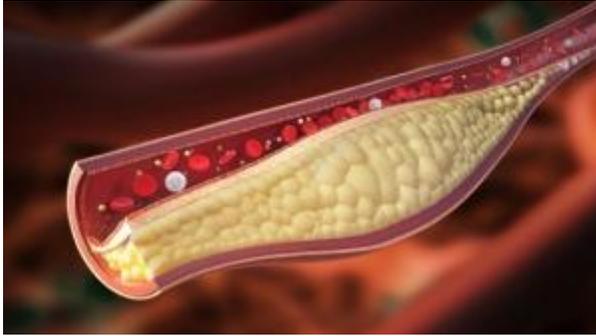


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## High cholesterol during young adulthood raises heart disease risk



New research in the American Heart Association's journal *Circulation* shows that long-term exposure to elevated cholesterol substantially increases lifetime risk for heart disease. For every ten years you have even mildly elevated **cholesterol** between the ages of 35 and 55, your risk of heart disease may be increased by nearly 40%.

"Our findings suggest that they [adults with longstanding mild to moderately [taken from the manuscript] elevated cholesterol levels] may

benefit from more aggressive prevention strategies earlier," said lead study author Ann Marie Navar-Boggan, MD, PhD, and cardiology fellow at the Duke Clinical Research Institute in Durham, NC.

Researchers studied data from the Framingham Heart Study, which began in 1948 and remains one of the largest ongoing research projects focused on heart health. The study evaluated 1,478 adults who were free of cardiovascular disease at the age of 55 years, and calculated the length of time each participant had experienced high cholesterol by that age. These adults were then followed for up to 20 years to see how duration of exposure to high cholesterol affected their risk of heart disease. At age 55, 389 had experienced one to 10 years of elevated cholesterol, 577 had 11 to 20 years of high cholesterol and 512 participants did not have high cholesterol.

Results demonstrated a dose-response relationship between duration of cholesterol exposure by age 55 and future risk of heart disease:

- Participants with 11 to 20 years of high cholesterol had a 16.5 percent overall risk of heart disease
- Those with one to 10 years of cholesterol exposure had 8.1 percent risk
- Those who did not have high cholesterol at the start of the study had only a 4.4 percent risk for heart disease
- Moreover, each decade of high cholesterol raised the risk of heart disease by 39 percent, suggesting that the cumulative effects of even mild or moderate elevations in cholesterol can pose a significant risk to heart health

Under current guidelines, only one in six adults in this group with prolonged duration of high cholesterol would have been directly recommended for statin therapy at age 40, and one in three at age 50, researchers note.

Navar-Boggan cautions that, "not every 35-year-old with mild to moderately elevated cholesterol needs to start statin therapy," but noted that young adults with elevated cholesterol should be aware of their increased future risk of heart disease.

"It's never too soon for young adults to talk with their doctors about heart health, which should include how to manage cholesterol levels through diet and exercise, and, in certain cases, medication," Navar-Boggan said. "The plaques in arteries that break off and cause heart attacks later in life take years to develop. What is happening in your blood vessels, in particular your cholesterol levels, during your 30's and 40's affects your heart health in your 50's, 60's and 70's."

For more information:

- **Cholesterol testing**
- **Prevention and treatment of high cholesterol**
- **Cholesterol resources for professionals**



**American Heart Association**

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