

Spinal Cord Function Diagram

Loss

Return

1 = Postural control

2 = Motor function

3 = Urination control 4 = Pain sensation Better Options. Better Care. ph 608.845.0002 | fax 608.845.2200 edingersurgicaloptions.com

## **INTERVERTEBRAL DISC DISEASE (IVDD)**

## What is Intervertebral Disc Disease?

The degeneration and bulging or herniation of an intervertebral disc into the spinal canal places pressure on the spinal cord. The spinal column is made up of many bones called vertebrae. Intervertebral discs sit between adjacent vertebrae providing cushion attachment. The spinal cord travels through the central canal of the spinal column just above the level of the intervertebral discs. Normal discs have a soft inner portion (nucleus pulposus) contained within a very firm outer layer (annulus fibrosus). The most common type of disc disease is when the inner nucleus erupts into the spinal canal causing compression and sometimes concussion of the spinal cord. The severity of clinical signs will depend upon the degree of cord compression and/or concussion. This type of IVDD is most common in chondrodystrophic breeds, (Dachshund, Bassett Hound, Beagle, Cocker Spaniel) but can occur in any breed. A second type of IVDD is bulging of the disc into the spinal canal without rupturing. Clinical signs usually occur over a longer period of time. However, if the cord compression becomes significant, patients will display similar clinical signs as those with nuclear type herniation. This type of disc degeneration usually occurs in older, larger breeds such as German Shepherd Dogs and Labrador Retrievers but can occur in any breed.

## Diagnosis

A diagnosis of IVDD is based on historical information, neurological examination and results of a CT scan or MRI.

## Treatment

If the patient has pain and/or mild neurological deficits, medical management can be effective. The patient must be strictly confined for 4 to 6 weeks and given anti-inflammatory medications to reduce swelling and decrease discomfort. If the has more severe loss of function, surgical intervention is recommended. The surgical procedure removes the abnormal bone and disc material and takes away the pressure from the spinal cord. Prognosis is directly related to the pre-surgical neurological status and duration of clinical signs. Acute cases with mild deficits have an excellent prognosis and more chronic cases with severe deficits will have a poorer prognosis. Post-operative physical therapy for weeks is important for a good outcome.