

Osteoarthritis

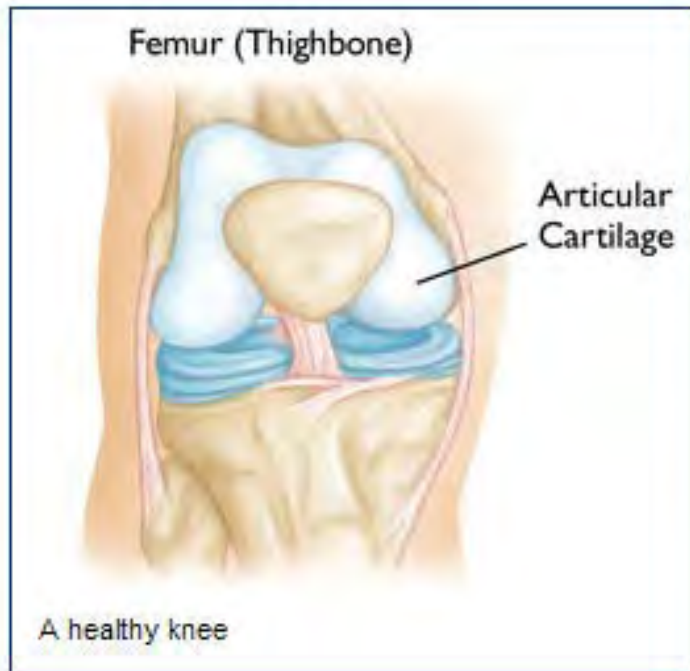
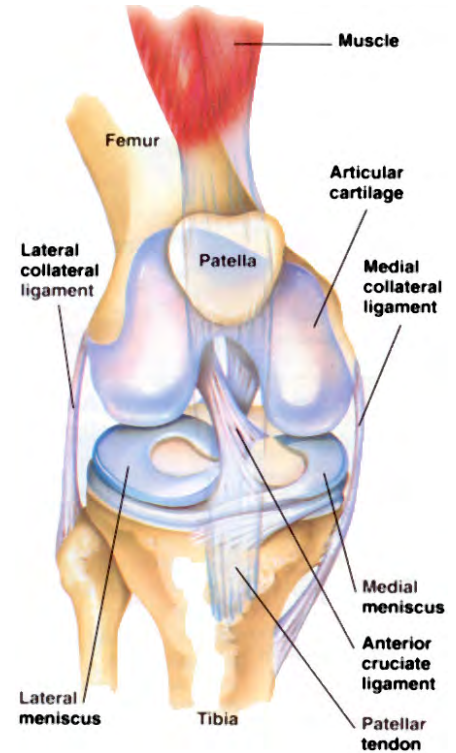
The knee is a complex, mobile joint. It can bend and it can rotate slightly. The knee joins the upper and lower leg bones (femur and tibia). The ends of the bones are covered by smooth articular cartilage which helps the joint move easily. Soft tissues (muscles, tendons, and ligaments) make the knee stable and strong. Ligaments help control knee motion by connecting bones and supporting the knee joint. Tendons join muscles to bones. Two cushions of cartilage (meniscus) sit between the femur and tibia. The meniscus cushion the knee joint and helps the knee absorb shock during motion.

Osteoarthritis

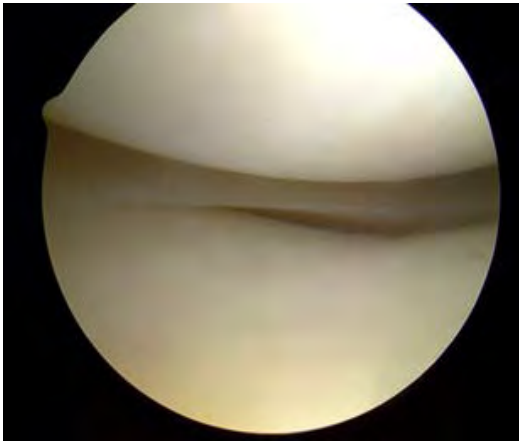
Osteoarthritis is the most common form of arthritis in the knee. It is a degenerative, "wear-and-tear" type of arthritis that occurs most often in people 50 years of age and older, but may occur in younger people, too.

In osteoarthritis, the cartilage in the knee joint gradually wears away. As the cartilage wears away, it becomes frayed and rough, and the protective space between the bones decreases. Eventually, this can result in bone rubbing on bone and produce painful bone spurs.

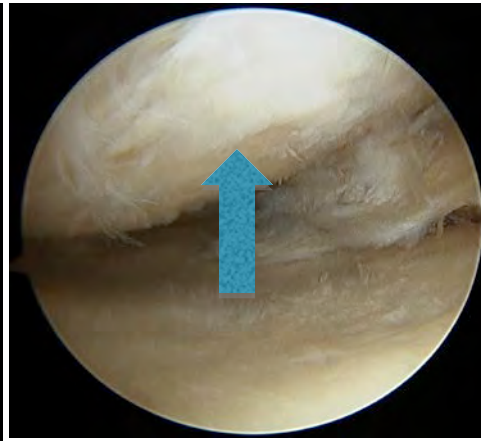
Osteoarthritis develops slowly and the pain it causes worsens over time.



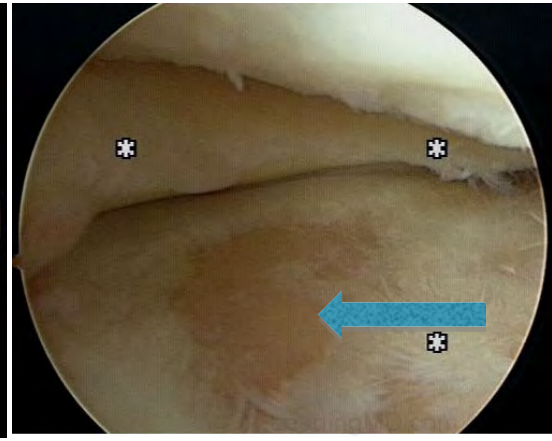
Normal Knee



Grade III Osteoarthritis



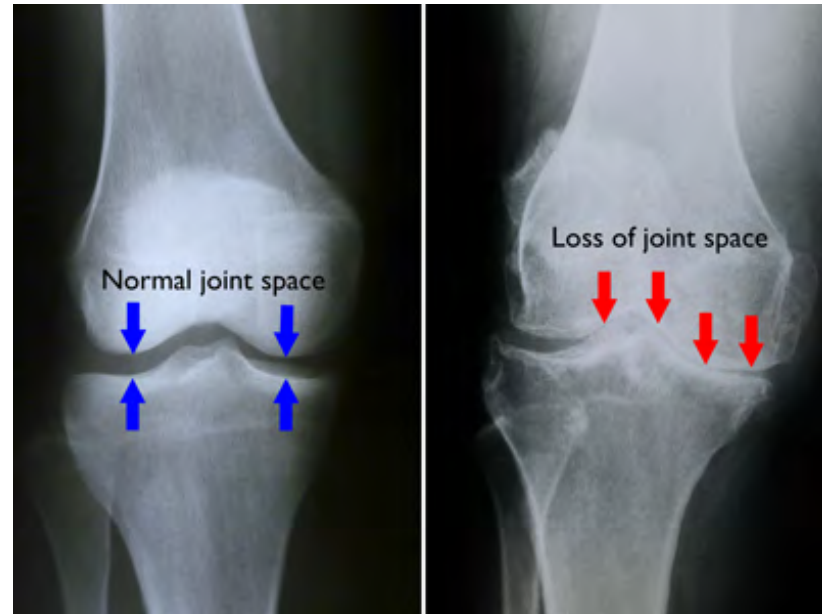
Grade IV Osteoarthritis



Symptoms

Arthritis can cause pain and inflammation in the joint. Generally, the pain develops gradually over time, although sudden onset is also possible. There are other symptoms, as well:

- The joint may become stiff and swollen, making it difficult to bend and straighten the knee.
 - Pain and swelling may be worse in the morning, or after sitting or resting.
 - Vigorous activity may cause pain to flare up.
 - Loose fragments of cartilage can interfere with the smooth motion of joints. The knee may "lock" or "stick" during movement. It may creak, click, snap or make a grinding noise (crepitus).
 - Pain may cause a feeling of weakness or buckling in the knee.
- Many people with arthritis note increased joint pain with rainy weather.



Nonsurgical Treatment

As with other arthritic conditions, initial treatment of arthritis of the knee is nonsurgical. Your doctor may recommend a range of treatment options.

Lifestyle modifications. Some changes in your daily life can protect your knee joint and slow the progress of arthritis.

- Minimize activities that aggravate the condition, such as climbing stairs.
- Switching from high impact activities (like jogging or tennis) to lower impact activities (like swimming or cycling) will put less stress on your knee.
- Losing weight can reduce stress on the knee joint, resulting in less pain and increased function.

Physical therapy. Specific exercises can help increase range of motion and flexibility, as well as help strengthen the muscles in your leg. Your doctor or a physical therapist can help develop an individualized exercise program that meets your needs and lifestyle.

Other remedies. Applying heat or ice, using pain-relieving ointments or creams, or wearing elastic bandages to provide support to the knee may provide some pain relief.

Medications. Several types of medications are useful in treating arthritis of the knee. Because people respond differently to medications, your doctor will work closely with you to determine the medications and dosages that are safe and effective for you.

- Over-the-counter, non-narcotic pain relievers and anti-inflammatory medications are usually the first choice of therapy for arthritis of the knee. Acetaminophen is a simple, over-the-counter pain reliever that can be effective in reducing arthritis pain.
- Like all medications, over-the-counter pain relievers can cause side effects and interact with other medications you are taking. Be sure to discuss potential side effects with your doctor.
- Another type of pain reliever is a nonsteroidal anti-inflammatory drug, or NSAID. NSAIDs, such as ibuprofen and naproxen, are available both over-the-counter and by prescription.
- **Corticosteroids** (also known as cortisone) are powerful anti-inflammatory agents that can be injected into the joint. These injections provide pain relief and reduce inflammation; however, the effects do not last indefinitely. Your doctor may recommend limiting the number of injections to three or four per year, per joint, due to possible side effects.
- **Viscosupplementation** involves injecting substances into the joint to improve the quality of the joint fluid.

Surgical Treatment

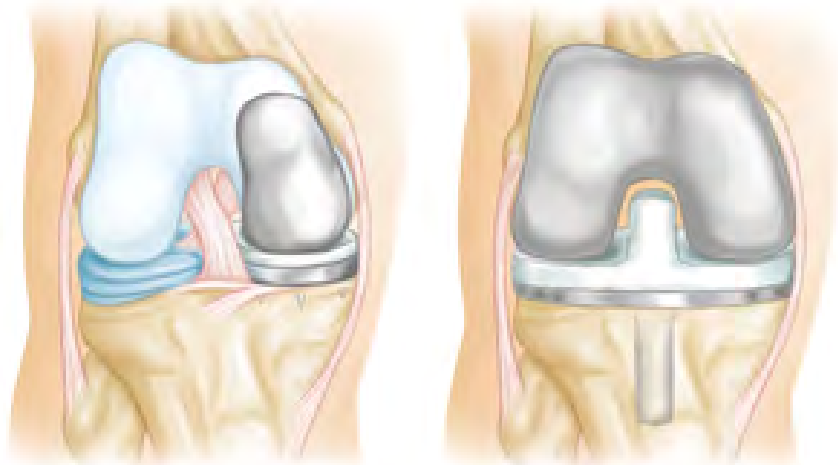
Your doctor may recommend surgery if your pain from arthritis causes disability and is not relieved with nonsurgical treatment. As with all surgeries, there are some risks and possible complications with different knee procedures. Your doctor will discuss the possible complications with you before your operation.

Arthroscopy. During arthroscopy, doctors use small incisions and thin instruments to diagnose and treat joint problems.

Arthroscopic surgery can be used to treat arthritis of the knee in some situations. In cases where osteoarthritis is accompanied by a degenerative meniscal tear, cartilage flaps, or loose bodies arthroscopic surgery may be recommended.

Cartilage grafting. Normal, healthy cartilage tissue may be taken from another part of the knee or from a tissue bank to fill a hole in the articular cartilage. This procedure is typically considered only for younger patients who have small areas of cartilage damage.

Total or partial knee replacement (arthroplasty). Your doctor will remove the damaged cartilage and bone, and then position new metal or plastic joint surfaces to restore the function of your knee.



Arthroscopic Surgery

Arthroscopy allows a surgeon to see and work inside your knee joint through small incisions. A long, thin, lighted instrument called an arthroscope is used. During surgery, the arthroscope sends live video images from inside the joint to a monitor. Using these images, the doctor can diagnose and treat your knee problem. Because arthroscopy uses small incisions, recovery is often shorter and less painful than recovery after open surgery.



Risks:

There are risks with any surgery. Risks and complications are rare, but include: infection, damage to nerves or blood vessels, blood clots, pulmonary embolism, medical complications, swelling, stiffness, continuing knee problems, etc.

Before Surgery

You need to prepare ahead of time for knee surgery.

- Stop taking anti-inflammatory medication, including aspirin before the surgery if directed
- Tell your doctor about any prescription or over-the-counter medications, herbs, or supplements that you take. Ask whether you should stop taking any before surgery
- Don't eat or drink anything after midnight the night before surgery. This includes water, unless told otherwise by the surgical facility.
- Arrange for a friend or family member to give you a ride home.

After Surgery

After your surgery you will recover in the hospital or surgery center for a few hours. Your knee will be bandaged and your leg elevated. When you are able to go home you will be instructed how to relieve any pain and how to care for your knee as it heals. To help with healing, a program of physical therapy (PT) may be prescribed.

In the Recovery Room

After surgery you will be taken to a recovery area to rest. You will have a bandage to protect your incisions. Nurses will give you medications to help relieve the pain. Ice cold therapy may be used to reduce swelling & pain in your knee.

Going Home

Before leaving the hospital or surgery center, be sure to know how to care for your knee at home. Ask any questions you may have. Also know who to contact if you have questions later. When you are ready to leave the hospital or surgery center, an adult family member or friend must drive you home.

Post-op Instructions

- Pain medication will be prescribed; it will be available for pick up at the pharmacy listed on your surgical letter. Take the pain medication as directed.
- **It is illegal to drive while taking narcotic pain medication.**
- Ice your knee 3 times a day for 20 minutes at a time. Use a bag of ice or frozen peas. Put a thin cloth between your skin and the ice source.
- Following partial meniscectomy, full weight bearing is allowed immediately after surgery. Crutches are required following meniscus repair.
- You should begin physical therapy 2 days post-op, if possible, to maintain motion & strength in your knee.
- You are able to shower 2 days after surgery. Let the soap and water run over the incisions; do not scrub them. Dry the incisions with a clean towel or gauze pad. Cover the incisions with bandaids. Do not apply ointment, of any kind, to your incisions.
- Bruising and swelling of the knee, shin, & ankle are common. Bleeding from the soft tissues deep to the skin cause this. Bruising and swelling usually resolve in the first few weeks following surgery.
- Follow up one week after surgery to have your stitches removed and to discuss your surgical procedure.

You should contact your physician if you are having shortness of breath, redness around your incisions, discharge from your incisions, or a fever greater than 101.5°F