

# Vestibular Disease

Vestibular disease refers to any disturbance in your pet's vestibular system. The vestibular system, or balance system, helps your pet with balance, coordination, and orientation. It is made up of two parts. The *peripheral vestibular* system is made up of the inner ear and nerves traveling from the ear to the brain. The *central vestibular* system consists of the brain stem, which connects the brain to the spinal cord, and the cerebellum, which is responsible for coordinating movement.

## Signs

From your perspective, vestibular disease may look like vertigo. The most obvious sign is a sudden loss of balance, but there are other symptoms that can help with diagnosis:

- **Vestibular Ataxia:** Your pet is walking like a drunken sailor, leaning or falling to one side. Sometimes an animal is so off balance that it cannot get up at all and just rolls to one side over and over again.
- **Head Tilt:** Your pet's head is cocked to one side, so that one ear or one eye is lower than the other.
- **Nystagmus:** Your pet is experiencing involuntary, abnormal eye movements, characterized by slow movement in one direction and rapid movement in the opposite direction.
- **Strabismus:** Your pet's eyes are in an unusual position, so that both eyes cannot be directed at the same object at the same time.
- **Nausea:** Some pets may become nauseous and vomit.

## Causes

Causes of vestibular disease can be divided into disorders that affect the peripheral vestibular system and disorders that affect the central vestibular system.

The most common cause of peripheral vestibular disease is an ear infection affecting the middle or inner ear, but there are many possible causes:

- Ear infection
- Tumors of the inner ear
- Hypothyroidism
- Head or ear injury
- Idiopathic\*

*\*Idiopathic vestibular disease is another common form of peripheral vestibular disease. Idiopathic means there is no known cause. It typically happens in older animals, and comes on suddenly. Though signs may be quite severe, they often improve significantly without any specific intervention within a few days.*

In general, disorders that affect the central vestibular system are much more serious than those that affect the peripheral vestibular system, including:

- Strokes in the brainstem
- Inflammation or infection in the brainstem
- Tumors in the brainstem
- Severe ear infections\*

*\*Although ear infections are typically a cause of peripheral vestibular disease, they can sometimes be so severe that the infection invades the skull bone and nerves and travels into the brain.*

## Diagnosis

Generally, there are three steps necessary for determining the cause of vestibular disease:

1. A thorough history, a physical, and a neurological exam can help determine if your pet's problem is in the peripheral or central vestibular system.
2. Blood tests and X-rays screen for general health, underlying causes, and cancer or infection in the lungs and also help determine if your pet is healthy enough to undergo anesthesia.
3. Magnetic resonance imaging (MRI) and cerebrospinal fluid (CSF) analysis will rule out any other possibilities to definitively determine the cause of your pet's vestibular disease.

## Treatment

Vestibular disease is treated by addressing the underlying cause, so it is important to work with a veterinary neurologist. In the meantime, supportive care can make your pet more comfortable:

- Provide a comfortable bed with soft padding to prevent pressure sores.
- Surround your pet with a thick rolled up blanket for support.
- Confine to a safe, quiet, and comfortable resting place.
- Change your pet's position to prevent pressure sores if necessary.
- Keep the floor clear of obstacles and block off stairs and pools.
- Provide non-slip surfaces for your pet to get around (carpet, yoga mats, bath mats).
- Keep food and water close by.
- Assist with eating and drinking if necessary.\*
- Administer anti-nausea medication if necessary.
- Use a body harness with a handle to help hold your pet up if necessary.

\*Feed pets with their front end upright to avoid inhaling food and developing aspiration pneumonia.

If, after thorough investigation, your pet's vestibular disease is diagnosed as idiopathic, treatment will consist of supportive care until the condition resolves itself within a few weeks.

## Prognosis

The likelihood of recovery depends on the cause. As previously mentioned, conditions that affect the central vestibular system are generally much more serious and harder to treat than those that affect the peripheral vestibular system. Neither severity of signs nor your pet's age correlate with prognosis. Some causes are completely curable, even in senior pets. In fact, the prognosis for recovery from idiopathic vestibular disease is excellent.



Learn more about  
Vestibular Disease:

