



## VESTIBULAR DISEASE

### ABOUT THE DISEASE

The vestibular system is responsible for perceiving spatial orientation, balance, and coordinating appropriate posture without falling or stumbling. This neurologic system includes receptors and nerves within the inner ear and the brain.

If dysfunction is noted within the inner ear it is referred to as peripheral **vestibular disease**. Whereas dysfunction within the brain is referred to as central **vestibular disease**. Although, dysfunction with any part of this system results in a loss of orientation and balance.

More specific signs may include:

- Ataxia - Lack of coordination, stumbling, staggering, or a drunk-appearance
- Motion sickness including vomiting
- Nystagmus – a rhythmic twitch movement of the eye (typically side to side, occasionally rotational or vertical)
- Walking in a circle
- Head tilt
- Falling to one side

The most common causes of vestibular disease are:

- Otitis Interna/Media – Typically seen in younger canine patients and most feline patients.
  - Please see the [Otitis Interna/Media](#) document for additional information
- Canine Geriatric/Idiopathic Vestibular Disease (G/IVD) – Typically seen in canine patients older than 7 years old.
  - Develops rapidly (30-90 minutes) and may take upwards of 72 hours to spontaneously resolve.
  - This is not a stroke but is thought to result from rapidly degenerating nerves in the brain.

### OBTAINING A DIAGNOSIS

A physical examination with neurological assessment often yields enough data to determine if there is dysfunction within the inner ear or the brain.

Routine laboratory testing can be elected at any time to determine if an underlying disease is causing dysfunction within the central nervous system. However, blood work is not a reliable tool for determining inner ear or brain diseases.

Higher order imaging (MRI; CT) is often the only reliable way to determine the cause, but G/IVD patients are not likely to show brain lesions even on these tests.

### TREATMENT

In either case of **vestibular disease**, patients always require medications to control motion sickness and vomiting.

In patients with suspected peripheral **vestibular disease**, they will also benefit from antibiotics and anti-inflammatories. However, treatment is often prolonged as it is difficult for medications to penetrate the bones of the skull.

In patients with suspected central **vestibular disease**, there are no other medications proven to benefit. Some patients will be started on steroids or antibiotics but have not been shown to make a clinically significant difference in most cases.

### TIPS FOR SUCCESS

- Always provide symptomatic patients with medications to control motion sickness and vomiting.
- In most G/IVD patients, consider waiting 3 days before starting other medications (steroids/antibiotics).
- In younger patients, anticipate an infectious disease process that is difficult to treat long term.