



OrthoInfo Basics

# Knee Osteoarthritis

**Osteoarthritis, also known as “wear and tear” arthritis, is a common problem for many people after they reach middle age.**

Osteoarthritis of the knee is a leading cause of disability in the United States. It develops slowly and the pain it causes worsens over time.

Although there is no cure for osteoarthritis, there are many treatment options available. Using these, people with osteoarthritis are able to manage pain, stay active, and live fulfilling lives.

## What is knee osteoarthritis?

Osteoarthritis is the most common type of knee arthritis.

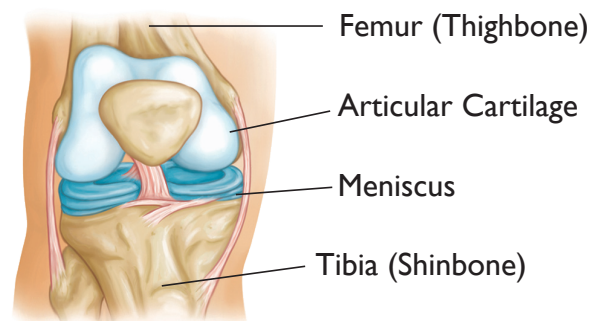
A healthy knee easily bends and straightens because of a smooth, slippery tissue called articular cartilage. This substance covers, protects, and cushions the ends of the leg bones that form your knee.

Between your bones, two c-shaped pieces of meniscal cartilage act as “shock absorbers” to cushion your knee joint. Osteoarthritis causes cartilage to wear away.

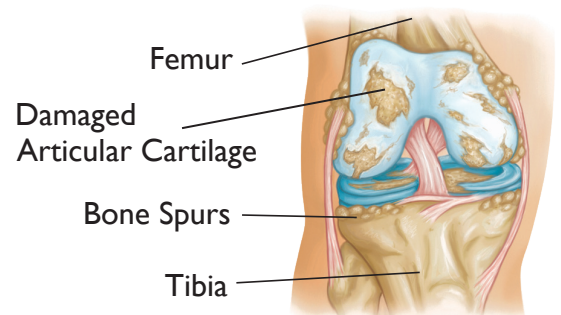
**How it happens.** Osteoarthritis occurs over time. When the cartilage wears away, it becomes frayed and rough. Moving the bones along this exposed surface is painful.

If the cartilage wears away completely, it can result in bone rubbing on bone. To make up for the lost cartilage, the damaged bones may start to grow outward and form painful spurs.

**Symptoms.** Pain and stiffness are the most common symptoms of knee osteoarthritis. Symptoms tend to be worse in the morning or after a period of inactivity.



A healthy knee



An osteoarthritic knee

### What causes knee osteoarthritis?

Many factors increase your risk for developing osteoarthritis.

**Age.** The ability of cartilage to heal itself decreases as we age. Osteoarthritis typically affects people middle-aged and older.

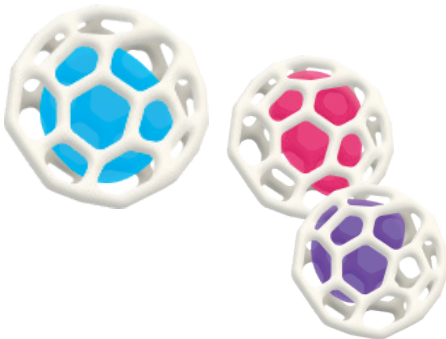
**Heredity.** Certain genes have been linked to osteoarthritis. Inherited traits, such as being bowlegged, knock-kneed, or double-jointed, can also put you at greater risk for the disease.

**Weight.** The more you weigh, the more stress you put on your knee joints.

**Injury.** Previous knee injury, such as a sports injury, can lead to osteoarthritis later in life.

**Overuse.** People in occupations that involve repeated kneeling or squatting, or heavy lifting and walking, are vulnerable to repetitive stress injuries in the knee. This makes them more likely to develop osteoarthritis.

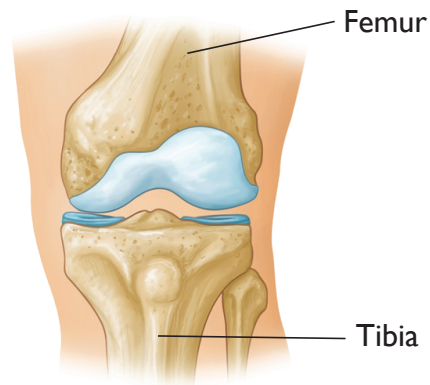
**Other illnesses.** If you have had other problems with your knee, such as gout, knee infection, or Lyme disease, your risk for osteoarthritis increases.



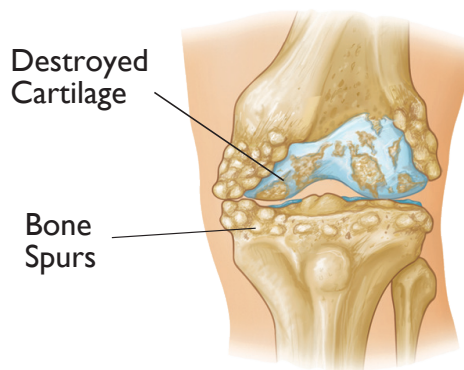
### Is it better to get diagnosed early?

Because osteoarthritis worsens over time, the sooner you start treatment, the better.

After discussing your symptoms and medical history, your doctor may order x-rays to confirm you have osteoarthritis. X-rays show if cartilage damage has decreased joint space between your leg bones.



Normal joint space between the femur and tibia.



Decreased joint space due to damaged cartilage and bone spurs.

### What are common treatments?

Your doctor will develop a personal treatment plan to relieve your joint pain and stiffness.

**Lifestyle changes.** If pain does not interfere with your daily routine, your doctor may first recommend lifestyle changes to protect your joint and slow the disease's progress.

**Exercise.** If you regularly do high-impact exercises (running or competitive sports), switching to low-impact activities will put less stress on your knee. Walking, cycling, and swimming are good low-impact options.

**Weight loss.** If you are overweight, losing just a few pounds can make a big difference in the amount of stress you place on your knee joint.

**Physical therapy.** Specific exercises can improve the range-of-motion in your knee and strengthen the muscles in your leg that support the joint. Assistive devices, like braces, splints, or shoe inserts, can also help reduce stress on your joint.

**Medications.** If your pain affects your daily routine, or is not relieved by initial methods, your doctor may suggest medications.

**Acetaminophen.** Mild pain is often relieved with acetaminophen.

**Nonsteroidal anti-inflammatory medicines.** Drugs like aspirin and ibuprofen reduce pain and swelling.

**Dietary supplements.** Some people report that over-the-counter supplements like glucosamine and chondroitin sulfate provide pain relief. Talk to your doctor before using supplements.

**Steroid injections.** Cortisone is a powerful anti-inflammatory medicine that is injected directly into your knee joint.

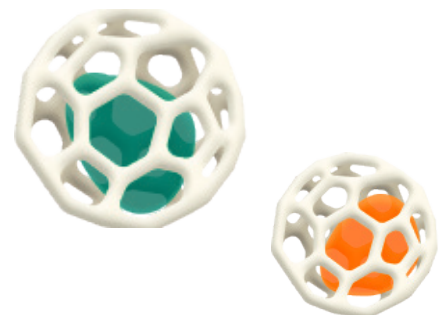
**Viscosupplementation.** This injection therapy may be an option for patients whose arthritis symptoms do not respond to other nonsurgical treatments.

**Surgery.** Your doctor may consider surgery if your pain worsens and causes disability.

**Arthroscopy.** This procedure can be used to remove torn and loose cartilage pieces, or smooth out areas of worn cartilage. The more advanced your arthritis is, the less effective arthroscopy will be.

**Osteotomy.** The bones around the knee are cut and realigned to take pressure off of the affected side of the knee joint.

**Joint replacement.** A knee replacement can be partial or total. The damaged surfaces of the knee joint are removed and replaced with artificial components.



### Living with osteoarthritis

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Learning you have osteoarthritis can be discouraging. Treatment options can help, and there are many things you can do to lessen the impact arthritis has on your life.

**Talk to your doctor.** If your symptoms worsen or you are having a hard time coping, your doctor can review your treatment plan.

**Consult a physical therapist.** A physical therapist will teach you exercises to improve your strength and flexibility. A therapist can also help you find new ways to do everyday activities. Simple changes, like using a reacher to pick up low-lying things, can make a huge difference in relieving joint pain. Your therapist

may suggest assistive equipment for your bathroom, like a shower bench, elevated toilet seat, and handrails.

**Get plenty of rest.** Osteoarthritis can make you more tired, and your arthritis symptoms may worsen when you are fatigued. Try to get a full night's sleep, and take short naps during the day if you need to.

**Discuss alternative medicine with your doctor.** Some alternative therapies appear to help arthritis pain. Talk to your doctor before trying any alternative treatments. They could interfere with your treatment plan.

### For more information

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For more information about knee osteoarthritis, visit *OrthoInfo* at [www.orthoinfo.org](http://www.orthoinfo.org).

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