

## 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 ( $\geq$ 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 <u>mortality risk</u>.

"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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