

Knee replacement is effective treatment for degeneration caused by Blount disease

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A first-of-its kind study has found that total knee replacements can effectively treat degeneration caused by a bone deformity called Blount disease.

Middle age Blount disease [patients](#) who underwent joint replacements on one or both knees were found to have stable knees, excellent range of motion and no need for pain medications, according to the study, conducted at Loyola University Medical Center.

"With proper attention paid to technical details, patients with Blount or Blount-like deformity can undergo successful total knee arthroplasty [replacement]," corresponding author Harold Rees, MD, and colleagues report. The study is published in the *Journal of Arthroplasty*.

Blount disease is a disorder of the tibia ([shin bone](#)) that occurs in young children and adolescents. The inner part of the tibia, just below the knee, does not develop normally. Consequently, the lower leg turns inward, like a bowleg. Blount disease can be treated with braces or surgery to place the shin bone in the proper position.

Blount disease is more common in African Americans and is associated with obesity and learning to walk early.

Depending on the severity of the disease, and when it first occurs, patients can experience recurrent deformity and arthritis.

In the Loyola study, researchers reviewed the records of five Blount disease patients. Three patients had replacements on both knees and two patients had replacements on one knee. Four patients were African Americans and four were male. All were obese. The average age at the time of the knee replacements was 49.9. Patients were followed-up an average of 75.2 months (6.3 years) after their knee replacements.

Researchers used a scoring system, devised by the Knee Society, that combines clinical, functional and satisfaction scores. The mean Knee Society score was 212.5, out of a maximum possible score of 255. Patients also were rated on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), which rates patients on a scale of 0 to 96, with higher scores representing more pain, stiffness and disability. The patients' mean score was just 13.5.

The study is limited by its small size, retrospective design and lack of long-term follow-up, Dr. Rees and colleagues write.

However, the authors added, "the main purpose was to highlight surgical considerations in performing total knee arthroplasty in patients with Blount disease or Blount-like deformity. Despite a challenging patient population in which to perform [total knee arthroplasty](#), we show that it can be done with a low risk of complication and reasonable medium-term results."

More information: The study is titled "Total Knee Arthroplasty in Patients with Blount Disease or Blount-Like Deformity."

Provided by Loyola University Health System

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