

Uni-compartmental knee reconstruction results in pain relief and faster recovery

Provides patients with localized knee pain an effective option to total knee replacement

Quick Read:

- Uni-compartmental knee reconstruction allows the surgeon to replace only that part of the knee that is significantly damaged.
- The incision is smaller than for total knee replacement, resulting in less blood loss, a shorter hospital stay, and faster recovery.
- The procedure spares the kneecap, ligaments, tendons, and muscles and requires removal of only small amounts of bone from the joint.
- Good candidates are those patients with localized knee pain, and the procedure provides a new option for younger patients who have been advised to delay a total knee replacement.
- Alegent Health's award-winning Joint Replacement Center uses a team approach to educate, treat, and rehabilitate patients.

In the past, osteoarthritis of the knee and the pain associated with it have often led to total knee replacement. In this approach, all three primary compartments of the knee are replaced. However, osteoarthritis often occurs in only one weight-bearing compartment of the knee, while the other two remain relatively healthy. Uni-compartmental knee reconstruction, or uni-knee surgery, provides a more conservative treatment for these situations – the surgeon can replace only the part of the knee that is significantly damaged.

Traditional total knee surgery requires an incision eight to 12 inches long, several days in the hospital, and extensive physical therapy. Results are good – both in terms of pain relief and endurance of the artificial joint, but rehabilitation may take over three months, and the procedure is not recommended for younger patients.

The uni-knee technique is done, through a three to four inch incision, and there is less blood loss, disruption to the joint, and post-operative pain. Patients require less time in the hospital and recover more quickly. C. Michael Kelly, M.D., medical director of the Alegent Health Orthopaedic Institute Joint Replacement Center, says, “With this surgery you don’t cut any muscles or tendons, and the amount of bone removed is relatively small, so there is less trauma to the joint. Patients are often discharged within one to two days, most are on a cane within one week and finished with outpatient therapy in two to three weeks.”

The instrumentation used for the surgery is done with small three and five mm. burrs allowing for an extremely conservative bony resection, preserving the tibial bony cortical rim allowing for relatively easy revision to a total knee with primary bone cuts for any eventual revision that may need to be done, therefore not burning any bridges for future surgery. Only the most arthritic part of the knee is resurfaced. The procedure is not appropriate for kneecap arthritis, but can be used for arthritis on either side of the knee, the medial or lateral compartment. The bone-sparing procedure typically results in more range of motion than total knee replacement.

Good candidates for uni-knee surgery are usually in their mid-40s to over 80 years of age with localized pain – that is, 80 percent or more of their pain comes from one part of the knee either the medial or lateral part of the knee. Dr. Kelly, who routinely

performs the uni-knee replacement procedure, estimates that as many as 60 percent of patients requiring surgery to relieve knee pain could benefit from uni-knee resurfacing. In the past, physicians have often advised younger patients to delay total knee replacement. Dr. Kelly says, “This is a huge asset for middle-aged baby boomers. We used to have to turn people down because they were too young. Now we have this option.”

The Joint Replacement Center at the Alegant Health Orthopaedic Institute was chosen as a Distinguished Performer within the 2002 Premier Award for Quality. Patient satisfaction with the center is very high, perhaps because the medical staff uses a team approach to manage treatment and recovery. Each patient has a care manager, and family members are encouraged to act as recovery coaches and participate in patient education before and after surgery.

If you would like more information about uni-knee reconstruction, or if you have questions, please call 1-800-ALEGENT or visit www.alegant.com. For further information about Dr. Kelly’s practice and to view animated videos of the uni-knee replacements visit www.uniknee-nebraska.com.