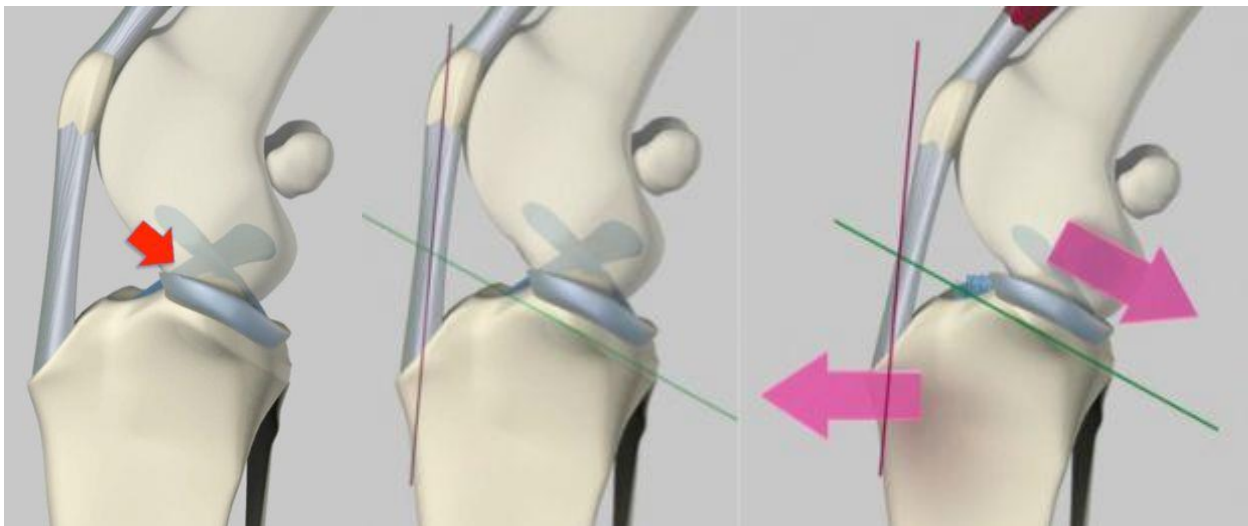


## GUIDE TO THE TIBIAL PLATEAU LEVELLING OSTEOTOMY (TPLO) PROCEDURE

We know it's never easy hearing that your pet may need a surgical procedure. We're committed to helping both of you every step of the way. This guide is crafted to provide clarity on what the TPLO procedure entails and what you can expect during the recovery phase.

### Understanding Cranial Cruciate Ligament Disease

The cruciate ligaments in a dog's knee play an important role in stability. The cranial cruciate ligament is the most important ligament in the joint, and functions to resist tibial thrust. Imagine your dog's knee as a playground slide. The thigh bone (femur) is like a ball on top of the slide, and the shin bone (tibia) is the slide itself. When the cruciate ligament is healthy, it's like a barrier preventing the ball from sliding down. But if this ligament is damaged, there's nothing to stop the "ball" from sliding, causing pain and limping. This unwanted sliding is called tibial thrust.



In most dogs with cranial cruciate ligament disease, the ligament does not suddenly rupture. Instead, the ligament gradually deteriorates, fraying like a rope inside the joint. This process commonly causes pain, swelling, and lameness in the affected leg. When the cruciate ligament finally completely ruptures, there is often a more obvious lameness and swelling.

A damaged medial meniscus may also occur once the cruciate ligament has completely ruptured.

### TPLO: A Solution to the Problem

TPLO addresses the instability from the damaged ligament, aiming to prevent the "slide" effect by altering the tibia's slope.

## Steps involved in TPLO

1. Preoperative Planning: X-rays are taken to measure the tibia's slope and plan the precise bone cut.
2. Osteotomy: A semicircular cut is made in the tibia, changing its orientation.
3. Repositioning: The top section of the tibia is rotated to level the plateau.
4. Stabilizing: A bone plate and screws are attached to hold the two pieces of bone in their new positions.
5. Inspecting the Meniscus: The meniscus, a cartilage pad in the knee, is checked for damage. If a tear is found, a partial meniscectomy is performed. This involves removing the damaged section while retaining as much healthy tissue as possible. An arthroscope (small camera) is used to examine the joint, which gives a more accurate assessment and smaller incisions than traditional open joint surgery.



## Post-Procedure Care

Your pet's comfort and swift recovery are our top priorities.

At VetSurg:

- Your pet will stay overnight, to ensure pain management, monitor their initial recovery, and address any post-surgical concerns with our 24/7 on-site team.

At Home:

- Week 1-2: No running, jumping, or stair-climbing is allowed. Short leash walks to go to the toilet are ok, and these will increase over the coming weeks. The surgical site should be kept clean and dry, and the provided Elizabethan collar should stay on at all times. We will see your pet at the two-week mark to check on their progress.
- Week 3-8: The duration of leash walks can be gradually increased, and we will guide you through this. We will see your pet at the eight-week mark for some further x-rays to monitor healing.

## What is the expected prognosis?

The prognosis depends on many factors, such as the degree of instability, the presence of a meniscal tear, and the amount of osteoarthritis within the joint.

- **Restoration of Function:** One of the primary goals of the TPLO surgery is to restore normal function to your dog's knee. Most dogs return to their previous activity levels within weeks to months after the surgery.
- **Pain Management:** By controlling the instability in the joint, the TPLO procedure often results in significant pain reduction.
- **Arthritis Management:** While TPLO addresses the instability in the knee, it doesn't halt the progression of arthritis entirely. Some dogs may still develop or continue to experience arthritis in the operated knee. However, the surgery is expected to slow down its progression, and there are several management options available, including medications, supplements, and physical therapy.
- **Cranial cruciate disease in the other knee:** As cranial cruciate ligament disease is a slow degeneration caused by many factors other than trauma, many dogs will develop cranial cruciate ligament disease in the other knee as well. This may already be present or may develop over the coming months. Around 50% of dogs with cranial cruciate disease will develop disease in the other side as well.

## Potential Hurdles

Every surgery has its risks, but we're proud of TPLO's high success rate. Here's what to be aware of:

- **Infection:** In rare cases (~5%), infections may arise. If this occurs, we have strategies to manage and heal the infection. The implants may need to be removed after the bone has healed, but they are no longer required at that stage.
- **Implant failure or delayed healing:** Proper aftercare and restricted movement minimize the risk of any implant issues.
- **Late meniscal injury:** Very few dogs (~4%) may get some damage to the meniscus in the months after surgery, but TPLO has the lowest rates among all related procedures.
- **Swelling or fluid build-up (seroma):** Seromas rarely require any specific treatment and will generally resolve over time.

Remember, while there are potential complications, TPLO has a high success rate and improves many dogs' quality of life.

Your dog's full return to normal activity may take several months, but with diligence and proper care, they can enjoy a pain-free, active life once again.

We're here to support you every step of the way. If you have questions or concerns, please don't hesitate to reach out to the VetSurg team.