



Co-management Guide

PEDIATRIC ENDOCRINOLOGY	Obesity
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Guidelines Referenced	<p>J Clin Endocrinol Metab. 2017 Mar 1;102(3):709-757. doi: 10.1210/jc.2016-2573.</p> <p>Pediatric Obesity-Assessment, Treatment, and Prevention: An Endocrine Society Clinical Practice Guideline.</p>
Background	<p>Pediatric obesity affects ~ 17% of US children and adolescents. It can be associated with comorbidities in childhood and also puts those individuals at risk for significant comorbidities as adults.</p>
Initial Evaluation	<p>Use BMI and normative BMI percentiles to diagnose overweight or obesity in children ≥ 2 years. This should be plotted annually.</p> <ul style="list-style-type: none"> • Overweight is $\geq 85\%$ to 95% • Obese $\geq 95\%$ • Extremely obese $\geq 120\%$ or BMI ≥ 35 kg/m² • Using clinical assessment skills realizing increase muscle mass may lead to increased BMI <p>Children < 2 years</p> <ul style="list-style-type: none"> • Diagnosed as obese if the sex-specific weight for length is $\geq 97.7\%$ on the WHO charts <p>Routine labs for an endocrinopathy are not recommended unless there is concern with short stature (consider genetic/familial norm) or growth deceleration.</p> <p>Children and adolescents with BMI $\geq 85\%$ should be evaluated for potential comorbidities.</p> <p>Physical exam</p> <ul style="list-style-type: none"> • Weight, height, BMI calculation • Blood pressure • Fundoscopic exam for pseudotumor • Note acanthosis, acne, hirsutism in girls • Thyroid exam for goiter • Abdominal/liver exam • Consider other abnormalities – syndromic obesity <p>Labs</p> <ul style="list-style-type: none"> • HbA1c and/or fasting or random glucose • Fasting lipids • LFTs



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	<ul style="list-style-type: none"> • Urinalysis • Do not check insulin levels <p>Other</p> <ul style="list-style-type: none"> • Ask about snoring, concerns with sleep apnea • Screen for mental health concerns
Initial Management	<p>Promote healthy diet and physical activity on going, starting at earliest well child visits. Encourage breast feeding.</p> <p>See reference above for more detailed recommendations but counsel to avoid calorie-dense, nutrient poor foods, get goal of 60 minutes physical activity daily at least 5 days a week. Counsel on adequate sleep, limited non academic screen time. Focus on family changes rather than the individual patient.</p> <p>Evaluate for psychosocial comorbidities and address those when identified.</p> <p>Strongly consider referral to nutrition for counseling and on going support.</p>
When to Refer	<p>Endocrine: early onset obesity (<5 years) Extreme hyperphagia Growth deceleration Signs or symptoms of PCOS or concerning labs if done Lab abnormalities indicating pre-diabetes (HbA1c 5.7% -6.5%, fasting glucose > 100 mg/dL) Diabetes (HbA1c > 6.5%, fasting glucose >126 mg/dL or non fasting glucose >200 mg/dL)</p> <p>Cardiology: discuss referral with cardiology for hypercholesterolemia or hypertension Gastroenterology: discuss referral with GI for elevated transaminases Pulmonary: discuss referral with pulmonary for sleep apnea</p>
Pre-Visit Work Up	<p>Labs as above Accurate growth curves with height and weight</p>



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Co-management Strategy (as appropriate)	Specialist scope of care Endocrine – evaluate need for pharmacotherapy for prediabetes, diabetes. Consider PCOS, possible endocrinopathy or genetic causes of early onset obesity	Primary care scope of care Evaluate for comorbidities. Initiate lifestyle changes, recommendations if no comorbidities. Consider referral to nutritionist. Refer as indicated based on underlying comorbidities.
Return to Primary Care Endpoint	When there is no indication for endocrinopathy or need for pharmacotherapy for prediabetes, diabetes, PCOS, patient can be transferred back to PCP for management. Local endocrinologist may need to refer to a center with a specialized obesity program.	