

## **What is wobbler syndrome?**

Wobbler syndrome is the common term to describe a gait seen in dogs with spinal cord compression in the neck, where they often take short or “floating” steps with the front limbs and have a swaying or “wobbly” gait in the hind limbs.

There are two main forms of wobbler syndrome. The first is called cervical stenotic myelopathy. It occurs in young, giant-breed dogs such as Great Danes, Mastiffs, and Bernese Mountain Dogs. The vertebrae in the neck have a square, hour-glass, or triangular shape in the center, putting pressure on the spinal cord as it passes through. The spinal cord loses its normal round shape over time. Dogs with this form of wobbler syndrome typically show signs at a young age (a few months to a couple years) and slowly get worse over time. Studies suggest that nutrition could factor into wobbler disease—diets high in protein, calcium, and phosphorous accelerate growth, which may contribute to skeletal changes seen in wobbler dogs.

The second form of Wobbler’s syndrome occurs in middle- to older aged dogs and is usually caused by a chronic bulging intervertebral disc, which slowly puts pressure on the base of the spinal cord. This form of wobbler syndrome is commonly seen in large-breed dogs, such as the Doberman Pinscher, Labrador Retriever, and Dalmatian.

## **What are the symptoms of wobbler syndrome?**

Clinical signs are usually slow and gradual in onset. Some dogs will appear to suddenly get worse if they have trauma to the spinal cord during exercise or have a second spinal cord problem, such as a sudden disc herniation. Lack of coordination in the rear limbs is the most common symptom. Dogs will walk with their legs spread farther apart, sway side to side, and take longer strides. Forelimb involvement can vary greatly depending on the abnormality and severity of the case. Some dogs have no clinical symptoms in the front limbs, while others have a stiff short-strided or floating front limb gait. Some dogs have difficulty turning around and cross their front limbs over each other when turning. Some dogs will appear painful in the neck and reluctant to bend their necks down or turn their necks from side to side.

## **How is wobbler syndrome diagnosed?**

Plain X-Rays of the cervical spine may show abnormal bony proliferation in the bones of the neck suggestive of cervical stenotic myelopathy. Advanced imaging, such as myelogram/CT or MRI, is required to image the spinal cord and characterize the degree of spinal cord compression. In many cases, flexed and extended views of the neck are used to determine whether the degree of spinal cord compression gets worse when the neck is put in a flexed

position. It is common for dogs with cervical stenotic myelopathy to have spinal cord compression over multiple vertebrae in the neck.

## **What is the treatment for wobbler disease?**

The two main treatments for wobbler disease are medical management and surgery. Medical management typically involves activity restriction and treatment, with a course of corticosteroids to reduce spinal cord swelling associated with compression. Although many dogs improve initially with steroids, most dogs become worse again when steroids are tapered or discontinued. Medical management alone is often recommended in older dogs with mild clinical signs or dogs with spinal cord compression in multiple locations (more than three to four vertebrae) that might not be good surgical candidates.

Surgery is recommended in dogs with progressive signs that are not responding to medical management. The surgical approaches in dogs with wobbler disease differ depending on the underlying cause for the spinal cord compression. In young dogs with cervical stenotic myelopathy, a surgery called a “dorsal laminectomy” is performed to enlarge the narrowed vertebral canal. This procedure involves coming from the top of the spine. Dorsal laminectomies are often done over one to three vertebral spaces depending on where the spinal cord compression has occurred. In dogs with wobbler disease secondary to a chronic bulging disc, a “ventral slot” is performed to remove the disc material.

## **What is the prognosis for a wobbler dog?**

The prognosis for a dog with wobbler disease depends greatly on the severity of the malformation and the amount spinal cord compression. Dogs that are severely affected to the extent that they are unable to stand or walk have a guarded prognosis even with surgical intervention. Some of these dogs will be able to walk with surgery, however, they often require months of physical therapy and always maintain an abnormal gait. Dogs that are mildly uncoordinated have a much greater chance of recovery.

The goal of surgery is to stop the progression of clinical signs. Because the spinal cord compression has been occurring over a long period of time, there is typically permanent spinal cord damage. Most dogs never walk normally even with surgery, however, many will improve to be able to have a good quality of life. Treatment of wobbler disease requires very dedicated owners with ability to do the intensive post-operative care and physical therapy.