Midlife blood pressure during exercise predicts later heart disease

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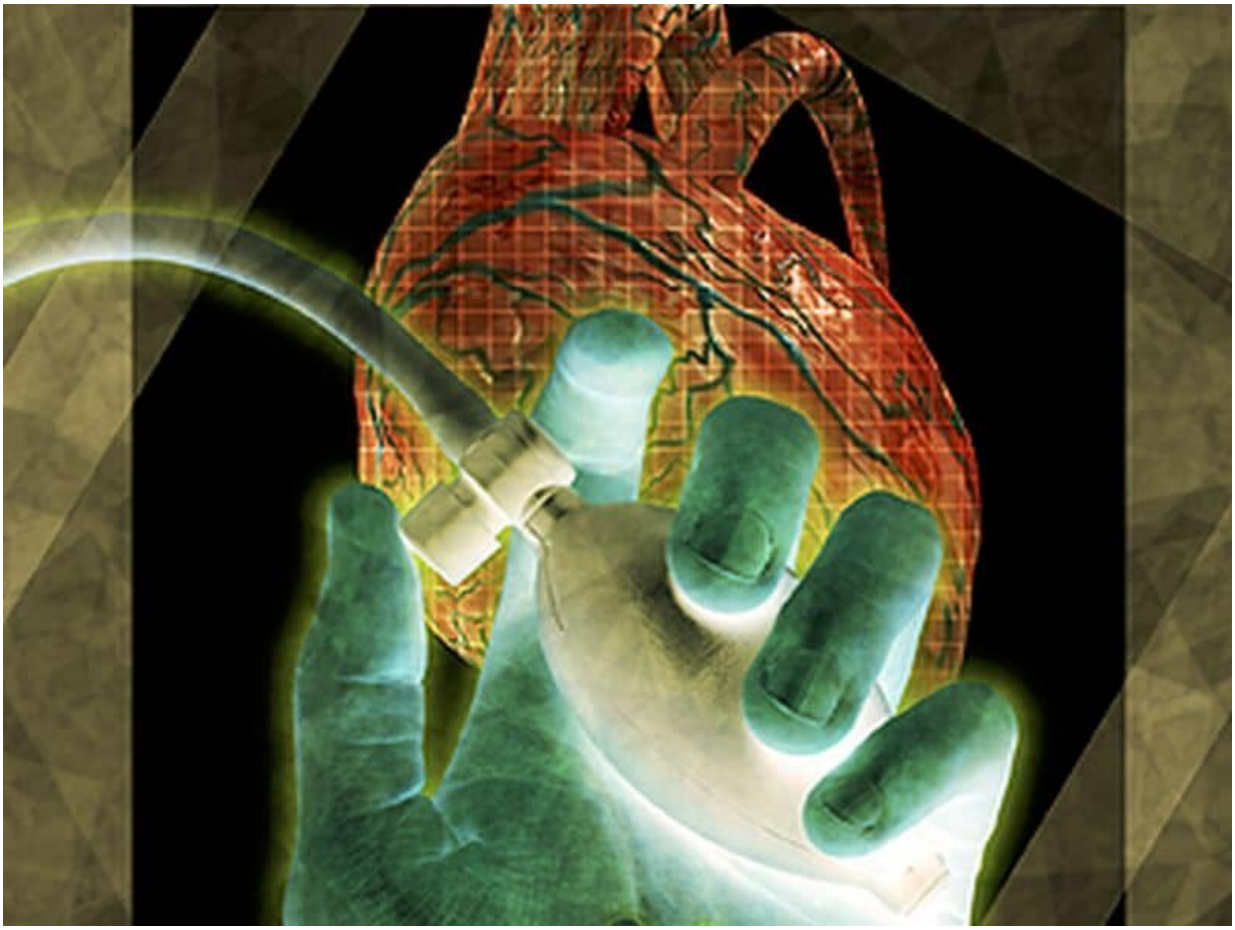

(HealthDay)—Higher blood pressure (BP) during exercise and impaired

BP recovery after exercise in midlife may be markers of subclinical and clinical cardiovascular disease and mortality in later life, according to a study published online May 20 in the *Journal of the American Heart Association*.

Joowon Lee, Ph.D., from Boston University, and colleagues used data from 1,993 Framingham Offspring Study participants (mean age, 58 years; 53.2 percent women) attending the cycle 7 examination to examine the associations of midlife BP responses to submaximal exercise with the risk for cardiovascular outcomes and mortality in later life.

The researchers found that each standard deviation (SD) increment of exercise BP was associated with higher left ventricular mass and carotid intima-media thickness. Further, rapid BP recovery was associated with lower left ventricular mass and carotid intima-media thickness. Furthermore, for each SD increment of exercise BP, there was an association with a higher risk for incident hypertension (systolic BP [SBP]: hazard ratio [HR], 1.40; diastolic BP [DBP]: HR, 1.24) and cardiovascular disease (DBP: HR, 1.15). In an adjusted analysis, each 1 SD increment of BP recovery was associated with a lower risk for hypertension ($SBP_{recovery}$: HR, 0.46; $DBP_{recovery}$: HR, 0.55), cardiovascular disease ($SBP_{recovery}$: HR, 0.80), and all-cause mortality ($SBP_{recovery}$: HR, 0.76).

"Submaximal exercise blood pressure and blood pressure recovery after submaximal exercise in midlife may provide important prognostic information on the risk classification of new onset of hypertension, cardiovascular disease, and mortality in later life," the authors write.

More information: Abstract/Full Text