

Weight Changes after Knee Arthroplasty, and the Effect of Obesity on Outcomes.

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Introduction:

Obesity is a common in individuals undergoing arthroplasty, and the potential for weight loss with improved mobility may be expected by some. The aim of this study was 1. determine the proportion that achieved weight loss after knee arthroplasty, and 2. examine the effect of obesity on patient reported outcomes (PROMS) and satisfaction with surgery.

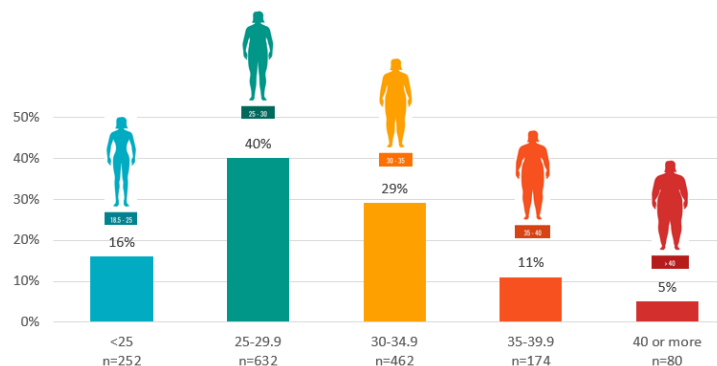
Methods:

Participants underwent primary TKA between July 2015 and December 2020 and consented to participation in a research database with baseline PROMS, including weight, BMI, Oxford Knee or Hip Score, and EQ5D. Participants repeated PROMS and self reported weight at 12 months after surgery with additional questions regarding satisfaction with surgery.

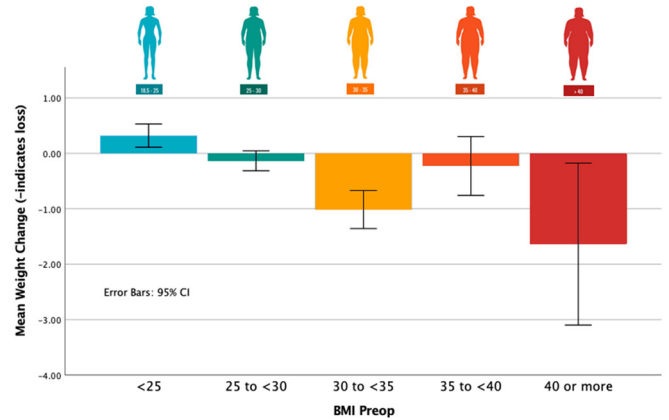
Results:

Of the 1790 subjects who formed the study group, 1600 patients completed PROMS 1 year after arthroplasty with weight and BMI. The mean age was 69 years (range 33-92) and there were 815 males (51%).

The mean baseline BMI was 29.9 (SD 5.2). The distribution of BMI classes is shown in figure 1. 45% of TKA were obese (BMI>30).



In the obese subjects the mean weight loss after TKA over 12 months was 0.9kg (SD 4), and weight loss of 5kg or more was seen in 12%. (Figure 2)



The mean KOOS JR scores were significantly lower in the obese compared to the non-obese before TKA (47 vs 51, p=0.001), and after TKA (78 vs 81, p=0.001), but the change in score was equivalent in both groups (31 vs 31, p=0.404). Both the obese and the non-obese reported high rates of satisfaction with surgery (90% vs 92%, p=0.179), and would undergo the same surgery again (89% vs 87%, p=0.211).

Conclusions:

Preoperative obesity was observed in 45% of TKA patients. In the obese only 1 in 8 subjects lost 5kg or more over 12 months. Obese patients experienced equivalent improvements in patient reported outcomes after arthroplasty and rates of satisfaction with surgery to the non-obese, but should not consider weight loss an expected outcome of TKA.

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