LOUISIANA STATE UNIVERSITY

School of Veterinary Medicine

Canine Disc Disease

What Every Pet Owner Should Know

Facts about Disc Disease

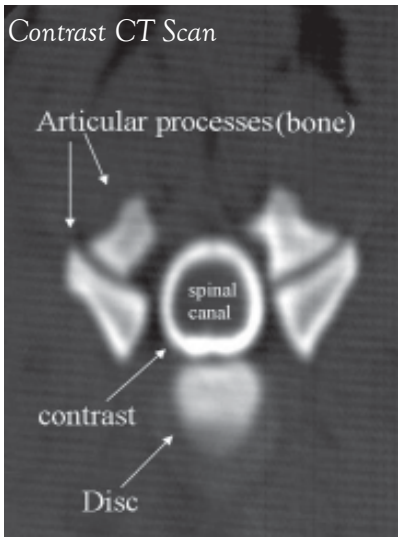
Canine intervertebral disc disease (IVDD) is a common problem in dogs that can result in back or neck pain, trouble walking, lameness, trouble urinating, and/ or paralysis. Disc herniation (a 'slipped disc') can result in a sudden onset of signs. This can happen in dogs of any age or breed, but more commonly affects predisposed breeds such as daschunds, bassett hounds, corgis, and dobermans, to name a few.

How does this happen?

Is important to consider the make-up of the spinal column and vertebrae (back bones) to understand why this disease happens. The vertebrae are lined up from the neck to the tail as small blocks, with the spinal cord running through a hole in the middle. The discs are small circular shock-absorbers between the vertebrae, below the spinal cord. Each disc has a fibrous outer ring, and a jelly-like centre.

With age, the center of the disc may harden or even calcify, and the outer ring may tear. If the outer ring can no longer hold the inner contents of the disc in, then this material may herniate and press on the spinal cord. Herniation of the disc often occurs explosively (type I disc disease), causing significant injury to the spinal cord causing pain, altered gait or paralysis.

This can affect any part of the spinal cord, but more often affects the neck (cervical spine) or mid-lower back (thoraco-lumbar region). Neurological examination will help determine the location, and a series of X-rays and a myelogram will be required to determine the exact location of the problem. Other problems that may cause similar signs include trauma/ fracture, infection or neoplasia.

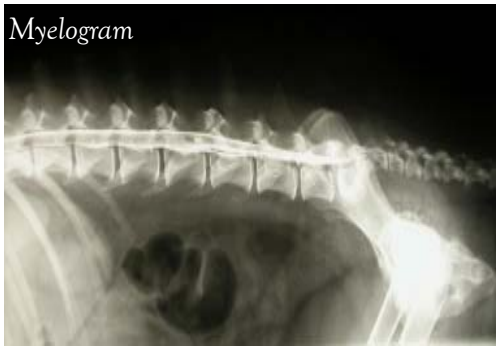


What tests can be done?

After a thorough examination, blood and urine tests will generally be done to determine the overall health of your pet, and suitability for anesthesia. The X-rays and myelogram must be done under general anesthesia

What is a myelogram?

Plain X-rays will provide overall information about the vertebrae, but the spinal cord itself cannot be seen. In order to outline the spinal cord, contrast agent is injected in to the fluid surrounding the spinal cord, then the X-rays are repeated



(see figure above). This will help determine the lesion location, compression in the cord, and help determine if there are other factors causing the problem.

After discussing the results with you, your pet may or may not have spinal surgery on the same day as a myelogram. In some cases, a CT or MRI may be required for more information. After a myelogram or surgery, seizures can occur. Patients are monitored very closely around the clock in the intensive care unit.

What are my treatment options?

Non-surgical

In some cases of disc disease, non-surgical management may be used. This is generally limited to patients having their first episode of back pain, with no real trouble walking. Anti-inflammatory and pain therapy and strict cage rest may be used to try to reduce the swelling of the spinal cord associated with the slipped disc

Surgical

Patients that have lost the ability to walk, urinate or defecate, or have recurrent pain are candidates for surgery. The aim is to remove the herniated disc material and relieve the compression on the spinal cord. The most common surgeries are a ventral slot procedure or a hemilaminectomy, but there are a range of other procedures that may be done. Spinal surgery is demanding and is ideally performed by a specialist surgeon or neurologist. LSU currently has five Board-certified specialist surgeons on staff and a number of specialists in training (residents).

The spinal cord is approached through the skin and muscles, then a special drill is used to make a window in the boney vertebrae immediately above the slipped disc. The disc material can then gently be removed.

Hemilaminectomy

What will happen after the surgery?

Pets will generally spend 5-10 days in the hospital after spinal surgery. Recovery is highly variable. Animals are generally discharged from hospital once they are comfortable and urinating on their own. In some cases, animals require nursing and physical therapy at home to assist their recovery. A small number of dogs who had disc disease may slip another disc at a later stage. It is important at home to reduce or eliminate jumping and stair climbing, manage obesity, and use non-concussive exercise. Our Companion Animal Rehabilitation centre (**www.vetmed.lsu.edu/vth&c**) commonly provides rehab to spinal surgery patients, including physical therapy and aquatherapy. Please talk to your surgeon about this.

How can I make an appointment at LSU-SVM?

We consider this an urgent surgery if the patient cannot walk.

Generally, patients are referred to our orthopedic and neurosurgical service from their primary veterinarian. We are open 24-hours a day, 7 days a week for emergencies. If you notice any of the above mentioned signs, it is best to seek immediate veterinary advice. Please bring any materials from your regular

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