

Tibial Tuberosity Advancement (TTA)



This procedure involves placing an incision in the bone of the tibia and moving the tuberosity or crest forward.

A TTA aims to eliminate the tibiofemoral shear force in dogs who have torn their cruciate by altering the patellar tendon angle with respect to the tibial plateau. What this means is that we are changing the biomechanics of the knee so that the previous function of the cruciate is negated.

The crest is held in this position by a 3D printed titanium scaffold implant and a plate and screws. This implant will grow cells and hence bone and blood vessels through it over time to completely stabilise the previous incision in the bone.

Prior to performing the TTA the joint is opened up and the old cruciate ligament is removed. This is important in helping to decrease ongoing arthritic change. It also allows us a view of the menisci which are small moon shape pieces of fibrocartilage. The menisci commonly get torn when the cruciate ligament is ruptured and left undiagnosed can be the reason for ongoing limping after the TTA is performed as this can be quite painful for the dog.

If the menisci are torn, then the torn portion is removed whilst in the joint. No procedure is without risk and also complications. The most common complication is swelling around the hock joint and this will resolve on it's own but can be helped by cold which will be explained in their post operative care.

They can also develop seromas (fluid filled swellings) over the surgery site and infections which are treated accordingly.

The major complications are meniscal tears, patella luxation, implant infection fractures of the tibia and implant failure. Unfortunately all of these would require further surgery.

The best outcome from surgery can be achieved by a strict post operative regimen which can be seen in our post operative sheet This procedure is highly recommended for any pet that is over 15 kg in weight.