

Air pollution, exercise combined affect CVD risk in young adults

April 22 2021



(HealthDay)—For young adults, how changes in physical activity (PA)

affect risk for cardiovascular disease (CVD) may depend on levels of exposure to air pollution, according to a study published online March 29 in the *European Heart Journal*.

Seong Rae Kim, from the Seoul National University College of Medicine in South Korea, and colleagues conducted a nationwide cohort study involving 1,469,972 [young adults](#) aged 20 to 39 years to examine the association of the combined effects of air pollution and changes in PA with CVD. Based on two consecutive health examinations between 2009 and 2012, PA was calculated as minutes of metabolic-equivalent tasks per week (MET-min/week).

The researchers found that among those exposed to low-to-moderate levels of particulate matter less than or equal to 10 or 2.5 micrometers in diameter (PM₁₀ or PM_{2.5}), those who decreased their PA from $\geq 1,000$ MET-min/week to 1 to 499 MET-min/week and to 0 MET-min/week had an increased risk for CVD compared with participants who continuously engaged in $\geq 1,000$ MET-min/week (PM₁₀ adjusted hazard ratios [95 percent confidence intervals], 1.22 [1.00 to 1.48] and 1.38 [1.07 to 1.78], respectively; P for trend _{2.5} or PM₁₀).

"Excessive [physical activity](#) may not always be beneficial for cardiovascular health in younger adults when they are exposed to high concentrations of air pollution," Kim said in a statement.

More information: [Abstract/Full Text](#)

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Citation: Air pollution, exercise combined affect CVD risk in young adults (2021, April 22) retrieved 25 April 2024 from <https://medicalxpress.com/news/2021-04-air-pollution-combined-affect-cvd.html>

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