MAAP 2017 Spring Conference

Dr. Tory Rogers
Dr. Mike Dedekian

Let's Go! is a program of The Barbara Bush Children's Hospital at Maine Medical Center

Disclosure Statement

Victoria W. Rogers, MD, FAAP

- I have no relevant financial relationships with the manufacturers(s) of any commercial products(s) and/or provider of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

3

Disclosure Statement

Michael Dedekian, MD, FAAP

- I have no relevant financial relationships with the manufacturers(s) of any commercial products(s) and/or provider of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

Why a new Algorithm?

- Children with overweight and obesity may be sick
- PCPs need to screen for comorbidities
- To the extent possible, patients should be cared for in their medical home
- Providers have asked for guidance

4

How did we develop the algorithm?

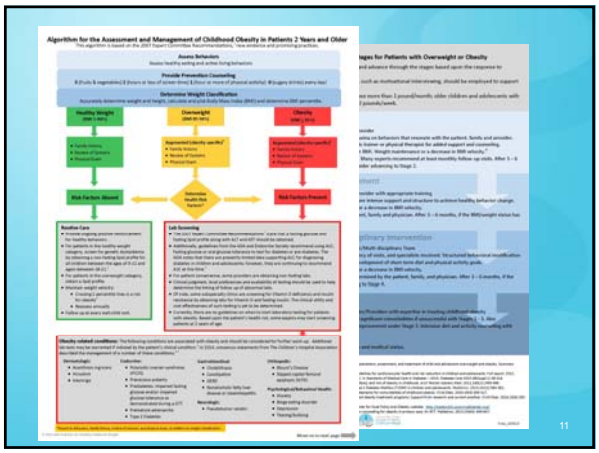
- Engaged a small group of experts
- Relied on existing guidelines
- Utilized new research and new consensus statements

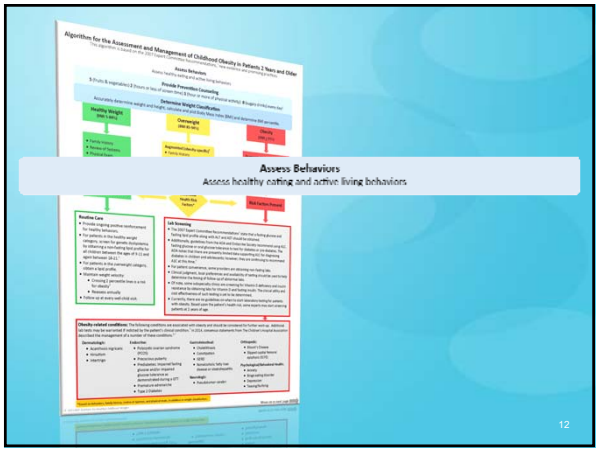
5

Take Home Messages

- Assessment is a critical piece of the puzzle
- This assessment is doable in the primary care setting
- Children who have a BMI ≥ 85% may be sick and may need:
  - Special consideration to determine if they are ill
  - Laboratory tests
  - Additional work-up for comorbidities as determined by positive signs and symptoms and family history

6



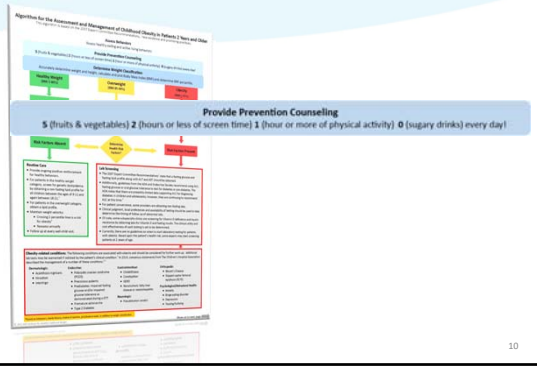


Healthy Habits Questionnaire

- Gets conversation started between parent and child
- Keeps conversation going throughout appointment
- Can be used as a HEDIS measure

9

Provide prevention counseling

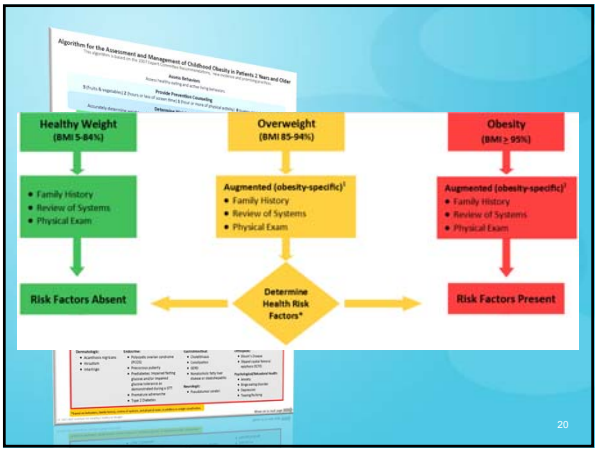


10

A Simple Framework

For more information about 5-2-1-0 visit www.letsgo.org

11



20

Expectations in Primary Care: Growth

- Accurately measure and chart growth
  - Birth to 23 months – weight-for-length
  - 2 years and older – weight, height, BMI, BMI% and weight classification
- Identify and note concerns

13

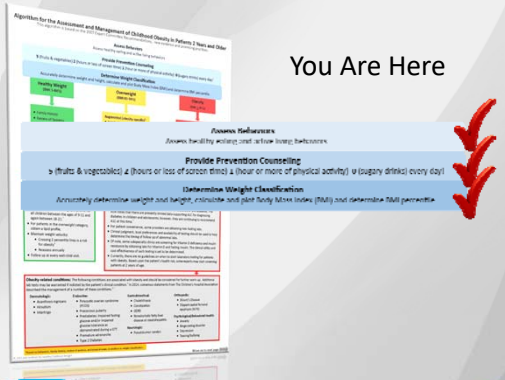
Words

What words do you use when referring to the patient's BMI?

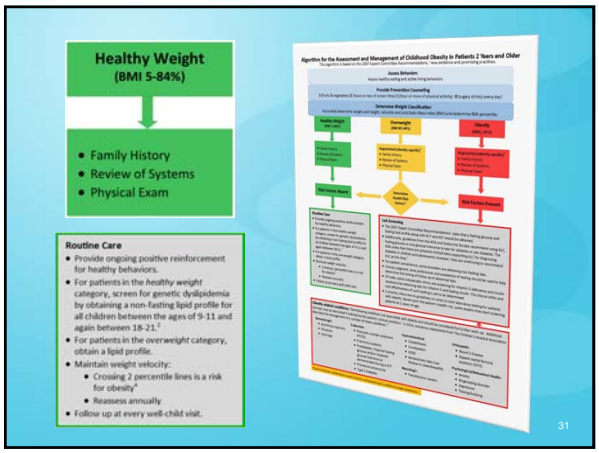
- Be sensitive and direct
- Share why you, as the provider, care
- Avoid colloquialisms
- Use the "O" word carefully

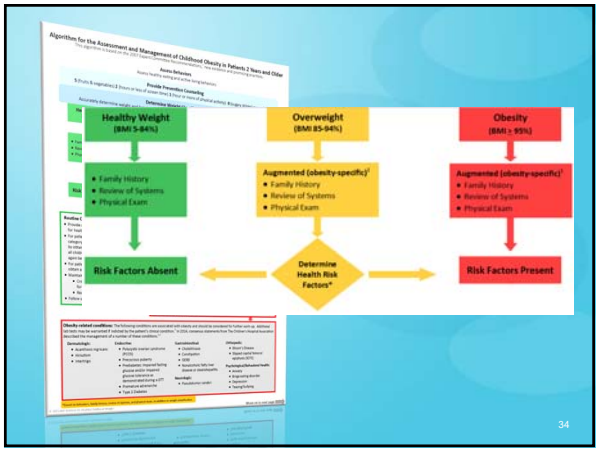
Childhood Obesity in Primary Care 14

You Are Here



Childhood Obesity in Primary Care 15


Healthy Weight
(BMI 5-84%)
• Family History
• Review of Systems
• Physical Exam
Routine Care
• Provide ongoing positive reinforcement for healthy behaviors.
• For patients in the healthy weight category, screen for genetic dyslipidemia by obtaining a non-fasting lipid profile for all children between the ages of 9-11 and again between 18-21.[2]
• For patients in the overweight category, obtain a lipid profile.
• Maintain weight velocity:
• Crossing 2 percentile lines is a risk for obesity[4]
• Reassess annually
• Follow up at every well-child visit.
31


Healthy Weight
(BMI 5-84%)
Overweight
(BMI 85-94%)
Obesity
(BMI ≥ 95%)
• Family History
• Review of Systems
• Physical Exam
Augmented (obesity-specific)[3]
• Family History
• Review of Systems
• Physical Exam
Augmented (obesity-specific)[3]
• Family History
• Review of Systems
• Physical Exam
Risk Factors Absent
Determine Health Risk Factors*
Risk Factors Present
34


Pausing for a Moment
These kids could be sick
Children at greater than 85th percentile are at a higher risk for comorbidities
We are going to look at 3 ways to fine-tune/augment your assessment:
Family History
Review of Systems
Physical Exam
Childhood Obesity in Primary Care
18

Augmented Obesity-specific Family History

- Obesity
- Type 2 Diabetes
- Hypertension
- Lipid level abnormalities
- Heart disease

Barlow S, Expert Committee. Expert committee recommendations regarding prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. Pediatrics. 2007;120(4):S164-S192.

19

Augmented Obesity-specific Review of Systems

Symptoms	Probable causes
Snoring/sleep disturbances	Obstructive sleep apnea
Abdominal pain	GERD, constipation, gall bladder disease, NAFLD
Menstrual irregularities	Polycystic ovary syndrome/Prader-Willi syndrome
Hip, Knee, Leg pain	SCFE
Foot Pain	Musculoskeletal stress from weight
Polyuria/Polydipsia	Type 2 DM
Anxiety, school avoidance, social isolation	Depression
Severe recurrent headaches	Pseudotumor cerebri
Shortness of breath	Asthma

Barlow S, Expert Committee. Expert committee recommendations regarding prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. Pediatrics. 2007;120(4):S164-S192.

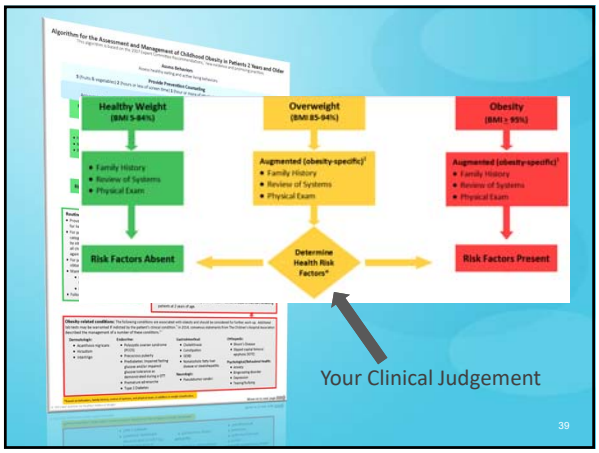
20

Augmented Obesity-specific Physical Exam

Findings	Possible Explanations
Elevated Blood Pressure (correct cuff)	Hypertension on 3 or more occasions
Short Stature	Underlying endocrine conditions
Acanthosis nigricans	Increased risk of insulin resistance
Acne, Hirsutism	Polycystic ovary syndrome
Skin irritation, inflammation	Intertrigo
Papilledema, cranial nerve VI paralysis	Pseudotumor cerebri
Tonsillar hypertrophy	Obstructive sleep apnea
Goiter	Hypothryroidism
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 syndrome

Barlow S, Expert Committee. Expert committee recommendations regarding prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. Pediatrics. 2007;120(4):S164-S192.

21

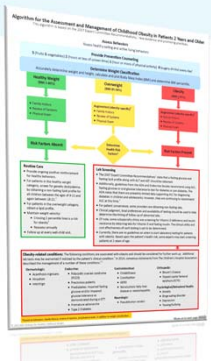


Health Risk Factors: Overweight

- ❑ Healthy eating and active living behaviors
- ❑ Family history
- ❑ Review of systems
- ❑ Physical exam

23

Overweight: Absent risk factors

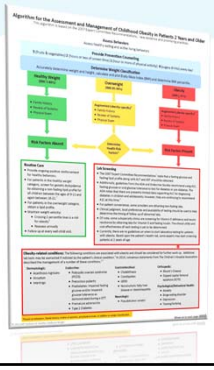


Overweight
(BMI 85-94%)

Routine Care
- Provide ongoing positive reinforcement for healthy behaviors.
- For patients in the *healthy weight* category, screen for genetic dyslipidemia by obtaining a non-fasting lipid profile for all children between the ages of 9-11 and again between 18-21.[2]
- For patients in the overweight category, obtain a lipid profile.
- Maintain weight velocity:
  - Crossing 2 percentile lines is a risk for obesity[2]
  - Reassess annually
- Follow up at every well-child visit.

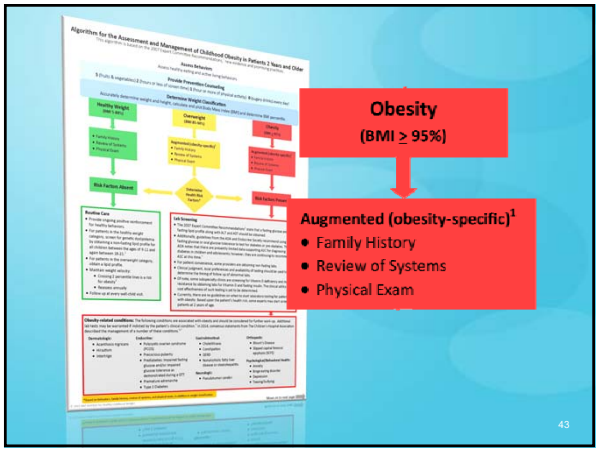
24

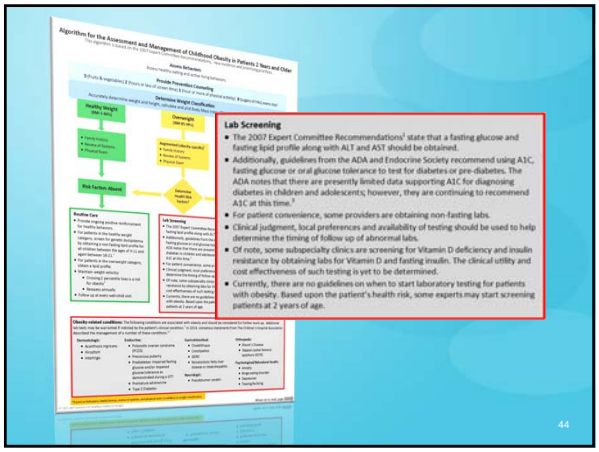
Overweight: Risk factors present



These children have increased risk for obesity related conditions and need to move to the right side of the algorithm

25





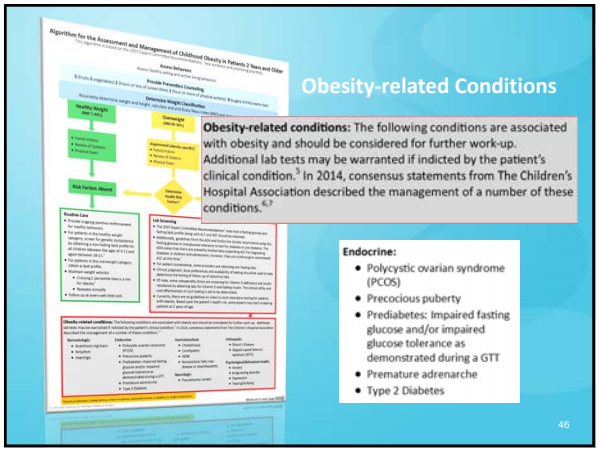
Laboratory Summary Slide

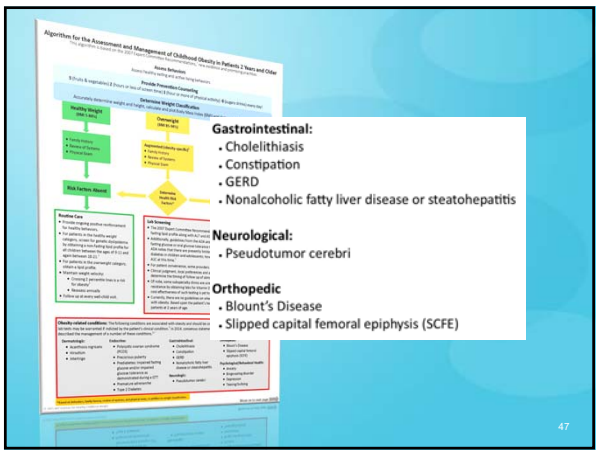
The recommended tests:

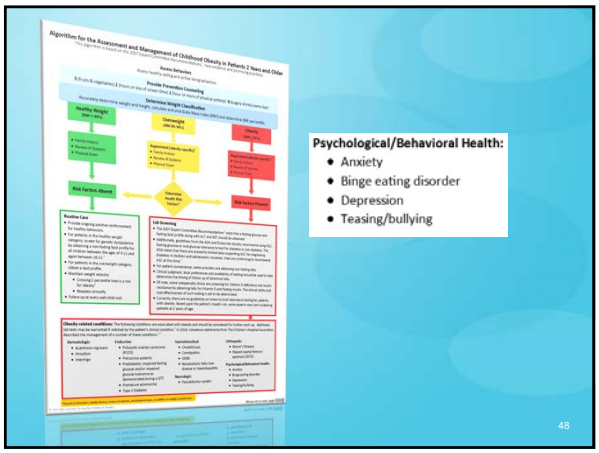
- Fasting Glucose
- Fasting Lipid Panel
- ALT
- AST

Additional laboratory test should be obtained as indicated

28







The consensus statements presented in this article may help keep the management of these children in their medical home and provide guidance to those sites that may not have subspecialists available.

Estrada E, Eneli I, Hampl S, et al, Children's Hospital Association consensus statements for comorbidities of childhood obesity

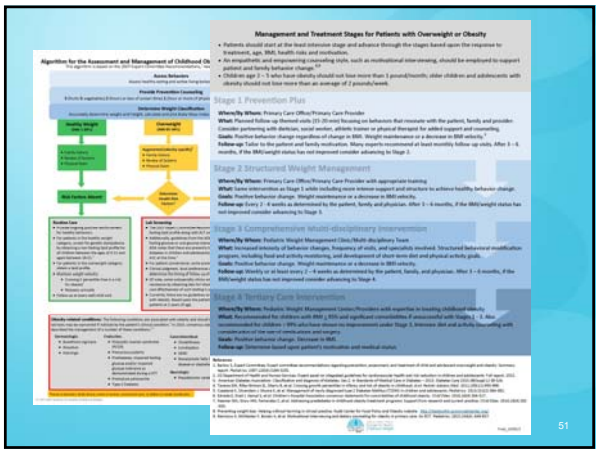
49

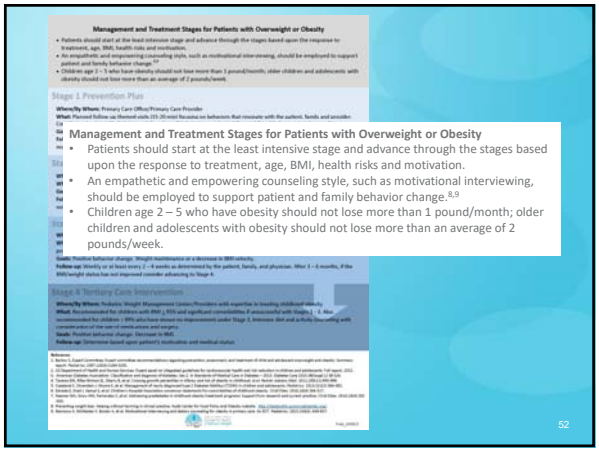
Management and Treatment

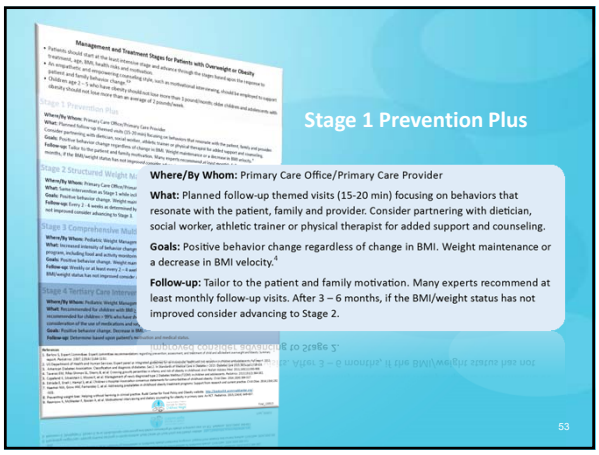
Key Points:

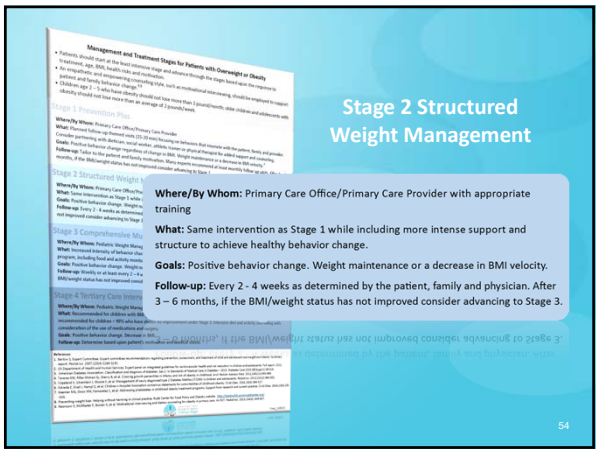
- Not every patient is ready
- Fear tactics don't work
- There are no quick fixes
- Frequent visits over time work
- Small behavior changes can have profound effects
- Motivational Interviewing works
- The stages are a guide
- The *Next Steps* guide and approach can be useful

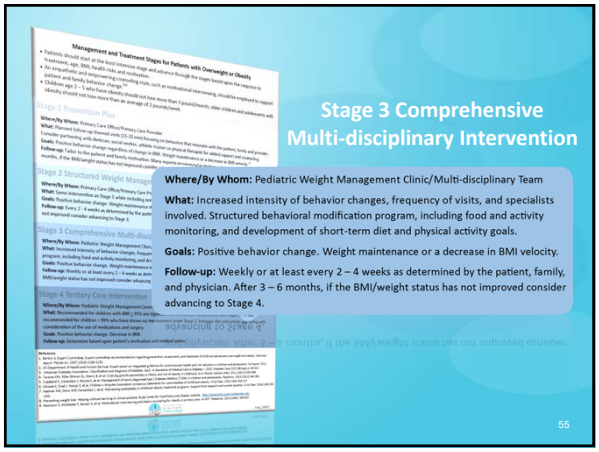
33

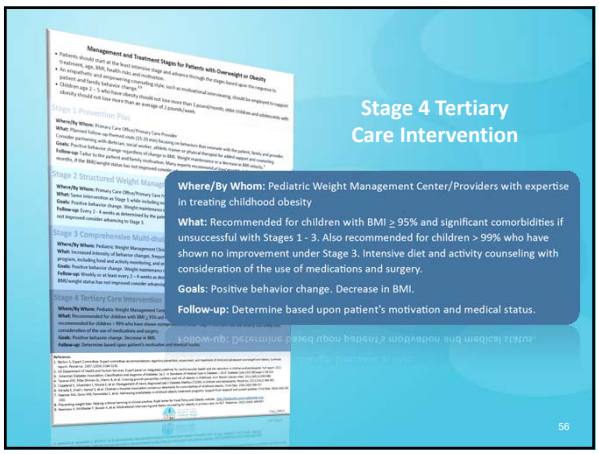

Management and Treatment Stages for Patients with Overweight or Obesity
51


Management and Treatment Stages for Patients with Overweight or Obesity
Patients should start at the least intensive stage and advance through the stages based upon the response to treatment, age, BMI, health risks and motivation.
An empathetic and empowering counseling style, such as motivational interviewing, should be employed to support patient and family behavior change.[8,9]
Children age 2 – 5 who have obesity should not lose more than 1 pound/month; older children and adolescents with obesity should not lose more than an average of 2 pounds/week.
52


Stage 1 Prevention Plus
Where/By Whom: Primary Care Office/Primary Care Provider
What: Planned follow-up themed visits (15-20 min) focusing on behaviors that resonate with the patient, family and provider. Consider partnering with dietician, social worker, athletic trainer or physical therapist for added support and counseling.
Goals: Positive behavior change regardless of change in BMI. Weight maintenance or a decrease in BMI velocity.[4]
Follow-up: Tailor to the patient and family motivation. Many experts recommend at least monthly follow-up visits. After 3 – 6 months, if the BMI/weight status has not improved consider advancing to Stage 2.
53


Stage 2 Structured Weight Management
Where/By Whom: Primary Care Office/Primary Care Provider with appropriate training
What: Same intervention as Stage 1 while including more intense support and structure to achieve healthy behavior change.
Goals: Positive behavior change. Weight maintenance or a decrease in BMI velocity.
Follow-up: Every 2 - 4 weeks as determined by the patient, family and physician. After 3 – 6 months, if the BMI/weight status has not improved consider advancing to Stage 3.
54


Stage 3 Comprehensive Multi-disciplinary Intervention
Where/By Whom: Pediatric Weight Management Clinic/Multi-disciplinary Team
What: Increased intensity of behavior changes, frequency of visits, and specialists involved. Structured behavioral modification program, including food and activity monitoring, and development of short-term diet and physical activity goals.
Goals: Positive behavior change. Weight maintenance or a decrease in BMI velocity.
Follow-up: Weekly or at least every 2 – 4 weeks as determined by the patient, family, and physician. After 3 – 6 months, if the BMI/weight status has not improved consider advancing to Stage 4.
55


Stage 4 Tertiary Care Intervention
Where/By Whom: Pediatric Weight Management Center/Providers with expertise in treating childhood obesity
What: Recommended for children with BMI ≥ 95% and significant comorbidities if unsuccessful with Stages 1 - 3. Also recommended for children > 99% who have shown no improvement under Stage 3. Intensive diet and activity counseling with consideration of the use of medications and surgery.
Goals: Positive behavior change. Decrease in BMI.
Follow-up: Determine based upon patient's motivation and medical status.
56

What can be done in a well-child visit?

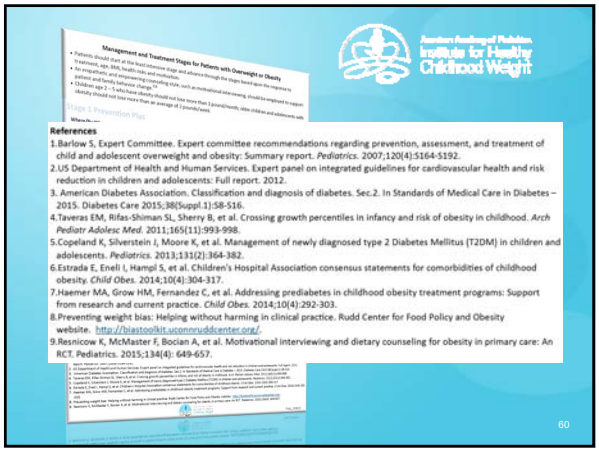
- ❑ Assessment: Is the patient at risk for complications due to his/her weight status?
- ❑ Begin the conversation (tailored to family and risk)
- ❑ Set the stage
- ❑ Gauge patient and family interest in continuing the conversation
- ❑ Arrange for follow-up:
  - Are labs necessary?
  - Is a referral necessary?
  - Does the patient and family want to keep talking about what to do to get healthy?

40

Take Home Messages

- ❑ Assessment is a critical piece of the puzzle
- ❑ This assessment is doable in the primary care setting
- ❑ Children who have a BMI ≥ 85% may be sick and may need:
  - Special consideration to determine if they are ill
  - Laboratory tests
  - Additional work-up for comorbidities as determined by positive signs and symptoms and family history

41



Management and Treatment Stages for Patients with Overweight or Obesity

Institute for Healthy Childhood Weight

References

1. Barlow S, Expert Committee. Expert committee recommendations regarding prevention, assessment, and treatment of child and adolescent overweight and obesity: Summary report. *Pediatrics.* 2007;120(4):S164-S192.
2. US Department of Health and Human Services. Expert panel on integrated guidelines for cardiovascular health and risk reduction in children and adolescents: Full report. 2012.
3. American Diabetes Association. Classification and diagnosis of diabetes. Sec.2. In Standards of Medical Care in Diabetes – 2015. Diabetes Care 2015;38(Suppl.1):S8-S16.
4. Taveras EM, Rifas-Shiman SL, Sherry B, et al. Crossing growth percentiles in infancy and risk of obesity in childhood. *Arch Pediatr Adolesc Med.* 2011;165(11):993-998.
5. Copeland K, Silverstein J, Moore K, et al. Management of newly diagnosed type 2 Diabetes Mellitus (T2DM) in children and adolescents. *Pediatrics.* 2013;131(2):364-382.
6. Estrada E, Eneli I, Hampl S, et al. Children's Hospital Association consensus statements for comorbidities of childhood obesity. *Child Obes.* 2014;10(4):304-317.
7. Haemer MA, Grow HM, Fernandez C, et al. Addressing prediabetes in childhood obesity treatment programs: Support from research and current practice. *Child Obes.* 2014;10(4):292-303.
8. Preventing weight bias: Helping without harming in clinical practice. Rudd Center for Food Policy and Obesity website. http://biastoolkit.uconnruddcenter.org/.
9. Resnicow K, McMaster F, Bocian A, et al. Motivational interviewing and dietary counseling for obesity in primary care: An RCT. Pediatrics. 2015;134(4): 649-657.

60