

Malnourished patients are more likely to suffer postoperative complications than morbidly obese patients

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Malnourished patients are more likely to have complications following total knee or hip replacement surgeries than morbidly obese patients, according to new research from researchers at the Perelman School of Medicine at the University of Pennsylvania. The findings are being presented at the American Academy of Orthopaedic Surgeons Annual Meeting in Las Vegas March 24-28.

The Penn team examined 670 [patients](#) undergoing total knee or [hip replacement](#). Twelve percent of the patients studied were malnourished, while nearly 19 percent were morbidly obese. Of the total patient population, 10 percent experienced a complication. The investigators found that when compared to patients with normal nutritional status, malnourished patients were nearly 20 percent more likely to have a postoperative complication, 13 percent more likely to be readmitted within 90 days of discharge, 12 percent more likely to have an ICU admission following surgery, and five percent more likely to require a return to the operating room.

"These findings can lead to the development of clear guidelines to identify which patients need remediation before undergoing total knee or hip replacement," said lead investigator P. Maxwell Courtney, MD, a fourth-year orthopaedic surgery resident at the Perelman School of Medicine at the University of Pennsylvania. "While it would be beneficial for morbidly obese patients to lose weight for better overall

health, our findings indicate that doing so is not necessarily indicative of a post-op complication."

For the purposes of the study, malnourished patients were defined as having a pre-operative serum albumin level, a marker for adequate nutrition, of

Among patients with normal nutritional status, morbidly obese patients had no statistically significant difference in complication rates than non-morbidly-obese patients. Malnourished morbidly obese patients also had no statistically significant difference in complication rates than malnourished non-[morbidly-obese](#) patients.

"Although our study did not examine whether correcting malnutrition prior to surgery would improve outcomes, it seems prudent to work with dieticians to improve the nutritional levels of patients who are malnourished, whether in the form of better food selection, nutritional supplements, or both," said the study's senior author Charles L. Nelson, MD, chief of the Joint Replacement Service in the department of Orthopaedic Surgery, noting that further research on such patients is warranted.

Provided by University of Pennsylvania

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