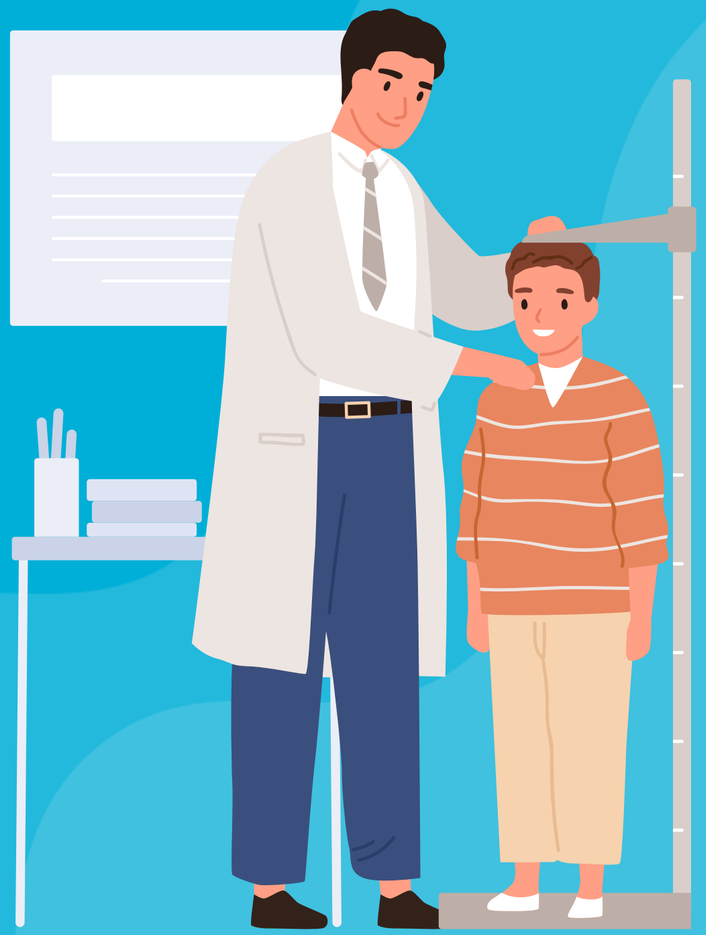
Evaluation and Treatment of Children and Adolescents with Obesity

An AAP Clinical Practice Guideline



Faculty and Disclosures

Dr. Carrie Gordon

Medical Director. Let's Go!

Physician, Weight and Wellness Program at Maine Medical Center

I have no disclosures

Learning Objectives

- Review the Key Elements of the 2023 AAP CPG on Obesity
- Discuss how the guidelines can be implemented in the primary care setting
- Review the comorbidities of obesity
- Discuss treatment approaches for obesity, with a lens inclusive of treating obesity comorbidities

Obesity is a complex chronic disease

- Obesity is often an indicator of structural inequities like unjust food systems, health inequities and environmental & community factors

- Genetics, obesity-promoting environments, life experiences combined with inequities and structural barriers to healthy living all contribute to overweight and obesity

Social and Environmental Risk – Context for Comorbidity Risk

We now recognize that race is not a biological construct.

So the association between:

- ethnicity,
- race,
- obesity, and
- comorbidities

most likely reflects the impact of epigenetic, social, and environmental factors, such as SDoHs (i.e. limited food access, low SES, exposure to structural racism, neighborhood deprivation, etc.)

Methodology – Scope of the Review

Key Question 1

What are clinic-based, effective treatments for obesity?

Key Question 2

What is the risk of comorbidities among children with obesity?

Original search period ended April 6, 2018. An additional search was conducted covering the time period April 7, 2018 - February 15, 2020.

- 15 988 Articles screened
- 1642 Full text articles reviewed
- 382 Studies included

CPG By the Numbers

15
Years Since Last Comprehensive Guidance

16K Abstracts Reviewed

1642
Full Text Articles

382
Studies Included

13
CPG Key Action Statements

11
CPG Consensus Recommendations

2
Technical Reports

New from previous recommendations

NEW

- Offer treatment early and immediately – **there is no benefit to watchful waiting**
- Treat obesity and comorbid conditions **concurrently**
- There are **multiple evidence-based strategies** that can be used collectively to deliver intensive & tailored obesity treatment
- **Structured**, **supervised** weight management interventions **decrease current & future eating disorder symptoms**

Obesity Bias

- Bias is prevalent in the setting of healthcare and can be unconscious
- Individuals who have obesity have suffered years of bias/stigma in healthcare settings, school, and in home environments
- You can take an on-line test to help you understand your own bias

Take a Test (harvard.edu)

- Internalized weight bias should be recognized and is treatable

Communication of Weight Status – this can be hard and charged

A couple key things to keep in mind…….

- It can be very helpful to ask permission to discuss growth concerns
- Using extended growth curves and discussion of health risk can help switch the conversation from weight to health
- Using person first language is important - describing a patient as having obesity, not being obese
- Your choice of words is critical - and having phrases on hand might be helpful
    - “your weight might be putting you at risk for health concerns”,
    - “it looks like you might be gaining weight faster than you are growing tall”

Allowing the family to have a safe space to understand and process the complexity of obesity and its chronicity ***requires tact, empathy, and humility***. Achieving this goal enables the patient and family to gain the knowledge and understanding needed to recognize risk factors in their environment and behaviors, to honor cultural preferences, and to institute changes independently as well as under the guidance of a trusted and well-trained advocate—such as pediatricians and other PHCPs

- AAP Clinical Practice Guideline

CPG

Evaluation & Treatment
of Pediatric Obesity

Evaluation

Recommendations

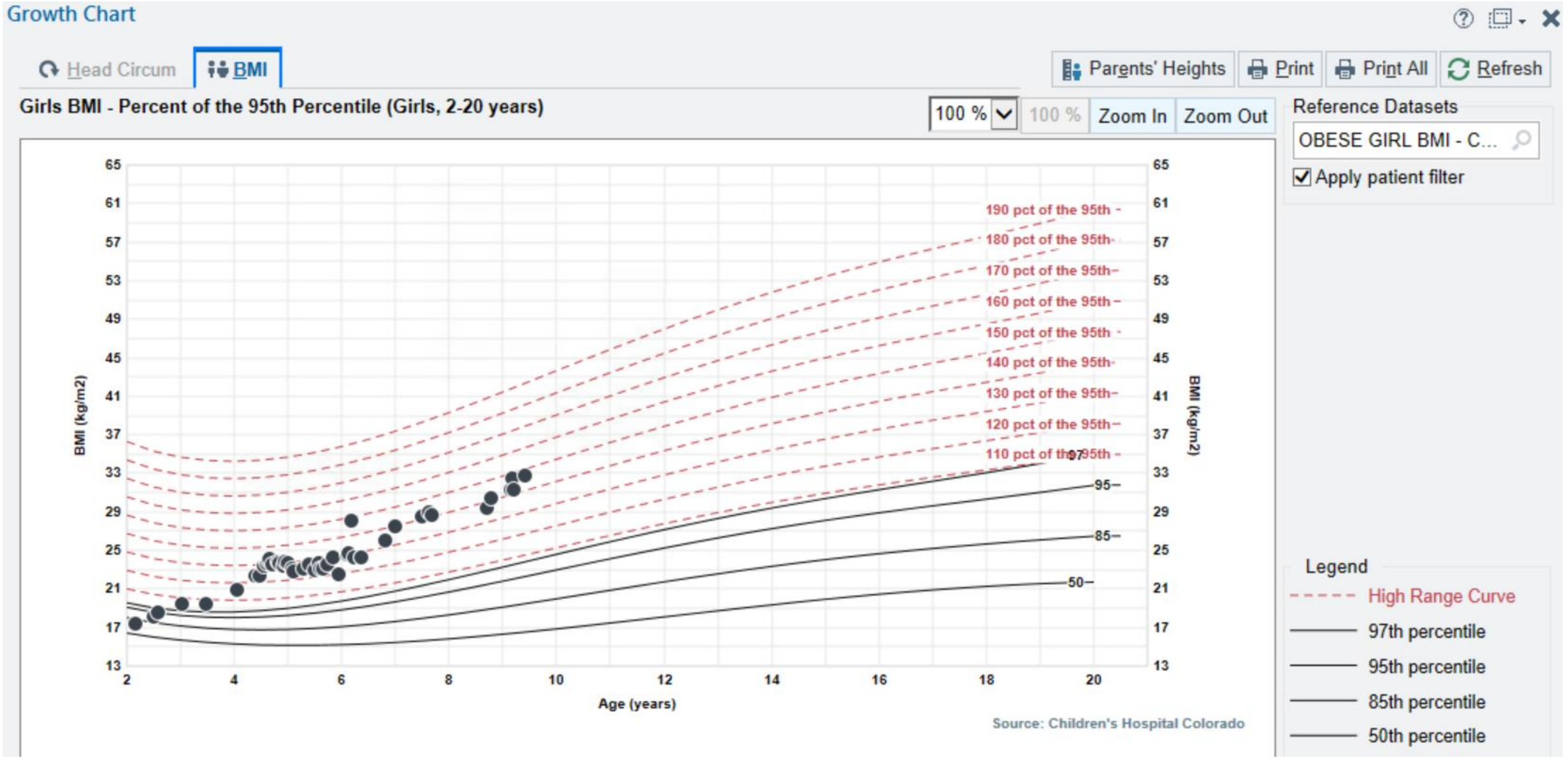
Assessment & Evaluation KAS Topics

- [x] BMI Measurement
- [x] Comprehensive Evaluation (PE, ROS, Hx, etc)
- [x] Risk Assessment (Whole child)
- [x] Comorbidity Evaluation (labs, tests)

BMI Measurement

KAS 1. Pediatricians and other PHCPs **should measure height and wt, calculate BMI, and assess BMI percentile using age- and sex-specific CDC growth charts** or growth charts for children with severe obesity at least annually **for all children 2 to 18 y of age** to screen for overweight (BMI ≥85th percentile to <95th percentile), obesity (BMI ≥95th percentile), and severe obesity (BMI ≥120% of the 95th percentile for age and sex).

Tracking BMI with extended growth charts



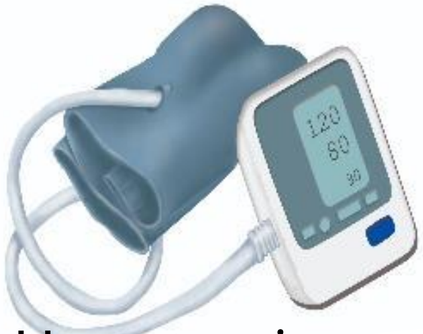
Evaluate for Comorbid Conditions

KAS 2. Pediatricians and other PHCPs should evaluate children 2 to 18 y of age with overweight (BMI ≥85th percentile to <95th percentile) and obesity (BMI ≥95th percentile) for obesity-related comorbidities by using a comprehensive patient history, mental and behavioral health screening, SDoH evaluation, physical examination, and diagnostic studies.

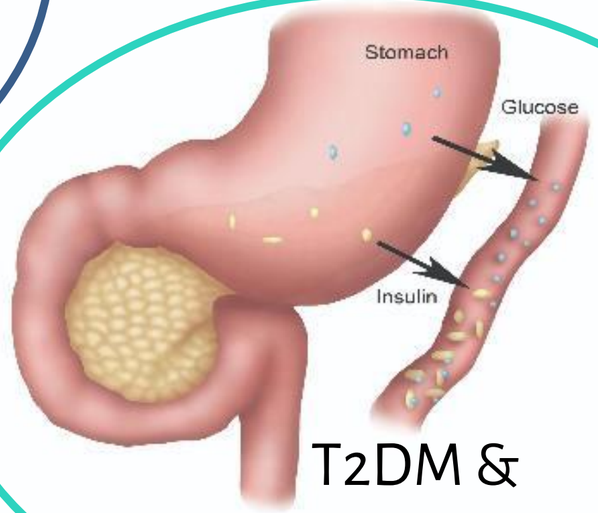
Additional evaluation considerations

- Social history
- Nutrition and PA history
- Assessment of disordered eating and behavioral and mental health
- Physical Examination
- Assessment of Readiness to change

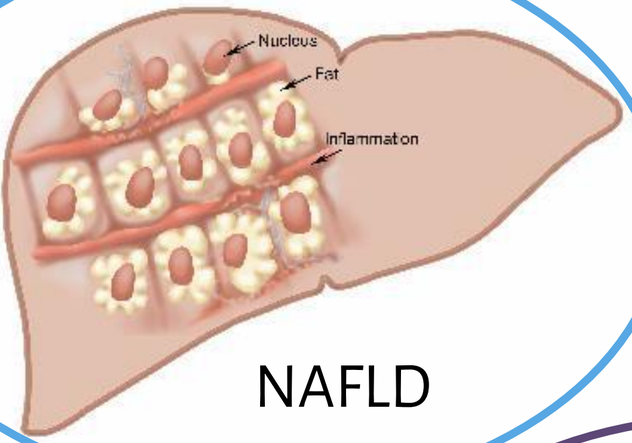
Comorbidities Addressed Include



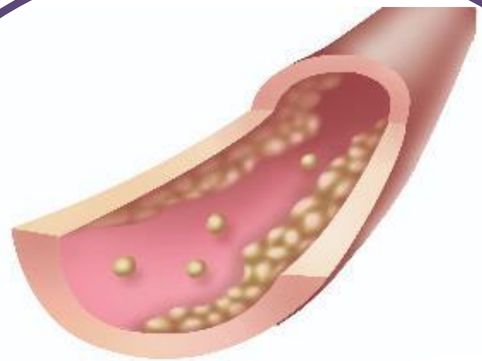
Hypertension



T2DM &
Prediabetes



NAFLD



Dyslipidemia

Lab Evaluation

KAS 3. In children 10 y and older, pediatricians and other PHCPs should **evaluate for lipid abnormalities, abnormal glucose metabolism, and abnormal liver function** in children and adolescents **with obesity** (BMI ≥95th percentile) and for **lipid abnormalities in children and adolescents with overweight** (BMI ≥85th percentile to <95th percentile).

KAS 3.1. In children **10 y and older with overweight** (BMI ≥85th percentile to <95th percentile), pediatricians and other PHCPs **may evaluate** for **abnormal glucose metabolism and liver function** in the presence of risk factors for T2DM or NAFLD. In **children 2 to 9 y of age with obesity** (BMI ≥95th percentile), pediatricians and other PHCPs **may evaluate** for lipid abnormalities.

Concurrent Treatment KAS

KAS 4: Pediatricians and other PHCPs should **treat** children and adolescents for overweight (BMI ≥85th percentile to <95th percentile) or obesity (BMI ≥95th percentile) and **comorbidities concurrently**.

Laboratory and Diagnostic Screening KAS

Dyslipidemia

KAS 5. Pediatricians and other PHCPs **should evaluate** for **dyslipidemia** by obtaining a **fasting lipid panel** in children **10 y and older with overweight** (BMI ≥85th percentile to <95th percentile) and obesity (BMI ≥95th percentile) and **may evaluate** for dyslipidemia **in children 2 through 9 y of age with obesity**.

Laboratory and Diagnostic Screening KAS

Prediabetes and Diabetes Mellitus

KAS 6. Pediatricians and other PHCPs **should evaluate for prediabetes and/or diabetes mellitus** with fasting plasma glucose, 2-h plasma glucose after 75-g oral glucose tolerance test (OGTT), or glycosylated hemoglobin (HbA1c)

Laboratory and Diagnostic Screening KAS

NAFLD

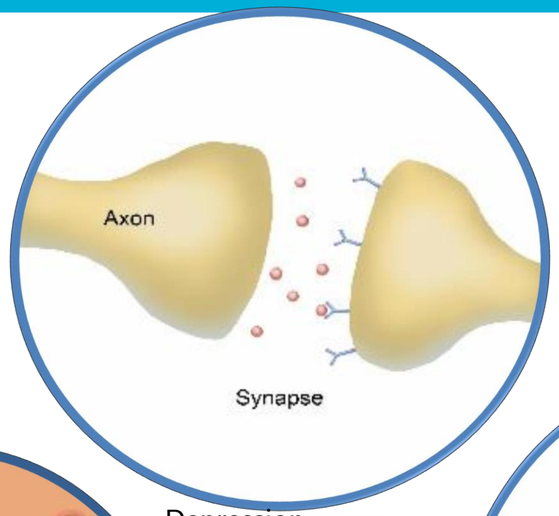
KAS 7. Pediatricians and other PHCPs should evaluate for NAFLD by obtaining an alanine transaminase (ALT) test.

Laboratory and Diagnostic Screening KAS

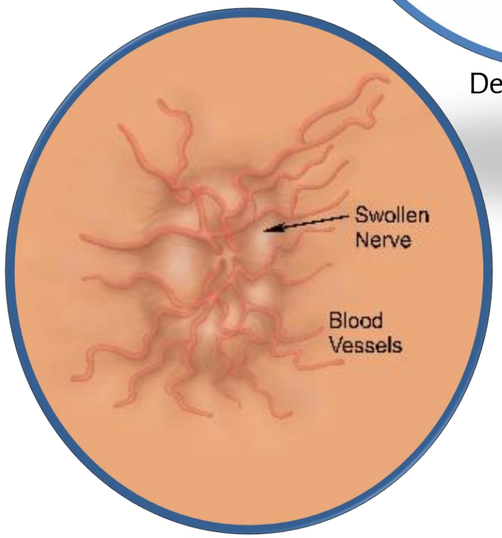
Hypertension

KAS 8. Pediatricians and other PHCPs **should evaluate** for **hypertension** by measuring **blood pressure** at every visit starting at 3 y of age in children and adolescents **with overweight** (BMI ≥85 to <95th percentile) and **obesity** (BMI ≥95th percentile).

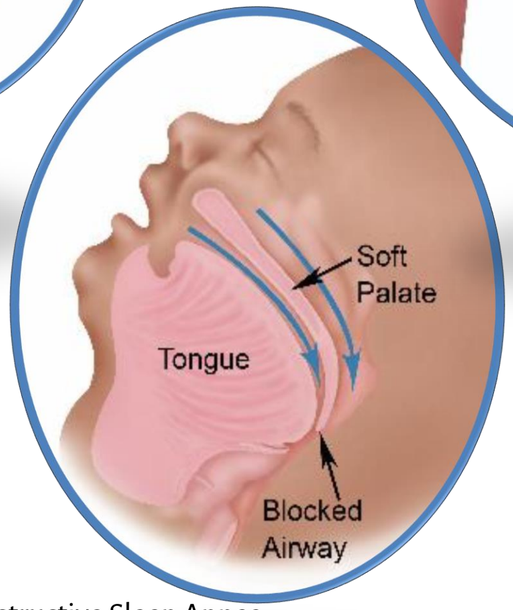
Comorbidities Addressed Include



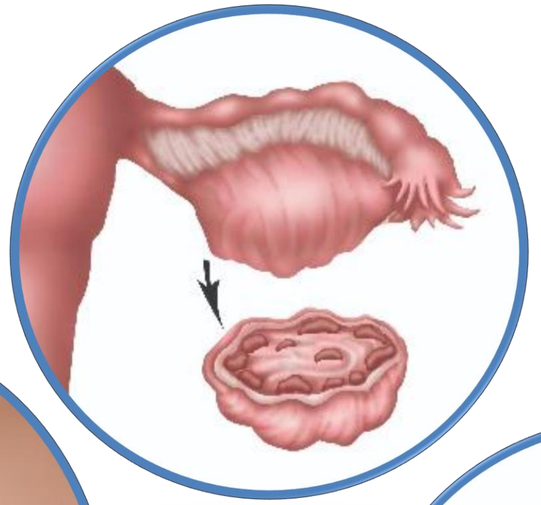
Depression



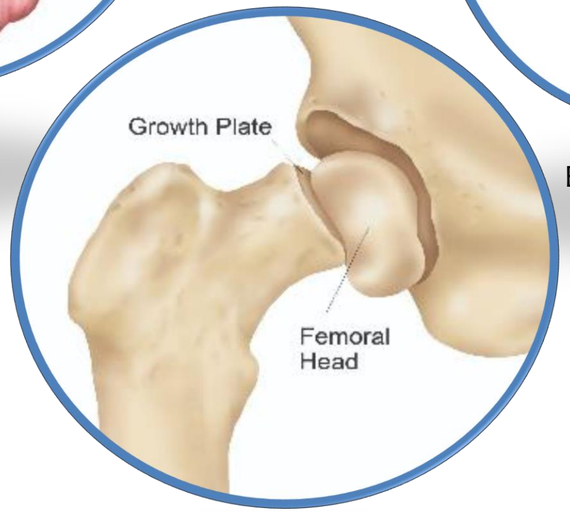
Idiopathic Intracranial Hypertension



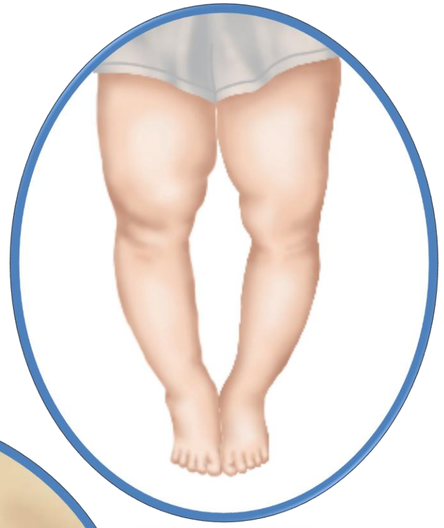
Obstructive Sleep Apnea



PCOS



SCFE



Blount disease

Consensus Recommendations for Other Comorbid Conditions

Comorbid Condition	Consensus Recommendation
OSA	• Obtain a sleep history, including symptoms of snoring, daytime somnolence, nocturnal enuresis, morning headaches, and inattention, among children and adolescents with obesity to evaluate for OSA. • Obtain a polysomnogram for children and adolescents with obesity and at least one symptom of disordered breathing.
PCOS	• Evaluate for menstrual irregularities and signs of hyperandrogenism (ie, hirsutism, acne) among female adolescents with obesity to assess risk for PCOS.
Depression	• Monitor for symptoms of depression in children and adolescents with obesity and conduct annual evaluation for depression for adolescents 12 years and older with a formal self-report tool.
Blount	• Perform a musculoskeletal review of systems and physical examination (eg, internal hip rotation in growing child, gait) as part of their evaluation for obesity.
SCFE	• Recommend immediate and complete activity restriction, non–weight-bearing with use of crutches, and refer to an orthopedic surgeon for emergent evaluation, if SCFE is suspected. PHCPs may consider sending the child to an emergency department if an orthopedic surgeon is not available.
IIH	• Maintain a high index of suspicion for IIH with new-onset or progressive headaches in the context of significant weight gain, especially for females.

CPG

Evaluation & Treatment of Pediatric Obesity

Treatment Recommendations

“

While representing such a broad spectrum of perspectives**, the members of this committee are all keenly aware of the multitude of barriers to treatment that patients and their families face. These barriers impact not only their access to treatment, but their ability to follow prescribed treatment plans. While some patients are able to adopt the lifestyle changes and habitualize elements of their prescribed treatment plans, so many others struggle to do so for a wide variety of reasons.** The members of the Subcommittee understand all of this. To assist with overcoming these barriers, guidance on a number of factors related to barriers to treatment, such as health [in]equity and multilevel risk factors, have been included in these guidelines.

- Doug Lunsford, Family Representative CPG Subcommittee

”

Comprehensive Obesity Treatment KAS

KAS 9. Pediatricians and other PHCPs **should treat overweight** (BMI ≥85th percentile to <95th percentile) and **obesity** (BMI ≥95th percentile) in children and adolescents, following the principles of the **medical home** and the **chronic care model**, using a **family-centered** and **non-stigmatizing** approach that acknowledges **obesity's biologic, social, and structural drivers.**

Provide the most intensive longitudinal treatment in the medical home....

Provide or ensure ongoing medical evaluation & monitoring
What is happening with this patient and family physically, emotionally, and socially?

Develop & implement an individualized comprehensive treatment plan, using evidence-based strategies
What can help the patients & family develop & reach treatment foals and treat comorbidities?

Tailor treatment as needed
What else is needed to support the patient & family's immediate needs & longitudinal treatment progress?

Serve as medical home
What care coordination and/or advocacy does this patient/family need?

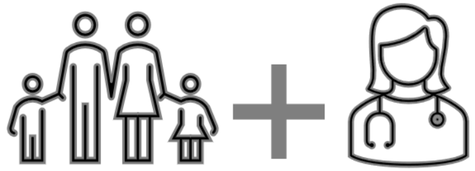
PCP & PHCP Evidence-Based Toolbox

- Motivational Interviewing
- Intensive Health Behavior & Lifestyle Treatment
- Pharmacotherapy
- Surgery

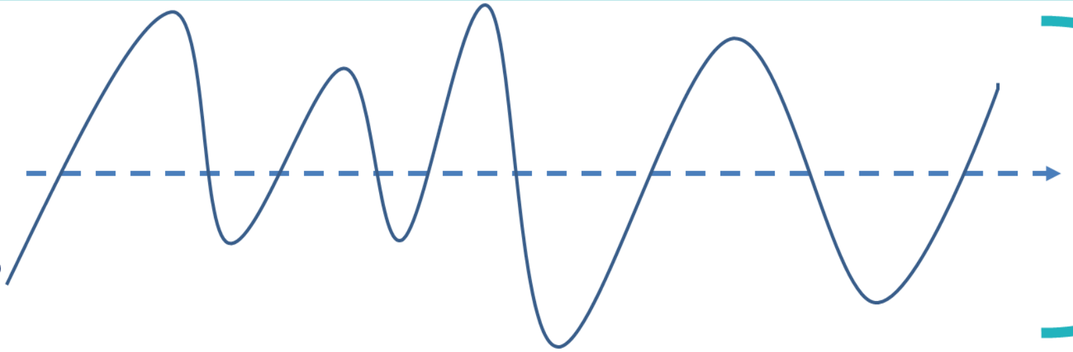
Treatment Experience of Obesity as a Chronic Disease

Longitudinal Non-Stigmatizing Care Coordinated Patient-Centered Treatment Across Lifespan

- Shared decision making with patient & family
- Culturally competent care
- Treatment coordinated in the medical home
- Transition planning



Patient & Family & PCP/PHCP Partnership



Treatment intensity & support vary to address relapsing & remitting nature of obesity as a chronic disease

Structural and Contextual Factors That Impede & Influence Health & Treatment

- Access to Care
- Weight Bias and Stigma
- Obesogenic Environments
- Adverse Child Experiences
- Racism
- Health Inequities

Motivational Interviewing KAS

KAS 10. Pediatricians and other PHCPs **should use motivational interviewing** (MI) to engage patients and families in treating overweight (BMI ≥85th percentile to <95th percentile) and obesity (BMI ≥95th percentile).

Intensive Health Behavior and Lifestyle Treatment KAS

KAS 11. Pediatricians and other PHCPs **should provide or refer** children **6 y and older** (Grade B) and **may provide or refer children 2 through 5 y of age** (Grade C) **with overweight** (BMI ≥85th percentile to <95th percentile) and **obesity** (BMI ≥95th percentile) **to intensive health behavior and lifestyle treatment**. Health behavior and lifestyle treatment is more effective with greater contact hours; the most effective treatment includes 26 or more hours of face-to-face, family-based, multicomponent treatment over a 3- to 12-mo period

More about IHBLT

WHO:
- Patient & family
- Multidisciplinary treatment team

WHEN
- Upon diagnosis

WHAT
- Health education
- Skill building
- Behavior modification & counseling

FORMAT
- Group
- Individual, or
- Both

WHERE
- Healthcare setting
- Community –based setting with linkage to medical home

DOSAGE
- Longitudinal (3-12 months long)
- At least 26 contact hours

CHANNEL
- Face-to-face or
- Virtual

When IHBLT is not available

Deliver the best available intensive treatment to all children with overweight and obesity.

Build collaborations with other specialists and programs in their communities.

Pharmacotherapy

KAS 12. Pediatricians and other PHCPs **should offer adolescents 12 y and older with obesity** (BMI ≥95th percentile) wt loss **pharmacotherapy,** according to medication indications, risks, and benefits, as an **adjunct to health behavior and lifestyle treatment**.

Consensus Recommendation: PHCPs may offer children ages 8 through 11 y of age with obesity wt loss pharmacotherapy, according to medication indications, risks, and benefits, as an adjunct to health behavior and lifestyle treatment.

Prescriber Qualifications

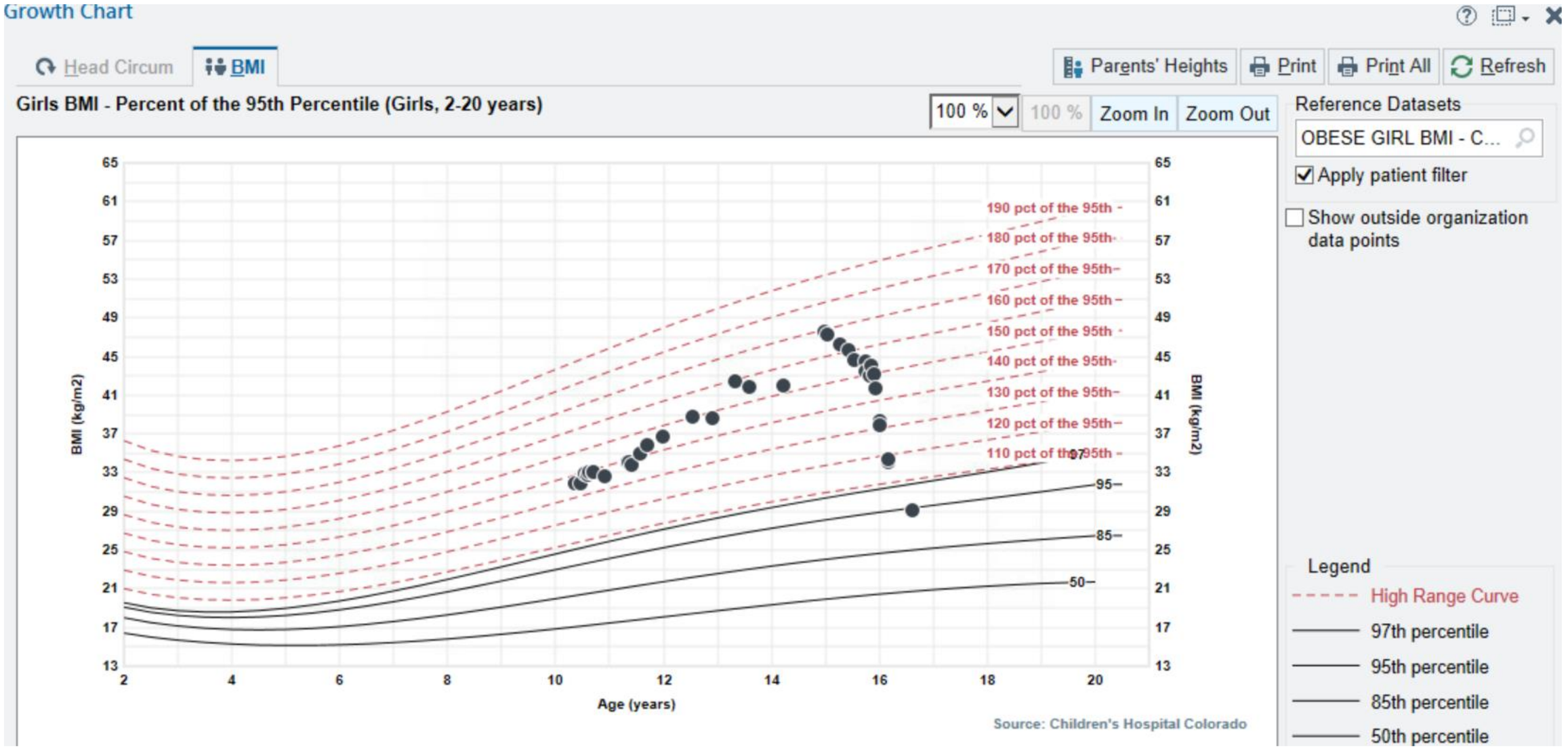
Pediatricians and other PHCPs who prescribe weight loss medications should have knowledge of:

- the patient selection criteria,
- medication efficacy,
- adverse effects, and
- follow-up monitoring guidelines
- injectable medications may require additional teaching for families that is not available in all primary care offices

Metabolic and Bariatric Surgery

KAS 13: Pediatricians and other PHCPs should offer referral for adolescents 13 y and older with severe obesity (BMI ≥120% of the 95th percentile for age and sex) for evaluation for metabolic and bariatric surgery to local or regional comprehensive multidisciplinary pediatric metabolic and bariatric surgery centers.

Extended Growth Chart after MBS



Criteria for Pediatric Metabolic & Bariatric Surgery

TABLE 20

Criteria for Pediatric Metabolic and Bariatric Surgery[733]

Weight Criteria	Criteria for Comorbid Conditions
Class 2 obesity, BMI ≥ 35 kg/m^2 or 120% of the 95th percentile for age and sex, whichever is lower	Clinically significant disease; examples include but are not limited to T2DM, IIH, NASH, Blount disease, SCFE, GERD, obstructive sleep apnea (AHI >5), cardiovascular disease risks (HTN, hyperlipidemia, insulin resistance), depressed health-related quality of life.
Class 3 obesity, BMI ≥ 40 kg/m^2 or 140% of the 95th percentile for age and sex, whichever is lower	Not required but commonly present.

AHI, apnea-hypopnea index.

“Start treatment immediately and deliver it intensively.”

- Sandra Hassink, MD, FAAP

Putting It All Together

The Continuum of Obesity Care and the Role of PCP/PHCP

FOCUS	ROLE OF THE PEDIATRICIAN/PHCP
Diagnosis and Measurement	✓ Measure height and weight ✓ Calculate BMI and assess BMI Percentile ✓ Communicate BMI and weight status to patient and family
Risk Factors	✓ Assess individual, structural and contextual risk factors
Evaluation	✓ Perform comprehensive patient history ✓ Conduct physical exam ✓ Evaluate for comorbidities ✓ Order relevant diagnostic studies and labs ✓ Assess readiness to change
Treat Comorbidities	✓ Treat obesity and comorbidities concurrently
Treat Obesity	✓ Manage children with overweight & obesity following principles of chronic care model & medical home ✓ Deliver non-stigmatizing care ✓ Use MI to engage patient and families in addressing overweight and obesity, set goals and promote participation or utilization of local resources or programs ✓ Promptly engage and refer children to intensive HBLT treatment, if available. If intensive HBLT treatment is not available in your area, deliver highest intensity HBLT treatment possible. ✓ Foster self-management strategies ✓ Refer to subspecialists if needed ✓ Serve as medical home, coordinate care, advocate for family, & support transition to adult care. ✓ Offer weight loss pharmacotherapy, to eligible patients, according to medication indications, risks, and benefits, as an adjunct to HBLT. ✓ For eligible patients with severe obesity, offer referral to a local or regional comprehensive multidisciplinary pediatric metabolic and bariatric surgery center for surgical evaluation.

Barriers to Implementation/Adoption of Clinical Practice Guidelines

Personal Factors	· Physician Knowledge (Awareness & familiarity) · Physician Attitudes (Efficacy, skills, motivation, etc.)
Guideline- related Factors	· Complexity, plausibility, etc. · Lack of evidence or clarity · Poor layout and lack of applicability
External Factors	· Organizational constraints (standards, protocols, quality) · Lack of collaboration (multi-professional cross collaboration) · Social & clinical norms (consensus)

Barriers and Strategies in Guideline Implementation—A Scoping Review; Healthcare 2016, 4, 36
Florian Fischer, Kerstin Lange, Kristina Klose, Wolfgang Greiner and Alexander Kraemer

Advocacy Recommendations

- Promote supportive payment and public health policies that cover comprehensive obesity prevention, evaluation, and treatment
- Public health agencies, community organizations, health care systems, health care providers, and community members need to partner with each other to expand access to evidence-based pediatric obesity treatment programs
- Supportive payment and public health policies and partnerships between healthcare providers and key stakeholders are critical to expand access to evidence based care
- Improved Education and Training for medical learners and practitioner

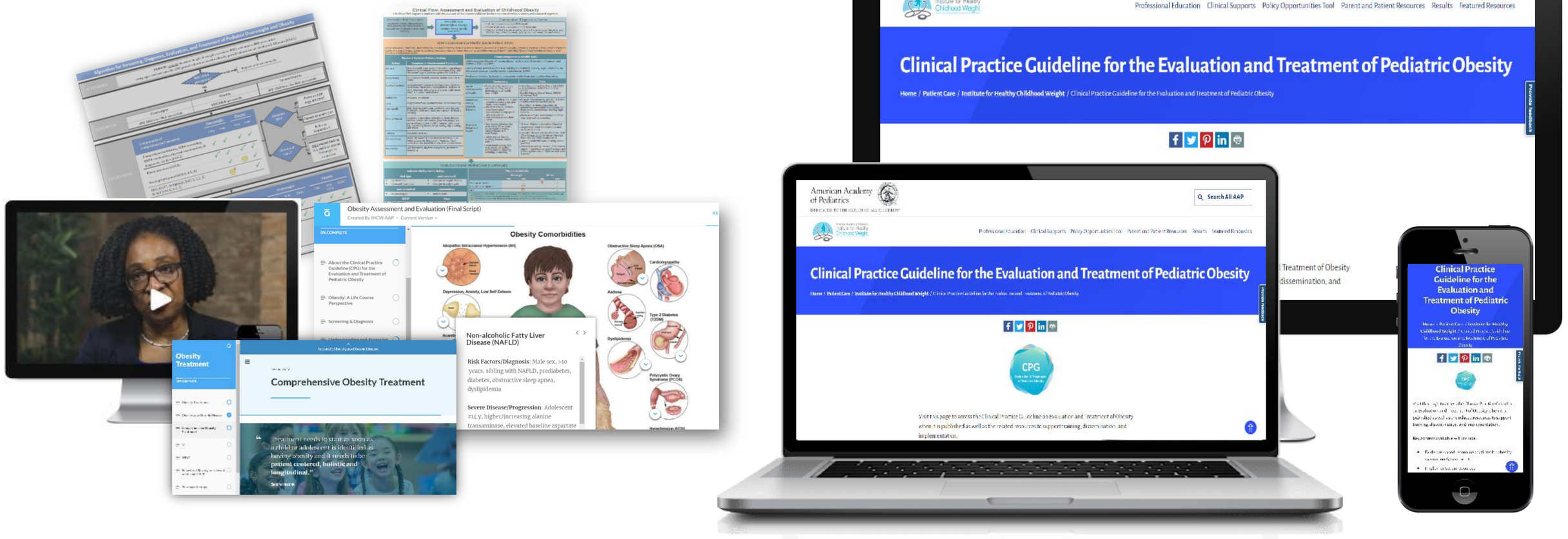
CPG

Evaluation & Treatment of Pediatric Obesity

AAP Clinical Implementation Resources

AAP Resources & Website

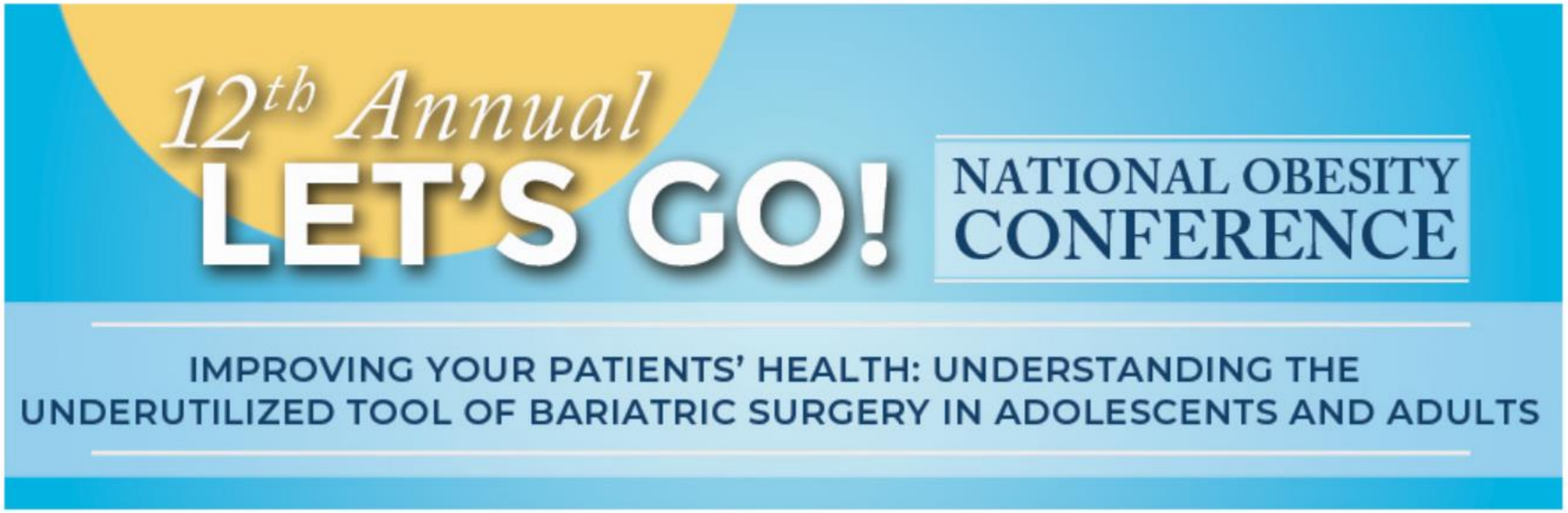
www.aap.org/obesitycpg



Weight and Wellness Resources

Speaking with Your Child About Health when they Have Extra Weight

Why Consider Bariatric Surgery for Adolescents?



Save the Date
September 21 & 22, 2023 | zoom

Improving Your Patients' Health: Understanding the Underutilized Tool of Bariatric Surgery in Adolescents and Adults

Conference Objectives:

- Increase knowledge in understanding the physiology, benefits, and efficacy of bariatric surgery
- Understand which patients will benefit from bariatric surgery, the requirements and risks
- Increase confidence to initiate early conversations with patients about bariatric surgery
- Understand support needed to help ensure long-term patient success including integrating other treatments for the chronic disease of obesity

For more details: www.mhesevents.org/LetsGo2023

Thank You

carrie.gordon@mainehealth.org

obesity@aap.org

https://ihcw.aap.org
www.aap.org/obesitycpg

Twitter: **@AAPHealthyWT**

American Academy of Pediatrics
Institute for Healthy Childhood Weight