Total knee arthroplasty (TKA) is a reliable treatment option for patients with knee osteoarthritis (OA), but the risk of adverse outcomes after TKA in obese patients is concerning.

Australian Orthopaedic Association National Joint Replacement Registry data

Rates of revision surgery after primary TKA compared between:

Obese patients Non-obese patients

Risk of revision surgery compared to non-obese patients

In Class I/II obese patients (BMI = 30–39.99 kg/m²)

- All-cause: Hazard ratio 1.12
- Due to infection: Hazard ratio 1.25

In Class III obese patients (BMI >40 kg/m²)

- All-cause: Hazard ratio 1.30
- Due to loosening: Hazard ratio 1.39
- Due to infection (after 3 months): Hazard ratio 1.72

Higher risk of all-cause revision and revision for infection

Added risk of revision due to loosening

Obese patients who undergo primary TKA to treat knee OA have a higher risk of revision surgery and should be counseled about the risks involved.