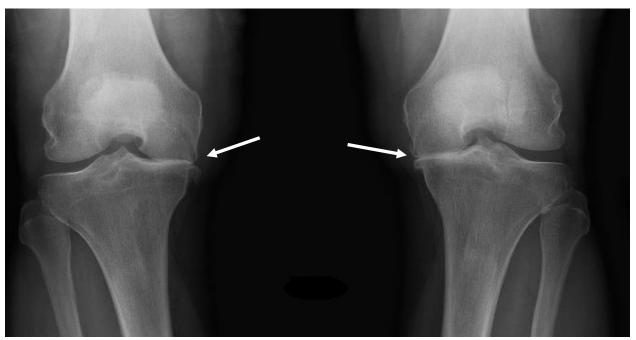
## STEVEN CHUDIK MD SHOULDER, KNEE & SPORTS MEDICINE

## **Unicompartmental Knee Arthroplasty**

#### **Indications for Surgery**

Arthritis is the breakdown of protective cartilage surface covering the ends of bones at a joint. When functioning appropriately, this cartilage surface allows smooth and painless motion at the joints. However, as the cartilage wears out over time or after injury, the contact of the exposed ends of bones causes pain, swelling, and stiffness. Arthritis symptoms generally progress over time at an unpredictable rate (months, years, decades) and can have periods of decreased or increased pain and symptoms. Arthritis should initially be treated conservatively with physical therapy, injections, medications, and activity modifications. A partial knee replacement (unicompartmental) is used as an alternative to a total knee replacement when the damage from arthritis is limited to only one portion of the knee, reasonable conservative treatment has been exhausted and pain continues to significantly affect quality of life.



Arthritis of the medial compartment of the knee is readily seen on this X-ray. This patient may be a candidate for unicompartmental knee arthroplasty.





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#### **Unicompartmental Replacement (UKA)**

Unicompartmental knee replacements can be performed to resurface damaged and arthritic joint surfaces in any of the three different compartments of the knee. These include the medial tibiofemoral compartment (the *inside* of the knee), the lateral tibiofemoral compartment (the *outside* of the knee), and the patellofemoral compartment (between the kneecap and the thighbone). This less-invasive procedure can resurface a single compartment of the knee if the others compartments are still in good condition. This is a significant advantage, however, as arthritis progresses in other compartments, it is possible that a revision to a total knee arthroplasty may be needed in the future. Robotic and computer navigation are improving the technical ability to accurately position the unicompartmental implants and theoretically improving the lifespan of the implants.





X-rays of medial compartment unicompartmental replacement arthroplasty

#### **Contraindications to Surgery**

- Persons who demonstrate an inability or unwillingness to complete the necessary postoperative rehabilitation program should not have surgery
- Infection of the knee, current or previous, is a concern, but not an absolute contraindication



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#### **Potential Surgical Risks and Complications**

- Infection
- Rarely, injury to nerves (numbness) in the skin around the knee. It is not uncommon to have some small area of numbness, temporary or permanent, around the incisions
- A post-operative infection can require implants to be removed to eradicate the infection
- Knee stiffness (loss of knee motion) requiring prolonged rehabilitation or repeat surgery
- Pain from the implant
- Rarely, clot in the veins of the calf or thigh (deep venous thrombosis, phlebitis) that may break off in the bloodstream and go to the lungs (pulmonary embolus)

#### **Hospitalization and Anesthesia**

- Outpatient vs. inpatient surgery options are available and will be discussed pre-operatively for this procedure
- General anesthesia and spinal nerve block

#### **General Surgical Technique**

Through a limited incision along the front of the knee, the damaged and arthritic surface is
resurfaced and replaced with artificial materials using computer and robotic technology and
measurements. These implants (prosthesis) are typically fixed in position on the ends of the
bone with methylmethacrylate bone cement. The soft tissues surrounding the knee
(muscle, tendons) have been shown to have a faster recovery rate than with a total knee
replacement.





Patellofemoral arthroplasty (PFA) seen on X-rays



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#### **Preoperative Instructions**

- Discontinue birth control pills
- Stop blood thinners (aspirin, Coumadin®, Lovenox®, Xarelto®) according to the prescribing doctor's directions
- Stop anti-inflammatory medicines (ibuprofen, Advil®, Motrin®, Naprosyn®, Aleve®, etc.)
- Stop nutritional supplements and drinks (Vitamin C, ginseng, ginkgo biloba, etc.)
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper healing of tissues
- Do not eat or drink anything after midnight the evening before surgery

#### **Postoperative Course**

- Weight bearing as tolerated, using crutches or walker for comfort
- Keep the wound clean and dry for the first ten to 14 days after surgery. Showering lightly
  is allowed after two weeks but wounds cannot be submerged under water for at least
  three weeks
- Driving at four to six weeks once motion and strength is returned in driving leg
- Return to sedentary work in about two weeks as long as the extremity can be elevated
- Physical therapy to restore motion, strength, and proprioception (balance) for about four months

#### **Return to Activity**

- Return to walking and regular daily activities as soon as comfortable
- Return to most activities at about three to four months post-op
- High impact activities (running, jumping, etc.) are not recommended following UKA

## **Scheduling Surgery**

Call Dr. Chudik's surgery scheduler at 630-324-0402 for email contactus@chudikmd.com to:

- Schedule the date and location of surgery. The hospital will call you the day before with the time to arrive
- Schedule an appointment with Dr. Chudik's assistant to complete preoperative surgical education and other requirements
- Schedule a postoperative appointment with Dr. Chudik's assistant to remove sutures and review post-op instructions

## **Notify My Office If Symptoms Worsen**



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