

# CRANIAL CRUCIATE LIGAMENT INJURY (CCL)

## CANACTIVE HYDROTHERAPY FACTSHEET



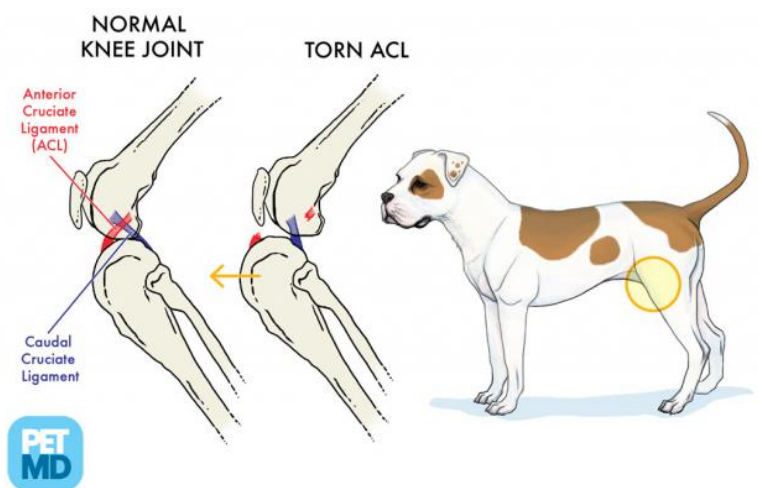
The Cranial Cruciate ligament (CCL) is one of the many ligaments within the stifle (Knee) joint and is pivotal to the stability of the joint. It acts to prevent certain movements including hyperextension, excessive internal rotation and tibial shear force. If the CCL is damaged or ruptures the abnormal movements are no longer restricted causing the stifle joint and surrounding structures to be overloaded and as a result of this pain and further damage can occur. In this way, the menisci are often damaged when the CCL fails as they are shock absorbing structures within the stifle joint.

### RELATED OSTEOARTHRITIS

Often following the failure of the CCL, many patients suffer with OA in the stifle joint, however this is not often the cause of pain initially following CCL failure but an occurrence years later, so management of this condition long term is vital. Therefore, conservative treatment is an important consideration once surgery or other intervention has repaired the direct cause of instability.

#### Why does this happen?

In humans CCL failure is commonly seen following activity which has overloaded the ligament and some dogs do present with a sudden onset lameness following an overload injury such as cornering at speed or getting a limb trapped in a fence, however this is not the most common cause of CCL failure. The most common cause of CCL failure in dogs comes from a progressive degeneration where the ligament fails due to a weakening of the ligament. The reason for this can vary with many research studies over the years focusing on these predisposing factors. The main three factors are breed, conformation and body weight.



#### How do I know if my dog has ruptured their CCL?

If you are worried about your dog's CCL or they have been lame or uncomfortable then you should seek Veterinary Advice. Your vet will usually assess the limb and confirm the diagnosis with clinical examination and x-rays of the stifle joint.

#### Treatment options

Your vet will advise the treatment options depending on individual factors about the severity of the injury, your dog's general health and other factors. Most often surgery is the best option for optimum recovery, however in some cases a more conservative approach is chosen, which may include a combination of a strict rest and exercise regime alongside hydrotherapy and physiotherapy to help strengthen the surrounding structures to support the joint while it repairs.



## CASE STUDY

Poppy is an 8 year old Great Dane X Mastiff who suffered a ruptured cruciate Ligament in December 2021. She had surgery and it was successful. Poppy had physio treatment and started coming to Canactive for hydrotherapy weekly. Although she was nervous at first, Poppy soon got the hang of it and gained in confidence each week. Poppy's owners also noticed that she used the limb more and more each week and was soon walking better than before the injury had even occurred. She also started playing again which she had not done properly for years. She continues to see us monthly for maintenance treatments to maintain muscle and function.

### What happens post op?

Following surgery, dogs may take up to four months to fully recover and it is important to follow the strict guidelines set out by your vet as the joint's movement must be restricted while it heals. The first 6 weeks post op often require the greatest degree of restriction, following this the vet may see the dog back for further x-rays and if these are satisfactory exercise can increase. At this point or earlier if the vet advises so, hydrotherapy can begin as a low impact exercise to help improve muscle mass and mobility. In many cases this also acts as a good stimulus for a frustrated dog's brain, following weeks of crate rest.



For the first 3-4 months post op activity should be restricted and towards the end of this period your vet will advise when a slow introduction to these activities can begin. Often dog's return to full function within 4 months post-surgery, however preventative care is important to avoid injury to the other limb or restriction from arthritis in the future.

### How can hydrotherapy help?

Hydrotherapy offers a low impact but intense exercise, which can increase muscle mass and allow the handler to control movement in a positive way to build muscle and support the healing process following CCL injury.

There are also often compensations throughout the rest of the body and the treadmill allows hydrotherapists to examine gait patterns and help improve the dogs stride, preventing imbalances ensuring the dog is moving correctly and therefore removing any overexertion which may lead to strain on other structures.

Please contact us for further information at [canactivecentre@gmail.com](mailto:canactivecentre@gmail.com)

