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## CRANIAL CRUCIATE LIGAMENT RUPTURE

- Cruciate ligament (CCL) rupture is one of the most common orthopedic problems in dogs.
- The CCL in dogs corresponds to the anterior cruciate ligament (ACL) in humans.
- An injury to this ligament is debilitating and extremely painful.
- Dogs injure this ligament when the joint is hyperextended or rotated to an excessive degree. The injury can also develop over time in susceptible dogs.
- The condition can be treated either medically or surgically and is dependent on a number of factors.

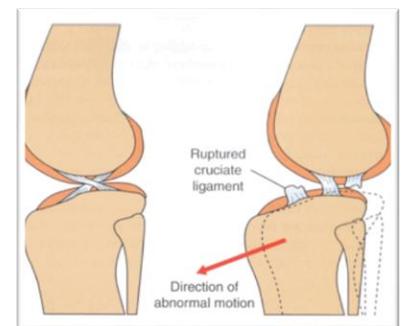
### WHAT IS CRANIAL CRUCIATE LIGAMENT RUPTURE?

Cranial cruciate ligament (CCL) rupture is one of the most common orthopedic problems in dogs. A dog's stifle joint corresponds to the human knee joint, and the CCL is comparable to the anterior cruciate ligament (ACL) in humans. Just as in humans, a partial or complete rupture of this ligament is debilitating and extremely painful, resulting in lameness and joint instability. Untreated, CCL rupture results in additional degenerative changes in the joint and, eventually, osteoarthritis. CCL rupture can occur in any dog. Risk factors include obesity, existing osteoarthritis or instability in the knee, and a lack of proper conditioning for the activity taking place, such as a normally sedentary dog that suddenly begins vigorous play.

### WHAT ARE THE SIGNS OF CCL RUPTURE?

The first sign of the disease is typically hind leg lameness. The degree of lameness depends on whether the injury is chronic or acute/traumatic and whether the rupture is partial or complete. As a result, some dogs may be slightly lame while others are unable to place any weight on the affected limb. Other signs include:

- pain and stiffness
- a dog that sits abnormally because it no longer can or wants to flex its stifle joint
- difficulty rising
- joint swelling and/or muscle atrophy (wasting) in the stifle area
- decreased activity level



### CAUSES OF CCL RUPTURE

#### *Chronic Rupture:*

This occurs when the ligament has weakened and become damaged over time, as with osteoarthritis. Additional degenerative changes in the joint may result. Partial tears will eventually rupture completely if left untreated. Age, obesity, poor posture, and certain diseases can contribute to ligament deterioration and rupture.

#### *Acute Rupture:*

Dogs typically injure their CCL while engaged in some type of physical activity during which the joint is hyperextended or rotated to such an extreme degree that the ligament tears.

## HOW IS IT DIAGNOSED?

Diagnosis of CCL is usually made based on clinical signs, physical examination, and radiographs (x-rays). During the examination, your veterinarian will evaluate the joint for abnormal movement or instability; this may need to be done with your dog under sedation. Any swelling in the joint or muscle atrophy will also be noted. If required, radiographs may also be taken.

## TREATMENT

Your veterinarian may recommend medical or surgical treatment for CCL rupture. Treatment recommendations are based on several factors, including the severity of the injury, the condition of other structures in the knee, and the size and overall health of the patient.

Medical management typically consists of rest, appropriate pain medication (such as nonsteroidal anti-inflammatory medications), joint support medications, dietary changes and joint supplements. Once the acute phase has passed, it is very important to keep the dog's weight under control and follow a veterinarian-approved exercise plan. In many cases, small dogs can do well with medical management. Conservative medical treatment may also be recommended if the dog is not a good candidate for surgery.

Surgical treatment involves stabilizing the joint in order to create more normal joint movement. There are several surgical procedures that can accomplish this successfully. If your dog is a candidate for CCL surgery, your veterinarian will discuss your surgical options with you.

After the surgery, closely follow your veterinarian's instructions regarding limitations on activity to allow the surgical site to heal. Pain medications and physical therapy will be prescribed as needed. The prognosis varies based on the degree of joint degeneration.

It should be noted that a significant percentage of dogs that have experienced a CCL rupture in one hind leg typically rupture the CCL in their other hind leg within a year.

*This information sheet is not intended as a substitute for a veterinary consultation.*

*It is recommended that a consultation be arranged with a veterinary practitioner if you have any concerns with your pets' health.*