

# Fibrocartilaginous Embolization

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## What is Fibrocartilaginous Embolization (FCE)?

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## What are clinical signs of FCE?

Symptoms of incoordination and weakness/paralysis occur very suddenly and may progress over the first 6-12 hours. After the first 12 hours, signs are static to improving. FCE occurs most commonly in the middle part of the spinal cord affecting only the hind limbs, but it can occur in the neck affecting all four limbs. FCE is commonly asymmetric (i.e. worse on the right or left side).

## How do you diagnose FCE?

Diagnosis is made by a combination of history, neurologic exam, and spinal cord imaging. The classic hallmarks of FCE are that they occur very suddenly and are non-painful, non-progressive, and lateralizing to the left or right side. Radiographs are taken to determine if there are any fractures or dislocations of the spine. An MRI (magnetic resonance imaging) often shows classic changes inside the spinal cord in dogs with FCE. In an emergency situation where MRI is not available, a myelogram can be done to rule out spinal cord compression from other diseases such as an intervertebral disc herniation.

## How do you treat FCE?

There is no specific medical or surgical treatment for FCE. Supportive care including frequent turning to prevent bed sores,

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bladder management either via indwelling urinary catheter or manual bladder expression, and physical therapy is required in some dogs.

### **That is the prognosis?**

Prognosis is dependent on the severity of neurologic dysfunction (i.e. dogs with no feeling in their limbs carry a poor prognosis), the location of the FCE (longer recovery in areas of the spinal cord directly above the front or hind limbs), and the amount of spinal cord affected (large areas carry a poorer prognosis).

Recovery occurs when the spinal cord receives new blood supply from the occluded blood vessel or surrounding blood vessels. Recovery of dogs with FCE typically follows one of three patterns. Some dogs improve vary rapidly, over hours to days. Others improve more slowly (weeks to months) but eventually regain function. A third set of dogs show little to no improvement, likely because the area of spinal cord affected is so large that it never gets adequate blood supply. No improvement within a 2 week period carries a guarded prognosis.



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