

WRITTEN BY DR. MARGAUX MARKWELL, DVM  
DIPLOMATE, AMERICAN COLLEGE OF VETERINARY SURGEONS - LARGE ANIMAL

# WOBLERS DISEASE IN HORSES

## WHAT IS IT?

Cervical stenotic myelopathy also known as Wobbler Syndrome is a common cause of spinal ataxia in horses.

The pathogenesis of Wobblers is unknown but it is suspected to be multifactorial, including hereditary, dietary imbalance, and in utero (via either trauma or toxin). Cervical stenotic myelopathy has been reported in most breeds but Thoroughbreds, Tennessee Walking Horses, and Warmbloods appear to be predisposed, and males are more frequently affected than females. The age of onset is typically 6 months to 3 years. Older horses can be affected due to cervical stenosis and arthritis.



## SYMPTOMS AND DIAGNOSIS

Horses with Wobblers will have weakness, ataxia and spasticity. Stumbling and toe dragging will be signs of weakness. Ataxia will appear as swaying or loss of proprioception which will manifest as interfering at the walk. Some horses will show spastic signs such as a stiff legged gait and decreased joint flexion. A veterinarian who is suspicious of Wobblers will perform a detailed neurologic examination. If the horse has severe disease, it may not be necessary to perform a long exam as some horses are so ataxic that it is dangerous to perform these tests. A neurologic examination consists of asking the horse to go backward, walk on a slope, tight circles or walking with the head elevated. Hindlimbs are usually the first affected as the neuronal tracts are on outer spinal tract therefore you may see hindlimb ataxia before seeing forelimb ataxia. Occasionally, clinical signs associated with nerve root compression such as forelimb or cervical pain are seen in older horses due to severe arthropathy. Horses may travel with a short cranial phase and low foot arc of both or one forelimb(s).

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After completing a thorough neurologic examination, the next diagnostic would be to perform standing cervical radiographs. Assessment of radiographs determine the likelihood of Wobblers. When evaluating cervical radiographs, horses with wobblers will have flare of the caudal epiphysis, abnormal ossification of the articular process, subluxation between adjacent vertebrae, extension of the dorsal laminae, and osteoarthritis of the articular processes. As these are subjective evaluations, the objective assessment of the vertebral canal using the intravertebral sagittal ratio measurement is warranted for identifying Wobblers. A low sagittal ratio is more indicative of Wobblers; therefore, it is recommended that the horse have a myelogram performed to identify sites of spinal cord compression. If a horse has a high sagittal ratio, it is recommended that the veterinarian pursue alternative diagnosis.



A myelogram is necessary to confirm the diagnosis of a Wobbler by identifying lesion location, number of affected sites and classification of the lesions. A myelogram consists of a horse undergoing general anaesthesia and a radiopaque dye injected in the fluid surrounding the spinal canal. Radiographs are taken while the horse is under general anaesthesia with the horse's head in neutral, extended, and flexed positions. Myelograms can provide a definitive diagnosis of Wobblers and differentiate between static and dynamic disease. Dynamic spinal cord compression occurs in younger horses (less than 2 years of age) and is associated with instability of the cervical vertebrae. Static compression occurs in slightly older horses (2-4 years) and results from arthritis of the articular processes and proliferation of soft tissue structures.

## TREATMENT

Treatment of Wobblers depends on the numbers of sites affected, how severe the clinical signs are and the age of the horse. Nutritional adjustments are useful for a horse less than 1 year of age. The "paced diet" consists of limiting energy and protein, maintaining balanced vitamin and mineral intake. Vitamins A and E are provided at 3 times the recommended amount as well as supplementing selenium. It is also recommended to stall rest the horse. Administration of anti-inflammatories will help improve neurologic signs but will not eliminate disease. Intra-articular injections of steroids will be useful for horses with cervical and forelimb pain but will not improve spinal ataxia.



Finally, performing surgical fusion of the vertebral to stabilize the spinal column can be used on certain cases. Case selection for surgery is important as it is important to the successful outcome of the case. Considerations such as the number of sites affected, static or dynamic compression, severity of clinical signs, duration of clinical signs and temperament, age and intended use of the animal are all important factors when deciding if the horse is a surgical candidate. As major surgical procedures have to be cleared by each racing jurisdiction, horses that have had surgery to stabilize their spinal column may be deemed not suitable for a racing career therefore this procedure may be limited to horses who's racing careers have ended.