

Intervertebral Disk Disease (IVDD)

Intervertebral disk disease is degeneration and protrusion of the intervertebral disk that results in compression of the spinal cord, spinal nerve, and/or nerve root. It is a common cause of spinal cord disease in dogs. The intervertebral discs (the cushion that resides in the space between adjacent spinal vertebrae) are subject to a number of degenerative conditions and forces that predispose them to bulge or rupture over time. This rupture leads to two types of damage to the spinal cord, compression and concussion.

Compression is the physical pressure exerted over time against the spinal cord which leads to slow degeneration and loss of neurons (nerve cells). Intervertebral disc rupture that is purely compressive usually begins slowly and leads to gradual worsening of neurologic function. Concussion force is the physical damage caused by a rapidly extruded disc impacting the spinal cord causing profound swelling and degeneration and loss of neurons. Purely concussive forces are usually rapidly progressive and have an acute onset. Most intervertebral disc ruptures are a combination of compressive and concussive forces that lead to the rapid degeneration of nervous tissue in the spinal cord.

Symptoms

The observable signs of IVDD vary. And while the following list of symptoms associated with IVDD is not exhaustive, affected dogs may show one or more of the following signs which can be sudden, intermittent or gradual in onset:

- Neck and/or back pain and stiffness (reluctance to move the neck and head)
- Lowered head stance
- Abdominal tenderness or tenseness
- Arched back (hunched posture, called “thoracolumbar kyphosis”)
- Sensitivity to touch (possible aggression)
- Weakness, stiffness, and/or sensitivity to movement (yelping unexpectedly)
- Impaired, incomplete or inappropriate urination
- Lameness and/or paralysis in one or more limbs
- Dragging one or more legs when walking
- “Toeing over” or “knuckling over” when walking or standing
- Stilted gait; tentative gait
- Reluctance to rise and/or collapse
- Tremors, trembling, shaking
- Lack of coordination (“ataxia”)
- Abnormal reflexes

Acute traumatic injury is not the same as IVDD, although the symptoms can be very similar. IVDD involves a degenerative Process and does not result merely from sudden trauma, although sudden trauma can cause rupture or herniation of an intervertebral disk in a dog whose disks already are weakened by IVDD.*

Treatment

Definitive diagnosis of IVDD is made by a veterinarian through physical exam and x-rays. In less severe cases medication may be provided for pain relief with a combination of crate rest. If IVDD has progressed and the dog has ruptured a disc, surgery is the normal course of treatment, along with pain medication and crate rest. In any case, it is recommended that if your dog seems to be suffering from IVDD symptoms a veterinarian is consulted to determine the best course of treatment in order to help the dog live comfortably and free from pain.