

# MANAGING YOUR KNEE SPRAIN

The knee is a hinge joint that moves forward and backward but doesn't turn in other directions. Two ligaments stabilize it: the medial and lateral collateral ligaments (MCL and LCL). Deep in the joint, the anterior and posterior cruciate ligaments (ACL and PCL) cross each other and attach to the thigh bone and the shinbone. A knee sprain involves damage to these ligaments.



Knee joint, from the front

## Types of sprains and symptoms



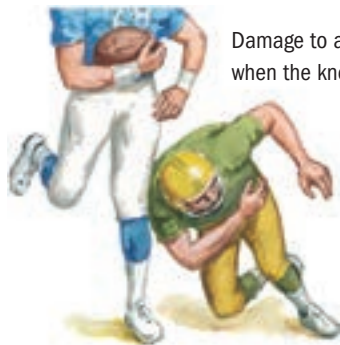
Mild: Stretching of ligament; causes pain and swelling



Moderate: Partial tear of ligament; more pain



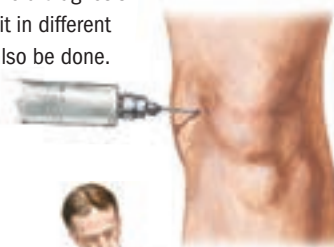
Severe: Complete tear of ligament; needs surgery



Damage to a collateral ligament can happen when the knee is hit on the opposite side.



Your health care provider will make a diagnosis by examining your knee, moving it in different directions. X-rays and MRI may also be done. For a very swollen knee, your doctor may take fluid from the knee with a needle for study.



## What Is Knee Sprain?

The knee joint is called a hinge joint because it moves forward and backward but doesn't turn in other directions. Ligaments are tough fibrous tissues that connect bones to other bones. Two strong ligaments make this hinge stable: the medial and lateral collateral ligaments (MCL and LCL). Deep in the joint, two more ligaments crisscross each other and attach to the thigh bone at one end and the shinbone at the other. These are the anterior and posterior cruciate ligaments (ACL and PCL).

A knee sprain involves damage to these ligaments. It can be mild, moderate, or severe.

## What Causes Knee Sprain?

A sprain occurs when these ligaments stretch or tear. Damage to a collateral ligament can happen when the knee is hit on the opposite side. Damage to a cruciate ligament can occur when the knee joint is twisted or hit directly.

## What Are the Symptoms of Knee Sprain?

Symptoms include knee pain and swelling, bruising around the knee, feeling of unsteadiness, knee giving way, and snapping feeling inside the knee.

## How Is Knee Sprain Diagnosed?

The health care provider will make a diagnosis by examining the knee, moving it in different directions and testing ligaments. The health care provider may also order x-rays. Magnetic resonance imaging (MRI) of the knee may be done if pain persists or your health care provider suspects a torn ligament. For a very swollen knee, the doctor may take fluid from the knee with a needle. This may ease pain and helps make the diagnosis.



Treatment depends on how severe your injury is. For mild or moderate sprains, raising the leg (higher than the heart) and resting it on a soft pillow and applying ice packs can help. Your health care provider may want you to keep weight off your leg by using crutches or a knee brace. Antiinflammatory drugs can help pain and swelling. Physical therapy may also help.

For a severe injury with a fully torn ligament, surgery may be needed to fix the ligament. Recovery may take 2 to 3 months or longer, so be patient. Rushing return to sports or other activities that increase pressure on the knee joint can lead to more injury and delay recovery.



Use safe techniques in sports and do warm-up stretching exercises. They may reduce the risk of knee injury.

## FROM THE DESK OF

## NOTES

## How Is Knee Sprain Treated?

Treatment depends on the severity of the injury. Treatments include putting an ice pack, wrapped in cloth, on the swollen knee. Raising the leg (higher than the heart) and resting it on something like a soft pillow may help swelling go away. The health care provider may prescribe antiinflammatory drugs to help pain and swelling. The knee can be wrapped in an elastic compression bandage. Crutches may help until walking is possible without pain. Exercises may reduce stiffness. The health care provider may suggest a knee brace to control joint movement.

For a severe injury with a ligament that was completely torn, surgery may be needed to fix the ligament. Recovery may take 2 to 3 months or longer.

A mild sprain may take 2 to 3 weeks for full recovery. A severe sprain may take 6 weeks or longer. Recovery will be slower if sports or other activities that put pressure on the knee joint are restarted too soon.

## DOs and DON'Ts in Managing Knee Sprain:

- ✓ **DO** follow the advice you get about whether to put weight on your leg.
- ✓ **DO** be patient. You may not be able to do sports for several weeks.
- ✓ **DO** report continued swelling or pain to your health care provider.
- ✓ **DO** follow instructions for rehabilitation so that you develop good strength and stability and don't injure the knee again. This may prevent another sprain.
- ✓ **DO** use safe techniques and warm-up stretching exercises. They may reduce the risk of knee injury.
- ✓ **DO** ask your health care provider about taking antiinflammatory medicines regularly.
- ⊗ **DON'T** return to normal activities or sports if your knee still feels unstable.
- ⊗ **DON'T** forget to do your rehabilitation exercises.
- ⊗ **DON'T** try to do activities that cause you pain.

## FOR MORE INFORMATION

### Contact the following sources:

- American Academy of Orthopaedic Surgeons  
Tel: (847) 823-7186  
Website: <http://www.aaos.org/>
- American College of Sports Medicine  
Tel: (317) 637-9200  
Website: <http://www.acsm.org/>
- National Athletic Trainers' Association  
Tel: (800) 879-6282  
Website: <http://www.nata.org/>