

**Minimally Invasive
(MIS)
Knee Replacement**



Appointments:

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inimally invasive surgery is a new method of performing total or partial knee replacement. The size of the incision is much smaller than an incision used in traditional knee replacement surgery, but more importantly, there is less tissue trauma to the knee. The MIS approach allows your surgeon to avoid muscle and tendon cutting. This method helps by reducing post-operative pain, promoting a quicker recovery and an earlier discharge from the surgical facility (usually 1-3 days). Patients are routinely able to begin walking and exercising on the day of surgery. An earlier rehabilitation following surgery translates to a quicker return to normal activities of daily living and an improved quality of life. The knee replacement components and surgical outcomes remain the same as those used in the traditional knee replacement, but the surgical procedure is different.

The development of new surgical instruments has made MIS surgery possible. Special retractors and guides are used to protect the muscles and tendons in the front of the thigh during the surgery. There is minimal cutting or no cutting done to the quadriceps tendon and muscle. The patella (kneecap) is temporarily moved to the side during the procedure. Traditional surgery involves cutting into the quadriceps tendon and muscle. The quadriceps muscle controls

movement of the knee used for walking and standing. The quadriceps tendon is an important stabilizer of the knee. By preserving the muscle and tendon there is less discomfort and earlier return of function than traditional surgical techniques.

In MIS surgery, placement of the new knee components is accomplished through a smaller incision, but the size of the incision varies with each patient. The size of the incision depends on the knee anatomy and the amount of body fat. In most cases a 4 inch incision allows the surgeon to access the knee joint and perform the procedure properly. Severe arthritic changes, deformity, and body weight may require a larger incision to allow for the knee replacement to be done safely. MIS surgery does not mean risk-free surgery. The risk of infection, deep vein thrombosis (tiny clots that can form in your veins), nerve injury and implant failure remain, regardless of the technique. Antibiotics used during and after surgery minimize the risk of infection. Early mobilization (walking the day of surgery), the use of anticoagulant medications (blood thinners) and TED stockings worn during the day decrease the incidence of blood clots. Although not everyone is a good candidate for MIS knee replacement, all can benefit from the techniques used in this less invasive surgery and benefit from less post operative pain and a quicker recovery.