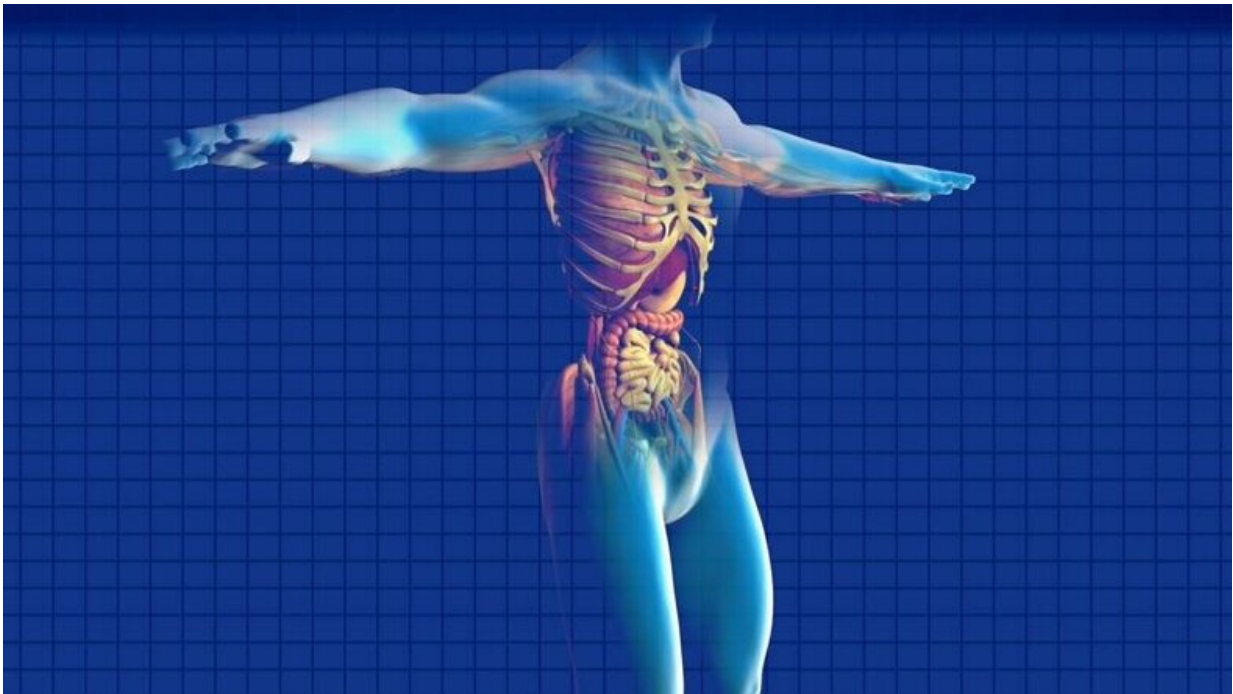


Abdominal obesity might predict risk of fecal incontinence

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Fecal incontinence (FI), or involuntary loss of bowel control, significantly impacts quality of life and mental health for millions of adults in the U.S. Obesity is thought to affect bowel function, but the relationship between its standardized measure, body mass index (BMI), and FI remains unclear. Examining better markers of obesity that include body composition and fat distribution, rather than BMI alone,

could help clarify the effect of obesity on FI.

Investigators from Brigham and Women's Hospital have identified waist circumference-to-height ratio (WHtR), a marker of central obesity, as a stronger predictor for FI than BMI in a cross-sectional study of the U.S. population. The study is [published](#) in the journal *Clinical Gastroenterology and Hepatology*.

Using data collected between 2005-2010 by the National Health and Nutrition Examination Survey, the researchers calculated WHtR and BMI for more than 7,500 participants and assessed them for prevalence and risk of FI. They found that FI occurred in just over 9% of the study cohort and that higher prevalence was linked to higher WHtR, but only weakly associated with higher BMI.

After adjusting for potentially confounding factors like sociodemographics, metabolic comorbidities, diet and [physical activity](#), the research team observed that higher WHtR, but not BMI, remained consistently correlated with FI. Sex-specific analyses also revealed more significant associations between WHtR and FI in men.

"We know that central adipose tissue distribution tends to be more prevalent in men than women," said first author Brent Hiramoto, MD, a senior fellow in the Division of Gastroenterology, Hepatology and Endoscopy. "These sex-based differences could indicate the importance of central obesity in the pathogenesis of FI."

"Our findings suggest that risk of bowel continence may depend on how body mass is distributed," said senior author Walter Chan, MD, MPH, of the Division of Gastroenterology, Hepatology and Endoscopy. "BMI is a pragmatic measure for obesity but does not distinguish between fat and muscle mass or assess distribution of adiposity. WHtR may contribute to FI through increased intra-abdominal pressure affecting the [pelvic floor](#)

or anal sphincter, or through higher visceral fat with the associated inflammatory and oxidative stress. Further research is needed to better understand why FI occurs."

More information: Brent Hiramoto et al, Centrally Distributed Adiposity as a Modifiable Risk Factor for Fecal Incontinence: U.S. Population-Based Analysis, *Clinical Gastroenterology and Hepatology* (2024). [DOI: 10.1016/j.cgh.2024.04.002](https://doi.org/10.1016/j.cgh.2024.04.002)

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