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## Cranial Cruciate Ligament Rupture

### **What is the CCL?**

A ligament is a band of fibers that connects bones or cartilage and serves to support and strengthen joints. The cruciate ligaments of the knee joint are cross-shaped ligaments that connect the femur (the upper bone of the rear leg) to the tibia (the lower leg bone). These ligaments are located within the knee joint itself. In normal animals, the knee joint is very stable; but this stability is destroyed when the cruciate ligaments are torn. This instability leads to degenerative changes such as arthritis.

### **Causes**

Trauma, such as being hit by a car or stepping in a hole, can tear the cruciate ligaments. This is most common in larger dogs. Most cases, however, occur in older dogs whose ligaments seem to deteriorate with age. The ligament ruptures with minor trauma such as running or jumping. Obesity puts additional stress on the ligament and may be a contributing factor. Ruptured cranial cruciate ligaments occur in cats, but less frequently than in dogs.

### **Diagnosis**

A CCL rupture is usually suspected based on clinical signs of rapid onset of rear-leg lameness following trauma or exercise. We confirm the diagnosis by palpating the knee for instability. Sometimes, a sedative or anesthesia may be needed so that your pet relaxes enough to permit a thorough examination. X-rays of the leg are sometimes taken as well to help confirm the diagnosis.

### **Treatment & Home Care**

There are two options for treatment of a cranial cruciate rupture. Most of the time, especially in younger animals, surgery is the best option. Surgical repair stabilizes the knee and helps prevent arthritis from developing. Surgery also allows the veterinarian to inspect the inside of the knee joint for tears in cartilage that often occur with cranial cruciate ruptures. Finally, surgical repair of one knee may help prevent similar ruptures in the opposite knee because your pet will bear weight more normally on two rear legs rather than on one leg. Your pet will usually return to more normal activity faster with surgery than without it.

The second option for treatment consists of strict kennel confinement for 4-6 weeks. In this case, you need to restrict your pet's exercise to leash walks ONLY to use the bathroom (never off leash), no running or jumping, and when you are not with your pet they should be confined to either a kennel (crate) or a very small room. Pain medication will be prescribed in order to make your pet feel more comfortable. The brunt of the responsibility for their return to health is on YOUR shoulders as the owner. The better you do at keeping your pet quiet for 4-6 weeks, the faster they will heal and return to normal activity. Generally, after 4 weeks of confinement, you gradually return to a normal exercise routine.

If your pet is overweight, weight loss is a very important aspect of their therapy. Not only is it very hard on the bones and joints to carry around excess pounds, obesity carries other risks such as diabetes. Follow your veterinarian's guidelines on how to help your pet lose weight.