CT Children's CLASP Guideline
Early Obesity Prevention

INTRODUCTION

Childhood obesity has tripled over the past 30 years, and the most recent CDC data shows 21% of children and adolescents, and 12.7% of 2–5-year-olds have obesity. Early and rapid weight gain tracks into later childhood, adolescence and adulthood and leads to worse health outcomes. Rates are higher in low-income children. Achieving long-lasting treatment results for childhood obesity with lifestyle modification is difficult once BMI crosses the 95th percentile. Obesity is increasingly recognized as a chronic disease with increased occurrence of serious health consequences, including but not limited to, diabetes, hypertension, heart disease, fatty liver disease, sleep apnea, joint problems, anxiety and depression. Therefore, the focus is shifting to obesity prevention with healthy eating and active living in pregnancy, infancy and childhood to alter adiposity and weight gain trajectories. Children with risk factors need earlier and aggressive preventive measures.

INITIAL EVALUATION

The Robert Wood Johnson Foundation and the Institute of Medicine have identified Maternal and Pediatric Risk Factors for developing childhood obesity.

ASSESSMENT OF RISK FACTORS

The INITIAL EVALUATION at first visit and all subsequent visits to include screening for risk factors, and documentation of the following (obesity screening ICD-10 code Z13.89):

MATERNAL RISK FACTORS:

- *High maternal pre-pregnancy BMI>26*
- *Maternal history of gestational diabetes mellitus (GDM) during the child's gestation*
- *Excess maternal weight gain during pregnancy >35 pounds*
- *Maternal smoking during pregnancy*
- *Parental obesity (Family history of obesity ICD 10 code Z83.49)*

PEDIATRIC RISK FACTORS

- *Rapid weight gain, crossing ≥2 weight for length or BMI percentiles on growth curve (Abnormal weight gain ICD-10 code R63.5)*
- *Higher birth weight > 4 kg or low birth weight < 2.5 kg.*
- *Higher absolute weight-for-length or BMI >85th percentile*
- *Lower SES*
- *Insufficient sleep: <12 hours /day in 6 month to 2 year old, <10 hours/day in 3-5 year olds*
- *Hyperphagia before the age of 3 y.o.*

ASSESSMENT OF PARENTAL UNDERSTANDING & BARRIERS

PARENTAL DISCUSSION

Assess parental understanding of infant or child's risk factors for developing obesity and associated health risks if obesity develops. Address barriers to healthy eating and active living to maintain a healthy weight. Assess whether parents need help with:

- Breastfeeding support

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- Healthy food access and/or affordability
- Nutrition education
- Physical activity
- Limiting Screen Time

HOW TO FRAME THE CONVERSATION

- "What concerns, if any, do you have about your child's weight? Why? What are some things you might like to change?"
- "Starting childhood off right with good feeding practices, healthy eating, and daily physical activity is so important to prevent obesity. The key to keeping kids at a healthy weight is to create a healthy home environment and making healthy eating and exercise a family affair."
- "Because obesity and unhealthy weight in early childhood can follow children into adolescence and adulthood and cause serious health problems, we want to be sure your child starts at and maintains healthy growth."
- "A number of things contribute to a person becoming overweight – diet habits, lack of exercise, genetics, and we are starting to screen young children for risk factors to try to help prevent obesity which can cause serious health problems down the road."

Additional resources: ***See APPENDIX A below: Obesity Prevention Resources***

LABS/ACTIONS

Labs for children 3 years and older:

- Fasting lipid panel, glucose, ALT and Hemoglobin A1C

Lab Follow Up:

- For **Endocrinology** related abnormal labs refer to **Lipid Abnormalities** and **Obesity & Screening for Comorbidities** CLASP Tools for guidance on abnormal cholesterol panels, glucose and A1C management.
- For **abnormal blood pressure concerns** refer to **Hypertension CLASP.**
- For **abnormal liver labs** refer to **Steatotic Liver Disease CLASP**

INITIAL MANAGEMENT

INITIATING HEALTHY EATING ACTIVE LIVING PRACTICES

- Monitor growth
  - Follow weight-for-length (birth to 24 months) and BMI (2-5 years) closely
  - Explain and review growth chart visually with parents at each visit and discuss importance of keeping child on the chart
  - Intervene when patient's weigh-for-length or BMI trajectory crosses more than 2 percentile curves on the growth chart or if the weight-for-length or BMI is ≥ 85th percentile.
- Consistent and repeated messaging at well child visits on the following:
  - Focus on breastfeeding promotion and support for at least the first 6 months
  - Healthy bottle feeding if not breastfeeding
  - "Responsive feeding" messages for all infant feeding (see reference)
  - Appropriate introduction of complementary foods at 4-6 months and helping

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families shape healthy food preferences
- Limit sugar sweetened beverages (water, breast milk and unflavored milk only after first year
- At least 1 hour daily of physical activity
- Screen Time: no screen time for children under 2 years of age, limit to 1 hour for ≥ 2 – 5 years of age, encourage no more than 2 hours/day for kids > 5 years
- Good sleep hygiene: ≥12 hours/day in 6 month to 2 year olds, ≥10 hours/day in 3-5 year olds (see family handout)

INTERVENTION (after confirmation with repeat measurements) should include:
- Assess growth chart, parental concerns, and target area for change
- Set agenda to transform benefits/barriers into plans for change
- Assess motivation and confidence for change
- Summarize plan for change and next steps with positive feedback
- Schedule follow up in 2-3 months and repeat steps above
- Connect families to community services and resources for early intervention to support families after they leave the office

WHEN TO REFER

Refer to Weight Management:

- At age 3 if BMI ≥ 120% of the 95th percentile with continued upward trajectory after 6 months of office intervention, strongly recommend referral to CT Children's Weight Management Program or other pediatric weight management multi-disciplinary team (Medical Provider, Psychologist, Physical Therapist, and Nutritionist)
  - BMI Calculator

- If BMI > 85th and < 95th percentile OR if BMI crosses more than 2 percentile curves on the growth chart, recommend referral to Clinical Nutrition

If the patient does not meet weight management referral criteria or while the patient anticipates their weight management appointment:

Refer to nutrition for patients less than age 3 years for BMI >85%tile and above age 3 years while referring to weight management.

Refer to the Feeding Team for picky eating, particularly if developmentally delayed. If nutrition is already part of the patients providers refer to clinical OT.

Refer to physical therapy after positive results to the following questions:

- Do they have any musculoskeletal pain?
- Do they lead a sedentary lifestyle with limited participation in physical activity?
- Do they have difficulty keeping up with their peers? (in gym class, when playing outside or during sports)
- Do they fatigue quickly with activities like going up and down the stairs?
- Do they display age appropriate gross motor skills?
- Is there limited access to community resources that promote physical activity?

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	• Are there any concerns about balance? Does family report frequent tripping and falling at home? • Are there concerns about their ability to safely navigate home, school and community environments? **Refer to Genetics** with the following criteria in addition to obesity: • Congenital malformations (like polydactyly or dysmorphic features) • Developmental disorder/intellectual disability/autism • Unexplained other medical issues unrelated to obesity such as vision or hearing loss, renal malformations, hepatic disease. **Refer to Endocrinology:** • BMI thresholds alone do not trigger endocrinology referral • Short stature with obesity is a key red flag requiring endocrinology evaluation at any age • Syndromic features with obesity should prompt endocrinology referral at any age, especially in younger cohort • For children <3 years, laboratory screening is generally not recommended unless specific risk factors are present • Rapid weight gain under 3 years of age should prompt endocrinology referral. [weight-for-length ≥97.7th percentile on WHO charts for this younger cohort especially <2 years ○ BMI Calculator
HOW TO REFER	**Referral to Connecticut Children's Obesity and Weight Management via CT Children's One Call Access Center** Make a Referral - Connecticut Children's (connecticutchildrens.org) **Phone:** 833.733.7669 **Fax:** 833.226.2329 For connection to community services, call Child Development Infoline at **1-800-505-7000 or cdi.211ct.org or through 211** and identify abnormal weight gain/obesity as medical or health condition
WHAT TO EXPECT	**What to expect from CT Children's Visit:** ▪ Comprehensive physical exam and review of family history to rule out genetic or syndromic causes of early obesity ▪ Laboratory studies as indicated ▪ Work with parents and children on nutrition education and parenting surrounding feeding behaviors and physical activity

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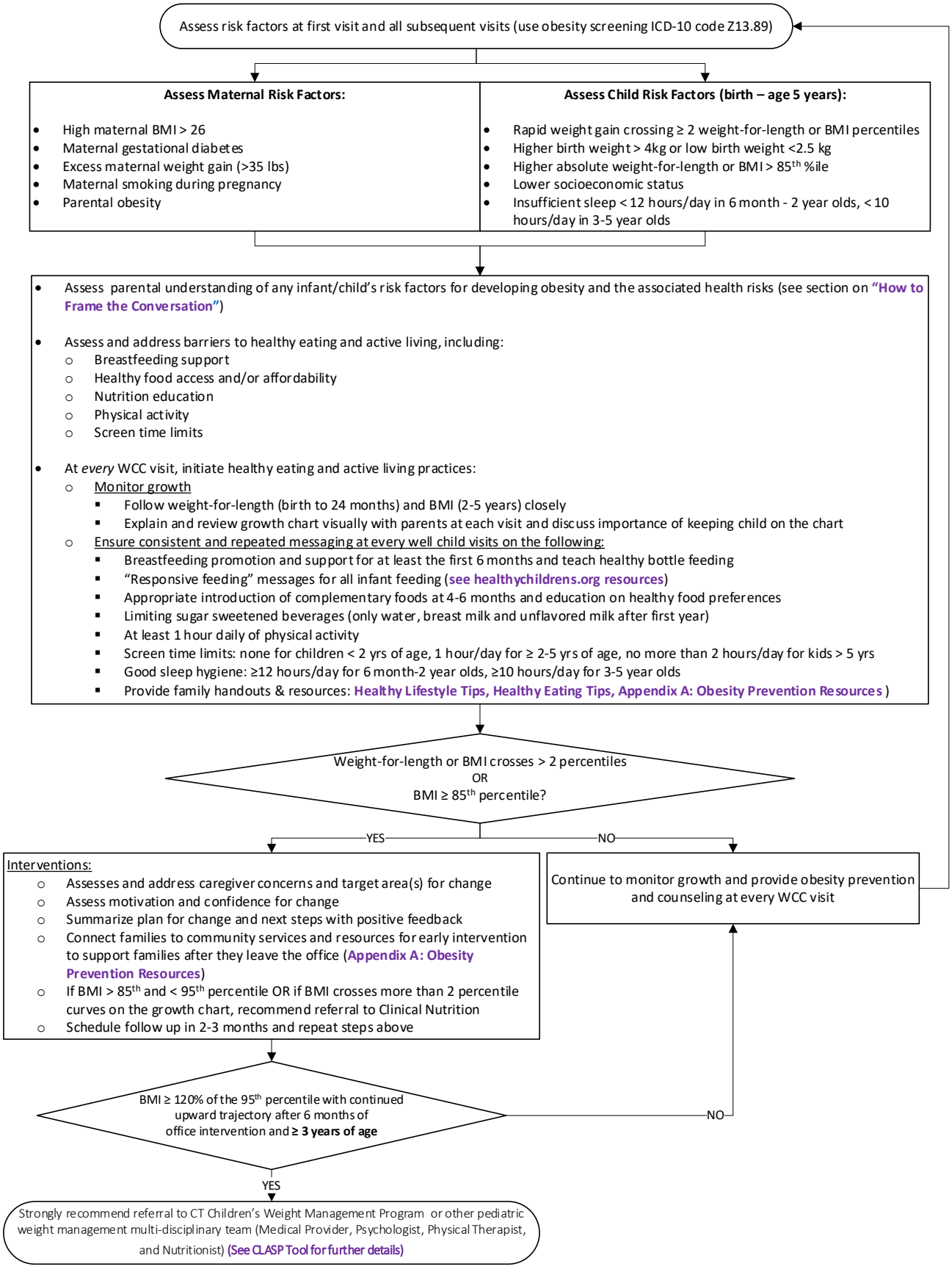
APPENDIX A: Obesity Prevention Resources

CLINICIAN RESOURCES	PARENT / FAMILY RESOURCES
▪ **For Provider information, AAP Institute for a Healthy Childhood Weight, Kohl's Start Childhood Off Right (SCOR)** ○ https://ihcw.aap.org ○ www.myplate.gov ▪ **Connect families to helpful resources to address barriers through Child Developmental Infoline 1-800-505-7000 or cdi.211ct.org or through 211** ▪ **Encourage families with food affordability and access issues to enroll in WIC or SNAP** ○ http://www.ct.gov/dph/wic ○ http://snaped.fns.usda.gov ▪ **For nutrition counseling can refer to Connecticut Children's Clinical Nutrition (860-837-6286)** ○ http://www.conecticutchildrens.org/search - specialties/nutrition/ ▪ **Healthy Active Living** ○ https://ihcw.aap.org/Documents/fact%20sh eet-%20healthy%20active%20living%20for%20families.pdf ○ outdoorrxct | Instagram, Facebook | Linktree ▪ **Screen Time & Mobile Device Management** ○ www.healthychildren.org/MediaUsePlan ○ www.commonsensemedia.org	▪ **Healthy Eating** ○ www.healthychildren.org ○ www.doctoryum.org ○ www.myplate.gov ▪ **Healthy Active Living** ○ https://ihcw.aap.org/Documents/fact%20sheet-%20healthy%20active%20living%20for%20families.pdf ○ New Obesity CLASP Toolkit ○ outdoorrxct | Instagram, Facebook | Linktree ▪ **Screen Time & Mobile Device Management** ○ www.healthychildren.org/MediaUsePlan ○ www.commonsensemedia.org/ ▪ **CT Children's Handouts** ○ Healthy Eating Tips ○ Healthy Lifestyle Tips ○ SCOR Feeding Guidelines

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APPENDIX B: Early Obesity Prevention Algorithm



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