



Minimally Invasive Total Knee Replacement

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Minimally Invasive (MIS) knee replacement is a new technique which can significantly improve a patient's rate of recovery from surgery. Dr. Stephen Kelly has been a leader in this field for OA Centers for Orthopaedics. He has successfully performed this procedure more than 500 times with significant improvements in patient's pain after surgery and very rapid return to function.

Knee replacement surgery traditionally has required a 10-12 inch incision with the cutting of muscle and tendon. This new minimally invasive technique involves an incision that is only 3-5 inches in length. The tendon is no longer cut and only a very small part of the muscle (less than 1 inch) is carefully split. By carefully working with the soft tissues, the surgical trauma is minimized. This procedure demands special skill set for the surgeon and it requires additional training and experience.

Total knee replacement is one of the most commonly performed surgeries in the US. Each year over 300,000 patients have this surgery performed. Typically this surgery has required a 3 to 4 day hospitalization many patients were then discharged to a rehabilitation hospital not home. In the hospital, patients often had significant pain and required intravenous (IV) pain medications. Many patients needed to use a walker for a month or more and were unable to return to normal activities for a significant period of time.

Following MIS knee replacement, many patients starting walking the day of surgery. Patients are able to return home 2 or 3 days after surgery and are walking with a cane after 2 weeks. For many patients pain is controlled with pain pills.

Before Surgery

Knee replacement is major surgery and requires preparation to maximize your outcome

- You will be asked to return to our office of a pre-operative evaluation that includes x-rays, a pre-operative history and physical, and review of the pre-operative pain management protocol
- You will need to be seen at the hospital for a preadmission testing visit that includes pre-operative labs, and ECG and a meeting with a nurse or internal medicine doctor at the hospital
- Pain management begins **before** surgery and continues post-operatively. This includes Acetomenophin, Celebrex, and Lyrica and after surgery narcotic pain pills, this will be detailed in your pre-operative evaluation visit.
- Pre-operative exercises should be performed daily before surgery. These also will be explained to you at your pre-operative visit

After Discharge

- Patients can resume activities as their symptoms allow. The post-operative protocol includes the use of a walker (While putting full weight on the leg) for two weeks and then the use of a cane until your gait normalizes.
- Like all knee replacement you will be on a blood thinner to help prevent blood clots
- You will need someone to help you at home for about a week

Frequently Asked Questions

1. Am I candidate for minimally invasive knee replacement?

The procedure can benefit almost anyone needing a knee replacement, young or old, healthy or sick. Patients who are motivated and actively participate in their rehabilitation make the fastest recovery. Only patients with significant deformities, severe stiffness or previous surgeries may not be candidates.

2. Will I have staples in my knee?

Dr. Kelly uses a dissolvable stitch underneath the skin that does not need to be removed

3. Do I need therapy after surgery?

Yes, your therapy will begin in the hospital (often the day of surgery.) When you are discharged a home physical therapist will come to your home. At 2-4 weeks after surgery, you will begin therapy in an outpatient center near your home.

4. When can I shower?

4 days after surgery; as long as your wound is healing well

5. Will someone come to my home after surgery?

- A home physical therapist will come to your home to continue your therapy
- A visiting nurse may be arranged if you need blood work

6. How long will I be out of work?

Your return to work is dependent on the type of occupation you have

- Patients with sedentary jobs may be able to return 2-4 weeks after surgery
- Patients with a physically demanding occupation may be able to return 8-10 weeks after surgery

7. Is it safe?

Any time you have surgery there is a risk of problems. Using this Minimally invasive technique all of the bony surfaces are still seen directly. Research has demonstrated that with experience, risk is no higher than traditional knee replacement performed by an experienced surgeon.

8. Does this operation require special parts?

Because of the sophisticated instruments used for the surgery Dr. Kelly is able to use a conventional total knee implant with an excellent track record. This implant is designed with sizes appropriate to both men and women, allows faster return of muscular strength, and is designed to closely replicate the complex motions of the normal knee.

9. Will I need a blood transfusion?

Blood loss in the minimally invasive knee replacement is typically low, with transfusion rates at less than one percent. Because of this we do not recommend pre-operative blood donation.

10. Do I have to worry about blood clots?

Blood clots, known as DVT's, are a risk of knee replacement; early mobility seems to minimize the risk. Post-operatively you will be on coumadin for two weeks and then aspirin for 3 more weeks, unless you have a high risk of DVT by history.

11. How long after surgery will I need antibiotics prophylaxis prior to dental work?

You will need a dose antibiotic before dental work for the rest of your life.

We ask that no dental work be done for the first 12 weeks after knee surgery.

