Racial difference in effect of physical activity on obesity

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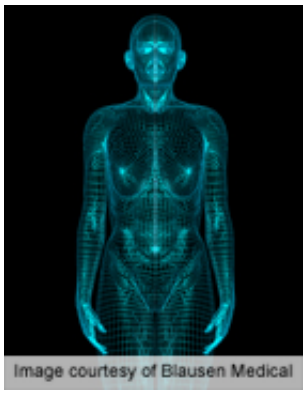

(HealthDay) -- Black adolescent girls are less sensitive to the effects of physical activity in preventing obesity than are white girls, according to a study published in the June issue of the *Archives of Pediatrics & Adolescent Medicine*.

James White, Ph.D., from Cardiff University, and Russell Jago, Ph.D., from the University of Bristol -- both in the United Kingdom, analyzed data from 1,148 adolescent girls who participated in the National Heart, Lung, and Blood Institute Growth and Health Study at ages 12 and 14 years. Accelerometer counts per day were used to assess physical activity. Obesity was defined according to three measures: ?95th percentile of body mass index; using the International Obesity Task Force reference body mass index cut points; and the sums of skinfold thickness method (with obesity ?90th percentile in the cohort).

The researchers found that, in white girls, but not black girls, there was a strong negative dose-response association between quartiles of accelerometer counts per day at age 12 years and obesity at age 14 years (using all three measurements of obesity). There was a significant increased likelihood of obesity (based on skinfold thickness) between the highest and the lowest quartiles of accelerometer counts per day in white girls (odds ratio, 0.15; P = 0.03 for trend) but not in black girls (odds ratio, 0.85; 95 percent confidence interval, 0.32 to 2.26; P = 0.93 for trend).

"Higher levels of physical activity are prospectively associated with lower levels of obesity in white adolescent girls but not in black adolescent girls," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)