

# Canine Cruciate Repair

## Surgical Outcomes and Complications

### Complications and Risks

Although infrequent, risk of surgical complications does exist. It is important to be aware of the risks and potential complications prior to surgery so that if any issues arise they can be dealt with promptly. Some complications include:

1. Infections occasionally happen after surgery, but antibiotics will be used during and after surgery to limit its occurrence.
2. Implant failure involves the breakdown of the surgical material used to stabilize the knee. This can occur for various reasons such as stress or excessive force being applied to the device due to weight, too much physical activity before adequate healing, infections or other trauma. If implant failure occurs a second surgery may be needed.
3. As with any anesthetic procedure, there are inherent risks associated with general anesthesia.
4. Nerve damage is a rare complication associated with placement of implants.

### Comparison of Published Complication Rates from multiple studies:

- Tibial Plateau Levelling Osteotomy (TPLO): in over 1000 cases was 14.8% (6.6% 17.4% to major), which included 12% meniscal injury and 6.6% infection. (1.5% Catastrophic)
- Tibial Tuberosity Advancement (TTA): in 101 cases was 25% to 31.5% (12.3% to 22.2%major), which included 27.8% meniscal injury and 6.6% infection. (5.6% catastrophic)
- TightRope® (TR): in 1,215 case was 12% (8% to 9.8%major), which included 6.3% meniscal injury and 3.9% infection. (0% Catastrophic)

#### Note

*\* Most surgeons today have learned from the information in these studies and were able to improve on the complication rates.*

*\*\* Major Complications required follow up surgical procedures*

*\*\*\* Catastrophic Complications are conditions from which the patient is unable to recover*

### Key Prognostic Points:

- Regardless of the technique used, extracapsular techniques or tibial osteotomies should result in 85-90% improvement after surgery.
- No current technique will result in return to normal weight-bearing in the majority of dogs, but several techniques will result in high client satisfaction and patient comfort.
- No current technique will halt the progression of Degenerative Joint Disease (arthritis).

### Summary

TPLO, TTA, and TightRope® techniques all resulted in a return to function in the majority of the cases. Studies have shown that percent of function >1 year after surgery was:

93.1% for TPLO - Tibial Plateau Levelling Osteotomy

92.7% for TR- TightRope®

89.2% for TTA -Tibial Tuberosity Advancement