

Cardiorespiratory fitness impacts BMI-related heart failure risk

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(HealthDay)—Higher body mass index (BMI) is associated with

increased risk of heart failure, which is largely explained by differences in cardiorespiratory fitness (CRF), according to a study published online April 5 in *JACC: Heart Failure*.

Ambarish Pandey, M.D., from the University of Texas Southwestern Medical Center in Dallas, and colleagues examined the contributions of obesity and changes in BMI in mid-life on long-term [heart failure](#) risk. The authors used data from 19,485 participants of the Cooper Center Longitudinal Study who survived to receive Medicare coverage from 1999 to 2009.

The researchers observed 1,038 [heart failure](#) hospitalization events after 127,110 person-years of follow-up. After adjustment for established heart failure risk factors, higher mid-life BMI was significantly associated with elevated risk of heart failure hospitalization (hazard ratio, 1.19 per 3 kg/m² higher BMI). After adjustment for CRF the association was attenuated (hazard ratio, 1.10 per 3 kg/m² higher BMI). CRF accounted for 47 percent of the BMI-associated heart failure risk. After adjustment for CRF change, BMI change was not significantly associated with the risk of heart failure in older age.

"These findings highlight the importance of CRF in mediating BMI associated heart failure risk," the authors write.

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