

Diskospondylitis Is the Most Common Cause of Back Pain in These Types of Dogs

Affects your dog's discs and their shock absorbing ability. It's not a 'slipped disc' although it may cause similar pain, lameness, and nerve damage. That's why it's so often overlooked. What to know about diagnosis, treatment — and the one thing you'll need to absolutely avoid.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Diskospondylitis (DS) is the most common cause of back pain in middle-aged to older large and giant breed dogs
- DS is an infection located within the disks and adjacent vertebrae of the back
- Back pain is the most common symptom of DS, along with stiffness, lameness, and sluggishness
- Diagnosis can be challenging and may involve a number of diagnostic tests
- Treatment of diskospondylitis is based on what is causing the infection

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Your dog's spine is made up of many small bones called vertebrae that run from the base of the skull all the way down the back to the end of the tail.

The vertebrae are connected by cushiony, flexible discs made of cartilage — the intervertebral discs. The discs function as shock absorbers between each back bone, and allow the neck, spine, and tail to bend and flex as your dog changes positions.

Sitting above the discs and running through the vertebrae is the spinal cord, which consists of a mass of nerve fibers that send messages back and forth between the brain and the rest of the body.



Diskospondylitis

Diskospondylitis, which is often spelled discospondylitis with a "c" instead of a "k," and is also called vertebral osteomyelitis, is the most common cause of back pain in middle-aged to older dogs.

It can occur in dogs of any size and both genders, but is most commonly seen in large and giant breed male dogs, especially the German Shepherd and the Great Dane.

Diskospondylitis, or DS, is an infection within a dog's back that is located within the disk and the adjacent vertebrae. When a bacterial pathogen — or, much less frequently, a fungus — settles within a disk and on either side of the vertebrae, diskospondylitis is the result.

Any disk in the spine can be affected, but the infection is most often seen in disks in the lower back (lumbosacral region).

Diskospondylitis causes inflammation (*itis* means inflammation), swelling, and bone deformities that put pressure on or compress the spinal cord that runs through the vertebrae of the back.

Diskospondylitis should not be confused with diskospondylosis, a condition that describes a noninfectious fusion or degeneration of the bones of the back.

Causes of Diskospondylitis

DS is frequently seen in areas that have an abundance of plant awns, such as grass seeds and foxtails. It is thought that the awns contain bacteria or fungi, and when an awn pierces a dog's skin, it enters the bloodstream and spreads the bacteria.

Other possible causes of DS include bacterial endocarditis (an infection of the lining of the heart), urinary tract and prostate gland infections, and dental disease/tooth extractions, which can cause bacteria to enter the bloodstream and infect the vertebrae.

Brucellosis, a bacterial venereal disease, has also been found to cause DS in dogs. Many cases of diskospondylitis have no known cause. There may also be a genetic predisposition in some dogs.

Symptoms of DS

Back pain is the primary clinical symptom of diskospondylitis. The intensity of the pain is highly variable, which is why the condition is often misdiagnosed or overlooked.

Stiffness, lameness, and sluggishness are the most obvious symptoms to watch for, especially in the early phase of the disease.

Dogs with DS are often increasingly reluctant to run or jump. As the disease progresses, impairment of the nervous system occurs, with variable symptoms including hind limb weakness and lack of coordination. Rarely, a draining tract or fistula develops and is visible at the level of the skin over the affected intervertebral space.

Other common symptoms of DS include lack of appetite, weight loss, depression, and fever.

Diagnosing Diskospondylitis

Diagnosing DS can sometimes be challenging, and can include:

- The usual diagnostic tests, including a CBC (complete blood count), blood chemistry profile, and urinalysis
- X-rays and perhaps a CT (computed tomography) or MRI (magnetic resonance imaging) scan of your dog's spine
- Blood and urine cultures to determine the source of the infection and the specific infectious organism involved
- Myelography to determine the exact location of spinal compression
- Ultrasound evaluation of the heart and/or abdomen
- Screening for brucellosis

A spinal tap or spinal culture, which is an invasive procedure, is considered the gold standard to definitively diagnose diskospondylitis. It's often best to have some or all diagnostic tests performed by a veterinarian who specializes in radiology, neurology, or surgery.

Treatment Options

Treatment of diskospondylitis is based on what is causing the infection — which is most commonly bacteria, but occasionally a fungus — as determined by culture and sensitivity testing. Bone infections are more difficult to treat than other types of infections, so medications are given for at least six weeks and can continue for six months or longer. It's important to complete the full course of treatment because relapses are common.

Initially, the medication may be administered intravenously. X-rays should be taken at regular intervals to assess the progress of treatment.

Your dog should begin feeling better within about two weeks of starting treatment, as symptoms begin to resolve. Depending on the severity of symptoms, other treatments may be necessary, including pain medication, intravenous fluids, monitoring of heart and respiration rates and body temperature, and rehabilitation therapy to restore normal strength and gait.

Unfortunately, some dogs require surgery to reduce the compression on the spinal cord.

Acupuncture and IV vitamin C therapy to be very beneficial for dogs with diskospondylitis, as well as nutraceuticals that stimulate the immune system. Dogs with DS should not be vaccinated under any circumstances, and feeding a nourishing, fresh food diet will help support a healthy immune system response.

The outlook for dogs with DS depends on several factors, including the severity of the infection, how successfully the infectious organism is eradicated, how debilitated the dog is when treatment begins, and how much nerve damage results from spinal compression.

Dogs that have been diagnosed with diskospondylitis often develop painful osteoarthritis as a result, even with effective treatment, so it's important to begin joint and disc support once this diagnosis is made.
