

# Neurology FAQs

## What is Quadriparesis?

Quadriparesis is defined by having weakness and incoordination of all 4 limbs. **Quadriplegia** is complete paralysis of all 4 limbs, leaving an animal completely unable to walk. These clinical signs are often quite alarming to owners and are a primary reason why owners seek the care of a veterinary neurologist.

## What are the possible causes?

- birth defects in the cervical spinal column
- degenerative intervertebral disc (IVD) disease
- inflammatory meningomyelitis
- nutritional
- metabolic
- toxins
- discospondylitis
- meningomyelitis
- neoplasia (cancer in the spinal cord or brain).

Your primary veterinarian may refer you to a board-certified veterinary neurologist to assist in identifying and possibly correcting the quadriparesis of your pet. Tests include blood tests (CBC, serum chemistry, urinalysis), spinal radiographs, Electrodiagnostics (EMG), spinal tap analysis, and MRI. These tests can often be normal or may need to be expanded based upon the physical and neurologic examinations.

## What is Meningomyelitis?

The system of membranes which envelops the dog's central nervous system is called the meninges. Inflammation of this membrane is called meningitis. Meningoencephalitis is the inflammation of the meninges and brain, and meningomyelitis is the inflammation of the meninges and spinal cord.

## What causes it?

- viruses
- inflammation
- protozoal infections
- fungal infections
- bacterial infections

- distemper feline leukemia virus (FeLV),
- feline infectious peritonitis (FIP)
- feline immunodeficiency virus (FIV)

Signs of meningomyelitis include neck pain and neurological deficits that are often worse on one side of the animal. These signs often arise quickly and usually get worse over time.

Meningomyelitis is typically diagnosed by finding evidence to support its presence and by ruling out other diseases. Analysis of the cerebrospinal fluid (CSF) can indicate meningomyelitis if the protein and red/white blood cells in the fluid are both elevated. If this is the case, the CSF is evaluated for the presence of any of the previously mentioned infectious organisms. If no infectious cause is found, the most likely cause of the disease is a sterile inflammation.

Treatment depends upon the cause of the meningomyelitis. Infectious causes are treated with drugs to eliminate the organisms causing the signs. Inflammatory causes are treated with corticosteroids (prednisolone) and other chemotherapeutics. Many patients benefit from antioxidants, such as vitamin C, E, and selenium.

## What is Discospondylitis?

Discospondylitis is an infection of the spinal vertebrae and the intervertebral disk space. Signs of this disease most commonly include back pain and neurologic weakness. Though this disease can affect any breed, it is thought to occur more often in large breed dogs. The lumbar spine is thought to be the most affected area. This disease can usually be diagnosed by taking a simple X-ray.

### What causes it?

- bacterium
- fungal agents

The route of infection is usually through the blood, though a penetrating wound or a migrating foreign body can lead to a bacterial infection in the vertebrae. In most cases, discospondylitis can be cured with a very long course of oral antibiotics (minimum 6-8 weeks).

## What is Cervical Vertebral Malformation Complex (Wobbler's Disease)?

Wobbler's disease results from instability of the cervical vertebrae in the neck which compresses the spinal cord and causes dogs to be wobbly when walking. Wobbler's can affect

both young and old dogs and is most common among young Great Danes and old Doberman pinschers but may be seen in any large breed of dog.

The onset of Wobblers disease can occur very rapidly or show up gradually over time. In either case, the animal becomes unsteady on all four legs, but is generally worse in the back legs. It is common for an animal with Wobbler's to experience neck pain, especially when the head and/or neck is touched or moved from side to side or up and down.

Only a veterinarian can diagnose Wobbler's Disease! Your veterinarian can run various tests to determine if the animal truly has the disease. A simple radiograph may show some of the characteristic changes seen with Wobbler's or it may take advanced imaging such as MRI to define the extent of the disease. Wobbler's disease is typically treated with surgery however some dogs may respond favorably to acupuncture for a short while. The type of surgery will depend on the cause of the instability and compression of the spinal cord. After surgery, the animal will require weeks of convalescence and physical therapy but the great majority should improve over 6 months. The amount of improvement will depend not only on the surgery and rest, but also on the amount of damage the spinal cord received before the surgical correction. Please consult your veterinarian if you feel your dog may have Wobbler's Disease.

### What should I bring to my UF Neurology consultation?

- your pet's medical records (if they have not already been sent from your referring veterinarian).
- all medications, including herbals and vitamins
- "pet neurological log "if your pet has a history of seizures or other recordable neurologic dysfunction

### How long will my pet's appointment take?

Though the length of the visit varies considerably, it is recommended that you prepare to spend the day with us in the event that your pet needs diagnostic or surgical procedures. You may wish to bring a few snacks along for your visit. In the event that you forget to pack a lunch, there is an Einstein's Bagel restaurant located in the hospital lobby.