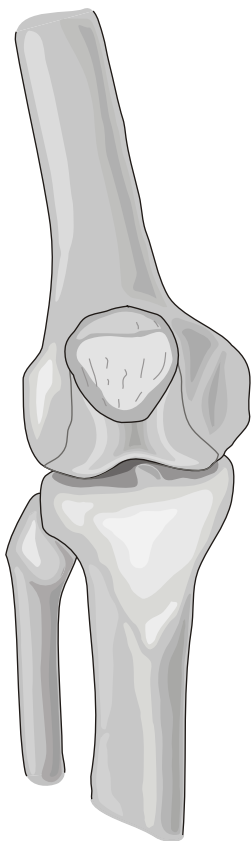


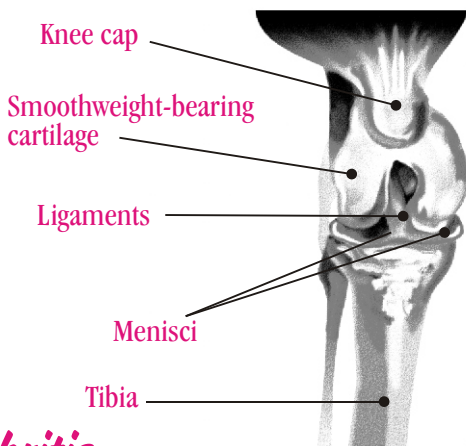
Knees



**ORTHOPEDIC
SPECIALISTS**

Knee - Normal Anatomy

The knee is a combination hinge joint with flexibility to allow twisting. The knee is the largest joint in the body and consists of the end of the femur meeting the top of the tibia (shin bone) and the knee cap. All of these bones have smooth gliding cartilage over the ends. Ligaments hold the knee in position and give it stability and the "cartilage" of the knee (meniscus) help gives the knee extra cushion.



Arthritis

Arthritis of the knee occurs when the smooth, gliding surfaces of the bones wear off and the bone becomes exposed. This pain is worse with walking and after getting up from sitting for a period of time. It is usually better with resting.

Reduced
Joint
Space

Bone
Rubbing
Bone



Knee arthritis can be treated with anti-inflammatory pills or other medications, injections, physical therapy, arthroscopy (for

minimal damage), or knee replacement.

Arthroscopy

Arthroscopy, which is surgery involving the use of a telescope and small instruments, has allowed the outpatient treatment of many serious knee conditions. Inflamed tissue, worn joint surfaces, and torn cartilage can all be treated with arthroscopic surgery. This surgery is done using a television camera and monitor and pictures or videos are made during the procedure. Patients usually go home on the day of the surgery and use a walker or crutches for a few days. This is a very common procedure and has allowed precise treatment of many knee conditions.

Total Knee Replacement

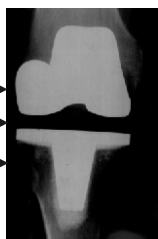
Total knee replacement is an operation for arthritis that involves removing the damaged portions of the joint, and replacing it with

metal and plastic parts. The entire bone is not removed but the damaged portions are trimmed off using surgical equipment. Depending on the circumstances, the parts can be cemented or "press fit" into the bone. Extensive therapy is necessary after knee replacement. This operation is performed commonly and has a very high success rate.

Replaced Femur

New Joint Space

Replaced Tibia



Bone Cartilage Transplant – "OATS"

This is an exciting new procedure which involves replacing worn joint surfaces with fresh surfaces from a non-weight bearing portion of the knee. This is an arthroscopic procedure done on an outpatient basis. Special cores are used to harvest and replace tissue in limited areas only. This is not a substitute for knee replacement surgery, but may help avoid serious arthritis.

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Ligament Reconstruction

Some serious knee injuries may require ligament reconstruction, usually the Anterior Cruciate Ligament (ACL). Part of the knee cap tendon is used to make a new ligament and restore stability. This can be done as an outpatient.

Arthritis (Lubrication) Injections

A new treatment for moderate knee arthritis involves a series of injections of a thick material to relieve pain, like a "grease job." It is hopeful that patients have several months of relief and is a temporary alternative to total knee replacement.

Chondromalacia

This is a common cause for knee pain due to softening or cracking of the surface of a joint. Most people report pain in the front of the knee, which is worse with prolonged sitting, climbing stairs, jumping, or squatting. Treatment usually involves special knee exercise, bracing, and occasionally arthroscopic surgery to smooth the roughened cartilage surfaces.

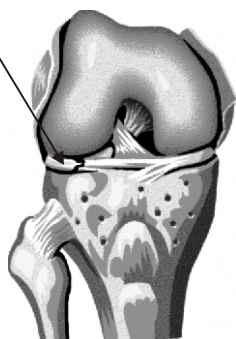
Meniscal Transplantation

This is a new surgical procedure that allows replacement of previously removed or severely damaged meniscal cartilage with new transplanted donor cartilage.

Torn Cartilage (Meniscus)

Twisting motions of the knee or simple wear and tear can cause tears in the knee cartilage. This can cause pain, catching, locking, or giving way in the knee. If not treated, the torn cartilage can damage the joint surfaces.

Torn Meniscus



These structures are usually trimmed to stable tissue during arthroscopy. In some

Synovitis (Inflammation)

The lining of the knee can become inflamed after particular injuries involving blows to the front of the knee. This can occur in some sporting events and is common after striking the dashboard in a car accident. The inflamed tissue becomes thickened and can pinch between the bones when the knee is moved. In addition, a band of tissue called a plica can become inflamed next to the patella.

Treatment for synovitis includes anti-inflammatory medications, cortisone shots, physical therapy, and if this is not successful, then the tissue can be removed during arthroscopic surgery.



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