

**GRAND AVENUE**  
VETERINARY CLINIC

## RUPTURE OF THE CRANIAL CRUCIATE LIGAMENT (ACL)

### Keys on ACL Rupture

- ACL rupture is the most common orthopedic injury seen in dogs.
- Characteristic clinical signs include toe-touching lameness, though this can vary.
- Surgery is indicated in larger breed dogs. The bigger the dog, the greater the risk for severe arthritis in an unstable joint.
- Anti-inflammatory drugs have been shown to be poorly effective in improving comfort levels associated with this type of injury.
- If a dog remains uncomfortable after 2-3 weeks, surgery is usually the only option to provide adequate stabilization and prevent progression of arthritis.

One of the most common injuries in dogs is rupture of the cranial cruciate ligament (more commonly known as the ACL). Identical to the same injury in people, this condition may or may not require surgery to manage the resulting lameness. This information sheet will help discern the characteristics of dogs that have ruptured ACLs and what their prognosis might be.

### Diagnosis

A dog that has torn its ACL will usually be toe-touching lame on the affected leg, though depending on the degree of the injury, the lameness may be more severe or less apparent. Many ruptures occur acutely and are associated with some form of exercise, though not always. A more chronic ACL will usually also have arthritis in the joint as well, which can be detected by x-ray.

ACL rupture is one of the few injuries that can be diagnosed exclusively on a physical examination. An abnormal movement can be detected during the exam, which, if present, is confirmatory for this injury. However, not all

dogs with ACL tears show this abnormal movement.

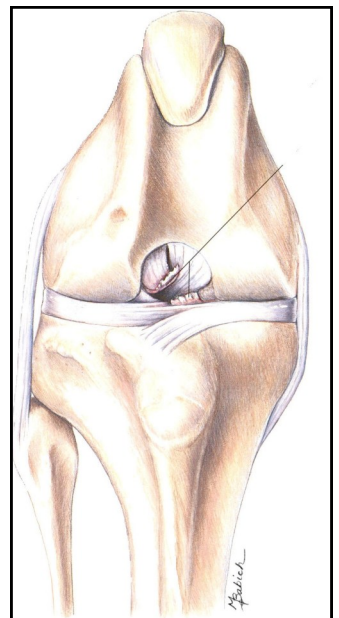
### Is Surgery Needed?

The answer to this question depends on the dog. Most larger dogs will require surgical fixation of the knee to prevent significant arthritis from forming. The preferred stabilization for dogs over 60 pounds is called a Tibial Plateau Leveling Osteotomy (TPLO). This procedure must be performed by a specially trained and certified surgeon here at Grand Avenue and costs around \$3900-4300.

Dogs over 30 pounds usually still need surgery, but a simpler technique called an extracapsular repair can be used instead. A high-gauge non-absorbable suture is surgically wrapped around the joint to stabilize it from the outside. We refer extracapsular repairs to nearby clinics, usually costing around \$2000-2500.

For small breed dogs, surgery is not always necessary. In response to the destabilization of the joint, the body recognizes that abnormal movement is present and forms a soft tissue scar around the

joint. All dogs that tear their ACL form this scar, but in small dogs that scar may be sufficient to allow for normal joint function. They will still develop some degree of arthritis, but many of them do regain close-to-normal limb function. Surgery is indicated for smaller dogs that remain uncomfortable or fail to use the leg adequately.



The line points to the ruptured ACL. This ligament is crucial in stabilizing the knee joint.



## MASSAGE AND PHYSICAL THERAPY FOR KNEE INJURIES

Massage therapy can be one of the most effective means of keeping an arthritic dog feeling good. Improving blood supply to the muscles and stimulation leads to healthy, stronger muscles, which reduces the load that the dog's sore joints need to bear.

In order to consider massage therapy, x-rays need to be taken to confirm the exact joints affected, which allows the therapist to focus on those muscle groups that will benefit the dog best. These films can be performed after a complete physical.

Fortunately, at GAVC we are lucky enough to have a veterinary technician certified in massage therapy. She has had advanced training in this area and can provide these services, helping your dog be more comfortable and more active.