

BMI affects long-term outcomes of 'partial' knee arthroplasty

March 8 2023



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For patients with higher body mass index (BMI) undergoing unicompartamental or "partial" knee replacement (UKR), long-term

outcomes are improved when the implant is placed using a cementless rather than cemented technique, reports a study in the *Journal of Bone and Joint Surgery*.

In these higher-BMI [patients](#), 10-year rates of revision surgery are lower with cementless compared with cemented UKR, according to the new research. The lead author is Hasan R. Mohammad, MBChB, MRCS, MRes (Dist), DPhil (Oxon), of University of Oxford.

As BMI increases in the population, what's the effect on UKR outcomes?

In UKR, just one of three compartments of the [knee](#)—the medial compartment—is replaced with a prosthesis. Because the UKR technique preserves most of the normal knee anatomy, it has some advantages over the more common total knee replacement. However, patients undergoing UKR appear to have a higher rate of repeat or revision surgery.

The increasing proportion of patients with higher BMI in need of knee replacement is "a pressing challenge for orthopaedic surgeons," according to the authors. There are conflicting data on how BMI affects the outcomes of UKR, which can be performed using either cemented or cementless techniques. This new study assessed how BMI affects the long-term outcomes of both UKR techniques.

The study compared two matched groups of 5,220 patients undergoing UKR from 2004 through 2018. The unicompartmental implants were placed using a cementless technique in one group of patients and a cemented technique in the other group. All procedures were performed using cemented or cementless versions of the same type of implant (the Oxford mobile bearing UKR).

Patients were classified into three BMI groups, based on [body weight](#) and height: 18.5 to

Citation: BMI affects long-term outcomes of 'partial' knee arthroplasty (2023, March 8) retrieved 18 April 2024 from <https://medicalxpress.com/news/2023-03-bmi-affects-long-term-outcomes-partial.html>

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