



ADVANCING INTEGRATED HEALTHCARE

Pediatric Weight Management ECHO[®]

Session Topic: Developmental Approach to Prevention of Childhood Obesity

Presenter(s): Celeste C Corcoran, MD FAAP

Date: December 15, 2022

PLEASE NOTE: Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any clinician and any patient whose case is being presented in a project ECHO setting

Care Transformation Collaborative of RI

Welcome

- This session will be recorded for educational and quality improvement purposes
- Please do not provide any protected health information (PHI) during any ECHO session

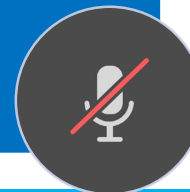
- Please turn on your video
- Please enter your name and organization in the chat box

Introduce Yourself



- Please mute your microphone when not speaking

Microphones



- Introduction
- Lecture
- Case
- Discussion
- Close

Agenda



CME Credits

(currently available for MDs, PAs, Rx, RNs, NPs, PsyD, PhD)

- CME Credits – Please request session credits when filling out the evaluation at the end of the meeting.
- Evaluation/Credit Request Form:
<https://www.surveymonkey.com/r/PediWtMgmtCMEEvaluation>



The AAFP has reviewed ‘Advancing Community-Oriented Comprehensive Primary Care Through Improved Care Delivery Design and Community Health,’ and deemed it acceptable for AAFP credit. Term of approval is from 09/15/2022 to 09/15/2023. Physicians should claim only the credit commensurate with the extent of their participation in the activity. NPs and RNs can also receive credit through AAFP’s partnership with the American Nurses Credentialing Center (ANCC) and the American Academy of Nurse Practitioners Certification Board (AANPCB).

Agenda

Time	Topic	Presenter
7:30 – 7:35 AM	Welcome & Introductions	Linda & Liz
7:35 – 8:00 AM	Didactic: Developmental Approach to Prevention of Childhood Obesity	Celeste Corcoran, MD FAAP
8:00 - 8:10 AM	Case Presentation	Westerly Medical Center
8:10 - 8:25 AM	Discussion	All
8:25 – 8:30 AM	Wrap up; Evaluation; Announcements	Linda

Today's Faculty

Celeste C. Corcoran, MD, is a board-certified pediatrician at Hasbro Children's Hospital.

She is an assistant professor at The Warren Alpert Medical School at Brown University and a clinical educator. In addition to starting the HEALTH Clinic, Dr. Corcoran continues to advocate for healthy nutrition and activity for all children in Rhode Island.

Dr. Corcoran serves as Hasbro Children's Hospital Community Outreach Program Director.

Disclosures

Session presenters have no financial relationships with a commercial entity producing healthcare-related products used on or by patients.

If CME credits are offered, all relevant financial relationships of those on the session planning committee have been disclosed and, if necessary, mitigated.

Learning Objectives

After participating in this session, attendees should be able to:

- Describe the problem of childhood obesity
- Understand the updated guidelines for prevention
- Identify solutions by utilizing successful developmentally appropriate models to prevent childhood obesity

What is the Problem?

- Obesity (defined as body mass index [BMI] ≥ 95 th age- and sex-specific percentile) is a chronic, progressive, and **predominantly biologically driven disease** of energy regulation that affects $\sim 20\%$ of children and adolescents in the U.S.
- Obesity in youth is the nidus for the development of a host of other chronic conditions including pre-diabetes, type 2 diabetes, non-alcoholic fatty liver disease, obstructive sleep apnea, poor quality of life, hypertension and heightened risk for adverse CV outcomes.

Why is Prevention of Obesity Important?

- Prevention of childhood obesity remains a public health priority, because obesity is the most prevalent chronic health condition in the pediatric population.
- Lifestyle therapy (LST), which consists of dietary and physical activity changes supported by behavioral modification strategies, is the cornerstone of obesity management. However, LST alone is often insufficient.

What are the current/not so current guidelines?

- Screening for Obesity in Children and Adolescents US Preventive Services Task Force Recommendation Statement 2017
- The Role of the Pediatrician in Primary Prevention of Obesity 2015
Stephen R. Daniels, MD, PhD, FAAP, Sandra G. Hassink, MD, FAAP,
Committee on Nutrition

United States Prevention Task Force Recommendation 2017

- The USPSTF recommends that clinicians screen for obesity in children and adolescents **6 years** and older and offer or refer them to comprehensive, intensive behavioral interventions to promote improvements in weight status.

Recommendations for Prevention of Childhood Obesity Pediatrics Supplement

- Education and advice alone are unlikely to be effective in most cases
- Partnering with parents
- Expanded and enhanced health curricula regarding nutrition and physical activity in schools
- Encouraging and supporting breast feeding
- Elimination of sugar sweetened beverage
- Limiting Screen time to 2 hours per day
- Encouraging consumption of fruits and vegetables
- Physical activity of 60 minutes per day
- Eating a healthy Breakfast
- Limiting eating outside of the home
- Portion control
- Family meals

As a multifactorial condition, childhood obesity requires a multicomponent approach.

Interventions should be **developmental stage-specific and adjusted to the setting.**

Focusing on the Developmental Stage for Successful Prevention

- Infants and Toddlers
- School aged Children
- Adolescents



Why begin prevention in infancy?

Feeding Infant and Toddlers Study 2012

- Inadequate nutrient intake of Iron and Zinc
- Higher than generally recommended energy, protein, and saturated fat
- Low intakes of fruits and vegetables, with high starchy, rather than green or yellow vegetables.
- Dietary intake of toddlers is associated with an increased risk of obesity in childhood and later life. 5

Nutrition Education In Early Childhood Works

WIC benefits provide healthy foods and nutrition education to qualifying pregnant, postpartum, and breastfeeding women, infants, and children up to age 5.

- WIC participants have healthier eating habits
- Consume more fruits, vegetables, whole grains, and low-fat dairy products.
- Reduced consumption of fat and added sugar
- Improved iron intake
- Obesity rates among children ages 2 to 4 who participate in WIC declined from 15.9 percent in 2010 to 14.4 percent in 2018.

What can healthcare providers do?

Education of Families of Young infants and Toddlers

- Updated Dietary Guidelines for Americans (DGAs) for 2020-2025
- Early Feeding: Educating and Engaging Families AAP Institute Healthy Weight
- Lifestyle Medicine Early Childhood Toolkit American College of Lifestyle Medicine 2021
- HEALTH Videos
<https://drive.google.com/drive/folders/1V7-ZZYsNfzadZmDSUBzCfoxA5MXEA0Ui?usp=sharing>

Early education may be effective but it may not be sustainable

Follow-up of the Early Prevention of Obesity in Children (EPOCH) Meta-analysis of 4 randomized controlled trials with 2196 participants found that initial positive effects of childhood obesity interventions faded out after interventions ended, pointing toward the importance of a suite of interventions implemented at multiple stages across childhood.

Childhood obesity management shifting from health care system to school system

Research points to success

Successful School-aged Interventions:

- ACTION Adolescents Committed to Improvement of Nutrition and Physical Activity School Based Health Center initiative reduction in BMI and screen time University of New Mexico
- Prospero sponsored Meta analysis of 12 Cluster-RCT 7 countries, 1755 participants, School Based Interventions decreased BMI and BMI z scores
- The Cornell Center for Behavioral Economics in Child Nutrition Programs
 - Strategies are backed by research in behavioral economics, psychology, and marketing.
 - Implementing Smarter Lunchrooms Strategies can result in an 18% increase in fruit consumption and a 25% increase in vegetable consumption.

What can healthcare providers do?

- Work on changing the culture
- Advocate on a local and statewide basis for change
- Incorporate healthy nutrition into curriculum
- Incorporate more chances for physical activity into the day
- Engage families in the process

In Barcelona, Kids Bike to School in Large, Choreographed Herds

Hop on the 'bicibús,' a highly replicable model that makes getting to school fun, safe and sustainable.

By: Cinnamon Janzer
November 7, 2022 • 3 min read

dit: calvox/periche / Flickr



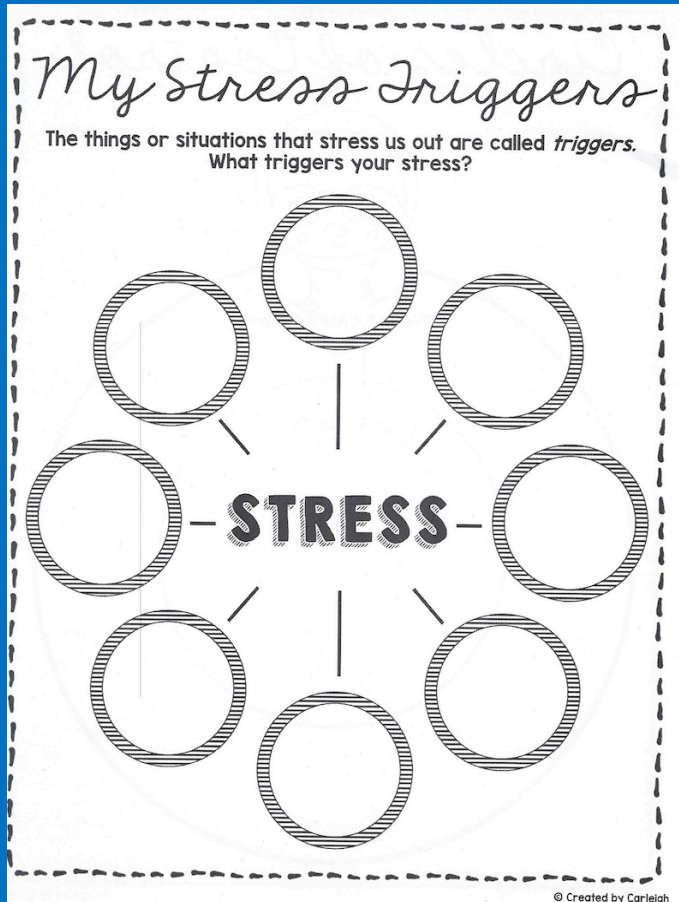
Prevention of Adolescent Obesity

- Focus needs to change
- Focus needs to be tailored to adolescent struggles that lead to obesity
- Poor sleep habits
- Stress
- Self Esteem

Target Sleep Behaviors

Thirty-six publications (31 cross-sectional, 5 prospective, and 0 experimental) were identified. Findings in both cross-sectional and cohort studies of children suggested short sleep duration is strongly and consistently associated with concurrent and future obesity.

Target Stress Management



Identify stress triggers

Identify alternative behaviors

Stress reduction exercises

Deep Breathing

Muscle relaxation

Meditation



Mindfulness Training helps individuals deal with craving as it arises, rather than reacting by eating.

Adolescent Mindful Eating

- Awareness of emotions and eating
- Self-regulation via internal cues of hunger/satiety
- Self-compassion/body acceptance

References

Almughamisi, M.; O’Keeffe, M.;... 2022	Adolescent Obesity Prevention in Saudi Arabia: Co-identifying Actionable Pr...	Front Public Health
Skelton, J. A.; Beech, B. M. 2011	Attrition in paediatric weight management: a review of the literature and ne...	Obes Rev
Lee, A.; Ho, M.; Keung, V. M.; K... 2014	Childhood obesity management shifting from health care system to school s...	BMC Public Health
Gomahr, J.; Julian, V.; Thivel, D... 2022	Childhood obesity prevention: what can be achieved?	Curr Opin Clin Nutr Metab
Gooley, M.; Skouteris, H.; Betts,... 2022	Clinical practice guidelines for the prevention of childhood obesity: A syste...	Obes Rev
Stavrou, S.; Nicolaidis, N. C.; P... 2016	The effectiveness of a stress-management intervention program in the man...	J Mol Biochem
Seidler, A. L.; Hunter, K. E.; Bau... 2022	Examining the sustainability of effects of early childhood obesity prevention...	Pediatr Obes
Rhodes, E. T.; Boles, R. E.; Chin... 2017	Expectations for Treatment in Pediatric Weight Management and Relationshi...	Child Obes
Kumar, S.; King, E. C.; Christiso... 2019	Health Outcomes of Youth in Clinical Pediatric Weight Management Program...	J Pediatr
Chaput, J. P. 2016	Is sleep deprivation a contributor to obesity in children?	Eat Weight Disord
Saavedra, J. M.; Deming, D.; D... 2013	Lessons from the feeding infants and toddlers study in North America: what...	Ann Nutr Metab
Tran, B. X.; Ohinmaa, A.; Kuhle,... 2014	Life course impact of school-based promotion of healthy eating and active li...	PLoS One
Dombrowski, S. U.; Knittle, K.;... 2014	Long term maintenance of weight loss with non-surgical interventions in ob...	BMJ
Schwartz, M. W.; Seeley, R. J.;... 2017	Obesity Pathogenesis: An Endocrine Society Scientific Statement	Endocr Rev
Morandi, A.; Tommasi, M.; Soffi... 2019	Prevention of obesity in toddlers (PROBIT): a randomised clinical trial of res...	Int J Obes (Lond)
Davis, M. M.; Gance-Cleveland... 2007	Recommendations for prevention of childhood obesity	Pediatrics
Danielsson, P.; Kowalski, J.; Ek... 2012	Response of severely obese children and adolescents to behavioral treatment	Arch Pediatr Adolesc Med
Daniels, S. R.; Hassink, S. G.; C... 2015	The Role of the Pediatrician in Primary Prevention of Obesity	Pediatrics
Narayanan, N.; Nagpal, N.; Ziev... 2019	A School-Based Intervention Using Health Mentors to Address Childhood O...	Prev Chronic Dis
Narayanan, N.; Nagpal, N.; Ziev... 2019	A School-Based Intervention Using Health Mentors to Address Childhood O...	Prev Chronic Dis

References

Ho, T. J. H.; Cheng, L. J.; Lau, Y.	2021	School-based interventions for the treatment of childhood obesity: a system...	Public Health Nutr
U. S. Preventive Services Task...	2017	Screening for Obesity in Children and Adolescents: US Preventive Services...	JAMA
Hughes, S. O.; Power, T. G.; Ba...	2022	Short-Term Efficacy of a Childhood Obesity Prevention Program Designed t...	Child Obes
Sharifi, M.; Block, J. P.	2021	The Urgency of Expanding Access to Effective Treatment for Childhood Obe...	Child Obes

Contact information

Please feel free to contact me about any patients:

Corcoranceleste5@gmail.com

Celeste.Corcoran@Lifespan.org

Cell 401-741-1801



ADVANCING INTEGRATED HEALTHCARE

Pediatric Weight Management ECHO[®] Case Presentation

Presenter(s): Susan Stuart, DO, MS, MSHPE

Date: 12/15/2022

Contact Info: (401) 596-0174

PLEASE NOTE: Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any clinician and any patient whose case is being presented in a project ECHO setting

Care Transformation Collaborative of RI

Stop the Recording

Reasons for Selecting this Case

Do Not Include PHI

Why did you choose this case?	<p>Multiple children/family members with obesity</p> <p>I find this mother/family to be very challenging because there seems to be focus only on behavior, not weight.</p> <p>Mom is very sensitive about discussing weight and seeks outside explanations for her daughter’s weight. All children are at risk of obesity.</p>
What questions do you have for the group?	<p>How to approach this family with minimal insult and maximal outcome?</p> <p>Anyone with similar experiences?</p> <p>Experience with “baby lead weaning”?</p>

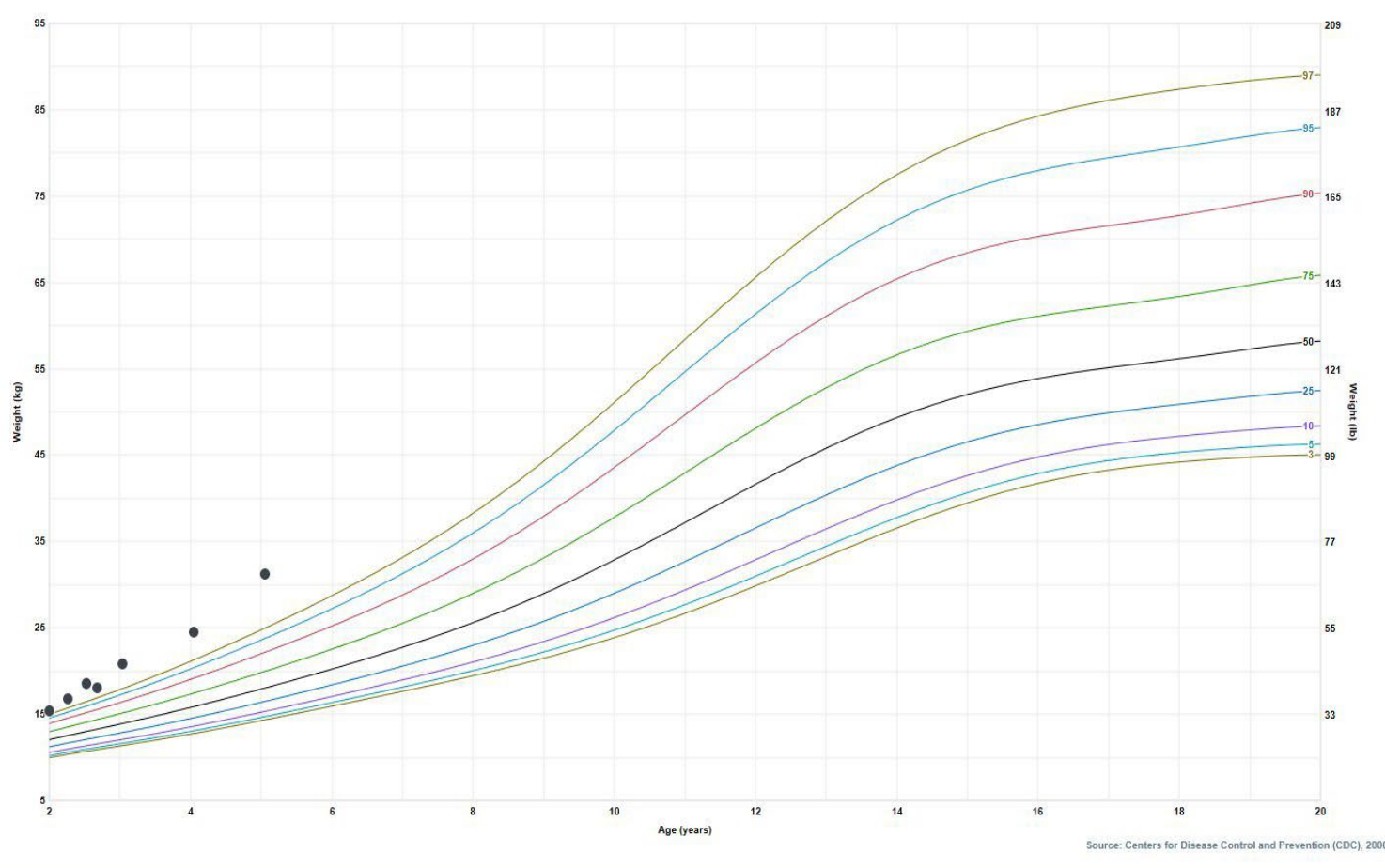
Basic Patient Information

Do Not Include PHI

Age	7 years 9 months	5 years	10 months
Gender Identity	male	female	male
Race/Ethnicity	Caucasian		
Current Weight and Height	Weight: 67#/69#/21#		Height: 49"/45"/27.5"
Current BMI and BMI%/Obesity class	95.5%	99.72%	95.57%
How long has the patient had concerning growth trends?	from birth		
How long has this individual been in your care?	since birth		
Insurance type (Commercial, Medicaid, Uninsured, Other)	commercial		

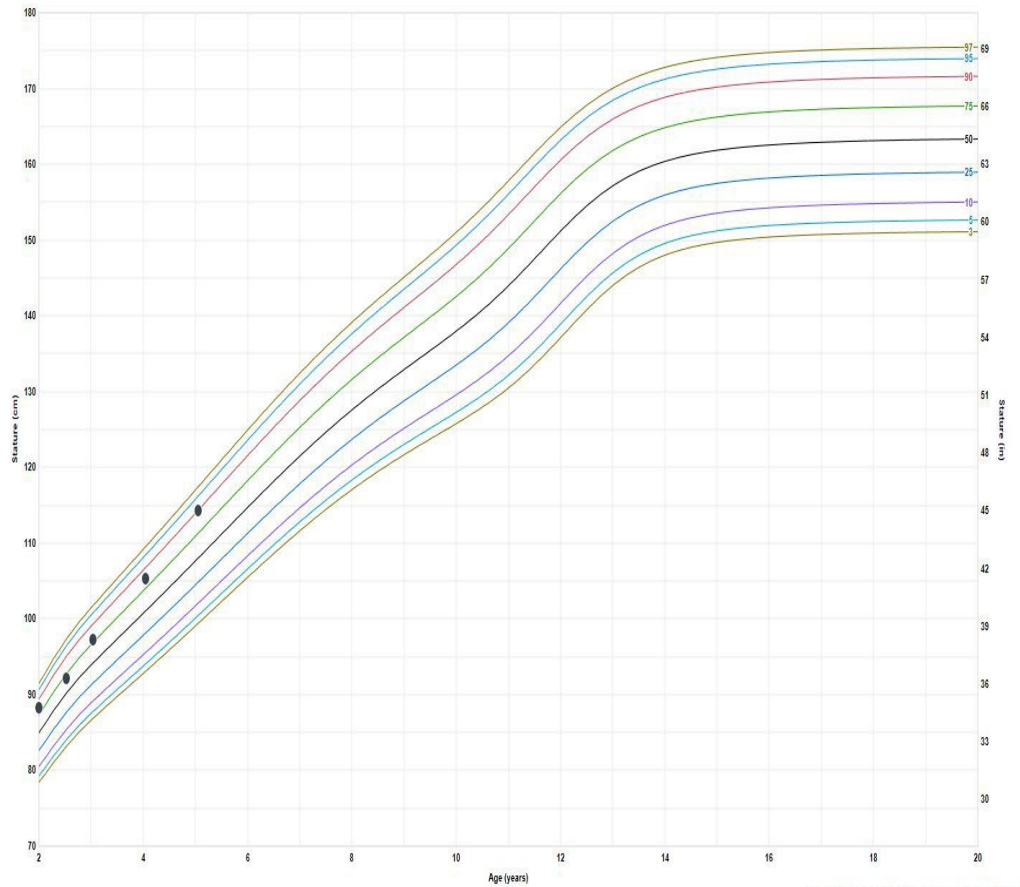
Growth Curve

Do Not Include PHI

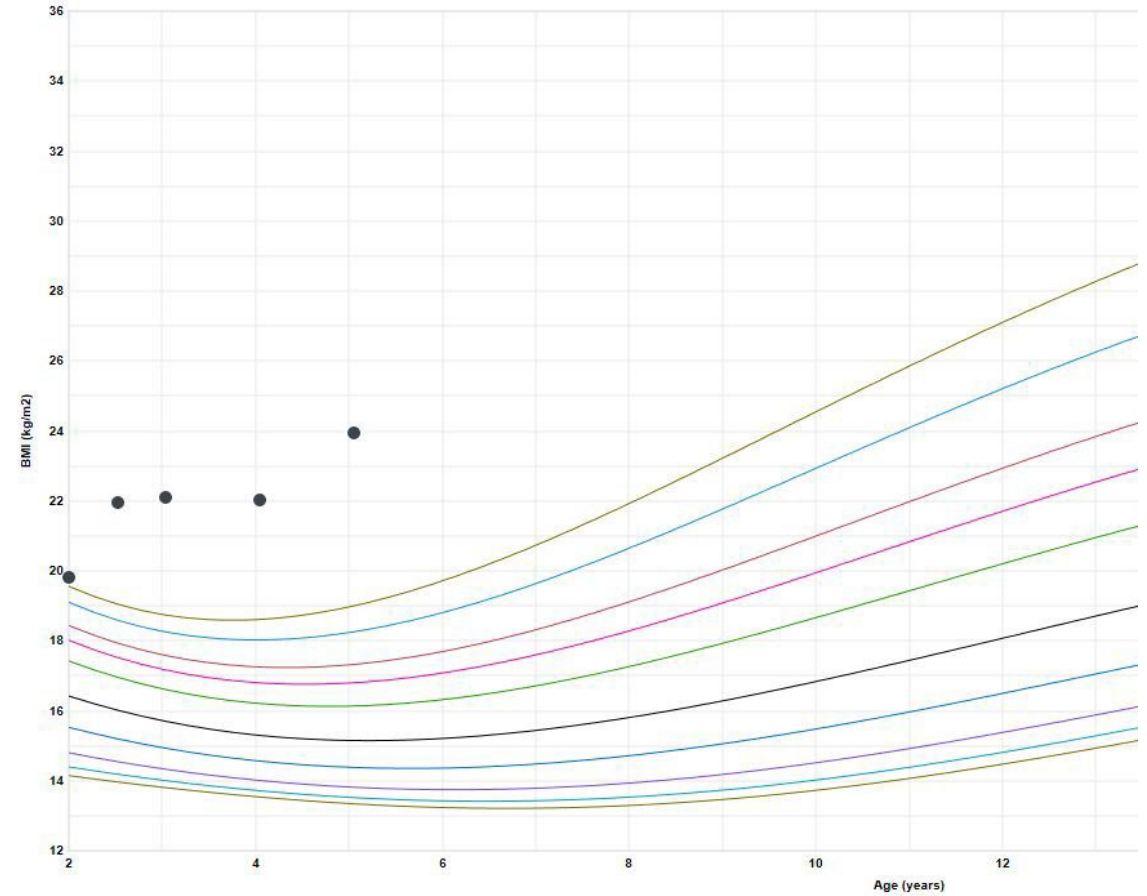


Growth Curve

Do Not Include PHI



Source: Centers for Disease Control and Prevention (CDC), 2000



Does the Patient/Family have a weight management goal? Please describe.

Do Not Include PHI

No set goals. Mom routinely mentions children's activities, picky eating and most recently the daughter's poor sleep. Noted on a baby cam in her room.

Mom and dad are both overweight, dad obese. Mom has mentioned frustrations with her own weight issues but no mention in past 18 months due to recent pregnancy.

Relevant Background

Relevant medical and/or behavioral comorbidities	Mom mentions daughter has been sleeping poorly, restless, wakes tired, wonders about restless leg syndrome and Lyme disease.
Relevant medications	Zyrtec prn allergies
Relevant lab results	recent ferritin level was 107.7 (8.0 - 140.0) Lyme was negative
Relevant BH Screening results	none
Relevant SDOH Screening results	none

Relevant Social History

Relevant obesity related family history?	Both parents are overweight. Father is morbidly obese
Family/patient history of trauma?	No reported incident. Maternal grandmother is a retired middle school nurse. Sees children, babysits children daily. Has often examined children and seems to undermine mother's instincts.
School related concerns?	5 year-old daughter attends public school. Older brother is home schooled, baby is at home
Other social history?	Recent return to Catholicism by attending daily morning mass, where 7 year-old is an alter server.

Nutrition

<p>What interventions have been tried?</p> <p>How responsive has the family been to nutrition interventions?</p>	<p>Mom does not ask for suggestions.</p>
<p>What barriers have the family identified for improving nutrition?</p>	<p>Mother reports no barriers other than time constraints.</p>
<p>Does the patient have any of the following:</p> <ul style="list-style-type: none"> - Excessive hunger - Night-time eating or binging - Sneaking food - Other 	<p>Daughter has a large appetite, night time eating and snacking are under maternal supervision. No mention of sneaking food.</p> <p>At her most recent visit (for the baby) mom showed me a photo of the daughter after a fall while eating an applesauce pouch. They were at the park and child requests a snack. Mother told her to sit down while eating, got distracted and daughter took off to play and promptly tripped with plastic pouch spout jamming her right incisor, ER dental visit followed.</p>
<p>Other concerns with nutrition/eating (such as cultural considerations)?</p>	<p>No</p>

Physical Activity

<p>What interventions have been tried? How responsive has the family been to physical activity recommendations?</p>	<p>Mom reports children are very active, karate, swimming in summer, outdoors a lot.</p>
<p>Does the patient engage in regular physical activity? (yes/no) Please describe</p>	<p>yes, karate, playing outside.</p>
<p>Is screen time a significant part of the patient’s social time? (yes/no) Please describe</p>	<p>child does have access to screen time but not frequent, per mom. Mom gives them a tablet for “peace of mind”</p>
<p>Other concerns with physical activity/exercise (such as physical restrictions, access, environmental safety)?</p>	<p>due to the 1 year old, some activities are postponed due to nap schedule.</p>

Were other approaches used for managing this patient?

Do Not Include PHI

Not other than ordering labs as requested by mom, and making a referral to sleep lab. This is pending.

Patient /Family Successes and Strengths?

Do Not Include PHI

This family has many resources at their disposal. No issues with finances or access to child care. Grandparents are VERY involved. This family lives on a lake, mom is a swim instructor. Family is involved in a lot of physical activity.

Summary & Clarifying Questions



Reasons for Selecting this Case

Do Not Include PHI

Why did you choose this case?	<p>Multiple children/family members with obesity</p> <p>I find this mother/family to be very challenging because there seems to be focus only on behavior, not weight.</p> <p>Mom is very sensitive about discussing weight and seeks outside explanations for her daughter's weight. All children are at risk of obesity.</p>
What questions do you have for the group?	<p>How to approach this family with minimal insult and maximal outcome?</p> <p>Anyone with similar experiences?</p> <p>Experience with "baby lead weaning"?</p>

Recommendations from the group

CME Credits

(currently available for MDs, PAs, Rx, RNs, NPs, PsyD, PhD)

- Please provide us your feedback!
- Evaluation/Credit Request Form:
<https://www.surveymonkey.com/r/PediWtMgmtCMEEvaluation>
- Please request CME credits when filling out the evaluation at the end of the meeting



The AAFP has reviewed 'Advancing Community-Oriented Comprehensive Primary Care Through Improved Care Delivery Design and Community Health,' and deemed it acceptable for AAFP credit. Term of approval is from 09/15/2022 to 09/15/2023. Physicians should claim only the credit commensurate with the extent of their participation in the activity. NPs and RNs can also receive credit through AAFP's partnership with the American Nurses Credentialing Center (ANCC) and the American Academy of Nurse Practitioners Certification Board (AANPCB).

Announcements

Next Session: **January 15 2023, 7:30-8:30**

Topic: **Motivational Interviewing / Difficult conversations (provider/patient + caregiver/child)**

Presenter: **Sarah Hagin**

Case Presentation: **Santiago Medical Group**

