

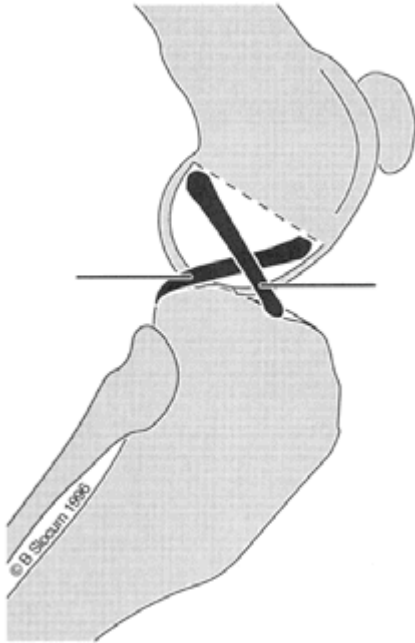
# Cruciate Ligament Injuries

## What is the Cruciate Ligament?

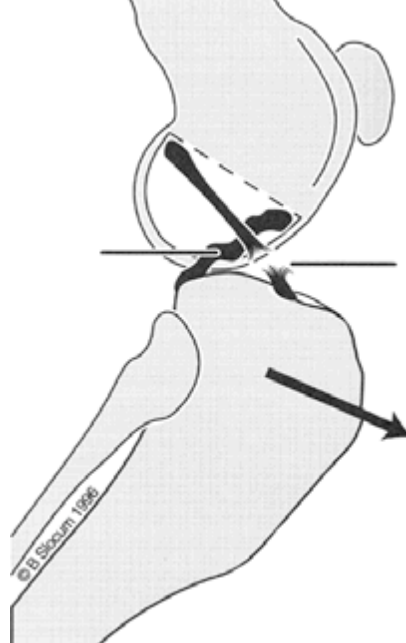
The Cruciate is a ligament that stabilizes the knee of the hind leg. In pets it is known as the Cranial Cruciate ligament or CCL. While in humans, it is known as the ACL or Anterior Cruciate ligament. The tearing of this ligament is very painful and fairly common among human athletes. While dogs are susceptible to tearing their CCL as well, it can happen during normal play just from running hard and stopping suddenly.

## What does CCL do?

Normal Canine Knee



Torn CCL in Canine



In order to understand the condition of the torn CCL it is important to understand the anatomy of the bones in the hind leg. The femur is the largest bone of the hind leg and it attaches to the pelvis. The femur lies on the tibia and the knee joint is stabilized by the joint capsule, surrounding ligaments and muscles. One of the main ligaments that stabilize the knee is the Cranial Cruciate Ligament. The CCL prevents hyperextension in the knee, as well as rotation or a twisting motion of the knee and prevents the tibia (shinbone) from sliding forward. When the CCL does rupture, the joint becomes unstable and the femur is allowed to move freely over the tibia, which then causes painful tearing and pulling of the joint capsule of the knee.

## Signs to look for in a CCL?

This type of ligament tear in dogs can be very painful and it can have cause swelling and hemorrhage. It can also cause abnormal wear of the bone and cartilage found in the knee, which can lead to arthritis. Animals suffering from this problem may be lame for weeks or months and then seem to get better only to develop a more persistent progressive lameness that never resolves and worsens with exercise.

### *How is it diagnosed in pets?*

When basketball players tear their ACL they can go to the Doctor and get an MRI. Veterinarians usually diagnose the problem by examining the gait or walk of the animal, feeling the joint, and check for abnormal mobility of the joint called the cranial tibial thrust. When the Veterinarian uses this test, the joint can be manipulated backward and forward, a movement which can be prevented with a healthy CCL. After diagnosis, x-rays are usually taken to see the extent of the damage in the joint and to see if there are any other underlying problems in the knee.

### *Treatment for a ruptured CCL*

Surgery is the only remedial measure for ACL injuries. Surgery allows stabilization of the knee allowing it to regain normal motion; therefore, reducing, but not prohibiting, the formation of arthritis. Progressive arthritis and lameness will occur with time if surgery is not performed. Dr. Stacey has repaired ruptured CCL's on all size dogs at our clinic with a surgical procedure called a lateral fabellar suture repair.

### Post Operative Rehabilitation Schedule

**Keep an eye on the incision.** Stainless steel staples are used to close the skin, the incision should be kept clean and dry. If you notice an oozing, bleeding (more than just spots of blood), swelling, or gapping in the incision, please call the office.

**Do not allow the pet to lick or chew on the incision.** Skin staples and sutures can be irritating and itchy. Keep the E-collar on at all times to insure that the pet can not reach the incision. Licking and chewing can introduce bacteria and cause infection as well as the incision to open up.

**Give pain medicine.** The first 24 hours after surgery are the most painful. Typically animals are prescribed a non-steroidal anti-inflammatory (for pain and inflammation) and a pain medication. Please give these medications as directed to make the post-operative period as comfortable as possible for your pet.

**No off-leash activity for 8 weeks.** This is VERY IMPORTANT as this period of time is critical to the healing process. This means that the pet should never be allowed to be off the leash outside of the house and indoor activity should be kept to a minimum in a confined area. Leash walk to go to the bathroom only. After the first 2-3 weeks, short leash walks (NO RUNNING) can begin in a controlled fashion. Do not over do it!

**Rehabilitation Therapy.** This begins before your pet even wakes up from surgery and will continue while he/she is hospitalized. Once home, you will take over this vital role. Start by applying a cold compress (ice pack) to the knee for 10-15 minutes three times daily. This will help reduce swelling and inflammation, which will significantly improve comfort.

**Physical Therapy.** Dr. Stacey will show you how to perform passive range of motion before your dog goes home. This exercise is designed to get your dog's operated joint(s) moving, which will help improve comfort and encourage limb use. It will take about 15-20 minutes to perform these exercises once both you and your dog get use to them. After the first 2 weeks you can begin doing light physical therapy with your pet. Hold your pet's front legs off the ground to encourage use of the hind legs. Do this gently and in a controlled fashion for a few moments

each day. Swimming is also good exercise that encourages use of the leg without putting a lot of stress on it.

**Resume normal activity.** After 2 months you can allow your pet to begin regular off-leash activity, for most cases! It is important to remember that although the surgery site is healed neither it nor your dog are as strong as they were before surgery. Please remember to take things slowly, and gradually increase the length of walks your dog takes every week. Each time you increase the length of the walk, expect your dog to be a bit uncomfortable. Continue to provide supervision when your dog is not confined to a crate or small space.

**Staples/Sutures in the incision will need to be removed in approximately 10 days after surgery.**

If you have any further questions please call the office. (217)824-3051