

Losing weight before knee surgery may not be beneficial for people with arthritis: Study

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A new University of Alberta study shows that losing weight before knee replacement surgery doesn't lead to better outcomes for patients.

In a <u>systematic review</u> published in *Joint Bone Spine*, researchers in the Faculty of Rehabilitation Medicine found that weight loss before <u>surgery</u>



may not be beneficial for people with advanced knee osteoarthritis.

Medical practitioners have long advised patients to lose weight before knee surgery. Patients living with obesity, defined by a body mass index (BMI) of 30 or higher, are especially warned of <u>surgical complications</u>, risk of infection and poor outcomes due to their high BMI.

"While there's evidence that a higher BMI equals a potentially higher surgical risk, that doesn't mean that if a patient reduces their BMI, even a point or two, that it would be good for them," said lead author Kristine Godziuk, a postdoctoral fellow in the Department of Occupational Therapy.

The research team reviewed clinical practice guidelines and other clinically influential literature from the past 10 years for evidence that weight loss is helpful for patients. "We didn't find any," said Godziuk.

Osteoarthritis affects more than 300 million people worldwide, with the knee being the most common joint affected. Factors like aging and obesity have increased the number of Canadians having knee replacements by more than 22 per cent in the past five years, with more than 75,000 surgeries now performed each year.

The U of A study calls into question the use of BMI as a determinant of patient outcomes for orthopedic surgery. For example, patients with higher BMIs are not eligible for knee replacement until they lower their BMI or lose weight. As a result, those patients spend more time on the waiting list, Godziuk said. Before the COVID-19 pandemic, wait times for knee surgery in Alberta averaged between 14 months and two years.

"Patients with a higher BMI wait even longer because they're told to go try to lose weight first, so by the time they go to get surgery they're maybe in worse condition than if they hadn't tried that first."



Weight bias is also at play. "It's very challenging to lose weight and keep it off," said Godziuk. Obesity is not a lifestyle choice but a chronic condition that should not be measured by BMI, she said.

"We know that age is associated with increased surgical risk with knee replacement surgery, but we don't tell people, 'Well, you have to be younger than 70.' We don't do those cut-offs for age, but we do them for BMI, which ends up creating this bias in access to care."

Not only does using BMI as a determinant limit surgical access, Godziuk said, but it can risk patients' health, since short-term weight loss that can't be maintained has few benefits, and could potentially be harmful.

"We tell patients to go lose weight, to lower their BMI, but it can be harmful to have that blanket recommendation. What we're suggesting is that maybe we don't tell them to lose weight, but help them to prevent weight gain. Maybe that's a better message to send to patients, and through that we can also support them to improve their body composition and overall health."

Godziuk, who started her career as an exercise physiologist, said working in pediatric obesity helped her understand the need for more research in this area.

"I could see clinically, when I worked with adolescents, that BMI was a poor measure for them, and I know it's a poor measure in adults. When we just rely on these simple metrics, I could see that there was this gap. And it's so important from a rehabilitation perspective—to help patients live with osteoarthritis and manage it, including if they have obesity as well."

Practitioners should be aware of the lack of evidence for <u>weight loss</u> before surgery and reconsider recommendations about BMI, Godziuk



said.

"We do such a good job of looking more in depth into all other areas of a person's health, but to distill obesity down to BMI, we're missing some information.

"We're not saying that everyone with a high BMI should have knee surgery, but we're calling into question the way it's being assessed, that BMI alone is missing some things."

More information: Kristine Godziuk et al, A critical review of weight loss recommendations before total knee arthroplasty, *Joint Bone Spine* (2020). DOI: 10.1016/j.jbspin.2020.105114

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