

## Surgical Treatment of Osteoarthritis of the Knee

The first line of treatment for osteoarthritis of the knee (OA Knee) is nonsurgical. However, if conservative treatment does not relieve pain and improve function, your physician may recommend surgery. About one in four people with OA Knee will eventually need surgery. The choice of treatment should be a joint decision between you and your physician.

The purpose of surgical treatment for OA Knee is to reduce pain, increase function and improve your symptoms overall. Patient satisfaction is a fundamental goal in treating OA Knee. Surgical treatments options include:

- Arthroscopy
- Osteotomy
- Arthroplasty

## **Arthroscopy**

Arthroscopy is a surgical procedure that uses small incisions and miniature instruments. A tiny telescope (arthroscope) is inserted into the joint space, which is then filled with fluids so the surgeon can clearly see the components of the joint. This enables the surgeon to look directly at the bone surfaces and to determine how advanced your arthritis is.



Using tiny instruments, the surgeon can trim damaged cartilage, remove any loose particles or debris from the joint (a procedure called debridement) and clean the joint (a process called "lavage" or "irrigation"). If other problems are discovered, such as a torn meniscus (a C-shaped piece of cushioning in the knee) or a damaged ligament, they can be corrected during the same surgery.

Arthroscopy can be helpful if your joint pain results from a tear in the cartilage or meniscus, or if bits of debris are causing problems in bending or straightening the joint. In people under age 55, arthroscopic surgery may help delay the need for more serious surgery such as a joint replacement. As with any surgery, there are some risks due to the use of anesthesia and the possibility of infection. Other complications may include damage to nerves or blood vessels, the development of blood clots in veins and scarring.

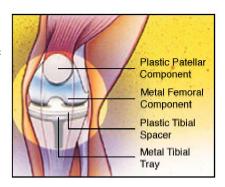
Arthroscopy is not the best option for everyone. Although the puncture wounds are small and pain is minimal, it takes several weeks for the joint to recover fully. Your physician will prescribe a specific activity and rehabilitation program to encourage recovery and protect future function of the joint.

## Osteotomy

An osteotomy may be recommended if damage to your knee cartilage is primarily in one section (compartment) of the knee. The inside (medial) compartment, where the inner knob of the thighbone (femoral condyle) meets the top of the shinbone (tibia), is most commonly involved. An osteotomy also may be recommended if a broken knee does not heal properly. This procedure involves reshaping the bones to improve knee alignment. The surgeon repositions the ioint to move the mechanical axis of weightbearing for the limb away from the damaged area. This shifts weightbearing stresses from the damaged section to a healthier part of the knee. An osteotomy can restore knee function and diminish osteoarthritis pain. It may even stimulate the growth of new cartilage. Although an osteotomy can decrease pain and improve function, the results often deteriorate over the long term. Many people who have an osteotomy will eventually need a total knee replacement (arthroplasty). As with all surgeries, there is a slight possibility of infection, complications from the anesthesia or other surgical complications such as blood clots, nerve damage and circulation problems. There will be a cosmetic difference between the surgically-treated knee and the untreated knee.

## **Arthroplasty**

An arthroplasty is a joint replacement procedure. If your OA Knee pain is severe and significantly limits your movement, your physician may recommend that the diseased bone and tissue be replaced by an artificial joint. If your arthritis is localized to one side of the knee, your orthopaedic surgeon may recommend a unicompartmental knee arthroplasty. If both sides of the knee are affected, a total joint replacement may be more appropriate. The replacement parts are made of cobalt-chrome or titanium metals and smooth, wear-resistant plastic (polyethylene).



The results of total joint replacement are generally excellent. Patients experience significant pain relief and improved physical functioning. There are some risks to

