

Intervertebral Disk Disease

- Intervertebral disk disease (IVDD) occurs when a disk between the vertebrae (bones of the spine) ruptures and pushes against the spinal cord.
- While IVDD can happen in cats, it's more common in dogs, especially breeds such as dachshunds, basset hounds, and Welsh corgis.
- The signs of IVDD vary depending on the location and the degree of spinal cord compression.
- Signs may include severe pain, difficulty walking, limb paralysis, and urinary and/or fecal incontinence or retention.
- Diagnosis may require radiographs (x-rays) and/or a myelogram, as well as a CT or MRI scan.
- Treatment varies from strict rest and medication to surgery.
- Dragging of rear limbs, paralysis (the front limbs may also be affected in some cases)
- Urinary and/or fecal incontinence or retention
- Aggression (due to pain)

Disks may rupture anywhere along the spinal column, from the neck down to the hip/tail area. The middle of the back, where the last part of the ribcage attaches to the spinal column, is the area most commonly affected. Disks that rupture in this area tend to affect the rear limbs and, sometimes, the nerves controlling the urinary or digestive tracts. Disks that rupture in the neck may affect both front and back limbs, or the front and back limbs on one side.

What Is Intervertebral Disk Disease?

In dogs and cats, the vertebrae (bones of the spine) are cushioned on either end by disks of soft cartilage. Occasionally, these disks can rupture, or herniate, into the vertebral canal, causing compression of the spinal cord. This condition is known as intervertebral disk disease (IVDD). Spinal cord compression is painful and can affect nerve supply to the legs and other areas of the body.

This condition occurs most commonly in dogs and less often in cats. Any dog can be affected, but dog breeds with longer torsos, such as dachshunds, basset hounds, and Welsh corgis, are most often affected.

What Are the Signs of Intervertebral Disk Disease?

The signs of IVDD vary depending on the location and degree of spinal cord compression. In mild cases, the pet may appear to be stiff or in pain. More severe cases can result in:

- Severe pain and reluctance to move
- Difficulty walking
- Abnormal walking, knuckling under of paws

Intervertebral disk disease (IVDD) occurs when a disk between the vertebrae (bones of the spine) ruptures and pushes against the spinal cord.

If your pet is unable to use his or her back legs, seek veterinary help immediately. Your veterinarian will be able to determine if it is a disk problem and if your pet has feeling in the affected limbs. In severe cases, loss of feeling/sensation is a medical emergency, and permanent paralysis can result if surgery is not performed as soon as possible.

What Causes This Condition?

Generally, wear and tear on the disks causes them to degenerate and eventually push out (rupture/herniate) into the vertebral canal. Arthritis can contribute to the condition. Trauma, such as being hit by a car, may also cause disks to bulge from their normal location.

How Is Intervertebral Disk Disease Diagnosed?

If your pet is showing signs of IVDD, your veterinarian may recommend a radiograph (x-ray) to assess the spine. Your veterinarian may administer sedation or

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anesthesia to your pet so that x-rays can be taken without causing pain or further damage to the spine. Although disks (being made of cartilage) are not directly visible on x-rays, a narrowing of the space between two vertebrae may indicate the potential site of the problem. Other abnormalities associated with IVDD, such as arthritis in the back, tumors, or abnormal positioning of vertebrae, may also be visible on radiographs.

To determine the exact site of the disk rupture, your veterinarian may recommend performing a test called a *myelogram*. In this procedure, a special type of sterile dye that is visible on x-rays is injected into the spinal canal while your pet is under anesthesia. Radiographs are then taken. On the radiographs, the dye will be visible in the fluid-filled space between the spinal cord and the bones of the spine. Locations where the dye space becomes thin or disappears may indicate where a disk is pushing against the spinal cord.

For even greater detail, a CT (computed tomography) or MRI (magnetic resonance imaging) scan may be recommended. These procedures also require anesthesia. Because CT and MRI equipment are not available at all veterinary practices, your veterinarian may need to refer you to a specialist for these tests to be performed.

How Is This Condition Treated?

Treatment depends on the severity of the signs. If pain is mild to moderate and your veterinarian determines that your pet has adequate feeling/sensation in the affected limbs, conservative management is

usually recommended. Strict rest and confinement for 2 to 4 weeks or more may be needed. Your veterinarian may recommend medications such as muscle relaxants to reduce spasms and possibly steroids or pain medications to reduce swelling and control pain.

If your pet is unable to walk, make sure to place soft padding under the body and turn your pet over (while supporting the spine) every few hours to prevent the formation of pressure sores. Make sure your pet continues to urinate and defecate, and clean the bedding often. If your pet is not urinating or defecating, contact your veterinarian. Periodic reexaminations may be recommended to assess how well your pet is responding to treatment.

If your pet is unable to walk and you are unable to provide nursing care at home, your veterinarian may recommend hospitalization until your pet's condition improves enough for you to manage at home.

With conservative management, many pets recover in time. Occasionally, the signs may worsen and require a recheck appointment with your veterinarian. However, you should be aware that once your pet has experienced IVDD, it's more likely to happen again. Pets with a history of IVDD should be kept from leaping, jumping, and engaging in other activities that jolt the spine to prevent a recurrence of the condition.

If your pet has lost significant feeling/sensation, surgery is usually recommended as soon as possible. Once the disk material is removed from the spinal canal and is no longer pressing against the spinal cord, the animal usually regains the use of its legs over the course of several weeks.