

Large waistlines can double the risk of death in kidney disease patients

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For kidney disease patients, a large belt size can double the risk of dying.

A study led by a Loyola University Health System researcher found that the larger a kidney patient's [waist circumference](#), the greater the chance the patient would die during the course of the study.

The study by lead researcher Holly Kramer, MD, MPH, and colleagues was published in the [American Journal of Kidney Diseases](#).

Waist circumference was more strongly linked to mortality than another common measure of obesity, [body mass index](#) (BMI).

BMI is a height-to-weight ratio. For example, if John and Mary are both the same height, but John weighs 20 pounds more, then John will have a higher BMI than Mary. But BMI can be misleading -- a muscular person with little body fat could have a BMI higher than a flabby person with little muscle mass. Waist circumference, by contrast, simply measures abdominal fat.

Researchers examined data from 5,805 [adults age](#) 45 and older who had kidney disease and participated in a study called REGARDS (Reasons for Geographic and [Racial Differences](#) in Stroke). They were followed for a median of four years and during that time 686 kidney patients (11.8 percent) died.

The average BMI of the kidney disease patients who died was 29.2. This

was lower than the average BMI, 30.3, of the patients who survived. (A BMI between 25 and 29.9 is considered overweight, while a BMI of 30 and above is obese.)

By contrast, the [kidney patients](#) who died had a larger average waist circumference (40.1 inches) than the patients who survived (39.1 inches.)

Researchers compared kidney disease patients with large waists to patients who had more normal waist sizes. After adjusting for BMI and other [risk factors](#), women with waists equal to or greater than 42.5 inches and men with waists equal to or greater than 48 inches were 2.1 times more likely to die than those with trimmer waists (less than 31.5 inches for women and less than 37 inches for men).

Researchers concluded that in adults with kidney disease, BMI by itself may not be a useful measure to determine mortality risks associated with fat. The reason is that BMI reflects several components, including muscle mass and abdominal fat.

"In contrast," the researchers conclude, "waist circumference reflects abdominal adiposity [fat] alone and may be a useful measure to determine mortality risk associated with obesity in adults with chronic [kidney disease](#), especially when used in conjunction with BMI."

Provided by Loyola University Health System

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