Obesity is a complex metabolic disease.\textsuperscript{1} According to the American Academy of Orthopedic Surgeons, obesity is a major contributor to many orthopedic conditions.\textsuperscript{2}

31.2\% of Americans with obesity have been diagnosed with arthritis.\textsuperscript{4} Ligament disruption is more common in patients with obesity\textsuperscript{5}, and increased weight can activate mechanoreceptors in the cartilage. The increase of mechanoreceptors may create an overproduction of cytokines, growth factors, and more, which can cause chemical cartilage degradation.\textsuperscript{6,7}

Patients with obesity are 3.8X more likely to develop symptomatic osteoarthritis than individuals with a normal BMI. They also have an increased likelihood for both a hip and knee replacement.\textsuperscript{8,9}

The need for total knee arthroplasty is 8.5X higher in patients with a BMI over 30 and 32X in patients with a BMI over 40 than patients in a normal weight category.\textsuperscript{10}

However, the cost for a knee arthroplasty is 110\% higher for a patient with obesity\textsuperscript{11}, and obesity poses surgical risks that include\textsuperscript{12}:

- 1.9X increased risk of SSI
- 2.38X increased risk of deep infection
- 1.3X increased risk of implant revision

96\% of surgeon respondents in a Canadian survey have delayed or declined to perform elective surgery in patients with a BMI higher than 38.\textsuperscript{13}

One orthopedic surgeon stated that he turns away as many as 10\% of his patients due to high BMI or diabetes.\textsuperscript{14}

With many national and regional commercial insurance companies placing BMI restrictions on joint replacement surgery, and programs such as CJR bundled payments placing increased scrutiny on costs and outcomes, many patients with a BMI of 40+ are being denied joint replacement surgery.
In most patients, sleeve gastrectomy and gastric bypass surgeries produce excess weight loss of +25% at 5 years.¹⁷

Bariatric surgery is used in morbidly obese adult patients for significant long-term weight loss. Results following bariatric surgery may vary. Bariatric surgery may be appropriate for some patients, and not for others depending on their specific weight, age, and medical history. Patients and doctors should review all available information on non-surgical and surgical options in order to make an informed treatment decision.


Bariatric surgery is the most effective long-term treatment option for weight loss with qualified patients and may provide the best opportunity for lessening knee or hip pain or lowering BMI to qualify for joint replacement surgery.¹⁵

The anatomical changes that occur with these procedures have been shown to produce metabolic changes that “re-set” the gut hormones in a way that allows greater weight loss, especially WITH diet and exercise.¹⁶

Current studies are underway to determine if this lower BMI post-bariatric surgery results in better knee replacement outcomes. Physicians will determine the period of time post-bariatric surgery before a patient is eligible to have joint replacement surgery. Bariatric surgery may also lead to health improvements that increase overall quality of life and decrease risk factors for joint replacement surgery such as a reduction of diabetes.¹⁸

A lower BMI has been shown to lead to better joint replacement outcomes, including¹¹:

- ☑️ Shorter anesthesia times
- ☑️ Lowered infection rate
- ☑️ Lower total operative times

For more information, go to ethicon.com/obesity or consult with a local bariatric surgeon. To find a bariatric surgeon, go to REALIZE.com.

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