



Veterinary Specialists of Alaska, P.C. Client Information Sheet: Arthrex TightRope® (TR)

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This is a relatively new technique for stabilization of the cruciate-deficient stifle and our experience with it is limited. It is similar to the lateral fabello-tibial suture (LFTS) in that it involves the placement of an artificial material on the outside of the joint (but under the skin) that is at the approximate angle of the previously intact cranial cruciate ligament. When properly placed, the angle of this material approximates the angle of orientation of the intact cranial cruciate ligament. In this position, the suture helps to inhibit forward displacement and internal rotation of the tibia.

With this technique, the artificial ligament is anchored to bone at both ends and is less likely to pull through the tissues, a common problem with the traditional lateral fabello-tibial suture technique (Figure 1 and 2). Another advantage over the standard lateral fabello-tibial suture technique is that the TightRope® material is placed in a more physiologically appropriate position. This means a more stable joint with more natural range of motion following surgery. Additionally, TightRope® is extremely strong and very unlikely to break or stretch.



Figure 1 (left) and 2 (right): Drawings of a stifle, stabilized using the TightRope® - Technique. Courtesy: James L. Cook, DVM, DACVS, PhD

Success of this technique is not dependent upon bone healing as it is with the tibial plateau leveling osteotomy (TPLO). Consequently, this technique may be more appropriate for some patients with health issues that affect bone healing such as age, obesity or systemic illness. This novel approach to placement of a lateral stabilization material shows great promise and our initial impression is favorable.

Potential Complications:

Complications occur in the minority of patients and they vary depending upon many factors. The details of complications as they pertain to your pet will be discussed in detail by your board-certified surgeon.

Post-operative Care:

After TightRope® surgery, your pet will remain in our hospital overnight. Pain medication will be administered postoperatively to keep your pet as comfortable as possible. Your dog will be released to your care the day after surgery. We recommend limiting activity for 6-8 weeks after surgery. Analgesic (anti-pain) medications and



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antibiotics are dispensed for administration at home. The Physical Rehabilitation staff will meet with you upon dismissal to discuss exercises that you can perform at home to facilitate recovery.

We will re-evaluate your pet 10-14 days after surgery. At this time, we will assess healing of the skin incision and healing of the soft tissues around the joint. Skin staples typically can be removed at this time. Also, at this time, aggressive physical rehabilitation is initiated which typically includes, among other things, regular visits to work out in the underwater treadmill.

Prognosis:

It is important to realize that over 50% of patients who rupture the cranial cruciate ligament in one knee, will eventually rupture the cranial cruciate ligament in the other knee.

Because this is a relatively new technique, there is limited data regarding the long term outcome of these patients. Our initial results, and those of other surgeons, are encouraging. In some studies, this technique appears to compare favorably to the TPLO procedure and appears superior to the traditional lateral fabello-tibial suture technique.

We believe that proper case selection is instrumental in achieving successful outcomes with any surgical procedure. We will consider a variety of factors prior to recommending a particular procedure for your dog.



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