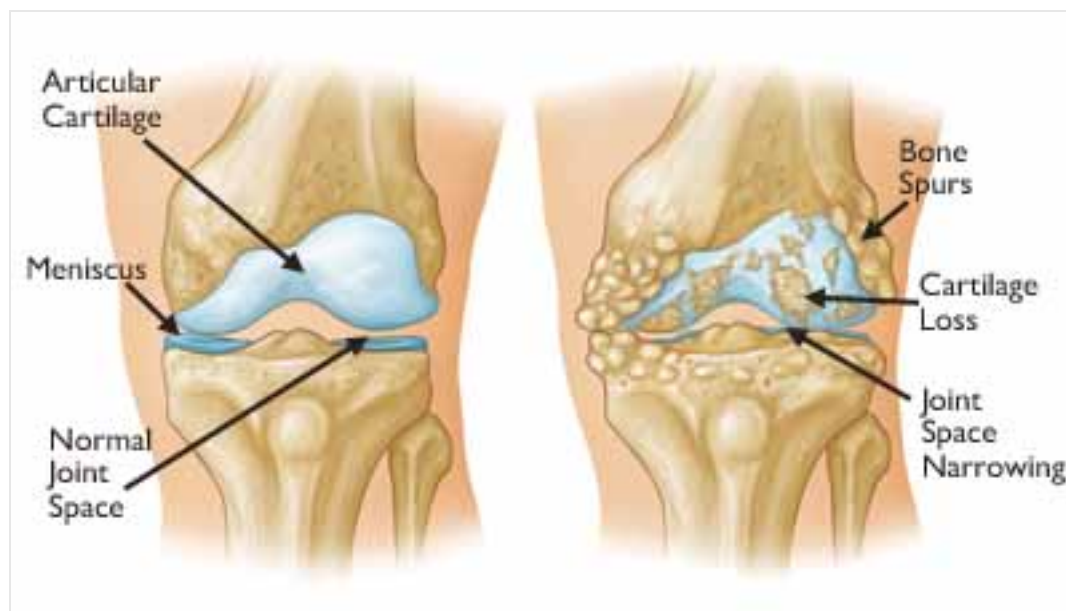


# Osteoarthritis

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. This can result in bone rubbing on bone, and produce painful bone spurs.

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



**(Left)** Normal joint space between the femur and the tibia. **(Right)** Decreased joint space due to damaged cartilage and bone spurs.

## ***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.

**Assistive devices.** Using devices such as a cane, wearing shock-absorbing shoes or inserts, or wearing a brace or knee sleeve can be helpful. A brace assists with stability and function, and may be especially helpful if the arthritis is centered on one side of the knee. There are two types of braces that are often used for knee arthritis: An "unloader" brace shifts weight away from the affected portion of the knee, while a "support" brace helps support the entire knee load.

**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 relief from pain.

**Medications.** Several types of drugs 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 (pronounced "en-said"). NSAIDs, such as ibuprofen and naproxen, are available both over-the-counter and by prescription.
- A COX-2 inhibitor is a special type of NSAID that may cause fewer gastrointestinal side effects.

Common brand names of COX-2 inhibitors include Celebrex (celecoxib) and Mobic (meloxicam, which is a partial COX-2 inhibitor). A COX-2 inhibitor reduces pain and inflammation so that you can function better. If you are taking a COX-2 inhibitor, you should not use a traditional NSAID (prescription or over-the-counter). Be sure to tell your doctor if you have had a heart attack, stroke, angina, blood clot, hypertension, or if you are sensitive to aspirin, sulfa drugs or other NSAIDs.

- 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.

In some cases, pain and swelling may "flare" immediately after the injection, and the potential exists for long-term joint damage or infection. With frequent repeated injections, or injections over an extended period of time, joint damage can actually increase rather than decrease.

- Disease-modifying anti-rheumatic drugs (DMARDs) are used to slow the progression of rheumatoid arthritis. Drugs like methotrexate, sulfasalazine, and hydroxychloroquine are commonly prescribed.

In addition, biologic DMARDs like etanercept (Embril) and adalimumab (Humira) may reduce the body's overactive immune response. Because there are many different drugs today for rheumatoid arthritis, a rheumatology specialist is often required to effectively manage medications.

- Viscosupplementation involves injecting substances into the joint to improve the quality of the joint fluid. For more information: [Viscosupplementation Treatment for Arthritis](#)
- Glucosamine and chondroitin sulfate, substances found naturally in joint cartilage, can be taken as dietary supplements. Although patient reports indicate that these supplements may relieve pain, there is no evidence to support the use of glucosamine and chondroitin sulfate to decrease or reverse the progression of arthritis.

In addition, the U.S. Food and Drug Administration does not test dietary supplements before they are sold to consumers. These compounds may cause side effects, as well as negative interactions with other medications. Always consult your doctor before taking dietary supplements.

**Alternative therapies.** Many alternative forms of therapy are unproven, but may be helpful to try, provided you find a qualified practitioner and keep your doctor informed of your decision. Alternative therapies to treat pain include the use of acupuncture and magnetic pulse therapy.

Acupuncture uses fine needles to stimulate specific body areas to relieve pain or temporarily numb an

area. Although it is used in many parts of the world and evidence suggests that it can help ease the pain of arthritis, there are few scientific studies of its effectiveness. Be sure your acupuncturist is certified, and do not hesitate to ask about his or her sterilization practices.

Magnetic pulse therapy is painless and works by applying a pulsed signal to the knee, which is placed in an electromagnetic field. Like many alternative therapies, magnetic pulse therapy has yet to be proven.