

Is Your Dog's Back Pain More Serious Than You Think?

Explore the silent yet severe condition that might be causing your dog's discomfort, and understand the steps for diagnosis and treatment.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Diskospondylitis (DS) is the most common cause of back pain in middle-aged to older dogs, especially large and giant breeds
- DS is an infection that develops within the discs and adjacent vertebrae of the back
- Back pain is the most common symptom of DS, along with stiffness, lameness, and sluggishness
- Diagnosing the condition can be challenging, and may involve a number of diagnostic tests
- Treatment of diskospondylitis is based on what is causing the infection and its severity

Diskospondylitis (DS) is the most common cause of back pain in middle-aged and older dogs. It can occur in dogs of any size and both genders but is most commonly seen in large and giant breed males, especially the German Shepherd and Great Dane.

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. These small bones are connected by cushiony, flexible discs made of cartilage — the intervertebral discs. The discs function as shock absorbers between each 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.

DS most often develops as the result of a bacterial infection of the vertebrae, primarily involving the intervertebral space and the adjacent ends of the vertebral bones (the epiphyses). DS as the result of a fungal infection is possible, but rare.

The high cervical, mid thoracic, thoracolumbar, and lumbosacral regions are most commonly involved. Less often, the vertebral body itself can be the primary site of infection, in which case the condition is called spondylitis or vertebral osteomyelitis to distinguish it from DS.

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. According to veterinarian Dr. Patty Khuly writing for Embrace Pet Insurance, the presence of one or more genes predisposing dogs to the condition is currently under investigation.¹

Symptoms and Diagnosis

Signs of DS, primarily involving back pain, can vary in intensity and are easily misinterpreted or missed altogether. In its early stage, DS can cause stiffness, lameness, and sluggishness in affected dogs.

As the disease progresses it impairs the nervous system, and dogs commonly experience hind limb weakness and lack of coordination. They become reluctant to run or jump. Rarely, a draining tract or fistula develops, and the infection becomes 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 the condition 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 6 weeks and can continue for 6 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 2 weeks of starting treatment, as symptoms begin to resolve. Depending on the severity of symptoms, other treatments may be necessary, including pain medication, intravenous (IV) 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.

I have found 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 who 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.

Sources and References

[Pet Health Network, Diskospondylitis in Dogs: Infection in the Back](#)

¹ [Embrace Pet Insurance, Diskospondylitis \(DS\)](#).
