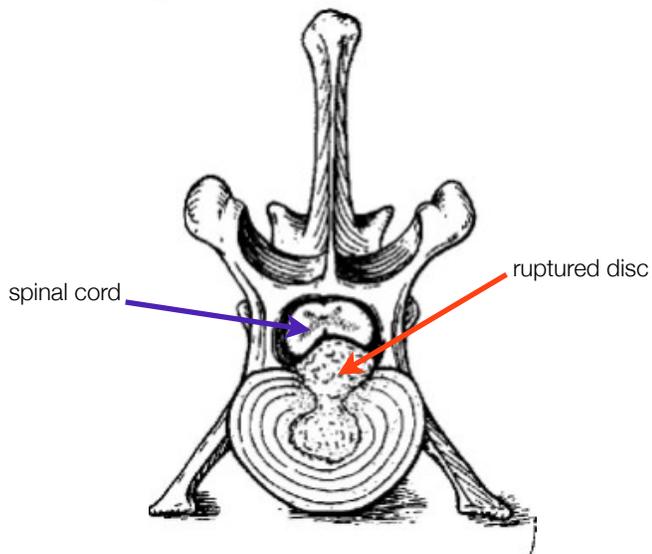


Thoracolumbar Intervertebral Disc Disease

Thoracolumbar disc disease is a common disorder that affects mainly chondrodystrophoid breeds (dogs such as Dachshunds, Shih Tzus, Beagles and Bassett Hounds). Peak incidence in these breeds is between 3 and 6 years of age. Non-chondrodystrophoid breeds are affected less frequently, usually after middle age.



Cross section of a vertebra, showing the relationship of the disc and spinal cord. Hansens

Type 1 disc extrusion, most common in chondrodystrophoid dogs, where the disc has degenerated and ruptured, entering the vertebral canal and compressing the spinal cord.



Proprioceptive deficit in the hindlimb

Clinical Signs

Patients can present with varying severity of clinical signs, ranging from back pain to complete hindlimb paralysis. Neurologic deficits become more severe with increasing spinal cord compression.

- Grade 1 - back pain only - these dogs may tremble, hide and be reluctant to run or jump. They may have an arched back. Discomfort can usually be elicited by palpation over the back, but can sometimes be misinterpreted as abdominal pain.
- Grade 2 - these dogs have back pain and mild neurologic deficits. They are still able to walk, but may be unsteady in the hind limbs (ataxic) or have proprioceptive deficits (where they will walk on the top of their back foot - see above picture).
- Grade 3 - these dogs have back pain and are unable to walk, but they have good movement of the hind limbs (voluntary motor function).

Typical appearance of a dachshund with a grade 3 spinal cord injury



- Grade 4 - these dogs have back pain, but are unable to move their hind limbs. Usually these dogs have lost the ability to urinate, and may leak urine when the bladder gets full. Deep pain sensation is present
- Grade 5 - this is the most severe spinal cord injury. The deep pain fibers which are deep within the spinal cord are damaged, and these animals have no feeling in their back legs or tail. Dogs who have lost deep pain sensation have a guarded prognosis for recovery. Their best chance is with immediate surgical decompression immediately.

Diagnosis

The attending doctor will perform a thorough neurologic examination on presentation to grade the severity of the spinal cord damage and allow the most appropriate treatment recommendation. Survey radiographs (x-rays) may be taken, but they are only 60-70% accurate in identifying the site of disc rupture. Survey radiographs *must not be used* as the sole means of confirming the diagnosis if surgery is planned.

Treatment Options

Non-surgical

Non surgical management is recommended for animals with back pain only (Grade 1) or mild grade 2 deficits.

Strict cage rest (in a travel sized crate) is required for **at least 4 weeks** during which time they should be out of the cage only to urinate and defecate. Your pet may be given anti-inflammatories or analgesics (pain relievers) as well, but these should be used cautiously. If an improvement is seen after the first 4 weeks, the pet should receive a further 2 weeks of strict rest, followed by leash walks only from weeks 6 to 8. Jumping should be avoided for 4 - 6 months.

Strict rest is vital - if this is not enforced, the patient may fail to respond or get worse. Regular evaluation is recommended to monitor the pets neurologic status. Over 1/3 of dogs will suffer a recurrence, and frequently recurrent episodes are worse than the original episode.

Surgical

Surgery is recommended in most dogs with grade 2 or more severe deficits - the rate of recovery is faster and there is less likelihood of residual neurologic deficits or recurrence.

Surgery is also recommended for the following:

- pets not responding to non-surgical management

