Knee Replacement (Resurfacing)

A joint is a special structure in the body where the ends of two or more bones meet. The thigh bone (femur) and the shin bone (tibia) meet to form the knee joint. The knee cap (patella) covers and protects the front of the knee joint. The joint lining (synovium) makes fluid that lubricates the joint cartilage covering the ends of the bones. This cartilage cushions the knee for smooth, easy movement. The knee is a major weight-bearing joint and is held together by muscles and ligaments that allow your leg to bend and straighten so that you can walk and climb stairs. When a knee is arthritic, the cartilage wears away, causing the bones to grind together. This produces pain, loss of motion and swelling.

Total knee replacement surgery involves removing the diseased portion of the knee joint and resurfacing the ends of the bones with the new prosthesis. There are four parts to a knee prosthesis: the femoral part caps the end of the thigh bone, the tibial part caps the top of the shin bone, a bearing surface sits between these two components and another bearing surface sits underneath the kneecap. These parts are most commonly made of metal and plastic. The metal caps the ends of the bones and the plastic functions as the new cartilage. Special instruments are used to shape the bones for an exact fit, including the use of computer navigation and robotic technology. I custom fit your prosthesis in the operating room as the implants come in many different sizes just like your knee joint. Implants are usually cemented to your bones. However, with recent advances in biomaterials, I offer young patients with good bone stock an implant that allows bone to grow into it for biological fixation.
Many knee implants are functioning well for over 15 years now, even in young active patients. Surgical technique is still critical to the success of the operation, no matter what prosthesis is used. Surgeons today better understand and appreciate the importance of ligament balance and proper surgical technique. It is best to have an experienced knee surgeon.

Perioperative pain management and rapid rehabilitation are very advanced nowadays. Today, the length of stay after a total knee replacement is usually one to two days in the hospital. Some patients can even be done safely as an overnight, 23 hour stay. Early range of motion and return to function are encouraged. Almost all of my patients go directly home from the hospital.

Overall, total knee replacement is one of the most effective operations offered to patients today. It is reliable and durable and allows you to return to a better quality of life by decreasing your pain and improving your function. I allow all activities except repetitive running and jumping.