

Overweight and Obesity: Quick Lab Reference¹

Overweight and Obesity	Dyslipidemia ²		
<p>Weight _____ Height _____ Height percentile _____ BMI _____ BMI percentile _____ BP _____ BP percentile _____</p> <p>Labs:</p> <p>If BMI is 85th-94th percentile <u>without</u> Risk Factors</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fasting lipid profile <p>If BMI is 85th-94th percentile <u>with</u> Risk Factors* and ≥ 10 y.o.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fasting lipid profile <input type="checkbox"/> ALT and AST <input type="checkbox"/> Fasting Glucose <p>If BMI is ≥95th percentile and ≥ 10 y.o.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fasting lipid profile <input type="checkbox"/> ALT and AST <input type="checkbox"/> Fasting glucose <input type="checkbox"/> Other tests as indicated by health risks <p>NOTE: A 2-hr glucose challenge (OGTT) is more sensitive than a fasting glucose for diagnosing insulin resistance.</p> <p>*Risk Factors</p> <table border="0"> <tr> <td style="vertical-align: top;"> FHx, including: Early CVD Hyperlipidemia, hypertension T2DM in 1st or 2nd degree relative Race/ethnicity (non-Caucasian) </td> <td style="vertical-align: top; padding-left: 20px;"> Patient Medical Hx: Acanthosis Nigricans HTN PCOS Tobacco use </td> </tr> </table>	FHx, including: Early CVD Hyperlipidemia, hypertension T2DM in 1 st or 2 nd degree relative Race/ethnicity (non-Caucasian)	Patient Medical Hx: Acanthosis Nigricans HTN PCOS Tobacco use	<p>First Screen (fasting lipid profile): Recommended when child is between 2 and 10 y.o., and if</p> <p>FHx Risk</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tchol >240mg/dL <input type="checkbox"/> CV event before 55 y.o. (men), 65 y.o. (women) <input type="checkbox"/> Unknown FHx <p>Patient Risk</p> <ul style="list-style-type: none"> <input type="checkbox"/> BMI ≥85th percentile <input type="checkbox"/> PCOS <input type="checkbox"/> HTN (stage 1 or greater) <input type="checkbox"/> Cigarette smoking <input type="checkbox"/> Diabetes <p>If normal, repeat every 3-5 years.</p> <p>Intervention</p> <ul style="list-style-type: none"> <input type="checkbox"/> LDL <110 mg/dL is ideal <input type="checkbox"/> Lifestyle intervention includes diet, exercise, weight management <input type="checkbox"/> Consider medication if ≥ 8 y.o. and LDL is: ≥ 190 mg/dL, or ≥ 160 mg/dL with 2 risk factors or FHx of early CVD ≥ 130 mg/dL with diabetes <input type="checkbox"/> For high triglycerides or low HDL Weight management and exercise <input type="checkbox"/> Isolated fasting triglycerides >400 mg/dL: Begin medication
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<p style="text-align: center;">Assessment and Overall Interventions</p> <ul style="list-style-type: none"> ▪ Screen for dietary and activity habits ▪ Assess Readiness to Change ▪ Use Motivational Interviewing approach <ul style="list-style-type: none"> ➤ Ask permission to discuss weight ➤ Practice reflective listening ➤ Identify “change talk” ➤ Affirm feelings and positions ➤ Summarize stated plan 	<p style="text-align: center;">Overall Interventions</p> <ul style="list-style-type: none"> ▪ Assist patient to select specific lifestyle change goal: <ul style="list-style-type: none"> ➤ Increase fruit and vegetable intake (5 fruits and vegetables a day) ➤ Increase activity (60 minutes of activity daily) ➤ Decrease sweetened beverage intake (1 or less soda, fruit juice, or sports drink per day.) ➤ Decrease screen time (1 hour or less per day.) ➤ Limit fast foods (Once per week or less, never super size) ➤ Eat breakfast daily 		

¹ Assessment of Child and Adolescent Overweight and Obesity, Krebs,N., Himes J., Jacobson D., Nicklas T., Guilday P., Styne D., *Pediatrics* 2007; 120; S193-S228.

Hypertension Work Up ¹

¹The Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents: Pediatrics Vol. 114 No. 2 August 2004, pp. 555-576

		Pre-Hypertension	Stage 1 HTN	Stage 2 HTN
Definition	BPs on 3 different occasions systolic OR diastolic	≥90 th % - <95 th %	95 th % - 5mm Hg above 99 th %	> 5mm Hg above 99 th %
Evaluation	UA / UC		✓	✓
	BUN/CR, lytes		✓	✓
	CBC		✓	✓
	Renal ultrasound		✓	✓
	ECHO cardiogram		✓	✓
	Retinal exam (referral)		✓	✓
	Further imaging and labs			Refer to Peds renal w/in 2 wks. Immediately, if symptomatic
Lifestyle Modifications	Weight loss, if indicated	✓	✓	✓
	Exercise, 30-60 mins/d	✓	✓	✓
	Decrease sedentary activities	✓	✓	✓
	DASH diet	✓	www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf	✓
	Tobacco cessation	✓	✓	✓
Medications, IF...	(Refer as needed)	Compelling complications, only	<ul style="list-style-type: none"> · End organ damage · HTN is secondary · Symptomatic · Diabetes, type 1 or 2 · Persistent despite 6 mo of lifestyle modification 	Always
Follow- up		In 6 months	Regularly	Frequently until stabilized

Polycystic Ovary Syndrome (PCOS)	Polycystic Ovary Syndrome (PCOS)
<p>Definition: Persistent anovulation Lab or clinical evidence of hyperandrogenism</p> <p>History: Menses FHx of PCOS Premature adrenarche if pre-menarchal Rapidly of onset of androgenic changes Hirsutism – any depilatory measures</p> <p>Physical Exam: Hirsutism Clitoromegally Acne Virilization</p>	<p>Evaluation</p> <ol style="list-style-type: none"> 1) TSH, Prolactin, Pregnancy test 2) Lipid profile, fasting 3) If amenorrheic: Provera challenge (10 mg Provera qd x 10d) 4) +/- Total testosterone +/- DHEA-S +/- 17-OH progesterone, 8am and fasting 5) If sx's of Cushing's: dexamethasone suppression test 6) If obesity/acanthosis: fasting and/or 2 hr glucose as in obesity protocol <p>Treatment: Weight loss, if indicated Estrogen/progesterone combo (OCP, patch, ring)</p>

² Lipid Screening and Cardiovascular Health in Childhood, Daniels S., Greer F., *Pediatrics* 2008, Vol. 122, Number1. Pgs 198-205.

	Consider metformin Refer for severe or recalcitrant hirsutism
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