



# AB081. SOH23ABS\_016. Is total knee replacement surgery warranted in the obese patient: a systematic review

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**Background:** Obesity is a well-documented risk factor for the development of osteoarthritis. This in turn results in an increase in the need for joint replacement surgery amongst this cohort. The debate persists as to whether obese patients undergoing total knee replacement (TKR) surgery will experience a higher rate of complications. This has resulted in patients with obesity to be deemed unsuitable for elective TKR surgery.

**Methods:** A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) systematic review was conducted of the PubMed database to identify all clinical studies that examined the effect of obesity on outcomes following TKR. A mixture of keywords and Mesh terms were used in our search. Studies included were limited to publication in the previous 10 years, with human subjects and in the English language. We extracted data to determine revision risk (all-cause, septic, and aseptic), complication risk, and infection risk, functional outcome scores [knee society score (KSS) and range of movement (ROM)] in patients with obesity (BMI >40 kg/m<sup>2</sup>) to non-obese patients [body mass index (BMI) <40 kg/m<sup>2</sup>].

**Results:** After screening the resulting articles, 13 studies were deemed eligible for inclusion in the systematic review. In total, these studies examined 192,891 patients from both

obese and non-obese categories.

**Conclusions:** Short term complications such as infection rates appear to be higher in obese patients (>40 kg/m<sup>2</sup>) undergoing TKR however long-term outcomes and functionality appear to be on par with non-obese patients (<40 kg/m<sup>2</sup>). Obese patients should therefore not be excluded from undergoing TKR as is a common consensus.

**Keywords:** Arthroplasty; obesity; patient outcomes; post-operative complications; total knee replacement (TKR)

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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