

High fitness level lowers risk for cardiovascular death from high blood pressure

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High fitness levels attenuate, but do not eliminate, the increased risk for cardiovascular mortality in men with high blood pressure, according to a research letter published online March 23 in the *European Journal of Preventive Cardiology*.

Jari A. Laukkanen, M.D., Ph.D., from the University of Eastern Finland in Kuopio, and colleagues used data from the Kuopio Ischemic Heart Disease study (2,682 men; ages, 42 to 61 years) to prospectively evaluate the relationship among [systolic blood pressure](#), cardiorespiratory fitness (CRF), and cardiovascular disease-related mortality.

The researchers found that during a median 28.5 years of follow-up, for [blood pressure](#) alone, high blood pressure was associated with an increased risk for [cardiovascular mortality](#) (hazard ratio [HR], 1.39). For fitness alone, a low versus high level of fitness was associated with an elevated likelihood of cardiovascular death (HR, 1.74). However, men with high blood pressure and low fitness had more than a doubled risk for cardiovascular death versus participants with normal blood pressure and high fitness (HR, 2.35). Compared with men with normal blood pressure and high fitness, elevated cardiovascular risk remained but was diminished in men with [high blood pressure](#) and high fitness levels (HR, 1.55).

"These findings add to the emerging evidence that achieving and maintaining the highest level of CRF during adulthood is important for lowering the risk of chronic disease outcomes as well as death, and the most effective way of doing this is through regular and increased [physical activity](#) or exercise training," the authors write.

More information: Jari A Laukkanen et al, High fitness levels attenuate the increased risk of cardiovascular deaths in individuals with high systolic blood pressure, *European Journal of Preventive Cardiology* (2023). [DOI: 10.1093/eurjpc/zwad034](https://doi.org/10.1093/eurjpc/zwad034)

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