



Review Article

# Clinical and Functional Outcomes of Uni-Compartmental Knee Arthroplasty in Patients with Medial Compartment Osteoarthritis: A Prospective Observational Study

Dr. Manan Parekh<sup>1</sup>, Dr. Lomesh Modi<sup>2</sup>, Dr. Hetul Prajapati<sup>3</sup>

<sup>1</sup>Senior Resident, Orthopaedics Department, Bhagyoday Medical College and Research Institute, Kadi, Gujarat, India

<sup>2</sup>Senior Resident, Orthopaedics Department, Dharmsinh Desai University – Faculty of Medical Science, Nadiad, Gujarat, India

<sup>3</sup>Second Year Resident, Orthopaedics Department, SBKS Medical Institute and Research Centre, Sumandeep Vidyapeeth Deemed to be University, Piparia, Vadodara, Gujarat, India

OPEN ACCESS

## Corresponding Author:

**Dr. Manan Parekh**

Senior Resident, Orthopaedics  
Department, Bhagyoday Medical  
College and Research Institute,  
Kadi, Gujarat, India.

*Received:* 18-01-2025

*Accepted:* 25-02-2026

*Published:* 09-03-2026

## ABSTRACT

**Background:** Medial compartment osteoarthritis of the knee is a common degenerative joint condition that leads to pain, reduced mobility, and impaired quality of life. Unicompartmental knee arthroplasty (UKA) has emerged as an effective surgical option for patients with isolated compartmental involvement, as it preserves normal knee biomechanics and allows faster recovery compared with total knee arthroplasty. Evaluation of functional and clinical outcomes following this procedure is important to determine its effectiveness in improving patient mobility and quality of life.

**Aim:** To evaluate the clinical and functional outcomes of unicompartmental knee arthroplasty in patients with medial compartment osteoarthritis.

**Materials and Methods:** This prospective observational study was conducted in the Department of Orthopedics at Bhagyoday Multispeciality Hospital, Kadi, Gujarat, from September 2025 to December 2025. A total of 20 patients diagnosed with isolated medial compartment osteoarthritis of the knee and undergoing unicompartmental knee arthroplasty were included in the study. Demographic and clinical details were recorded. Functional outcomes were assessed using the Oxford Knee Score and range of motion measurements before and after surgery. Statistical analysis was performed using paired t-test to compare preoperative and postoperative outcomes.

**Results:** The majority of patients belonged to the 51–60 years age group (35%), and females constituted 55% of the study population. The right knee was involved in 60% of patients. Significant improvement in functional outcomes was observed following surgery. The mean Oxford Knee Score improved from  $22.4 \pm 5.6$  preoperatively to  $39.8 \pm 4.2$  postoperatively ( $p < 0.001$ ). Similarly, the mean range of motion increased from  $96.5 \pm 11.4$  degrees before surgery to  $121.3 \pm 8.6$  degrees after surgery ( $p < 0.001$ ). Based on postoperative functional assessment, 45% of patients had excellent outcomes and 35% had good outcomes. Postoperative complications were minimal, with 85% of patients recovering without any complications.

**Conclusion:** Unicompartmental knee arthroplasty is an effective surgical procedure for patients with isolated medial compartment osteoarthritis of the knee. The procedure provides significant improvement in knee function, increased range of motion, and satisfactory clinical outcomes with a low complication rate when performed in appropriately selected patients.

**Keywords:** Unicompartmental knee arthroplasty, Medial compartment osteoarthritis, Oxford Knee Score, Functional outcome, Knee replacement, Range of motion.

Copyright© International Journal of  
Medical and Pharmaceutical Research

## INTRODUCTION

Osteoarthritis of the knee is one of the most common degenerative joint diseases and represents a leading cause of pain, disability, and reduced quality of life among adults worldwide. It is characterized by progressive degeneration of articular

cartilage, subchondral bone remodeling, osteophyte formation, and synovial inflammation, which ultimately result in joint stiffness and functional impairment. The prevalence of knee osteoarthritis has been increasing due to ageing populations, sedentary lifestyle, obesity, and increased life expectancy. Epidemiological studies suggest that knee osteoarthritis affects nearly 10–15% of the adult population globally and is a major contributor to disability among elderly individuals [1].

The knee joint is divided into three compartments: medial, lateral, and patellofemoral. Among these, the medial compartment is most frequently affected, accounting for approximately two-thirds of cases of knee osteoarthritis. This predominance is largely attributed to the higher load transmission through the medial compartment during weight bearing and gait. Degeneration confined to the medial compartment often leads to progressive pain, deformity, and limitation of mobility, significantly affecting daily activities such as walking, climbing stairs, and squatting [2].

Conservative management including weight reduction, physiotherapy, analgesics, and intra-articular injections is generally recommended in the early stages of knee osteoarthritis. However, when conservative treatment fails to relieve symptoms, surgical intervention becomes necessary to restore function and relieve pain. Traditionally, total knee arthroplasty (TKA) has been considered the gold standard surgical treatment for advanced osteoarthritis of the knee. Although TKA provides excellent long-term outcomes, it involves replacement of all compartments of the knee joint, which may not always be necessary in patients with isolated compartment disease [3].

In patients with osteoarthritis limited to a single compartment, particularly the medial compartment, unicompartmental knee arthroplasty (UKA) has emerged as an effective alternative surgical option. UKA involves resurfacing only the affected compartment of the knee while preserving the intact cartilage, cruciate ligaments, and normal knee kinematics. Compared with total knee arthroplasty, UKA is associated with smaller surgical incisions, less bone resection, reduced blood loss, faster postoperative recovery, and improved range of motion [4].

Another advantage of unicompartmental knee arthroplasty is the preservation of normal knee biomechanics. Because the anterior cruciate ligament and unaffected compartments are preserved, patients undergoing UKA often experience a more natural feeling knee and better proprioception compared with total knee replacement. These biomechanical advantages contribute to improved functional outcomes and higher patient satisfaction in appropriately selected patients [5].

Over the past two decades, advances in implant design, surgical techniques, and patient selection criteria have significantly improved the outcomes of unicompartmental knee arthroplasty. Modern prosthetic designs provide better fixation, improved polyethylene wear characteristics, and enhanced durability. As a result, several long-term studies have reported survivorship rates of more than 90% at 10 years following UKA in properly selected patients [6].

Despite these advantages, the success of unicompartmental knee arthroplasty largely depends on appropriate patient selection and surgical technique. Ideal candidates for UKA include patients with isolated medial compartment osteoarthritis, intact anterior cruciate ligament, correctable deformity, and preserved range of motion. Careful evaluation through clinical examination and radiological assessment is essential to ensure optimal outcomes [7].

Clinical and functional outcomes following unicompartmental knee arthroplasty are commonly assessed using standardized scoring systems such as the Oxford Knee Score (OKS), Knee Society Score (KSS), and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). These validated scoring systems help quantify pain relief, functional improvement, and patient satisfaction following surgery [8].

Several studies have demonstrated that unicompartmental knee arthroplasty provides excellent pain relief, improved mobility, and faster rehabilitation compared with total knee replacement in selected patients. Additionally, UKA allows preservation of bone stock, which may be beneficial if revision surgery becomes necessary in the future [9].

Although unicompartmental knee arthroplasty has gained popularity in recent years, there is still ongoing debate regarding patient selection criteria, long-term durability, and functional outcomes compared with total knee arthroplasty. Therefore, further clinical studies evaluating the outcomes of UKA in different patient populations are essential to better understand its effectiveness and role in the management of knee osteoarthritis [10].

The present study aims to evaluate the clinical and functional outcomes of unicompartmental knee arthroplasty in patients with medial compartment osteoarthritis of the knee, with the objective of assessing improvement in pain relief, joint function, range of motion, activities of daily living, and patient satisfaction following the procedure, as well as identifying any postoperative complications. Osteoarthritis of the knee is a common degenerative condition that significantly affects mobility and quality of life, particularly when the disease is confined to the medial compartment. In such cases, unicompartmental knee arthroplasty offers advantages over total knee arthroplasty, including preservation of normal knee structures, smaller surgical exposure, and faster postoperative recovery. Evaluating the outcomes of this procedure is therefore important to determine its effectiveness and reliability as a treatment option. The findings of this study may assist orthopedic surgeons in appropriate patient selection, improve surgical decision-making, and support the wider use of unicompartmental knee arthroplasty as a joint-preserving procedure, ultimately contributing to better functional outcomes and improved quality of life for patients with medial compartment osteoarthritis.

## METHODOLOGY

The present study was conducted as a prospective observational study to evaluate the clinical and functional outcomes of unicompartmental knee arthroplasty in patients with medial compartment osteoarthritis of the knee. The study was carried out in the Department of Orthopedics at BhagyodayMultispeciality Hospital, Kadi, Gujarat, India, which is a tertiary care center providing orthopedic surgical services including knee arthroplasty procedures. The study was conducted over a period of three months from September 2025 to December 2025.

The study population consisted of patients diagnosed with isolated medial compartment osteoarthritis of the knee who underwent unicompartmental knee arthroplasty in the orthopedic department during the study period. A total of 20 patients who fulfilled the inclusion criteria and provided written informed consent were included in the study. The sample size was determined based on the expected number of eligible patients undergoing unicompartmental knee arthroplasty during the study period.

Patients aged above 40 years with symptomatic medial compartment osteoarthritis who were planned for unicompartmental knee arthroplasty were included in the study. Patients with multicompartmental osteoarthritis, inflammatory arthritis such as rheumatoid arthritis, ligament instability including anterior cruciate ligament deficiency, previous knee joint infection, or prior knee arthroplasty were excluded from the study. Patients who were unwilling to participate or unable to provide informed consent were also excluded.

All patients underwent a detailed clinical evaluation including medical history, physical examination, and radiological assessment. Standard anteroposterior and lateral radiographs of the knee joint were obtained to confirm the diagnosis and assess the extent of medial compartment involvement. Demographic and clinical information including age, gender, side of involvement, and duration of symptoms were recorded. Preoperative assessment included evaluation of pain, range of motion of the knee joint, and functional status of the patient.

All patients underwent unicompartmental knee arthroplasty using standard surgical techniques under strict aseptic precautions performed by experienced orthopedic surgeons. Postoperative care included pain management, early mobilization, and physiotherapy to improve knee function and range of motion. Patients were advised a standardized rehabilitation protocol to facilitate recovery and functional improvement.

Clinical and functional outcomes were assessed using a standardized knee scoring system such as the Oxford Knee Score or Knee Society Score. Patients were evaluated preoperatively and during postoperative follow-up visits. Outcome parameters assessed included pain relief, improvement in range of motion, functional ability in daily activities, and overall patient satisfaction. Patients were followed up at regular intervals after surgery, and the final functional outcome was assessed at three months postoperatively.

All collected data were compiled and analyzed using Microsoft Excel and appropriate statistical software. Continuous variables were expressed as mean and standard deviation, while categorical variables were expressed as frequency and percentage. Comparison of preoperative and postoperative functional scores was performed using paired t-test, and a p-value of less than 0.05 was considered statistically significant.

Prior to commencement of the study, approval from the Institutional Ethics Committee was obtained. Written informed consent was taken from all participants before inclusion in the study, and confidentiality of patient information was maintained throughout the study.

## RESULT

A total of 20 patients with medial compartment osteoarthritis of the knee who underwent unicompartmental knee arthroplasty were included in the present study to evaluate the clinical and functional outcomes following surgery. The age distribution showed that the majority of patients belonged to the 51–60 years age group (35%), followed by 61–70 years (30%), 40–50 years (20%), and above 70 years (15%). With respect to gender distribution, females constituted 55% of the study population, while 45% were males. Regarding the side of surgery, the right knee was more commonly involved (60%), whereas 40% of the patients underwent surgery on the left knee.

Comparison of preoperative and postoperative clinical parameters demonstrated a significant improvement following unicompartmental knee arthroplasty. The mean preoperative Oxford Knee Score was  $22.4 \pm 5.6$ , which improved significantly to  $39.8 \pm 4.2$  postoperatively. Similarly, the mean range of motion of the knee joint improved from  $96.5 \pm 11.4$  degrees preoperatively to  $121.3 \pm 8.6$  degrees after surgery. Statistical analysis using the paired t-test showed a highly significant improvement in both functional score and range of motion ( $p < 0.001$ ).

Assessment of final clinical outcomes based on the Oxford Knee Score revealed that 45% of patients achieved excellent outcomes, 35% had good outcomes, 15% had fair outcomes, and 5% had poor outcomes following surgery. These findings indicate that the majority of patients experienced favorable functional improvement after unicompartmental knee arthroplasty.

Evaluation of postoperative complications showed that 85% of patients did not develop any complications following the procedure. Minor complications were observed in a small proportion of patients, including superficial infection in 5% of

cases, knee stiffness in 5%, and persistent pain in 5% of patients. Overall, the procedure demonstrated good functional outcomes with a low rate of postoperative complications.

**Table 1: Demographic and Clinical Characteristics of Patients (n = 20)**

Variable	Frequency (n)	Percentage (%)
<b>Age Group (years)</b>		
40–50	4	20.0
51–60	7	35.0
61–70	6	30.0
>70	3	15.0
<b>Gender</b>		
Male	9	45.0
Female	11	55.0
<b>Side of Surgery</b>		
Right Knee	12	60.0
Left Knee	8	40.0
<b>Total</b>	<b>20</b>	<b>100</b>

**Table 2: Comparison of Preoperative and Postoperative Clinical Parameters**

Parameter	Preoperative Mean ± SD	Postoperative Mean ± SD	t value	p value
Oxford Knee Score	22.4 ± 5.6	39.8 ± 4.2	11.52	<0.001*
Range of Motion (degrees)	96.5 ± 11.4	121.3 ± 8.6	9.37	<0.001*

**Test applied:** Paired t-test

**Inference:** There was a statistically significant improvement in both functional score and range of motion following unicompartmental knee arthroplasty.

**Table 3: Clinical Outcome According to Oxford Knee Score Category**

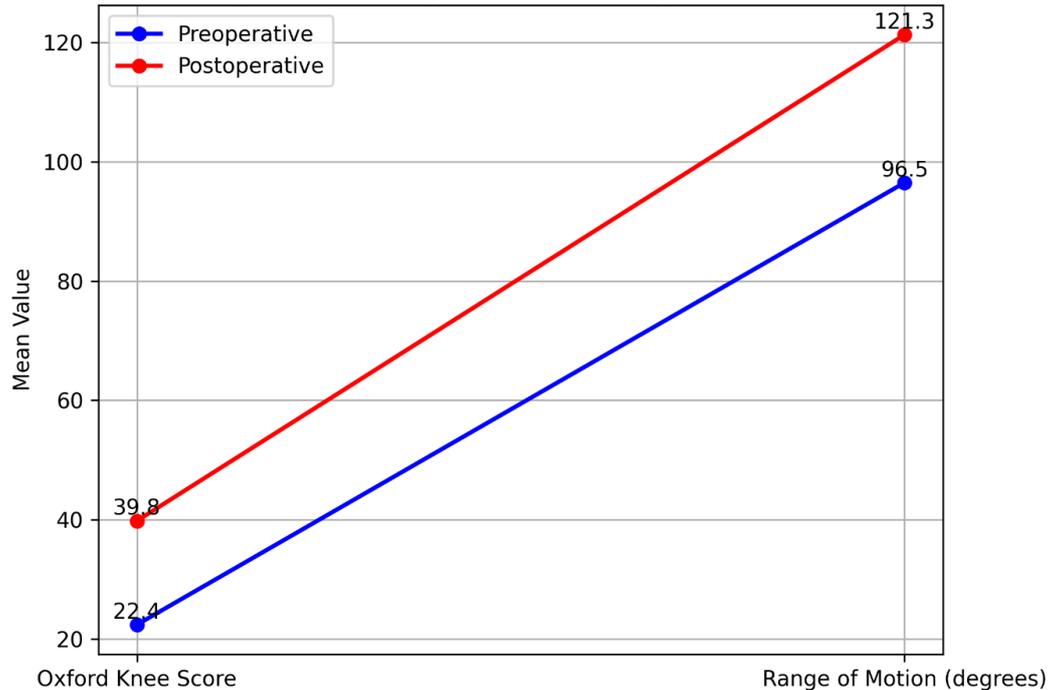
Outcome Category	Frequency (n)	Percentage (%)
Excellent	9	45.0
Good	7	35.0
Fair	3	15.0
Poor	1	5.0
<b>Total</b>	<b>20</b>	<b>100</b>

**Table 4: Postoperative Complications Following Unicompartmental Knee Arthroplasty**

Complication	Frequency (n)	Percentage (%)
No complication	17	85.0
Superficial infection	1	5.0
Knee stiffness	1	5.0
Persistent pain	1	5.0

Total	20	100
-------	----	-----

**Figure 1: Comparison of Pre-Operative and Post-Operative Clinical Parameters**



## DISCUSSION

The present study evaluated the clinical and functional outcomes of unicompartmental knee arthroplasty in patients with medial compartment osteoarthritis of the knee. A total of 20 patients were included in the study. The results demonstrated significant improvement in functional outcome and range of motion following surgery. The mean Oxford Knee Score improved from  $22.4 \pm 5.6$  preoperatively to  $39.8 \pm 4.2$  postoperatively, while the mean range of motion improved from  $96.5 \pm 11.4$  degrees before surgery to  $121.3 \pm 8.6$  degrees after surgery. Additionally, the majority of patients achieved favorable clinical outcomes with 45% excellent and 35% good results, and only a small proportion of patients experienced minor postoperative complications.

With regard to age distribution, the majority of patients in the present study belonged to the 51–60 years age group (35%), followed by 61–70 years (30%). Similar findings were reported by Pandit et al., who studied 1000 cases of unicompartmental knee arthroplasty and reported a mean patient age of 64 years, with most patients belonging to the 55–70 year age group. Their study suggested that medial compartment osteoarthritis commonly affects middle-aged and elderly individuals who are suitable candidates for unicompartmental knee replacement [11].

In terms of gender distribution, the present study showed a slightly higher proportion of female patients (55%) compared with males (45%). Comparable findings were reported by Lombardi et al., who analyzed outcomes of unicompartmental knee arthroplasty in a large patient cohort and observed that approximately 58–60% of patients undergoing the procedure were females, reflecting the higher prevalence of knee osteoarthritis among women [12].

Functional outcome improvement is one of the most important parameters used to evaluate the success of knee arthroplasty. In the present study, the mean Oxford Knee Score improved from  $22.4 \pm 5.6$  to  $39.8 \pm 4.2$ , indicating substantial reduction in pain and improvement in knee function. Similar improvement in functional scores was reported by Berger et al., who studied 62 patients undergoing unicompartmental knee arthroplasty and reported improvement in knee scores from a mean preoperative score of 21 to a postoperative score of approximately 41 points. Their findings demonstrated significant functional recovery following the procedure [13].

Improvement in range of motion is another important indicator of successful knee arthroplasty. In the present study, the mean range of motion improved from  $96.5^\circ$  preoperatively to  $121.3^\circ$  postoperatively, indicating improved joint mobility following surgery. Similar improvement was reported by Price et al., who observed that patients undergoing unicompartmental knee arthroplasty achieved an average postoperative knee flexion of 120–125 degrees, compared with approximately 110–115 degrees in total knee arthroplasty, suggesting better functional mobility in unicompartmental procedures [14].

Evaluation of final clinical outcomes in the present study revealed that 80% of patients achieved excellent or good outcomes. Comparable results were reported by Pandit et al., who evaluated outcomes of the Oxford unicompartmental

knee prosthesis and found excellent or good functional outcomes in approximately 85–90% of patients following surgery. The authors emphasized that careful patient selection significantly improves surgical outcomes [15].

Another study by Murray et al. also demonstrated high patient satisfaction and improved knee function following unicompartmental knee arthroplasty. Their study reported that more than 90% of patients experienced significant pain relief and functional improvement, with long-term survivorship of the implant exceeding 90% at 10 years [16].

The complication rate observed in the present study was relatively low. Eighty-five percent of patients did not develop any postoperative complications, while minor complications such as superficial infection, knee stiffness, and persistent pain were observed in a small number of patients. Similar findings were reported by Liddle et al., who analyzed outcomes of unicompartmental knee arthroplasty in a national joint registry and reported complication rates ranging between 5% and 10%, indicating that the procedure is associated with relatively low postoperative morbidity [17].

Previous studies have also emphasized the advantages of unicompartmental knee arthroplasty over total knee arthroplasty in selected patients. Newman et al. reported that unicompartmental knee replacement allows preservation of normal knee biomechanics, resulting in better functional outcomes and faster rehabilitation. Their study demonstrated higher postoperative activity scores and faster recovery time in patients undergoing unicompartmental knee arthroplasty compared with total knee replacement [18].

Furthermore, Hamilton et al. reported excellent survivorship and functional outcomes following unicompartmental knee arthroplasty when strict selection criteria were followed. Their multicenter study reported implant survivorship rates of approximately 94–96% at 10 years, indicating that the procedure provides durable long-term outcomes in appropriately selected patients [19].

Overall, the findings of the present study are consistent with existing literature demonstrating that unicompartmental knee arthroplasty provides significant pain relief, improved knee function, and good clinical outcomes in patients with medial compartment osteoarthritis. The procedure offers several advantages including preservation of normal knee kinematics, smaller surgical exposure, faster recovery, and high patient satisfaction when performed in appropriately selected patients.

## CONCLUSION

The present study demonstrated that unicompartmental knee arthroplasty is an effective surgical treatment for patients with medial compartment osteoarthritis of the knee. Significant improvement was observed in both functional outcome and range of motion following surgery. The mean Oxford Knee Score improved from  $22.4 \pm 5.6$  preoperatively to  $39.8 \pm 4.2$  postoperatively, while the mean range of motion increased from  $96.5 \pm 11.4$  degrees before surgery to  $121.3 \pm 8.6$  degrees after surgery. The majority of patients achieved favorable clinical outcomes, with 80% showing excellent or good results. Additionally, the procedure was associated with a low complication rate, with most patients recovering without any postoperative complications. These findings suggest that unicompartmental knee arthroplasty provides effective pain relief, improved knee function, and satisfactory clinical outcomes in properly selected patients with isolated medial compartment osteoarthritis.

## LIMITATIONS OF THE STUDY

The present study has certain limitations that should be considered while interpreting the results. First, the sample size was relatively small, with only 20 patients included in the study, which may limit the generalizability of the findings. Second, the study was conducted in a single center over a short duration of three months, which may not reflect long-term outcomes of unicompartmental knee arthroplasty. Third, the follow-up period was relatively short, and long-term functional outcomes and implant survivorship could not be evaluated. In addition, factors such as patient activity level, body mass index, and comorbidities that may influence postoperative outcomes were not analyzed in detail.

## RECOMMENDATIONS

Based on the findings of the present study, unicompartmental knee arthroplasty may be considered a reliable and effective surgical option for patients with isolated medial compartment osteoarthritis when appropriate patient selection criteria are followed. Early diagnosis and timely surgical intervention may help improve pain relief, joint function, and overall quality of life in affected patients. Orthopedic surgeons should carefully evaluate clinical and radiological parameters to identify suitable candidates for this procedure. Furthermore, larger multicenter studies with longer follow-up periods are recommended to evaluate long-term functional outcomes, implant survivorship, and complication rates associated with unicompartmental knee arthroplasty.

## REFERENCES

1. Felson DT. Osteoarthritis of the knee. *N Engl J Med.* 2006;354(8):841–848. doi:10.1056/NEJMcp051726.
2. Sharma L, Hurwitz DE, Thonar EJ, et al. Knee adduction moment, serum hyaluronan level, and disease severity in medial tibiofemoral osteoarthritis. *Arthritis Rheum.* 1998;41(7):1233–1240. doi:10.1002/1529-0131(199807)41:7<1233::AID-ART14>3.0.CO;2-L.
3. Carr AJ, Robertsson O, Graves S, et al. Knee replacement. *Lancet.* 2012;379(9823):1331–1340. doi:10.1016/S0140-6736(11)60752-6.

4. Pandit H, Jenkins C, Gill HS, Smith G, Price AJ, Dodd CA, Murray DW. Minimally invasive Oxford phase 3 unicompartmental knee replacement: results of 1000 cases. *J Bone Joint Surg Br.* 2011;93(2):198–204. doi:10.1302/0301-620X.93B2.25445.
5. Price AJ, Dodd CA, Svard U, Murray DW. Oxford medial unicompartmental knee arthroplasty in patients younger and older than 60 years of age. *J Bone Joint Surg Br.* 2005;87(11):1488–1492. doi:10.1302/0301-620X.87B11.16307.
6. Liddle AD, Pandit H, Judge A, Murray DW. Determinants of revision and functional outcome following unicompartmental knee replacement. *Knee.* 2014;21(2):1–5. doi:10.1016/j.knee.2013.06.005.
7. Kozinn SC, Scott R. Unicodylar knee arthroplasty. *J Bone Joint Surg Am.* 1989;71(1):145–150.
8. Dawson J, Fitzpatrick R, Murray D, Carr A. Questionnaire on the perceptions of patients about total knee replacement. *J Bone Joint Surg Br.* 1998;80(1):63–69. doi:10.1302/0301-620X.80B1.7859.
9. Berger RA, Meneghini RM, Jacobs JJ, et al. Results of unicompartmental knee arthroplasty at a minimum of ten years of follow-up. *J Bone Joint Surg Am.* 2005;87(5):999–1006. doi:10.2106/JBJS.D.01723.
10. Lombardi AV Jr, Berend KR, Walter CA, Aziz-Jacobo J, Cheney NA. Is recovery faster for mobile-bearing unicompartmental than total knee arthroplasty? *Clin OrthopRelat Res.* 2009;467(6):1450–1457. doi:10.1007/s11999-009-0736-3.
11. Pandit H, Jenkins C, Gill HS, Barker K, Dodd CA, Murray DW. Minimally invasive Oxford phase 3 unicompartmental knee replacement: results of 1000 cases. *J Bone Joint Surg Br.* 2011;93(2):198–204. doi:10.1302/0301-620X.93B2.25405
12. Lombardi AV Jr, Berend KR, Walter CA, Aziz-Jacobo J, Cheney NA. Is recovery faster for mobile-bearing unicompartmental than total knee arthroplasty? *Clin OrthopRelat Res.* 2009;467(6):1450–1457. doi:10.1007/s11999-009-0736-z
13. Berger RA, Meneghini RM, Jacobs JJ, Sheinkop MB, Della Valle CJ, Rosenberg AG, et al. Results of unicompartmental knee arthroplasty at a minimum of ten years of follow-up. *J Bone Joint Surg Am.* 2005;87(5):999–1006. doi:10.2106/JBJS.D.01835
14. Price AJ, Webb J, Topf H, Dodd CA, Goodfellow JW, Murray DW. Rapid recovery after Oxford unicompartmental arthroplasty through a short incision. *J Arthroplasty.* 2001;16(8):970–976. doi:10.1054/arth.2001.28765
15. Pandit H, Beard DJ, Jenkins C, Gill HS, Barker KL, Dodd CA, et al. Combined anterior cruciate reconstruction and Oxford unicompartmentalknee arthroplasty: in vivo kinematics and functional outcomes. *J Bone Joint Surg Br.* 2006;88(7):887–892. doi:10.1302/0301-620X.88B7.17373
16. Murray DW, Goodfellow JW, O'Connor JJ. The Oxford medial unicompartmental arthroplasty: a ten-year survival study. *J Bone Joint Surg Br.* 1998;80(6):983–989. doi:10.1302/0301-620X.80B6.8768
17. Liddle AD, Judge A, Pandit H, Murray DW. Adverse outcomes after total and unicompartmental knee replacement in a large national database. *J Bone Joint Surg Br.* 2014;96(5): 585–592. doi:10.1302/0301-620X.96B5.32712
18. Newman JH, Ackroyd CE, Shah NA. Unicompartmental or total knee replacement? Five-year results of a prospective randomized trial of 102 osteoarthritic knees. *J Bone Joint Surg Br.* 1998;80(5):862–865. doi:10.1302/0301-620X.80B5.8678
19. Hamilton TW, Pandit HG, Jenkins C, Mellon SJ, Dodd CA, Murray DW. Evidence-based indications for mobile-bearing unicompartmental knee arthroplasty in a consecutive cohort of patients. *Bone Joint J.* 2017;99-B(1 Suppl A):65–69. doi:10.1302/0301-620X.99B1.BJJ-2016-0486.R1.