Surgical treatment
Surgical treatment starts with the use of advanced diagnostics (myelogram and CT scan) to identify the exact site of spinal cord compression. The most common procedure for IVDD in the thoracic or lumbar spine is a hemilaminectomy. This procedure involves removing a window of bone from the involved vertebrae to allow visualization of the spinal cord and herniated disc material. Once identified, the material is gently removed from underneath the spinal cord so the cord can return to a normal position.

Recovery and Prognosis
The prognosis is good for dogs with IVDD that have motor function at the time of surgery. They have a very good chance of regaining motor function with surgery if they are able to feel their toes when pinched, even if they are unable to walk. If they are unable to feel their toes then there is about a 50% chance that they will regain motor function with surgery. Additional management such as carts and physical therapy are discussed and involved as needed. At-home care involved 4-6 weeks of restriction to allow the muscles and surgery site to heal. Other components of recovery include incision management, bladder management, passive range of motion and physical therapy.
What is intervertebral disc disease

In some breeds the intervertebral discs degenerate over time. The nucleus of the disc becomes calcified and the outer fibrous ring becomes weak and susceptible to tearing. This allows the nucleus to extrude through the annulus and compress the spinal cord. The trauma to the spinal cord is due to both the continued compression from the disc material as well as the bruising caused by the impact of the extruded disc. Disc extrusion can also be caused by trauma or can be seen in a dog with healthy intervertebral discs.

Anatomy of the Spine

The normal spine consists of 27 bones (not including the tail) called vertebrae. The spine is divided into four main portions; cervical (neck), thoracic (support the thoracic cavity), lumbar (support the abdominal region) and coccygeal (tail). Intervertebral discs are located between the bones of the spine and serve as shock absorbers and stabilizers. Each disc consists of an outer fibrous ring, the annulus fibrosis that surrounds inner pocket of gelatinous material, the nucleus. Several muscles and ligaments support the bones of the spine. Through the center of the vertebral bones is the vertebral canal, the home of the spinal cord, thus the cord is surrounded by bone. Each disc is located beneath the spinal cord where each of the spinal nerves exits the spine.

Signs and Symptoms

Clinical signs depend on the level of spinal cord compression, the bruising from the compression as well as the location of the disc disease.

- Pain
- Lethargic, inappetence
- Unwilling to move neck
- Ataxic/drunken appearance to the back limb gait +/- stiff front limb gait
- Non-weight bearing lameness in a front limb
- Weakness of front or back limbs
- Paralysis of front and/or back limbs
- Unable to urinate or dripping urine

Diagnosis

The initial diagnosis of intervertebral disc disease (IVDD) is based upon physical examination and more importantly neurologic examination. The findings of those examinations will help to localize the lesion to one of the main spinal cord segments as well as help identify the severity of the lesion.

Radiographs are important to evaluate the bones of the spine and rule out disease processes such as cancer of the bone however they can’t diagnose IVDD.

When is surgery indicated

The decision to pursue surgery for IVDD is based upon several factors such as the severity of the clinical signs, level of pain, at home management and desired outcome. When patients are unable to walk on their own, are very weak in their limbs or have intractable pain surgery is the best treatment option.

Consultation and Surgery Scheduling

We recommend consultation for full neurologic examination and discussion of treatment options to determine the best treatment plan for you and your pet. Patients usually stay with us for 3-5 nights after surgery for pain management, neurologic evaluation and rehabilitation. We have a veterinarian monitoring our patients 24 hours a day.

Medical treatment

Medical treatment consists of strict cage rest, anti-inflammatory medication, narcotics, and muscle relaxants. We will determine if medical management is an option for your pet at the time of consultation.