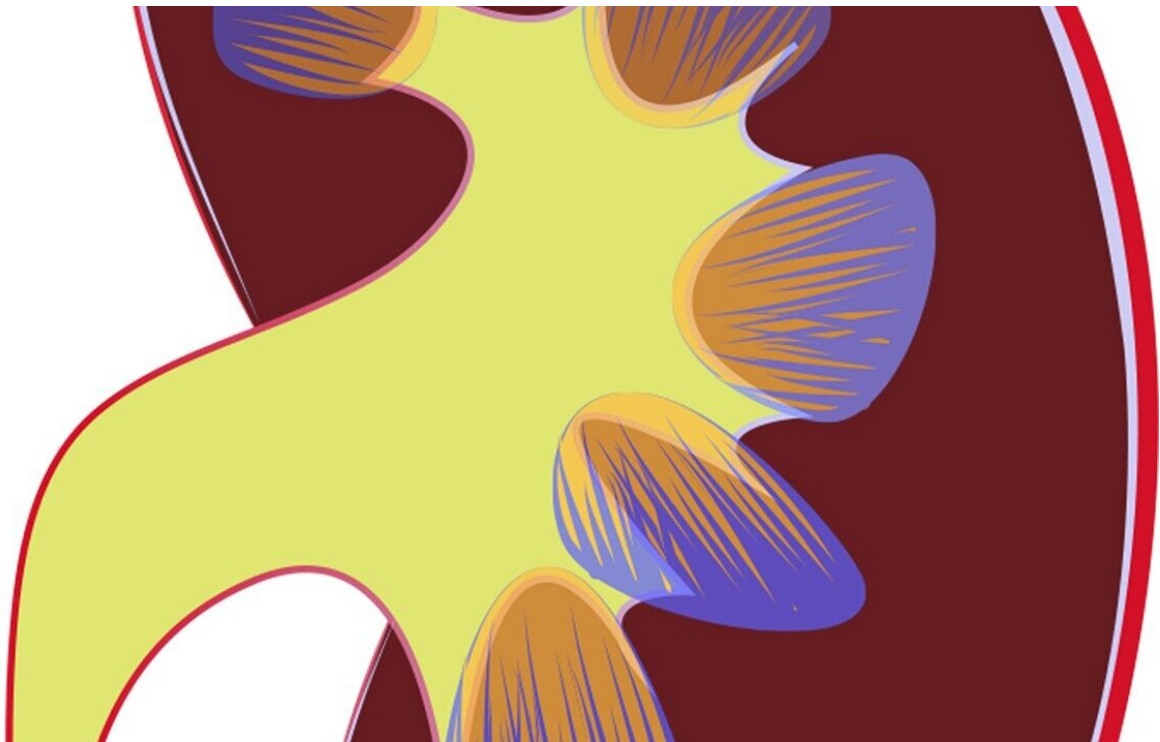


Patients who lose significant weight before a transplant are at higher risk of dying

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Unexpected weight loss can be the sign of a serious health problem, especially in kidney transplant patients whose body systems are already under duress. But a new study out of Drexel University suggests that even planned and advised weight loss could also be dangerous for kidney transplant candidates if it's not closely monitored.

"Obese adults with advanced kidney disease are often told that they have to lose [weight](#) in order to be eligible for a kidney [transplant](#). However, we don't really have any guidance on the safest way for them to lose the weight," said Meera Harhay, MD, an associate professor in Drexel's College of Medicine and Dornsife School of Public Health and lead author of the study, which was recently published in the *American Journal of Kidney Disease*. "You have to remember, these are patients with organ failure, so losing weight in a healthy way is not necessarily an easy thing to do."

By analyzing information from more than 94,000 transplant recipients from a 10-year period in the Organ Procurement and Transplantation Network's database, Harhay, along with researchers from Drexel's Dornsife School of Public Health and Johns Hopkins, found that patients who lost a significant amount of weight—10 percent or more of their [body weight](#)—prior to a kidney transplant had an 18 percent higher risk of death after the transplant.

"We found [weight loss](#) to signal higher risk across-the-board," Harhay said. Regardless of whether the patients were underweight or obese before they lost weight, having a body mass index above 30 or even 40, the study found significant pre-transplant weight loss was strongly associated with longer stays in the hospital following the procedure, other complications, and death.

Obesity is common among [kidney transplant](#) candidates, many of whom are only surviving because of regular dialysis treatments which can also limit energy and physical activity. In fact, nearly 35 percent of the patients analyzed in the study were obese when they were listed for transplantation. In many cases transplant surgeons advise these obese patients to lose abdominal belly fat before the transplant surgery because it can complicate the healing process of the surgical incision.

But requiring weight loss of obese transplant candidates may cause additional stress on their bodies, leading to nutritional deficiencies, or mask unplanned weight loss (from losing [muscle mass](#)), which would be a red flag for non-obese patients, according to the researchers. "As a consequence of limited mobility, patients with end-stage kidney disease may try potentially harmful diets and medications to lose weight," they write.

Patients whose weight did not vary as much, losing 5 percent or less of their total weight, were less likely to have an extended length of stay following the surgery, have a failed transplant, or die. And this held true even for patients with higher BMIs who would be considered obese or morbidly obese—"a finding that may indicate that even morbidly obese kidney [transplant] recipients with substantial pre-transplant weight loss are at higher risk of death than morbidly obese patients with stable weight," the study notes.

This is all to say, according to the researchers, that doctors should proceed with caution whenever they advise [obese patients](#) with kidney failure to lose weight, even in cases where the weight loss would seem to have clear health benefits.

"Without closely monitoring changes in body composition, "successful" weight loss in an obese patient could cause a physician to overlook what would otherwise be a warning sign," Harhay said. "Our work suggests that we need to be cautious when our [patients](#) are losing weight, regardless of BMI. And if we know they're losing muscle mass rather than fat, we can try to intervene."

More information: Meera Nair Harhay et al, Association Between Weight Loss Before Deceased Donor Kidney Transplantation and Posttransplantation Outcomes, *American Journal of Kidney Diseases* (2019). [DOI: 10.1053/j.ajkd.2019.03.418](https://doi.org/10.1053/j.ajkd.2019.03.418)

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