

Cranial Cruciate Ligament Diseases: Summary

Cranial cruciate injury is very common in dogs. Lameness can appear rapidly or take some time to develop. It causes significant pain and will lead to loss of mobility.

What are the signs of CrCL disease? Lameness or limping, pain on walking or running, reluctance to bear weight, difficult rising from a sit, reluctance to jump.

Which dogs are affected? All breeds and ages of dog are susceptible to cruciate disease but it's more common in middle-aged to older dogs. Obesity, genetics (breed) and disease of the kneecap can increase risk. It will occur in both stifles of about 40-50% of affected dogs.

How is Cranial cruciate disease diagnosed? Rupture of the cranial cruciate ligament is diagnosed through a combination of history, a comprehensive physical examination and taking radiographs (x-rays) of the stifle.



Normal Healthy Stifle



Pre-operative radiograph: cruciate ligament rupture

Definitive diagnosis of CrCL injury is made by direct visualisation of the damaged ligament during surgical investigation of the joint (arthroscopy or arthrotomy). While inspecting the joint, the surgeon will also examine all other relevant structures including the meniscus for damage and remove any damaged cartilage.

Treatment: CrCL disease is considered a surgical disease in dogs. Non-surgical treatment is not recommended as the instability and inflammation leads to severe arthritic changes, ongoing pain and lameness. We recommend a Tibial plateau levelling osteotomy (TPLO) to neutralise the biomechanical forces acting on the stifle. In some cases surgery may also involve the placement of a specialised anti-rotational suture and anchor.

Referral to Animalius and what to expect: After the initial consultation, surgery requires admission to our hospital, typically for an over-night stay. After discharge, revisit appointments will be scheduled at 2 weeks and 8 weeks.

Post-Operative care: Your dog will need to be kept quiet and confined for 6-8 weeks post-surgery (a small enclosure, crate or room with non-slip floors is an ideal environment) avoiding all boisterous activity including running, jumping, climbing stairs, playing with other animals, and jumping onto and off furniture. Exercise and movement are very important during the recovery period and assist in the facilitation of healing. Most patients will begin walking within 24-48 hours post-surgery and you will be provided with a tailored rehabilitation and restricted exercise program at the time of discharge.

Post-operative complications: Post-operative complications are uncommon but can occur. Complications include bone fractures (can occur when restricted exercise and post operative care requirements are not applied correctly or are inadequate), late meniscal injury (5% for TPLO), infection (5%), rotational instability (increased risk where muscle atrophy is present, meniscectomy is performed, sudden onset with complete ligament rupture and knee laxity present), implant failure (rare), and soft tissue swelling around the surgery site. Some require medical management (medicine and rest). A small number of complications may require further surgery (particularly if there is deep infection, fracture, meniscal tear, rotational instability, or implant failure).