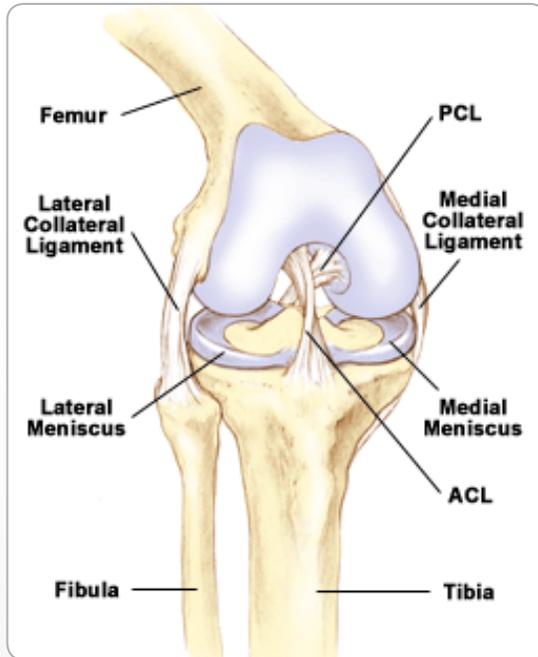


WHAT ARE POSSIBLE COMPLICATIONS?

- Progressive arthritis within the affected joint may be seen in some dogs, especially if ligament deficiency has been long standing (over several months)
- Medial meniscal injuries may occur and are diagnosed as audible “clicking” within the joint after surgery (when meniscus becomes dislodged, displaced or is trapped in an abnormal position between the bones in the joint); this is usually a rare occurrence especially if a damaged meniscus was removed or was released during the initial surgery

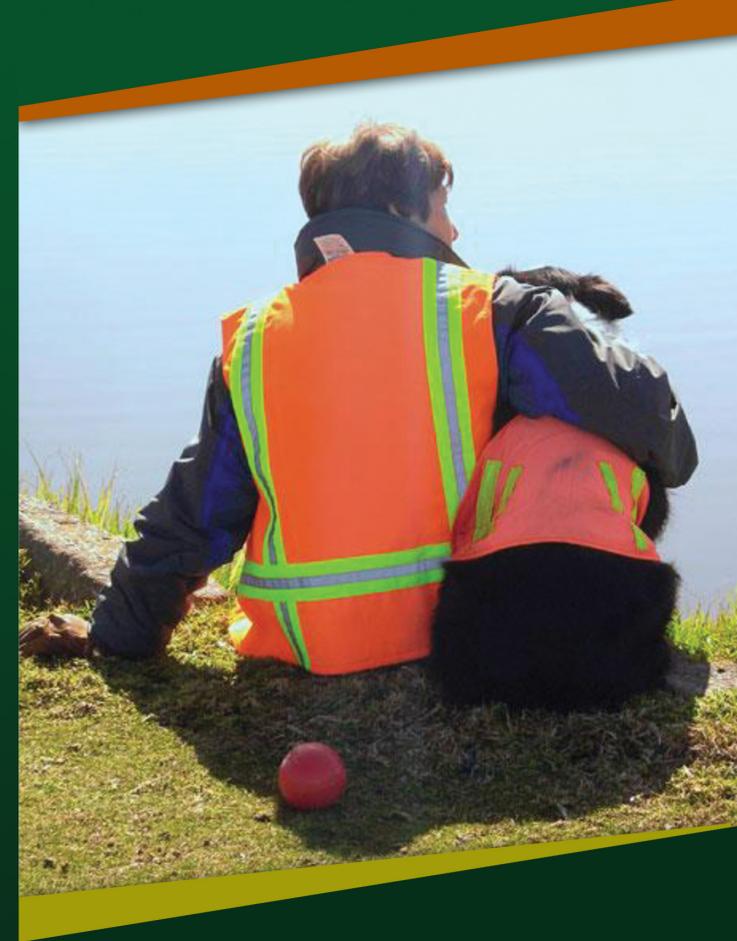


- Infection rates are low, but may cause implant loosening or rejection (characterized by persistence or recurrence of lameness with or without swelling and/or drainage of fluid at the surgical site) that requires surgical removal of the metallic implants once bone healing is documented.

POSTOPERATIVE REHABILITATION



CANINE TPLO: TIBIAL PLATEAU LEVELING OSTEOTOMY



M.A.S.H.™

MID-ATLANTIC
ANIMAL SPECIALTY
HOSPITAL

4135 Old Town Road, P.O. Box 1168
Huntingtown, MD 20639
Local: 410.414.8250 | Fax: 410.414.2222

Acknowledgement: Brochure content provided in part
by Amy Lacosse for Calvert County Public Schools
Community Mentorship Program project.



M.A.S.H.™

MID-ATLANTIC
ANIMAL SPECIALTY
HOSPITAL

WHAT IS CRUCIATE LIGAMENT DISEASE?

Cranial (Anterior) Cruciate Ligament (CCL or ACL) disease is one of the most common causes of rear limb lameness in the dog. The actual cause is likely multifactorial and includes:

- Trauma
- Ligamentous stretching and loss of integrity over time (partial tearing)
- Abnormal joint conformation causing undue stresses within the ligament



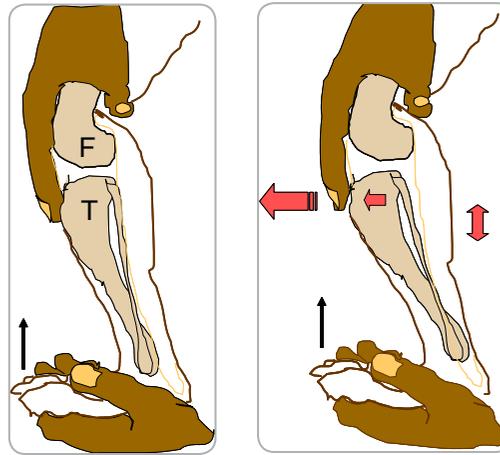
Many breeds are affected but some may be overrepresented: Akita, Labrador retriever, golden retriever, American bulldog, English bulldog, Rottweiler. Some predisposing factors include:

- Obesity
- Breed and joint conformation
- Concurrent orthopedic problems (hip dysplasia, patellar luxation, knee OCD)
- Strenuous exercise/activity

HOW IS THE DISEASE DIAGNOSED?

A thorough orthopedic examination will be performed to evaluate the reported lameness and to localize the pain, effusion (increased fluid within the joint), and any palpable instability to the stifle (knee) joint. Some dogs with partially

torn (stretched or only with a few disrupted fibers) ligaments do not have any palpable instability. The instability may be characterized by either or both cranial drawer or cranial tibial thrusting (i.e. shown below as sliding forward of the tibia/T with respect to the femur/F).



Specially positioned radiographs (x-rays) of the knee and tibia usually confirm the presence of effusion and any signs of arthritis (bony spurs accumulated along joint surfaces).

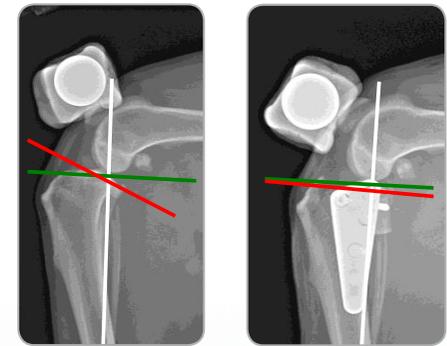


WHAT IS THE TPLO?

The tibial plateau leveling osteotomy performed here at MASH since 2004 is a surgical technique used to stabilize knee joints that have suffered acute or chronic cranial cruciate ligament (CCL) injury. This is achieved by reducing the current measured tibial plateau angle (TPA, i.e. the angle formed between red and green lines shown below) from $>15^\circ$ to $5-10^\circ$, thereby eliminating the forward thrusting of the tibia or protecting a partially torn ligament from further stress.

WHAT ARE GOALS OF TPLO SURGERY?

The joint is approached to examine the degree of medial meniscal injury; if the medial meniscus is damaged it may be removed; if not, a releasing technique may be performed to hopefully prevent it from future entrapment or damage. The top of the tibia is then cut using an oscillating bone saw so that this free segment of bone can be rotated by a predetermined angle in order to achieve a more level tibial plateau slope (i.e. bringing the red line almost in line with the green). Surgery fees include initial diagnostics, surgery, hospitalization, medications, wound healing and initial physical rehabilitation visit, and 8-week postoperative visit for sedation and radiographs.



WHAT SHOULD I EXPECT AFTER TPLO?

TPLO usually results in full return to normal function in 96+% of patients with uncomplicated healing. Patients typically stay in the hospital the night of their surgery and are discharged the following day to begin an 8-week activity restricted recovery. Most patients exhibit gradually increasing weight bearing within 2-10 weeks after surgery. Thermal therapy, general wound care, and passive range of motion exercises are encouraged at home until the first hospital recheck appointment for wound healing and physical rehabilitation examination at 2 weeks after surgery. Unfortunately, roughly 40-50% of dogs that rupture one cranial cruciate ligament may rupture the opposite side within 11-15 months.