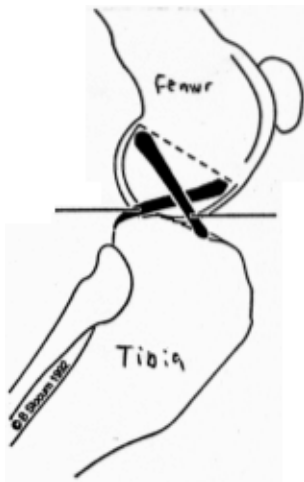


Valleyview Veterinary Clinic

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Rupture of the Cranial Cruciate Ligament

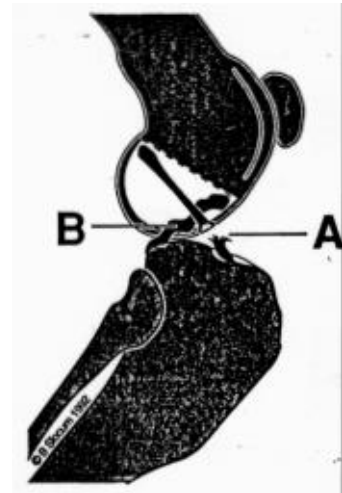
The cruciate ligaments are tough bands of fibrous tissue within the stifle (knee) joint. Their function is prevent back and forth movement between the femur (thigh bone) and the tibia (calf bone). These ligaments form an “X” within the knee, hence their name ‘cruciate, which means ‘cross. The two ligaments are named the cranial (front) and caudal (back) cruciates, based on where they attach onto the tibia. The cranial cruciate ligament is the one that causes the most problems in veterinary medicine. In fact, it is one of the most common causes of hind leg lameness. When the cranial cruciate ligament ruptures, the tibia is able to move forward when the patient walks, thus causing pain.



Left: Normal Knee Joint

A: Cranial Cruciate Ligament
B: Caudal Cruciate Ligament

Right: Ruptured Cranial Cruciate Ligament



Sometimes the ligament will be completely torn off from a single traumatic injury that leaves the patient unable to use the leg. Other times the ligament may partially tear, causing a chronic lameness of varying degree. Partial tears almost invariably progress to become complete tears.

The diagnosis of a ruptured cranial cruciate ligament is made by examining for the following:

- 1) an abnormal amount of forward movement that can be felt in the knee joint
- 2) a thickening of the joint that can be felt on the inside of the knee
- 3) increased fluid within the joint, and,
- 4) a knee that is obviously sore to touch and/or manipulate

A common secondary problem with rupture of the cranial cruciate ligament is the development of arthritis within the affected joint. X Rays are recommended before surgery to assess the

amount of arthritis already present (if any). Surgical repair, with or without joint-protecting medications, are the primary means of minimizing this chronic arthritis.

Once the ligament has ruptured and the bones start moving back and forth un-naturally, the capsule that surrounds the joint will become inflamed and thicken with scar tissue. In cats and small dogs, this thickening of the joint capsule alone will make up for the lost support of the ligament. Almost all cats will get better in about 2 or 3 months without surgery, and although they will form some arthritis it does not seem to bother most cats very much. About 85% dogs under 15 kilograms (35 pounds) will get better without surgery, however it will usually take 3 to 6 months and there will definitely be some arthritis which will come back to haunt them in the form of lameness. The degree of lameness can be quite variable. Therefore, surgery in small dogs is optional but may be advised in a few patients. Small dogs who have had the surgery will get better sooner and will form less arthritis.

For larger dogs (over 15 kilograms), the options are limited. Less than 20% of these dogs will get better without surgery, and, again, all of these dogs will have some pain-causing arthritis.

Surgery for a ruptured cruciate ligament involves two steps:

- 1) opening up the joint to assess and repair any internal damage, and
- 2) stabilizing the knee joint with heavy nylon suture.

After surgery we usually recommend a course of cartilage-protecting medication to minimize long term arthritis. The surgery will be followed by a two or three month recovery/rehabilitation period. Post-surgical therapy can also involve therapeutic laser treatments.

Cost: Most cruciate ligament surgeries done by a regular practitioner will cost around \$1900 to \$2000. Total cost for the procedure can be \$2000 - 2400 (may include pain medication, anti-inflammatory medication, therapeutic laser treatments, etc.).

If it's a large dog and we recommend a specialist do the repair (a different method than most regular vets do called a TPLO), the cost is generally between \$4500-6000.

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