

# Mortality risk higher in normal-weight diabetes patients

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(HealthDay)—In older adults with type 2 diabetes, muscle size may mediate the association between body mass index (BMI) and mortality, according to research published online Oct. 14 in *Diabetes Care*.

Rachel A. Murphy, M.D., of the National Institute on Aging in Bethesda, Md., and colleagues analyzed data from the AGES-Reykjavik cohort of participants, aged 66 to 96 years, with [type 2 diabetes](#). The authors sought to investigate whether [adipose tissue](#), muscle size, and physical function, which vary by weight, mediate associations between BMI and mortality. Participants were [normal weight](#) (18.5 to 24.9 kg/m<sup>2</sup>, 117 participants), overweight (25.0 to 29.9 kg/m<sup>2</sup>, 293 participants [referent group]), or obese (≥30.0 kg/m<sup>2</sup>, 227 participants).

The researchers found that, compared with overweight participants,

there was no mortality risk for obese participants and an increased risk of mortality for normal-weight participants (hazard ratio [HR], 1.72; 95 percent confidence interval [CI], 1.12 to 2.64). After adjustment for adipose tissue and knee extensor strength, these associations persisted. Mortality risk for normal-weight participants was attenuated after adjustment for thigh muscle (HR, 1.36; 95 percent CI, 0.87 to 2.11) and gait speed (HR, 1.44; 95 percent CI, 0.91 to 2.27). Further analysis confirmed that thigh muscle size mediated 46 percent of the relationship between normal weight and [mortality risk](#).

"In conclusion, the results illustrate the importance of identifying type 2 diabetes among normal-weight individuals and suggest that muscle size may help to explain relationships between BMI and mortality in type 2 diabetes," the authors write.

**More information:** [Abstract](#)  
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