

## Diskospondylitis

### What is Diskospondylitis?

The intervertebral discs are situated between the vertebrae of the spine. Diskospondylitis refers to an infection affecting the intervertebral disc as well as the adjacent vertebral segments. This condition results in painful damage or lysis of the vertebral bodies. It may lead to degeneration of the infected intervertebral disc, potentially resulting in herniation that exerts pressure on the spinal cord. Additionally, diskospondylitis can compromise the integrity of the bones surrounding the intervertebral disc, occasionally leading to fractures of the bone.

### What Causes Diskospondylitis?

Diskospondylitis is primarily transmitted from a remote infection within the body via the bloodstream, ultimately reaching the intervertebral disc. The initial infection may originate from various sources, including the urine, skin, teeth, heart, and reproductive organs such as the uterus and prostate. Additionally, diskospondylitis may develop following a penetrating injury, such as a bite wound, to the spine or as a consequence of spinal surgery. While diskospondylitis is typically caused by a bacterial infection, it is also possible for a fungal infection to arise.

### What Clinical Signs Occur with Diskospondylitis?

The primary indicators are spinal pain and fever. Some animals may exhibit neurological issues, such as weakness and lack of coordination. In rare cases, paralysis, which is the inability to move the limbs, may also occur.

### Which Animals are Prone to Developing Diskospondylitis?

Any animal has the potential to develop diskospondylitis; however, it is primarily older dogs, as well as medium and large breed dogs, that are most frequently impacted.

### How is Diskospondylitis Diagnosed?

In certain instances, x-rays of the spine can readily reveal diskospondylitis. Nevertheless, changes in the bones and disc space may not be apparent until the infection has persisted for several weeks (4-6). In such situations, an MRI of the spine can assist in the early detection of the disease. Once diskospondylitis is confirmed through x-rays, CT scans, or MRIs, the next step is to investigate the source of the infection. This involves collecting samples of urine and blood, which are then sent to a laboratory. At the laboratory, these samples are placed on culture plates to facilitate the identification of the bacteria present. The bacteria that develop are subjected to testing against various antibiotics, and these findings aid your veterinarian in selecting the antibiotic most likely to effectively eliminate your pet's infection.

If your dog is diagnosed with diskospondylitis, it is common practice to submit a blood sample for testing bacteria known as *Brucella*, which is responsible for an infection termed Brucellosis. Although Brucellosis is relatively rare in the United States, it remains crucial to test your pet for this infection due to its potential to be transmitted from dogs to humans (zoonotic infection). Testing for Brucellosis is essential not only for determining the most effective treatment plan for your pet but also for safeguarding you and your family.

## **How is Diskospondylitis Treated?**

Diskospondylitis is typically managed with antibiotics. The course of antibiotic therapy generally lasts for several months. In the majority of instances, antibiotics are maintained until radiographs show no signs of active infection. If the antibiotics are discontinued prematurely, there is a risk that the infection may recur and could be more challenging to treat. Many dogs suffering from diskospondylitis experience significant pain, necessitating the use of multiple pain relief medications initially to ensure the comfort of your dog. Typically, once the antibiotic treatment starts to effectively manage the infection, there is a substantial reduction in pain levels.

## **What is the Prognosis for Diskospondylitis?**

The outlook for recovery from bacterial diskospondylitis is typically favorable, particularly if your dog exhibits minimal neurological issues. Dogs that experience paralysis due to their infection, have infections resistant to the majority of antibiotics, and those suffering from a fungal infection may face greater challenges in achieving a complete recovery. Dogs that fully recover from diskospondylitis carry a certain risk of experiencing a recurrence of the infection in the future.