

Women of childbearing age have staggeringly low rates of lipid screening

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Eight out of 10 women of childbearing age have never had their cholesterol levels checked, despite clear guidelines to get a first lipid blood test early in adulthood, according to research being presented at the American College of Cardiology's 68th Annual Scientific Session.

The study, which researchers say is the first to highlight real world lipid screening patterns in [young women](#), calls attention to important gaps to optimally identify people with elevated [cholesterol](#) levels, as well as those with genetic cholesterol disorders, including familial hypercholesterolemia (FH) and inherited dyslipidemias. Research indicates these conditions may be more common than previously thought, but FH often goes undiagnosed and is first suspected after someone has a heart attack or stroke at a young age. While current guidelines do not recommend cholesterol screening during pregnancy, there is also evidence that high cholesterol is associated with early (preterm) birth and low birth weight babies, in addition to its role in the development of heart disease, stroke and related death.

"Not nearly as many people as we think are actually getting cholesterol screening despite very clear recommendations," said Dipika J. Gopal, MD, a fellow in the cardiovascular division at Hospital of the University of Pennsylvania and the study's lead author. "In fact, the number of patients who have ever been screened was staggeringly low, perhaps because they're either not going to their primary care doctor or their doctor isn't ordering the test."

Yet, nearly every expectant mom will see a health care provider during pregnancy, Gopal said, presenting a window of opportunity to identify, counsel and treat patients with elevated cholesterol who are at high risk of long-term complications from maternal hyperlipidemia and address possible effects that it can have on fetal well-being, in addition to helping them make heart-healthy changes.

"Up to 94 percent of [pregnant women](#) interact with a [health care provider](#) during pregnancy and after delivery compared to a much smaller percentage of non-pregnant patients within the same age group," Gopal said. "The peri-partum period is a perfect time to capture a population that may otherwise not come into contact with the health system until many years later, perhaps when they have a first cardiovascular complication."

Gopal and colleagues examined demographic and cholesterol screening data for 5,101 women who gave birth at the Hospital of the University of Pennsylvania and Pennsylvania Hospital between March 2009 and August 2018, and who also went to a postpartum visit within 180 days of delivery at one of four obstetrics clinics. Cholesterol levels during pregnancy were excluded as cholesterol levels can naturally rise during this time period.

Of the women included in the study, only 22 percent of patients had ever had their cholesterol checked despite ranging in age from 21 to 60 years and meeting the criteria to have already had their cholesterol checked at least once, if not several times.

The ACC and the American Heart Association (AHA) recommend that all adults who are 20 years of age or older have a lipid profile screening. Additionally, the 2018 ACC/AHA Cholesterol Guideline says it may be reasonable to screen once between the ages of 9 and 11, and again between the ages of 17 and 21.

Women who had received previous lipid screening were older, more likely to be white and have coronary artery disease, high blood pressure and diabetes. Twenty percent had low-density lipoprotein (LDL) [cholesterol levels](#) \geq 130 mg/dL, which Gopal said is considered moderately high, and 5 percent had severely elevated LDL (\geq 160 mg/dL), which could be indicative of an inherited cholesterol disorder. An LDL $>$ 190 mg/dL is considered severely elevated and warrants pharmacotherapy intervention per the most recent ACC/AHA 2018 Cholesterol guideline; Gopal said she and her team chose an intermediate cut-off of 130 mg/dL, because instituting lifestyle measures early on will only help later in life.

"Finding and treating FH early is particularly critical," Gopal said. "If we can optimize cholesterol screening per the ACC/AHA guideline, we would more routinely identify inherited diseases and be able to do a cascade of testing and change the trajectory of a family's life because it's not just that woman, it's also her children and other blood relatives who might be affected."

Many people with FH are young and appear otherwise healthy, but their arteries may tell a different story. Gopal said that while the percentage of familial hypercholesterolemia among study participants is on the lower side compared with the general prevalence of FH—estimated to affect 1 in 250 people—it might be underestimated due to the lack of follow up of some patients.

"Screening women for cholesterol has long-term implications on maternal and fetal health. Knowing if a woman has high cholesterol before pregnancy is also beneficial in assessing her cardiometabolic risk [a clustering of conditions that make diabetes and heart disease more likely even at young ages] and can allow us to more appropriately counsel in her pregnancy and for her future health," Gopal said.

About 1 out of 3 American adults has high cholesterol. Because there are no signs or symptoms of [high cholesterol](#), for some people the first sign of elevated cholesterol may be a [heart attack](#) or stroke without routine [cholesterol screening](#). Based on their findings, Gopal said future research should look at how to institute a [screening](#) lipid panel and cardiovascular risk assessment as part of prenatal visits.

More information: Dr. Gopal will present the study, "Screening for Hyperlipidemia in Pregnant Women: An Underutilized Opportunity for Early Risk Assessment," on Sunday, March 17, at 3:45 p.m. CT in Poster Hall, Hall F.

Provided by American College of Cardiology

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