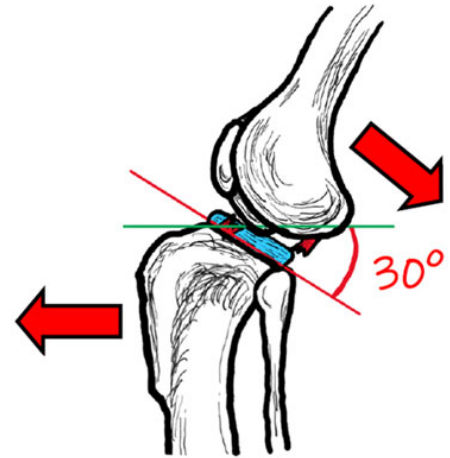


Cranial Cruciate Ligament Disease:

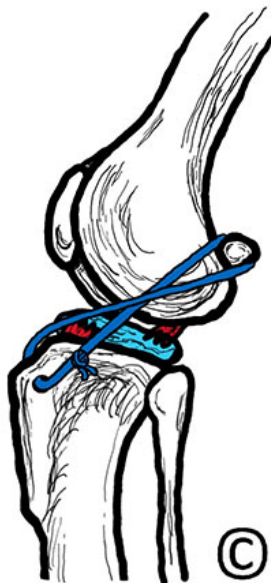
The main function of the cruciate ligaments is to prevent the tibia (shin bone) from sliding backwards and forwards in relation to the femur (thigh bone). This is important to ensure normal, pain-free function of the knee joint.

In dogs, the cranial cruciate ligament (CCL) slowly degenerates and weakens over time (like a fraying rope) until it is unable to withstand the forces of normal movement. We do not know the exact cause of this degeneration, but genetics likely play a role, as certain breeds are more commonly affected. Other factors, such as being overweight, the shape of the leg and hormones also have an influence whereas in cats, it is more likely to be traumatic.



Approximately 40-50% of dogs affected by CCL disease will be affected in both knees, though the ligaments often rupture at different times.

When a dog has CCL disease, the fibres of the ligament gradually stretch and tear. This, as well as the subsequent instability, triggers inflammation (swelling) in the joint, which causes pain and osteoarthritis. As a result, in early disease, dogs show signs of mild, intermittent, or progressive lameness which tends to be worse following exercise, with acute complete rupture, there is sudden, severe lameness.



How does lateral suture work?

In cats and dogs, unlike people, the tibial plateau slopes downwards (towards the tail). During normal weight-bearing, the cranial cruciate ligament acts to prevent the shin bone (tibia) from slipping forwards relative to the thigh bone (femur). With cranial cruciate ligament disease, this movement is not resisted, which causes the knee joint to 'give way', causing pain and lameness. During lateral suture surgery a "false ligament" is placed outside the joint, mimicking the function of the CCL and preventing the two bones from moving apart, so that the tibia does not shift forward during weight-bearing. After a period of healing, the soft tissues around the joint form scar tissue around the knee, which provides support in the same way as the suture. Over time, the suture itself will weaken but by this point the scar tissue should have taken over its role.



Post-Operative Care:

- Wound Care

Your pet will have a wound on the outside of their leg. Please check this area twice daily, there should not be any pain, swelling, redness or discharge from the wound. A buster collar should be used to prevent interference for the first 10-14 days after surgery.

- Exercise Plan

During the first 3 weeks, strict rest is vital to reduce the risk of complications. During this time, your pet should be confined to a crate or pen. Cats should be provided with a shallow litter tray to toilet. Dogs should only be allowed out to toilet via short walks on the lead and only in the garden. Running, jumping and use of stairs are strictly NOT permitted

Dog Exercise Plan

Week number	On lead exercise	Number of times daily	Off lead exercise
1 to 3	For toileting only	As needed	None
4	5-10 minutes	Up to 3 times daily	None
5	10-15 minutes	Up to 3 times daily	None
6	15-20 minutes	Up to 3 times daily	None
7	20-25 minutes	Up to 3 times daily	None
8	25-30 minutes	Up to 3 times daily	None
9	30 minutes or more	Up to 3 times daily	Start to re-introduce off lead exercise.

Cat Exercise Plan

Week number	
1-3	Strict cage rest
4-6	Allow access to a small room in the house
7-8	Allow access around the house, no outside exercise
9	Normally at this point, outdoor exercise can be re-introduced



-Outcome

Most patients return to normal exercise following lateral suture. A minority of patients, especially those with pre-existing arthritis, may require anti-inflammatory medication.

-Risks and Complications

All surgeries have potential complications. Late meniscal injuries can occur at any point after surgery and occur in approximately 3% of patients. A similar rate of infection is seen post-operatively, more severe infections can result in the need to remove the suture. Over activity can lead to the suture breaking or pulling out of the anchor points.

Cruciate Registry

We participate in the canine cruciate registry scheme and would greatly appreciate your feedback to continue to improve outcomes for our patients.

Some images and information are courtesy of the Canine cruciate registry

<https://caninecruciateregistry.org/>

