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## Study on Normal Weight Obesity and Mortality Risk July 24, 2019

The results of a new *JAMA Network Open* study involving the Women's Health Initiative participants from both the randomized clinical trial and the observational study (N=156,624) shed light on the risk of being of normal weight with central obesity (defined as body mass index [BMI] 18-24.9 kg/m<sup>2</sup> and waist circumference >88 cm). This important study shows that women with a normal weight and central obesity (2.6% of the women with normal BMI in this study population) were at elevated risk of all-cause mortality, similar to the risk of women with obesity and central obesity (hazard ratio [HR], 1.31; 95% confidence interval [CI], 1.20-1.42; *P*<.001, and HR, 1.30; 95% CI, 1.27-1.34; *P*<.001, respectively), even after adjusting for demographic characteristics, socioeconomic status, lifestyle factors, and hormone use. The magnitude of this risk was greater in younger women (aged <65 y). Women with normal weight and central obesity were also noted to be at increased risk for cardiovascular disease (HR, 1.24; 95% CI, 1.05-1.46) and cancer mortality (HR, 1.20; 95% CI, 1.01-1.43) compared with women with normal weight and no central obesity.

Existing guidelines do not include measurement of waist circumference in normal-weight persons, and BMI alone may be misleading in terms of determination of risk associated with adiposity. Thus, we may be missing an opportunity to more accurately screen our female patients for increased risk of mortality, and more importantly, to provide interventions designed to modify that risk.

"Our results highlight the limitations of BMI in identifying patients at elevated mortality risk due to adiposity and unfavorable body distribution," says JoAnn E. Manson, MD, DrPH, study coauthor, NAMS past-president, and professor of medicine, Harvard Medical School. "The findings lend support to measurement of waist circumference, in combination with BMI, as a preferable way to stratify patients' risks, including future death from cardiovascular disease or cancer. Surprisingly, central obesity is an important risk factor even in patients with normal weight, and all patients with central obesity, regardless of BMI, should benefit from intensified lifestyle modifications to reduce risk."

Sun Y, et al. Association of normal-weight central obesity with all-cause and cause-specific mortality among postmenopausal women. *JAMA Network Open*. 2019;2(7):e197337. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2738622>.