

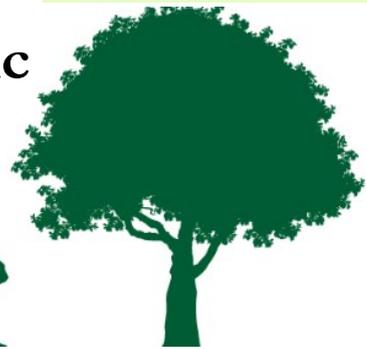
**Damory Veterinary
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Damory Veterinary Clinic

Small Animal Factsheet



Cruciate disease is the most common cause of hind limb lameness diagnosed in dogs. Many dogs have subtle abnormalities in their hindlimb conformation that results in excessive stress on the knee ligaments. This leads to frayed and stretched ligaments which, given time, will often completely rupture. Occasionally cruciate ligaments will rupture following a traumatic event such as a fall or road accident. This is the most common scenario in cats. Middle aged to older dogs and cats are over-represented although increasingly younger dogs are starting to be affected

What is the function of this ligament?

The cruciate ligament is divided into two parts – cranial and caudal. The ligaments are positioned within the joint capsule itself and serve to connect the femur with the tibia and to stabilise the knee joint in a forward/backward direction.

What symptoms will my pet show?

There is quite a difference in symptoms, depending on whether there is a partial or complete rupture. Usually when there is a partial tear the signs are not obvious. Animals show intermittent lameness which may appear worse after resting or after a long walk. When complete rupture of the ligament has occurred there is palpable instability in the joint which causes more obvious lameness. They also stand in a very characteristic way with their back toes just touching the ground with minimal weight being taken on the affected leg. They often also sit with the affected limb extended and out to the side.

How does my vet know my pet has torn the knee ligament?

The signs mentioned above are important but also your vet will be able to elicit pain in that joint and on some occasions joint swelling can be appreciated.

Also if the patient is amenable, your vet may be able to diagnose it simply by pulling on the ligaments to see if they are damaged (by performing a cranial drawer test). This can be painful and so may need to be performed under sedation or general anaesthesia. An xray will usually be taken to confirm the presence of a swollen joint but also to assess the degree of arthritis within the joint and to assess whether there is a problem with the animal's conformation that has predisposed them to the injury in the first place.

Is there any treatment for Cruciate Disease?

There are lots of different treatments depending on the size of the animal or severity of damage. In some very small dogs and cats the knee may recover after just resting for a few months. Most animals, however, will respond better to surgical management and this is especially the case in larger dogs.

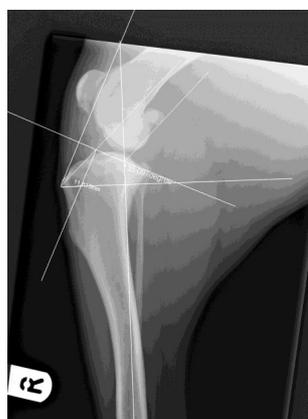
We also advise surgery in most cases of partial rupture of the ligament as these dogs may get better after rest and pain killers but are prone to injuring the ligament again as soon as they are allowed to return to normal exercise.

What type of operation will my pet receive?

There are 2 different operations that can be done:

Conventional techniques: these are relatively simple operations and there are many different ways to perform them but basically your vet will be aiming to mimic the function of the broken ligament (which cannot be sutured) by adding a graft harvested from the muscle just above the knee or, more commonly, by using a prosthetic artificial line (thick nylon or similar).

Tibia surgeries: Again, there are different procedures to achieve this - we are currently using the Modified Maquet Procedure (MMP). During this procedure we alter the biomechanics of the knee joint by cutting free and moving forwards (Advancing) the part of the tibia (Tibial Tuberosity) that is attached to the quadriceps muscle - This is known as a "TTA". The section of cut bone is stabilised using a modern orthopaedic implant material called "Orthofoam". The recovery time with this procedure is usually better than the conventional technique.



Pre TTA



Post TTA

Depending on the individual case we will recommend one surgery or the other.

What will happen after the operation?

We will keep your pet for 24 hours post surgery in order to administer strong pain relief but by the following day they are usually fine to be discharged.

Your vet will be more specific regarding postoperative care but you should expect it to take three months in total before you are able to let your pet run off the lead. Physiotherapy and hydrotherapy help to build up muscle strength and encourage faster healing

What is the prognosis?

As long as the strict post-operative guidelines are followed then the outlook for a good return to function is good. However, the injury is often accompanied by arthritis prior to surgery being carried out and this will not be altered by the surgery. The hope is that stabilising the knee will slow the progression of arthritis but almost all animals will develop some degree of stiffening in the joint as they get older. Some animals, therefore, may need some form of anti-inflammatory medication to control this as they age.

Updated by 9th July 2013