

Tibial Tuberosity Advancement (TTA)

Rupture of the cranial cruciate ligament (the ACL in people) is one of the most common orthopedic injuries in dogs. Similar to people, the injury causes instability of the knee joint resulting in inflammation, pain, occasional meniscal cartilage injury and eventual osteoarthritis. A variety of procedures have been developed to stabilize the knee. Tibial tuberosity advancement (TTA) is one of the most recent procedures to be developed. Rupture of the cranial cruciate ligament results in a forward "thrust" of the tibia relative to the femur, hence the instability. The TTA procedure involves a geometric alteration of the knee joint to eliminate the instability.

The patellar tendon inserts on a bony prominence called the tibial tuberosity. An osteotomy (cut of the bone) is made to release the tibial tuberosity. The tuberosity is then advanced forward and stabilized in this position using a small stainless steel cage and a specialized plate. Advancing the tuberosity pulls the patellar tendon forward. This eliminates the tibial thrust and thereby stabilizes the knee. Dogs receiving the TTA procedure usually stay the night on intravenous pain medication and are monitored by doctors and technicians. Most of these dogs are released the next day.

Recovery from the TTA procedure requires 6 to 8 weeks of exercise restriction to allow for proper healing. This may often be a challenge for owners since their dogs are usually feeling better and want to become more active. Skin sutures are removed two weeks after surgery. At this time, clients meet with the WestVet surgeon and also a physical therapist who will council the owner on physical therapy exercises to help strengthen the limb after surgery. Radiographs are taken 6 weeks after surgery to determine the progression of healing. Recommendations are made at this time for transition back to normal activity.

The surgeons at WestVet have extensive training and experience with TTA and other procedures used to stabilize the knee. Various criteria are used to determine which procedure may be best for your dog. Consultation with a WestVet surgeon is by referral.