

## Size Matters NOT With Robotic Assisted Knee Replacement

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### INTRODUCTION:

Obtaining good alignment is challenging in the morbidly obese patient due to adipose tissue obstructing bony landmarks, limited visualization, and decreased flexion secondary to soft-tissue contraction<sup>1</sup>. Difficulty of identifying bony landmarks and the potential for malalignment are vital points to be addressed prior to surgery. For many years, morbidly obese patients undergoing total knee arthroplasty have been associated with many post-operative complications, such as suboptimal mechanical alignment. The revolutionizing robotic assisted arthroplasty has been providing 3-D images of the joint, thus aiding in more precise and accurate cuts. Our aim is to prove that robotic assisted total knee arthroplasty gives a more accurate alignment in the morbidly obese.

### REPORT:

A morbidly obese 56 years old lady, with a BMI of 41.2, presented with bilateral knee pain, more on the right for 5 years. She has less truncal obesity, and a very low thigh to calf ratio. Preoperative range of movement was 0-90 degree. Assessment of body habitus is essential in managing this patient. Fat distribution around surgical site and anthropomorphic metrics of obesity, such as knee circumference and incisional depth is crucial to understand prior to surgery. Low thigh to calf ratio predisposes to knee dislocation if the flexion gap is inadequately balanced. Patient underwent robotic assisted total knee arthroplasty with cruciate retaining femoral component, ultracongruent insert and short tibia stem.

### CONCLUSION:

To optimize alignment and outcome in morbidly obese patients, we recommend robotic assisted total knee arthroplasty. It is important to

improve functional outcome and reduces risk of aseptic revision surgery.

### REFERENCES:

1. Martin, J. R., Jennings, J. M., & Dennis, D. A. (2017). Morbid Obesity and Total Knee Arthroplasty. *Journal of the American Academy of Orthopaedic Surgeons*, 25(3), 188–194.