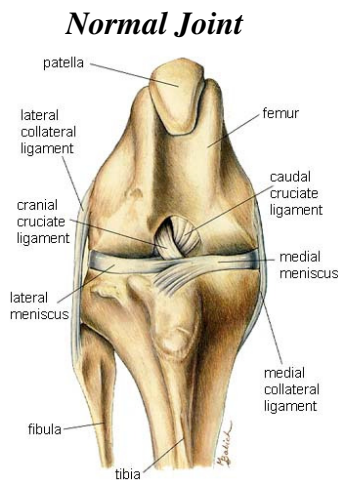


Cruciate Ligament Rupture

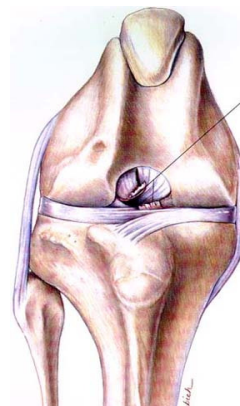
Cruciate ligament rupture is an orthopaedic disease that is quite common in dogs, affecting various breeds and ages. Risk factors include:

- Trauma
- Old dogs
- Dogs with conformational issues
- Large breed dogs
- Overweight dogs
- Arthritis
- Dogs with a Thyroid condition

It has traditionally been considered a traumatic injury, however many patients present without any apparent trauma and with a history of a gradual onset of vague lameness.



Cruciate Ligament Rupture



Why is the knee so likely to be injured?

The knee joint is a relatively unstable joint because there are no interlocking bones in the joint. Instead, the two main bones, the femur and tibia, are joined by several ligaments. When severe twisting of the joint occurs, the most common injury is a rupture of the cranial cruciate ligament which is one of the two ligaments which actually cross over within the joint and ensure that it is stable and works in one plane. When it is torn, instability occurs that allows the bones to move in an abnormal fashion in relation to one another. It is not possible to bear weight on the leg without it becoming unstable. It is essentially the same knee injury that many football players suffer from, where it is referred to as ACL (anterior cruciate ligament) injury.

How is cruciate ligament rupture diagnosed?

The most important finding is instability in the knee joint. This is demonstrated by moving the femur and tibia in a certain way. This movement is called a “drawer sign”. It can be demonstrated with the dog conscious, however if there is severe pain the dog is able to prevent any movement using their strong leg muscles. In this situation sedation or a light general anaesthetic may be needed.

How is the cruciate ligament rupture treated?

Correction of this problem requires surgery, without surgery the joint will deteriorate and there will be constant pain. During the surgery the joint is opened up and inspected for damage. The diseased/damage portion of the ligament is removed at this time. In many cases there is also damage to part of the meniscus, which is a sort of cartilage pad in the joint. In these cases, a portion of this damaged meniscus is trimmed and removed. Once this is done, a false ligament is placed outside the joint using synthetic non-absorbable suture material which is anchored in place using steel clips. It is aimed at mimicking the true ligament and to stabilise the joint, reduce the pain and to preserve as much normal motion and function as possible.

This procedure is particularly good in smaller dogs. While it still remains a valid option in larger dogs due to the lower costs involved, the alternative TPLO procedure is generally recommended for these patients.

Potential complications

-Post operative infections can occur in about 7% of cases and may be related to the implanted suture material and steel clips. These infections are generally resolved with antibiotics. However a small proportion of patients may require implant removal.

- Complete breakdown of the implant is relatively rare and is prevented by diligent exercise restriction and following the post surgery rehabilitation program.

Prognosis

In most cases the prognosis post surgery is good, with most dogs having normal or near normal level of function. This return to function is a gradual process, with lameness becoming less apparent over several weeks. Most patients return to an active life with only minor limitations.

Some dogs will go on to develop cruciate ligament injuries in their other hind leg, studies have shown the incidence to be as high as 40-50%. To prevent injury to the other knee, it is recommended to limit extremes of activity that include a lot of twisting and turning and to keep your dog in good physical condition e.g. not overweight, good muscle development and fit.