

### Medical options

The medical option means that no surgical stabilization procedure is used to stabilize the stifle. The goal of this approach is to maintain the patient at an optimal weight, have a controlled exercise program to slow down debilitating arthritis and the use of non-steroidal anti-inflammatory drugs and joint supplements to control arthritis pain. Dogs under 15 pounds rarely need surgical repair unless a luxating patella is present. For all other dogs, the medical option is only used when dogs are not suitable candidates for surgery or the costs of surgery are prohibitive.

### In Conclusion

The goal of all of the treatments for a ruptured cranial cruciate ligament is a reasonable return of mobility (no lameness when walking), no chronic pain and minimizing the progress of arthritis.

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Hospital  
2670 San Miguel Drive  
Newport Beach, CA 92660  
949-759-1911**

## Cranial Cruciate Ligament Injury



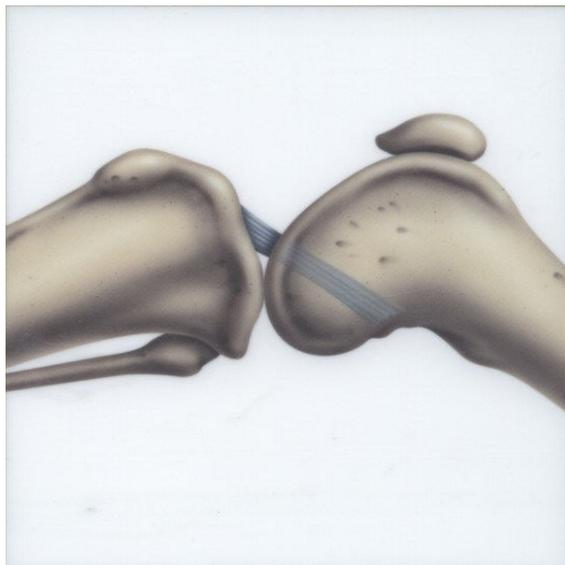
The most common orthopedic injury in dogs is a ruptured cranial cruciate ligament. The usual complaint is of a sudden severe lameness involving the rear leg in which the dog can hardly bear weight on the affected limb. If left untreated, the lameness while walking will appear to improve over a course of several months. However, the dog will usually remain very lame if it attempts to run or play.

All breeds of dog are affected but cranial cruciate injuries are most common in large, active dogs and those that are overweight. The injury to the ligament may result in a partial or complete tear. Over time most partial tears progress to a complete tear.

## Diagnosis:

An injury to the cranial cruciate ligament of the knee causes the stifle joint to become unstable. A normal cruciate ligament prevents forward and rotational thrust of the tibia in relation to the femur. When the ligament is no longer functioning the joint becomes unstable and inflamed.

On examination the veterinarian will detect enlargement of the stifle (knee) due to swelling. If the injury is recent, the veterinarian will palpate the stifle to determine if there is abnormal stifle motion (tibial mobility) that is the hallmark sign for a torn ligament. If the ligament injury is longer than 4-6 months this motion may be limited due to swelling and orthopedic changes within the joint. All dogs with ligament injuries will eventually develop arthritis of the joint. The timeline for progress and degree of arthritis will be dependent upon the amount of instability of the joint (less instability in a partial tear) and the level of activity of the individual dog. The more activity the greater the wear and tear on an abnormal joint



Normal Knee Joint

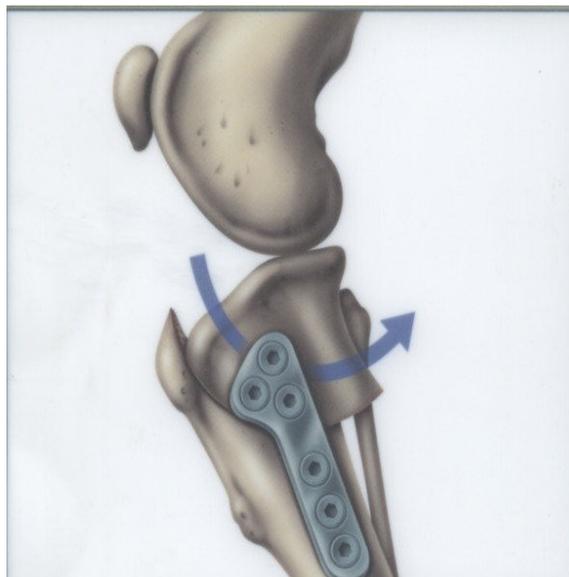
## Correction of Cranial Cruciate Injury

### Surgical Repair

The goal of surgery is to eliminate the instability in the damaged knee joint, allow for normal activity and slow down the development of debilitating arthritis. There are several suggested techniques that are available.

### Tibial Plateau Leveling Osteotomy

This procedure is considered to be the gold standard of care for dogs over 40 pounds. The procedure involves cutting the tibia and rotating it into a new position. The bone is reattached with a plate. The benefits of this procedure are better function in the stifle due to better stabilization. The drawbacks are strict rest for 8 weeks and the expense. A specialist normally does this procedure.



Tibial Plateau Leveling Osteotomy

### Tibial Tuberosity Advancement

This procedure also involves cutting the tibia and repositioning the tibial plateau to minimize shear forces and forward tibial thrust. Some specialists prefer this procedure to the TPLO. The drawbacks include strict rest for 3-4 months and the expense.

### Extracapsular Repair

This procedure is less expensive and has less recovery time than the TPLO and TTA. The procedure includes opening the knee joint, removing the torn cruciate ligament; inspecting the meniscus for damage and stabilizing the joint with a nylon band that is anchored from the femur to the tibial plateau. The benefits of this procedure include quicker recovery time with less chance of complications. The drawback is that adequate joint stabilization on a long term basis can be difficult to achieve. Typically the suture will break or loosen in 2-12 months and the patient's own scar tissue will support the knee. This procedure is usually chosen for patients between 20-50 pounds, patients over 10 years of age (quicker recovery and less activity is expected post-op) and patients where a less expensive procedure is needed.