A new tool -- the Edmonton obesity staging system (EOSS) -- improves on current methods to predict the risk of death in overweight and obese people, according to a study in *CMAJ* (Canadian Medical Association Journal).

Body mass index (BMI) is the most common tool in measuring excess fat, although it is an indirect measure and cannot distinguish between lean and fat tissue. BMI also does not assess for the presence of any of the numerous conditions that may be associated with excess weight. Studies have reported that high BMI is associated with an increased risk of obesity-related health issues (morbidity) and death. Increased waist circumference is also associated with a higher risk of cardiovascular disease and the metabolic syndrome.

The EOSS, originally proposed by Dr. Arya Sharma from the University of Alberta, ranks overweight and obese people on a five-point scale according to their underlying health status and the presence or absence of underlying health conditions. EOSS was used to predict death using data from a population-representative survey of 8143 people in the 1988-1994 and 1999-2004 US National Health and Human Nutrition Examination Surveys (NHANES).

Researchers found that although 77% of overweight or obese people in the NHANES 1988-94 survey and 90% of those in the 1999-2004 survey were classified as stage 1 or 2 in the EOSS, their risk of dying was substantially lower than that of overweight or obese people classified as stage 3.

"Within a nationally representative cohort, higher Edmonton obesity staging system scores were a strong predictor of increasing mortality in both the overall population and in a cohort of people eligible for bariatric surgery. &"#133;independent of BMI and the presence of metabolic syndrome or hypertriglyceridemic waist," writes Dr. Raj Padwal, University of Alberta, with coauthors. "Even within strata of BMI categories, there was clear separation of survival curves according to Edmonton obesity staging system scores."

The tool could be used to prioritize patients for obesity treatments, including such interventions as bariatric surgery.

"Such enhanced risk assessment may enable a greater understanding of obesity-related prognosis and may also assist in determining the urgency of intervention," they write.

The authors conclude, "We propose that [the Edmonton Obesity Staging System] be considered adjunctive to current anthropometric classification systems in assessing obesity-related risk, determining prognosis and guiding treatment."

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