

Cholesterol test for one-year-olds? Study says it could help

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Space-filling model of the Cholesterol molecule. Credit: RedAndr/Wikipedia

What if a blood test could reveal that your child is at high risk for early heart disease years in the future, giving you a chance to prevent it now? A big study in England did that—screening thousands of babies for

inherited risk—and found it was twice as common as has been thought.

The study also revealed parents who had the condition but didn't know it, and had passed it on to their children. Ninety percent of them started taking preventive medicines after finding out.

Researchers say the two-generation benefits may convince more parents to agree to [cholesterol testing](#) for their kids. An expert panel in the United States recommends this test between the ages of 9 and 11, but many aren't tested now unless they are obese or have other heart risk factors such as diabetes or [high blood pressure](#).

For every 1,000 people screened in the study, four children and four parents were identified as being at risk for early heart disease. That's nearly twice as many as most studies in the past have suggested.

"We really need to pay attention to this," said Dr. Elaine Urbina, director of preventive cardiology at Cincinnati Children's Hospital Medical Center and a member of the U.S. expert panel. "It's reasonable to screen for something that's common, dangerous and has a treatment that's effective and safe."

Dr. William Cooper, a pediatrics and preventive medicine professor at Vanderbilt University, called it "an innovative approach" that finds not just kids at risk but also parents while they're still young enough to benefit from preventive treatment, such as cholesterol-lowering statin drugs.

Statins aren't recommended until around age 10, but certain dietary supplements such as plant sterols and stanols could help younger kids, Urbina said.

"We're not talking about putting all these kids on statins," she said.

The study was led by Dr. David Wald at Queen Mary University of London. He and another author founded a company that makes a combination pill to prevent heart disease. The work was funded by the Medical Research Council, the British government's health research agency. Results were published Wednesday by the *New England Journal of Medicine*.

Researchers were testing for familial hypercholesterolemia, a genetic disorder that, untreated, raises the risk of a heart attack by age 40 tenfold.

They did a heel-stick [blood test](#) on 10,059 children ages 1 to 2 during routine immunization visits to check for high cholesterol and 48 gene mutations that can cause the disorder. If a child was found with the disorder, parents were tested.

One in 270 children had the gene mutations; others were identified through cholesterol levels alone.

"That's a pretty common genetic defect," said Dr. Stephen Daniels, chairman of pediatrics at the University of Colorado School of Medicine and a member of the U.S. expert panel.

But many parents balk at the idea of testing children for a disorder associated with middle age, experts say.

Karen Teber, a media relations specialist in Madison, Wisconsin, was surprised when a doctor wanted to test her 12-year-old stepson. "My reluctance was really born out of lack of information," she said. "I hadn't heard of it before."

The study did not address whether screening is cost-effective. In the U.S., cholesterol tests cost around \$80 and usually are covered by health

insurance, though much lower prices often are negotiated. The study authors in England estimated that if cholesterol testing costs \$7 and gene testing costs \$300, it would cost \$2,900 for every person identified as having the disorder.

More information: U.S. guidelines:
www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm

Cholesterol info: tinyurl.com/23dtxvo

and www.nhlbi.nih.gov/health/resou...es/heart#cholesterol

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