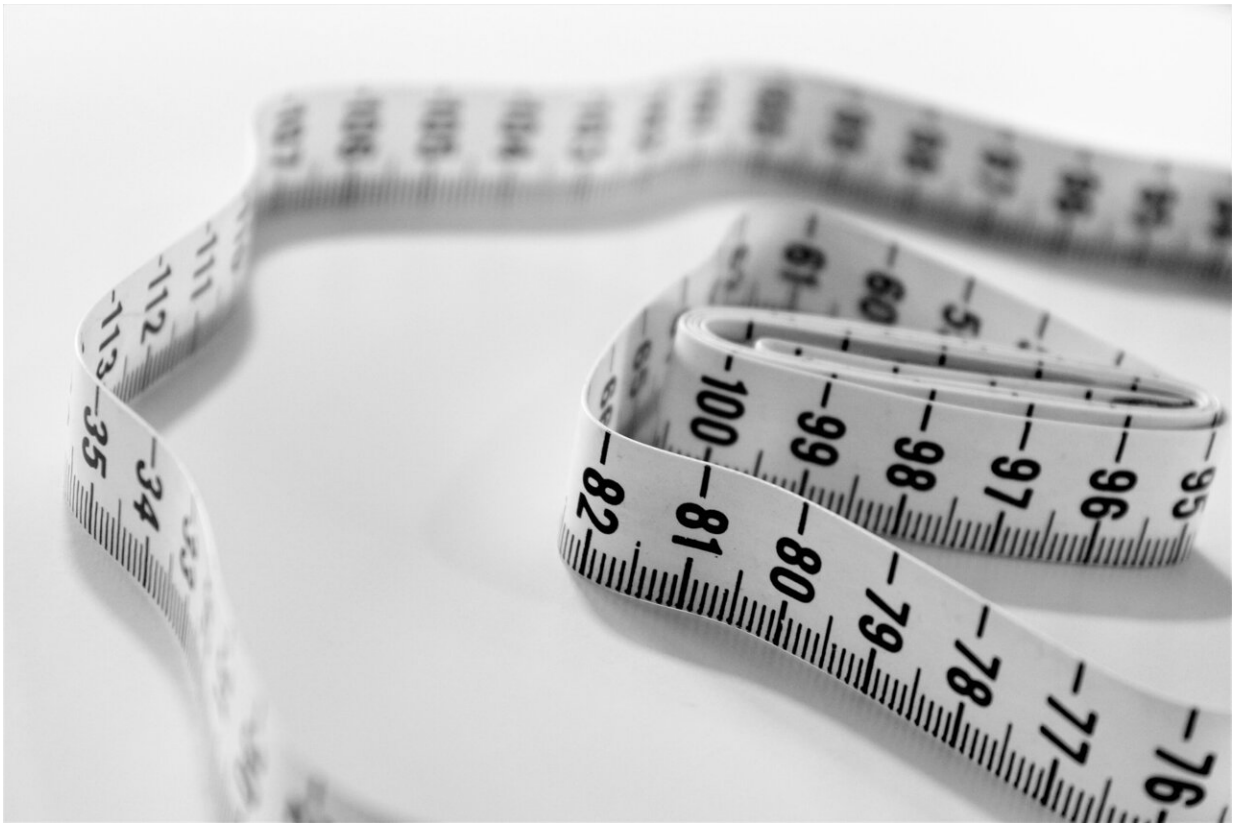


# New study finds that age-related fat may lead to less effective muscle function

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Credit: Unsplash/CC0 Public Domain

A new study published in the *Journal of Clinical Endocrinology and Metabolism* found that age-related accumulation of abdominal fat is associated with lower muscle density. Low muscle density means the

muscle has more fat in it, which can lead to less effective muscle function that in turn may lead to more falls.

According to the study, individuals with the greatest 6-year accumulation of visceral adipose tissue (VAT), found in the abdomen, had significantly lower muscle density. Since VAT accumulation is a preventable risk factor for poor musculoskeletal outcomes associated with aging, these findings add to the growing dangers of accumulating fat in the body.

Entitled "Accumulation in Visceral Adipose Tissue Over 6 Years Is Associated With Lower Paraspinal Muscle Density," it is the first large, longitudinal study of the association between changes in VAT and muscle density.

"Most obesity research has focused on metabolic and cardiovascular outcomes such as diabetes, hyperlipidemia, hypertension, [coronary heart disease](#), and osteoarthritis. But there is considerably less consensus on the role of obesity on the risk for low muscle mass or muscle density," said Lead Author Ching-Ti Liu, Ph.D., Professor in the Department of Biostatistics at Boston University School of Public Health, and Senior Author Douglas P. Kiel, M.D., M.P.H., Director, Musculoskeletal Research Center and Senior Scientist, Hinda and Arthur Marcus Institute for Aging Research.

The study found that VAT may represent a modifiable risk factor for poor musculoskeletal outcomes with aging.

"The study adds important new information to public health efforts to reverse the trend of the growing obesity problem in the United States and worldwide," the authors said. "Fat that accumulates in the abdomen sometimes referred to as the 'male pattern,' was shown to produce less dense muscle surrounding the spine, resulting in less-effective [muscle](#)

function."

**More information:** Accumulation in Visceral Adipose Tissue Over 6 Years Is Associated With Lower Paraspinal Muscle Density, *The Journal of Clinical Endocrinology and Metabolism* (2023).

Provided by Hebrew SeniorLife Hinda and Arthur Marcus Institute for Aging Research

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