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# Laboratory Services

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**NATIONWIDE  
CHILDREN'S®**

*When your child needs a hospital, everything matters.*



# Cholesterol Awareness Month

**Cholesterol Screening for Kids - When Should a Child be Tested?** You probably know that you need to get your blood lipids, or cholesterol, checked regularly as a way to understand the risk for cardiovascular disease.. With increasing rates of diabetes, obesity and other risk factors for cardiovascular disease, monitoring blood lipid levels is one way we can help to keep a child healthy.

Current guidelines from the National Heart, Lung, and Blood Institute recommend that children aged 9 to 11 years of age and young adults 17 to 21 years of age be screened for high cholesterol, regardless of risk factors.

In fact, if a child has elevated lipids in a previous test or risk factors for cardiovascular disease, you may want to test their cholesterol levels earlier or more frequently. Risk factors include:

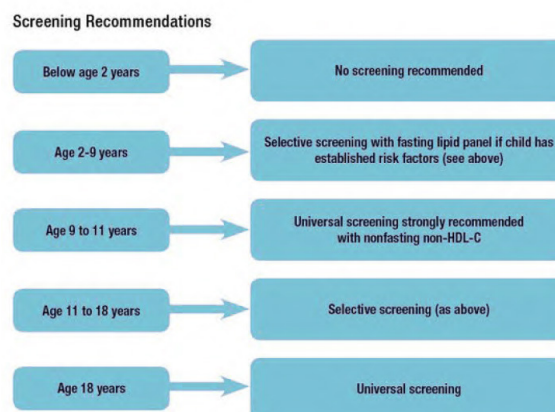
- Parent with high cholesterol
- Family history of early cardiovascular disease
- High blood pressure
- Obesity
- Tobacco use
- Diabetes (type 1 and type 2)
- Kidney disease
- Heart transplant
- Kawasaki disease
- Chronic inflammatory disease
- HIV
- Nephrotic syndrome

Nonfasting and fasting lipid panels are used to measure the amount of LDL, HDL and total cholesterol in the blood. Nonfasting panels are typically used for routine screening because the patient does not have to do any preparation for the test. However, if the nonfasting panel is abnormal or borderline, a fasting lipid panel should be done for confirmation.

If a child's cholesterol levels are high or borderline, they should be encouraged to work to manage them through diet and exercise modifications. However, if diet and exercise do not help, or levels are extremely high, the child should see a pediatric cardiologist.

At The Heart Center, we will see any patient with abnormal fasting lab results. If non-fasting lab results are abnormal, ask your pediatrician to order a fasting lipid panel before the specialist visit.

# Fasting Lipid Values (in mg/dL) for Children and Adolescents



*700 Children's Blog, Feb 2016, Omar Khalid, MD, FAAP,FACC, The Heart Center at Nationwide Children's Hospital*



# Understanding Childhood and Adolescent Obesity Management Definition, Epidemiology and Risks

Overweight is defined as a Body Mass Index (BMI) between the 85th and 94th percentiles for age and gender. Obesity is defined as BMI greater than the 95th percentile for age and gender. Obesity has been increasing in the United States over the past 50 years. It disproportionately affects certain ethnic groups including Hispanic, black and Native American children. Obesity leads to or exacerbates many medical conditions, including hypertension, lipid-

abnormalities, diabetes, polycystic ovary syndrome, fatty liver disease, sleep apnea, exercise intolerance and asthma, depression, eating disorders and orthopedic disorders. Causes Both genetic predisposition and environmental factors contribute to obesity risk. Genetic predisposition is not sufficient to explain obesity. The condition always arises from an imbalance between energy intake (food intake: quantity, caloric density) and energy output (physical activity). Assessment and Diagnosis BMI should be used as a screening tool to evaluate for overweight or obese classification. Based upon the child's BMI, further screening can be performed to enable the provider to recommend appropriate intervention and referral, if necessary. Initial assessment should evaluate:

- Ethnicity
- Blood pressure
- Medication list (including antipsychotics)
- Personal history of apnea or exercise intolerance
- Family history of obesity and type 2 diabetes mellitus Screening

The American Academy of Pediatrics Expert Committee recommendations for screening for comorbid disease in overweight and obese children are:

BMI Category	Overweight (BMI 85 <sup>th</sup> -94 <sup>th</sup> percentile)	Obese (BMI 95 <sup>th</sup> percentile and above)
Labs	Fasting lipids, ALT and AST (liver function tests) every 2 years	Fasting lipids, ALT, AST and fasting glucose every 2 years
Additional Screening	Check fasting glucose in children with additional risk factors, such as acanthosis nigricans, features of polycystic ovary syndrome, a family history of diabetes, minority ethnicity or cardiovascular risk factors.	The American Academy of Pediatrics does not recommend routine screening for secondary causes of obesity such as thyroid dysfunction, Cushing syndrome or genetic disorders.

## Remember to Mark the Storage Temperature Box

To ensure the integrity of lab specimens transported by the courier to our lab, it is important that one of the storage temperature boxes on the biohazard specimen bag is marked appropriately according to specimen guidelines. Please refer to our Laboratory Test Directory for specimen storage requirements.



## Satisfied Clients and Families

At Nationwide Children's Hospital, we take pride in all that we do for our clients and their families. We never lose site of the fact that every specimen represents a child and that it is crucial for you to have confidence in the lab you choose for your patients.

Our pediatric team is expertly trained to handle even the youngest patients, minimizing repeat sticks, stress and anxiety for everyone involved. With more than 70 years of specialization, our laboratory offers a unique pediatric perspective.

Completing more than 70,000 blood draws per year, our highly skilled staff can ensure a positive experience for your patient.

The following are quotes from satisfied parents that have used one of our 16 Laboratory Service Centers:

- "The lab tech was very friendly and quick! A great experience!" Hilliard, OH parent
- "I don't know what kind of miracle workers you hire there- but your lab staff were OUTSTANDING!" Westerville, OH parent
- The phlebotomist was amazing! My daughter was terrified to have her blood drawn, but the staff are PROS!" Canal Winchester, OH parent
- "Your staff go above and beyond to provide great service!" Lima, OH parent
- "We have always had amazing experiences at your lab!" Mansfield, OH parent





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## How can Nationwide Children's Laboratory Services help your practice?

If you would like to become a client or learn more information about Nationwide Children's Laboratory Services, contact us at (800) 934-6575 or visit our website at **NationwideChildrens.org/Lab**. Would you like to receive the Nationwide Children's Laboratory Services Newsletter electronically? Please e-mail us at **LaboratoryServices@NationwideChildrens.org** and let us know!

Lab Account Representatives are available via email to assist with any questions or concerns.

Stacey Burrier  
Kali Burkhart  
Larry Thompson

**Stacy.Burrier@nationwidechildrens.org**  
**Kali.Burkhart@nationwidechildrens.org**  
**Larry.Thompson@nationwidechildrens.org**



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