

Wobbler Syndrome in Dogs - Weebles May Wobble, but Dogs Shouldn't!

Nobody likes having a crick in the neck. You wake up, turn your head, and immediately cringe from the pain. Thankfully the crick typically goes away relatively quickly. What if that crick not only hurt, but lingered and caused you to be unsteady on your feet? This is exactly what happens to some large and giant breed dogs because of a condition called Wobbler Syndrome. This week I wanted to share some juicy tidbits about this congenital disease to help pet parents recognize it. Happy reading!



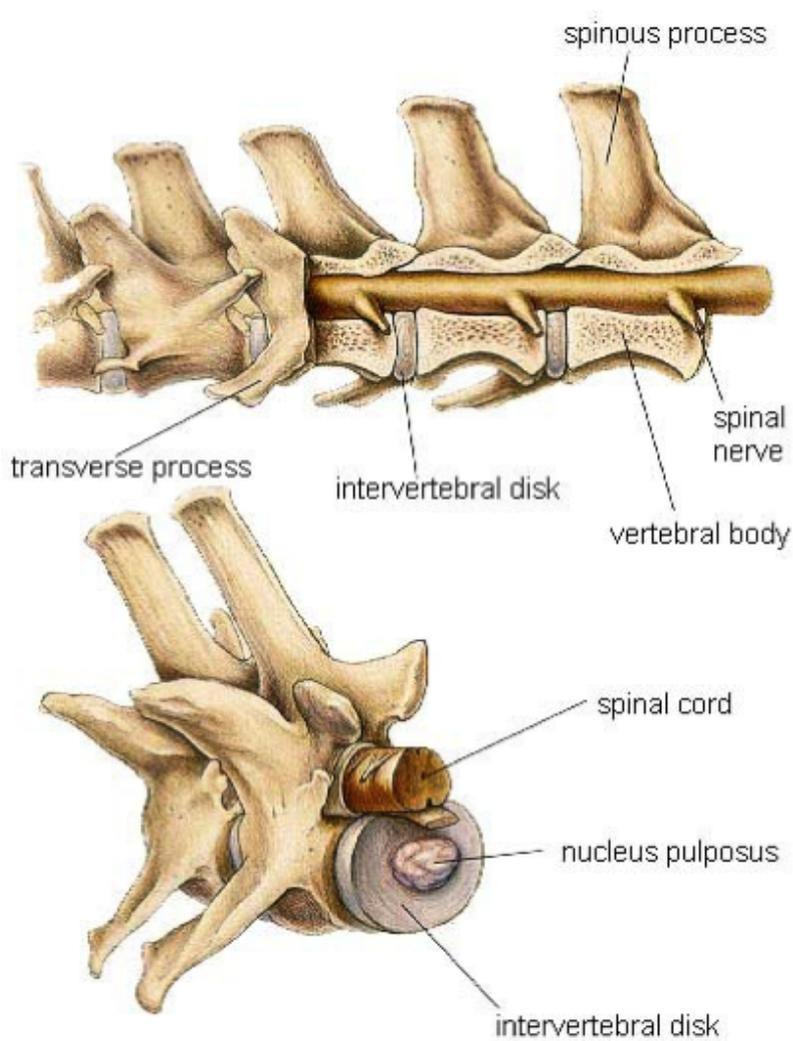
Wobbler Syndrome - What is it?

Wobbler syndrome is the lay term for cervical spondylomyelopathy (CSM). The term cervical means the neck. Spondylomyelopathy describes a disease of the vertebrae affecting the spinal cord. Thus, CSM is an abnormality of neck

vertebrae that causes spinal cord compression. Wobbler syndrome has many other names, most notably:

- Cervical spondylopathy
- Cervical vertebral malformation-malarticulation (CVMM)
- Cervical vertebral instability (CVI)
- Cervical vertebral malformation (CVM)

Veterinarians don't fully understand how or why CSM develops. Although no genetic link has been recognized, this condition is believed to be congenital in nature. Two types of CSM have been recognized. The first type is associated with the intervertebral discs, and the second type chiefly involves bony changes to the vertebral joints.



Normal vertebral & spinal cord anatomy.
Illustration courtesy of Hill's Pet Nutrition

Type I CSM has been predominantly studied in Doberman Pinschers. It's most commonly documented in medium- and large-breed dogs. The vertebral canal of the caudal cervical vertebra (C4-C7) is stenotic (narrowed). Additionally, intervertebral discs in this region are typically abnormal, characterized by protrusion from their normal position (Hansen type II). These collective changes cause compression of the spinal cord and nerve roots. Further, compression may be exacerbated by certain neck positions, making this condition a dynamic one.

Type II CSM is most commonly diagnosed in adolescent large- and giant-breed dogs. Affected patients have abnormal changes in the joints of the cervical spinal column. Neck movement plays a major role in the manifestation of clinical signs. Thus, compression of the spinal cord is quite dynamic and highly dependent on neck position.

Wobbler Syndrome - What does it look like?

Several dog breeds are predisposed to CSM, including:

- Great Danes
- Doberman Pinschers
- Mastiffs
- Bernese Mountain dogs
- Borzois
- Basset Hounds
- German Shepherds
- Swiss Mountain dogs

There is no sex predilection. Type I CSM typically manifests in middle-aged patients, while Type II patients are often 1-1.5 years of age. The clinical signs of both types of CSM are similar because the spinal cord is compressed in both - the difference between the two types is the cause of spinal cord compression.

Most affected dogs have a history of slowly progressive clinical signs. Most pets have ataxia (unsteadiness), resulting in the term Wobble Syndrome. They also have a walking style described as two-motor gait. This term describes dogs walking with short, rapid, and stiff strides with the front legs and long, slow strides with the hind limbs. Affected dogs often have shrunken (atrophied) shoulder muscles. Interestingly, neck pain is not a sign commonly mentioned by pet

parents. Please view the video below to see the classic two-motor gait in a dog with CSM.

Wobbler Syndrome - How is it diagnosed?

After collecting a thorough patient history and performing a complete physical examination, veterinarians will recommend initially evaluating radiographs (x-rays) of the neck. Proper positioning is essential for accurate interpretation. As such, sedation is often necessary. Advanced imaging, specifically computed tomography (CT scan or CAT scan) and magnetic resonance imaging (MRI), is needed for definitive diagnosis. The latter modality is preferred because it's the only modality that allows evaluation of the spinal cord itself. Thus, pet parents may be referred to a board-certified veterinary neurologist or board-certified veterinary surgeon at a specialty/referral hospital with advanced imaging capabilities.



Magnetic resonance imaging (MRI) is the preferred advanced imaging modality for patients with Wobbler Syndrome

Wobbler Syndrome - How is it treated?

Patients with CSM may be treated medically or with surgery. Patients with protruding intervertebral discs can benefit from surgery because removal of disc material relieves spinal cord compression. However, clinical signs may persist in some surgical patients. This happens because congenital changes like a stenotic vertebral canal aren't surgically correctable with traditional procedure. Therefore, certain neck movements may induce dynamic signs. Newer surgical techniques are being developed to address dynamic clinical signs. Overall, surgery has a success rate of 80%, and 20% remain stable or worsen. Pet parents will likely find it invaluable to partner with a board-certified veterinary surgeon or board-certified veterinary neurologist to discuss surgery for CSM.

Medical management is preferred for dogs with severe and irreversible changes to the spinal cord detected via MRI. Similarly, surgery is not recommended for patients with multiple abnormal intervertebral discs. Medical management includes multimodal pain medication, anti-inflammatory drugs, and physical therapy. Overall, 50% of affected dogs improve with medical management, 30% remain stable, and 20% worsen.

The take-away message about Wobbler Syndrome in dogs...

Cervical spondylomyelopathy - commonly called Wobbler Syndrome - is a congenital disorder of the vertebra in the neck that causes compression of the spinal cord. Classically affected dogs are unsteady as they walk, a clinical sign that justifies calling these pets wobblers. Advanced imaging like MRI is recommended to definitively diagnose this condition. Patients may be successfully managed medically or surgically.

To find a board-certified veterinary neurologist, please visit the [American College of Veterinary Internal Medicine](#).

To find a board-certified veterinary surgeon, please visit the [American College of Veterinary Surgeons](#).

Wishing you wet-nosed kisses,

CriticalCareDVM