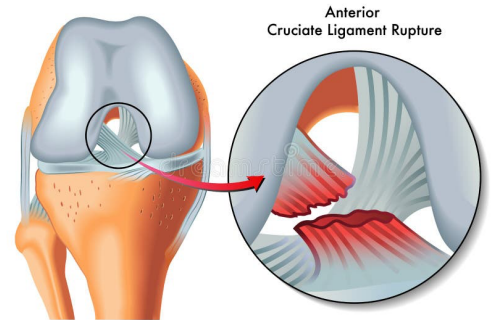


Canine Cruciate Ligament Injury: An Informative Guide

What is the Cruciate Ligament?

The cranial cruciate ligament (CCL) in dogs, equal to the anterior cruciate ligament (ACL) in humans, is one of the key stabilising structures in the stifle (knee) joint. It connects the caudal aspect of the femur to the cranial aspect of the tibia, preventing:

- Cranial tibial thrust (forward movement of the tibia relative to the femur)
- Hyperextension of the stifle
- Internal rotation of the tibia



What Happens When the CCL is Damaged or Ruptured?

- Partial tear: Instability during weight-bearing, inflammation, and joint effusion.
- Complete rupture: Marked joint instability, leading to:
 - Sudden onset lameness
 - Pain, swelling, and reluctance to bear weight
 - Progressive development of osteoarthritis

Common causes include:

- Acute trauma (e.g., running, jumping, sharp turns)
- Chronic degeneration (especially in larger breeds and overweight dogs)

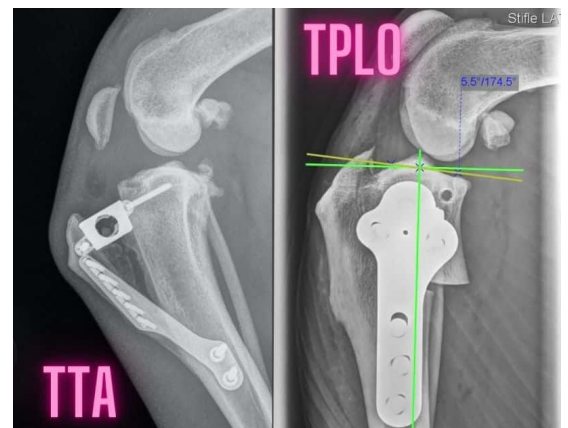
Impact on the Dog

- Non-weight bearing lameness
- Pain during movement
- Joint swelling and effusion
- Muscle atrophy from disuse
- Long-term osteoarthritic changes if untreated

Surgical Treatment Options

Surgery is typically recommended for full ruptures or larger dogs:

1. **Tibial Plateau Levelling Osteotomy (TPLO)** - Alters the mechanics of the stifle by levelling the tibial plateau to neutralise tibial thrust.
2. **Tibial Tuberosity Advancement (TTA)** - Repositions the patellar ligament for improved alignment and stifle stability.
3. **Extracapsular Lateral Suture Stabilization (ELSS)** - Synthetic suture mimics the function of the ligament outside the joint—more common in small breeds.



Role of the Veterinary Physiotherapist

Physiotherapists play a vital role in pre- and post-operative rehabilitation.

Pre-operative goals:

- Maintain joint range of motion (ROM)
- Reduce inflammation and pain
- Prevent muscle atrophy

Post-operative rehabilitation priorities:

1. Pain and inflammation management
 - Cryotherapy
 - PEMF therapy
 - NSAIDs (prescribed by vet)
2. Restore mobility and function
 - Controlled leash walking
 - PROM (Passive Range of Motion) exercises
 - Hydrotherapy (non-weight bearing strengthening)
3. Strengthening and proprioception
 - Weight shifting
 - Cavaletti rails
 - Balance equipment
4. Owner education
 - Home exercise programs
 - Environmental modifications (ramps, anti-slip surfaces)

Key Priorities for the Physiotherapist

- Early intervention to minimise secondary complications
- Promote safe, progressive loading of the limb
- Monitor for signs of compensatory strain (especially contralateral limb)
- Encourage long-term joint care and weight management

A multi-disciplinary approach involving veterinarians, orthopaedic surgeons, and physiotherapists ensures optimal recovery and long-term joint health.