

Gastric bypass surgery may diminish knee pain in obese patients

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There is a known link between elevated body mass index (BMI) and symptomatic knee osteoarthritis (OA). While patients who have undergone gastric bypass surgery (GBS)—a procedure that closes off much of the stomach and causes food to bypass a portion of the small intestine—typically lose weight, the comparative impact of this weight loss on knee pain and function has not been measured.

The new study, "The Impact of Gastric Bypass Surgery Compared to Total Knee Arthroplasty on Knee Symptoms," presented today at the 2014 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), included two groups of patients: 20 GBS patients (16 women and four men) with a mean age of 52 years and a mean pre-operative BMI of 45.6 kg/m², and 40 patients who underwent [total knee replacement](#) (TKR) for symptomatic OA.

The groups were matched two-to-one by age, gender and BMI. In both groups, knee symptoms were assessed preoperatively, as well as at six months and one year following surgery. Bariatric surgery patients reported significant improvement in mean [knee pain](#) (6.95 versus 2.30 points) and physical function (21.5 versus 7.05) at one-year follow up. When compared to patients who underwent TKR, the percentage improvement in mean pain scores was similar between the two groups at six months (49.9 percent versus 58.3 percent) and one year (62.7 percent versus 68.2 percent). The GBS group experienced a significantly greater percentage improvement in physical function at six months (66.3 percent versus 46.7 percent), and a similar, though marginally non-significant difference at one year (68.4 percent versus 51.5 percent).

Comparatively, GBS patients with self-reported OA had greater knee pain and worse function preoperatively when compared to those without OA, as well as a smaller percentage improvement in pain (63.5 versus 74 percent) and function (66.4

versus 72.9 percent) at final follow up. The study authors recommend that surgeons consider bariatric consultation for obese patients who have knee symptoms but lack advanced osteoarthritis or other conditions amenable to orthopaedic management.

Provided by American Academy of Orthopaedic Surgeons

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