

-Pre surgical TPLO information

Your Pet has been diagnosed with a cruciate ligament rupture and a TPLO has been recommended to improve the function of the affected leg. There are several points we want to make you aware of regarding a TPLO surgery.

Doctor Gintz has over 20 years of experience performing this procedure and is very comfortable doing so. You do have the option of seeking a board certified Veterinary Surgeon to perform this procedure.

Exercise restriction after surgery is very important. Patients that have had this surgery start to feel good on the operated leg in a couple of weeks and will overuse it if allowed. The plate that has been applied stabilizes the cut piece of bone but is not as strong as the original bone. Keeping the surgical patient quiet until the bone has healed is an important part of recovery.

Exercise restriction for your pet means the following.

- No running or jumping
- Outside to eliminate on leash only-no running loose in yard
- No up and down stairs without support
- No playing with other dogs

We recognize that exercise restriction of some Pets can be difficult but is a very important aspect of a successful surgical outcome. If you feel you will be unable to perform this, please let us know. There are sedatives we can prescribe for your Pet if needed.

Your Pet will go home with an Elizabethan collar and will need to wear that until the staples or sutures are removed from the skin incision. There are other types of collars that can prevent incisional chewing and licking. Inflatable cervical collars can be effective in some dogs and are less cumbersome. These can be purchased at most Pet supply stores. It is of paramount importance that these **patients can not lick or chew at their incision**. If they remove skin sutures it significantly increases the risk of infection..

As with any bone surgery there are potential uncommon complications that can occur. These include infection, implant failure (bending, breaking of plate and /or screws), post surgery meniscal injury and delayed healing. Some cases of infection may require removal of the plate once the cut in the bone has healed.

When we examine the interior of the joint we also carefully examine the meniscus which are two small cartilage plates inside the joint. If they are damaged, they are sometimes removed. On rare occasions these cartilage plates can sustain damage at some or any point post-operatively and may require a second surgery to remove the damaged cartilage.

Follow up for your Pet will entail a recheck at staple/suture removal time. Post operative Radiographs (x-rays) will be taken at 6 weeks and 12 weeks post-operatively. At 6 weeks we are looking with radiographs to verify that the plate and screws are stable and that the cut in the bone is beginning to heal. At 12 weeks we expect the cut in the bone to be healed and at that point we generally begin to increase the patient's activity.

Consider getting a harness for the front and rear of your Pet. I prefer the **helpemup harness**. You can search online for their website and order directly from them. This basically puts luggage handles on your pet that helps you help them get around safely

Cranial Cruciate Ligament

One of the most common injuries to the knee of dogs is tearing of the cranial cruciate ligament (CCL). This ligament is similar to the anterior cruciate ligament (ACL) in humans. There are actually two cruciate ligaments inside the knee: the cranial cruciate ligament and caudal cruciate ligament. They are called "cruciate" because they "cross" over each other inside the middle of the knee.

When the CCL is torn or injured, the shin bone (tibia) slides forward with respect to the thigh bone (femur), which is known as a *positive drawer sign*. Most dogs with this injury cannot walk normally and experience pain. The resulting instability damages the cartilage and surrounding bones and leads to osteoarthritis (OA).

What options are there for repairing my dog's torn CCL?

When the cranial cruciate ligament is torn, surgical stabilization of the knee joint is required. Surgery is generally recommended as quickly as possible to reduce permanent, irreversible joint damage and relieve pain.

"Surgery is recommended to reduce permanent, irreversible joint damage and relieve pain."

Several surgical techniques are currently used to correct CCL rupture. Each procedure has unique advantages and potential drawbacks. We perform a procedure called a TPLO. This handout covers the most common type of cruciate repair. Other types of surgery used to correct CCL injuries in dogs are the Tibial Tuberosity advancement (TTA), Extracapsular repair and a tigtrope procedure.

My veterinarian is recommending a tibial plateau leveling osteotomy to fix my dog's torn CCL. What does this surgery involve?

A major advancement in the treatment of CCL rupture has been the development of tibial plateau leveling osteotomy or TPLO. This surgery changes the angle and relationship of the femur and the tibia. The overall intent of the surgery is to reduce the amount that shifts forward during a stride. This is accomplished by making a semicircular cut through the top of the tibia, rotating the top of the tibia, and using a bone plate to allow the tibia to heal. This realignment of the surfaces within the stifle helps to provide stability during a stride, and helps to reduce future joint inflammation and arthritis. By carefully adjusting the angle or slope of the top of the tibia, surgeons are able to replicate a more normal configuration of the knee joint and reduce mechanical stress.

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To better understand the purpose of leveling the tibia, we often use the analogy of a wagon on a hill.

Imagine a wagon tied to a post on the slope of a hill. As long as the rope holds, the wagon doesn't roll downhill. If we add excess weight (or downward force) to the wagon, the rope could break and the wagon will roll down the hill. However, if the wagon is on level ground, it will not roll forward with added weight, even if the rope is broken.

In this example, the wagon is the femur, and it slides down the slope of the top of the tibia when the CCL is ruptured. This instability leads to damage and destruction of the cartilage and bones of the knee joint. TPLO surgery “levels” the tibia to prevent the femur from sliding forward, thereby stabilizing the joint.

TPLO surgery involves making a curved cut in the tibia from the front to the back, much like half a smiley face. The top section of the tibia is then rotated backward until the angle between the tibia and femur is deemed “appropriately level,” typically between 2 and 14 degrees, with 5 degrees being the ideal angle. A metal bone plate is then used to affix the two sections of tibia in the desired positions, allowing the tibia to heal in its new configuration.

How long will it take for my dog to recover from TPLO surgery?

“About half of all canine patients will begin walking on the injured leg within 24 hours after surgery.”

Healing from TPLO surgery is generally rapid.

- About half of all canine patients will begin walking on the injured leg within 24 hours after surgery.
- At 2 weeks postoperatively, most dogs are bearing moderate amounts of weight on the affected leg.
- By 10 weeks, most dogs do not have an appreciable limp or gait abnormality.
- As mentioned above, at 10 weeks postoperatively, the majority of dogs can begin walking and playing normally, with only the most stressful activities restricted.
- Within 3-4 months, most dogs can resume full physical activity.

Pain management during and after stifle surgery is critical, so be sure to give all medications as prescribed and use them until they are gone. Physical rehabilitation post-operatively will speed healing. Ask your veterinarian about incorporating rehabilitation into your dog's recovery plan.

The most common complication after TPLO is infection. Nationwide studies conclude that infection occurs in 12 to 4% of all patients receiving a TPLO. Your dog will need recheck examinations and radiographs (x-rays) to ensure that the area is healing properly.

Is a TPLO better than other types of CCL surgeries?

“TPLO and TTA offer many benefits over older procedures such as extracapsular repairs (ECLS), especially for larger or athletic dogs.”

TPLO and TTA offer some benefits over older procedures such as extracapsular repairs (ECLS), especially for larger or athletic dogs. Dogs undergoing TPLO or TTA tend to heal faster, resume normal activities quicker, and have a better range of motion in the knee.

Currently, most veterinary surgeons consider TPLO and TTA to be the preferred treatments for larger, more active dogs. Also, newer data suggests that it may be wise to have the TPLO plate removed sometime after the leg is completely healed to prevent a reaction to the orthopedic implant.

Your veterinarian will guide you through the decision-making process to determine which procedure provides your dog with the best chance of full recovery.

[A great link to a helpful 6 part video discussing Cruciate ligament disease and TPLO can be found at this website. Please view this prior to you appointment for surgery](#)

www.tploinfo.com

<https://www.homedepot.com/p/Lucky-Dog-48-in-High-Heavy-Duty-Exercise-Pen-with-Stakes-ZW-11648/205198717> (Heavy Duty Exercise Pen)