Decline in ideal heart health begins early for teen girls

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Heart health deteriorates as early as adolescence, with black girls experiencing greater rates of decline than white girls, according to preliminary research to be presented at the American Heart Association's
Scientific Sessions 2019—November 16-18 in Philadelphia. The Association's Scientific Sessions is an annual, premier global exchange of the latest advances in cardiovascular science for researchers and clinicians.

"Cardiovascular health declines in adolescent girls, and some teens experience a greater loss of cardiovascular health than others. About 20% of the girls in this study entered young adulthood with low cardiovascular health (defined as less than half of the total possible ideal cardiovascular health score of seven key health factors," said lead study author Holly Gooding, M.D., an assistant professor of pediatrics at Emory University School of Medicine in Atlanta, Georgia. Gooding is a member of the American Heart Association's Cardiovascular Disease & Stroke in Women and Special Populations Committee.

Risk factors that contribute to heart disease can start as early as childhood and adolescence. These risk factors include obesity, tobacco and alcohol use and lack of regular exercise, setting up youth for heart health problems later in life.

Obesity and physical inactivity are two of the biggest hurdles facing youth today, with nearly 24 million children ages 2 to 19 overweight or obese, and 15% of adolescents not getting enough exercise, a problem that is more common among girls than boys (19% versus 11%), according to 2015 data, the most recent year available.

Identifying which teen girls may be at greater risk for heart disease as they progress into adulthood may help improve heart health outcomes for everyone, researchers said. Using data from the National Growth and Health Study funded by the National Heart, Lung, and Blood Institute, researchers followed roughly 1,200 black girls and 1,100 white girls who were enrolled between 1987 and 1998 for a decade.
Girls were also categorized into one of three categories—ideal, intermediate or poor—for six of the seven primary American Heart Association cardiovascular health metrics called Life's Simple 7: diet, exercise (at least 60 minutes per day for teens), abstaining from tobacco, a healthy body mass index, and healthy blood pressure and cholesterol levels. Researchers also noted when girls began menstruating and accounted for teen pregnancy and depression in the analysis.

Among the researchers' findings:

- Heart health declined between ages 9 and 19, particularly among black girls and girls from families with lower education and income levels.
- Menstruating before age 12 was associated with reduced heart health. Black girls began their periods on average one year earlier than white girls, with a greater percentage of black girls starting menstruation before age 12.
- Depression, which is known to affect diet, physical activity levels and tobacco use, was also associated with reduced heart health.
- Teen pregnancy was linked to reduced heart health among teens.
- The study results suggest that pediatricians and primary care providers should pay closer attention to teens who may be at higher risk for reduced heart health, particularly girls from underserved communities.

"We should work to ensure all teens have access to and choose healthy foods, stay physically active and avoid smoking," Gooding said.

An American Heart Association volunteer expert noted that the findings are compelling yet not surprising. "Almost one in five in the teenage population have less-than-ideal cardiovascular health—so this is [at] epidemic proportions," said Geetha Raghuveer, M.D., Ph.D., pediatric cardiologist at Children's Mercy Hospital and professor of pediatrics.
University of Missouri Kansas City School of Medicine in Kansas City, Missouri and chair of the Atherosclerosis, Hypertension and Obesity in the Young Subcommittee of the American Heart Association's Cardiovascular Disease in the Young Council.

"I firmly believe that a lot of the cardiovascular disease risk factors stem from social and economic determinants of health and disease, [and] social, racial and economic disparities," Raghuveer said. The impact of these risks "begins very early in life, as early as in childhood. It's never too early to start talking about health promotion to preserve heart health. I think it should ideally start in preschool."

Provided by American Heart Association


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