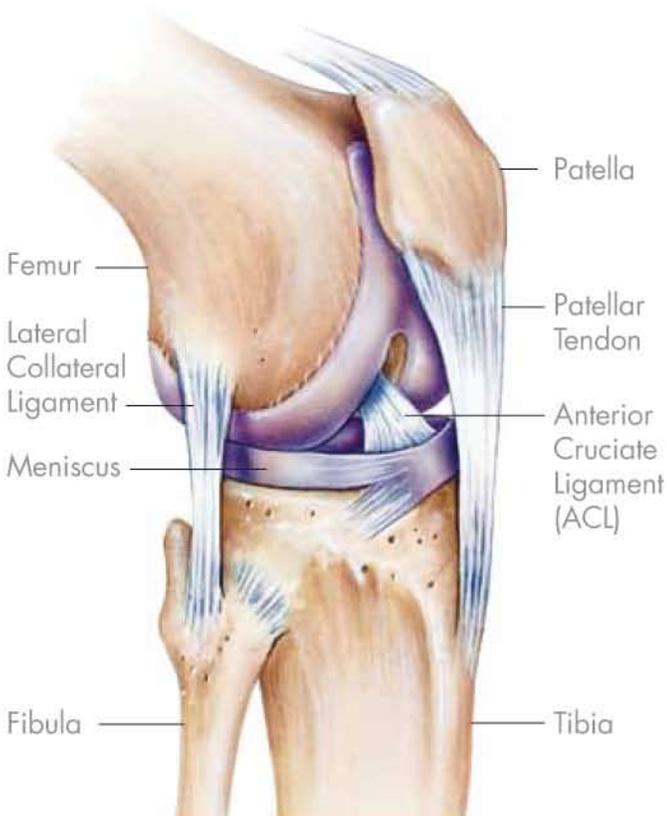


UNDERSTANDING

# KNEE PAIN



## KNEE ANATOMY AND FUNCTION

The knee is the largest joint in the body, and one of the most easily injured. It is made up of the lower end of the thighbone (femur), which rotates on the upper end of the shinbone (tibia), and the knee cap (patella), which slides in a groove on the end of the femur.

The knee also contains large ligaments, which help control motion by connecting bones and by bracing the joint against abnormal types of motion. Another important structure, the meniscus, is a wedge of soft cartilage between the femur and tibia that serves to cushion the knee and helps it absorb shock during motion.

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## COMMON KNEE INJURIES

Many athletes experience injuries to their knee ligaments. Below is a list of common ligament injuries.

- **ACL injury**  
Changing direction rapidly, slowing down when running, and landing from a jump may cause tears in the ACL. Athletes who participate in skiing and basketball, and athletes who wear cleats, such as football players, are susceptible to ACL injuries.
- **MCL injury**  
Injuries to the MCL are usually caused by a direct blow to the outside of the knee. These types of injuries often occur in contact sports, such as football or soccer.
- **PCL injury**  
The PCL is often injured when an athlete receives a blow to the front of the knee or makes a simple misstep on the playing field.
- **Torn cartilage**  
When people talk about torn knee cartilage, they are usually referring to a torn meniscus. The meniscus is a tough, rubbery cartilage that is attached to the knee's ligaments. The meniscus acts like a shock absorber. In athletic activities, tears in the meniscus can occur when twisting, cutting, pivoting, decelerating, or being tackled. Direct contact is often involved.

## SYMPTOMS OF KNEE ARTHRITIS

Generally, the pain develops gradually, although sudden onset is also possible. The joint may be stiff and swollen, making it difficult to bend or straighten the knee. Pain and swelling are worse in the morning or after a period of inactivity. Pain may also increase after activities such as walking, stair climbing or kneeling. The pain may cause a feeling of weakness in the knee, resulting in a "locking" or "buckling."

## TYPES OF KNEE ARTHRITIS

There are three basic types of arthritis that may affect the knee joint.

- **Osteoarthritis** is the most common form of knee arthritis. OA is usually a slowly progressive degenerative disease in which the joint cartilage gradually wears away. It most often affects middle-aged and older people.
- **Rheumatoid Arthritis** is an inflammatory type of arthritis that can destroy the joint cartilage. RA can occur at any age. RA generally affects both knees.
- **Post-traumatic Arthritis** can develop after an injury to the knee. This type of arthritis is similar to osteoarthritis and may develop years after a fracture, ligament injury, or meniscus tear.

## KNEE PAIN PREVENTION

We cannot avoid the normal wear and tear on our knees that goes along with aging. But there are things we can do to lessen the impact of knee problems.

- **Exercise**  
Smooth, low-impact activities that are easier on the joints will improve strength and flexibility. Recommended activities include stretching, swimming, water aerobics, cycling, walking on a treadmill or outside, playing golf, etc.
- **Athletic Shoes**  
Proper-fitting sports shoes can enhance athletic performance and prevent injuries.
- **Weight**  
Maintaining a healthy weight is one of the best things you can do for your knees — every extra pound puts additional strain on your joints, increasing the risk of ligament and tendon injuries and even osteoarthritis.