

Pediatric Lipid Screening Guidelines*

Age	Population	Studies
2-8 years	Child Condition: BMI \geq 95%ile OR diabetes, hypertension, cigarette smoker FHx: MI, angina, CABG/stent/ angioplasty at <55 in males or <65 in females, parent with TC>240, parent with dyslipidemia	Fasting lipid profile 7Ch x2 (2 weeks-3 months apart, average the results)* <i>*see tables C & D for values</i>
9-11 years	ALL Children: SCREEN ONCE	Non-HDL cholesterol (non-fasting) or FLP
12-21 years	BMI \geq 85%ile or Child Condition or FHx to include above indications	Fasting lipid profile x2 (average results)
17-21 years	ALL adolescents/young adults: SCREEN ONCE	Non-HDL cholesterol (non-fasting) or FLP
Anytime Table X: Special Risk Conditions	High risk medical condition** <i>**see table A</i>	Fasting lipid profile x2

Table A: High Risk Medical Conditions

High Risk	Type 1 DM Type 2 DM Chronic kidney disease/end stage renal disease/ post renal transplant post heart transplant Kawasaki disease with current aneurysms
Moderate Risk	Kawasaki disease with regressed coronary aneurysms Chronic inflammatory disease (systemic lupus erythematosus, juvenile rheumatoid arthritis) HIV infection Nephrotic syndrome

*Charts developed by VCHIP, based on American Academy of Pediatrics, Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents: Summary Report. Available at: http://pediatrics.aappublications.org/content/128/Supplement_5/S213.full.pdf+html Accessed on May 27, 2014

Table B: Acceptable, Borderline-High, and High Plasma Lipid, Lipoprotein, and Apolipoprotein Concentrations for Children and Adolescents**

Category	Low, mg/dL	Acceptable, mg/dL	Borderline-High, mg/dL	High, mg/dL
Total Cholesterol	--	<170	170-199	≥200
LDL Cholesterol	--	<110	110-129	≥130
Non-HDL Cholesterol	--	<120	120-144	≥145
Apolipoprotein B	--	<90	90-109	≥110
Triglycerides				
• 0-9 y	--	<75	75-99	≥100
• 10-19 y	--	<90	90-129	≥130
HDL Cholesterol	<40	>45	40-45	--
Apolipoprotein A-1	<115	>120	115-120	--

Recommended Cut Points for Lipid and Lipoprotein Levels in Young Adults**

Category	Low, mg/dL	Borderline-Low, mg/dL	Acceptable, mg/dL	Borderline-High, mg/dL	High, mg/dL
Total Cholesterol	--	--	<190	190-224	≥225
LDL Cholesterol	--	--	<120	120-159	≥160
Non-HDL Cholesterol	--	--	<150	150-189	≥190
Triglycerides	--	--	<115	115-149	≥150
HDL Cholesterol	<40	40-44	>45	--	--

**Charts Adapted from tables from American Academy of Pediatrics, Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents: Summary Report. Available at: http://pediatrics.aappublications.org/content/128/Supplement_5/S213.full.pdf+html Accessed on May 27, 2014

Table C: Fasting Plasma Glucose and Liver Function Tests

Fasting Plasma Glucose	Liver Function Tests (screening for Non-Alcoholic Fatty Liver Disease)*
For Children ≥ 10 years old (or at onset of puberty, if younger than 10)	For children ≥ 10 years old and BMI ≥ 95% (or BMI ≥ 85% with other risk factors)
<ul style="list-style-type: none"> • AND BMI ≥ 85%ile PLUS any 2 of the following: • FHx Type 2 DM in first or second degree relative • Race/ethnicity: Native American, African American, Latino, Asian American, Pacific Islander • Signs of insulin resistance (acanthosis nigricans, hypertension dyslipidemia, PCOS) 	<ul style="list-style-type: none"> • Obtain LFTs (ALT and AST)
Frequency: Check every two years	Frequency: Check every two years
	*Evidence is not yet available, but expert recommendation is as follows, until better evidence is available