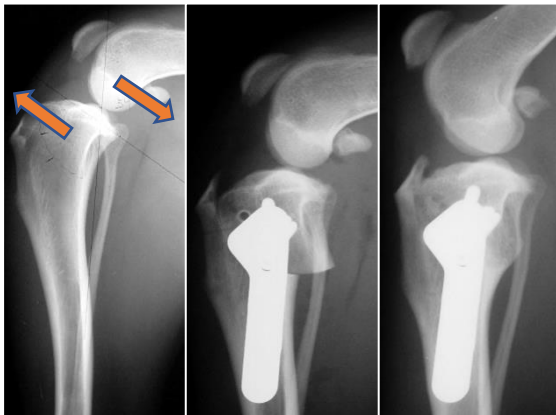


Tibial Plateau Leveling Osteotomy (TPLO) [Cranial Closing Wedge Osteotomy (CCWO), CORA Based Leveling Osteotomy (CBLO)]

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Before TPLO, or any other cruciate stabilization procedure, is performed it is important that the surgeon explores the knee to document and address abnormalities and their severity. It is common that dogs with a torn CCL also have a torn medial meniscus. It is best to explore the knee arthroscopically (Video: meniscal click with translation); the magnification and illumination arthroscopy provides has been shown to reduce the likelihood of a meniscal tear at a later date. Arthroscopy also allows for photography to document the severity of CCL tear, severity of arthritis and meniscal status. Documentation is critical for the medical record and long-term care recommendations.

The intact CCL prevents abnormal motion between the femur (top bone) and the tibia (bottom bone). After the CCL tears, the femur slides backwards and tibia slides forwards (orange arrows). This abnormal motion can be felt on an orthopedic exam as “cranial drawer” or “tibial thrust” (Video: RACL_DRAWER).



TPLO is a surgical procedure for dogs with a partially or completely torn cranial cruciate ligament (CCL). TPLO changes the angle of the tibial plateau angle (middle figure is immediately after surgery and the figure on the right is 8-weeks after surgery). Changing the tibial plateau angle reduces the abnormal instability between the femur and tibia. While TPLO is a great option for most situations, CCWO and CBLO also change the tibial plateau angle and are a better fit for the anatomy of some patients.

After TPLO, on average, >90% of dogs have good to excellent limb function 6-months after surgery. This has been shown to be superior to medical management and other stabilization strategies like suture stabilization and tibial tuberosity advancement. Although TPLO has a good track record, there are some important things to know: 1) nearly all scientific papers addressing success of TPLO had surgery performed or supervised by a specialist surgeon; 2) arthroscopy has shown to reduce the rate of late meniscal tears and thus it improves overall success rate; 3) complications can occur (e.g. infection, implant failure, tuberosity fracture) so be certain your surgeon discusses both potential benefits and risks; 4) this surgery is not an emergency – you have time to get informed and get a 2nd opinion.

After surgery, postoperative care is critical. The details vary depending the clinical situation but in the first several weeks monitoring the incision for infection, pain control and exercise restriction are common. A recheck exam and radiographs are often taken ~6 weeks after surgery to help guide postoperative activity recommendations.