

# Vestibular Disease

- Vestibular disease is a medical condition that affects the nervous system.
- Clinical signs of vestibular disease include incoordination (instability when trying to stand or walk), head tilt, and circling to one side.
- Sometimes the cause of vestibular disease remains undiagnosed, but underlying causes can include thyroid disease (in dogs) or a middle/inner ear infection.
- Spontaneous recovery from vestibular disease often occurs.

### What Is Vestibular Disease?

Vestibular disease is an illness that affects a group of small organs called the *vestibular apparatus*. The vestibular apparatus is located in the brain and inner ear. These organs are responsible for an animal's ability to remain balanced, detect the degree of head rotation, and determine overall body position. Vestibular disease can result if the vestibular apparatus is damaged.

Vestibular disease can be caused by a middle or inner ear infection, tumors involving the middle or inner ear, brain tumors, or head trauma. Thyroid disease has been associated with vestibular disease in dogs, and certain medications can cause vestibular disease–like clinical signs. Sometimes the underlying cause remains undiagnosed; this is referred to as *idiopathic* vestibular disease.

Vestibular disease tends to affect older dogs, but cats can be affected earlier in life.

### Clinical Signs of Vestibular Disease

When there is an issue with the vestibular apparatus, the pet loses the ability to maintain balance. Clinical signs can occur very suddenly and can be so severe that the pet is unable to walk, stand, or move.

The following are signs of vestibular disease:

- Incoordination (instability when trying to stand or walk)
- Rapid eye movement from side to side

- Circling
- Head tilt
- Rolling or falling to one side
- Vomiting

### Diagnosis

The diagnosis of vestibular disease involves a physical examination and a neurologic examination (specific physical examination “tests” used to assess the patient’s nerve and brain function). Your veterinarian will likely examine the ear canal to see if there is evidence of an infection or tumor. X-rays of the skull may also show tumors or evidence of fluid or inflammation in the middle or inner ear.

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Some veterinarians have access to sophisticated equipment for computed tomography (CT) and magnetic resonance imaging (MRI), which can provide detailed images of the brain and inner ear. If this equipment is not available, diagnosis is based largely on clinical signs and physical examination findings.

### Treatment

The goal of treatment is to address the underlying problem and keep the animal as comfortable as possible until recovery is adequate. If the patient is suffering from an ear infection, the infection should be treated. Sometimes, a course of antibiotics is given. Other treatments are aimed at controlling nausea/vomiting and providing comfort until the patient recovers. Severely affected pets may require hospitalization until they can eat and drink as well as stand without falling.

## Common Conditions

Many patients recover from vestibular disease within 14 days of the onset of clinical signs, with or without treatment. Occasionally, a slight head tilt may remain, but many patients recover completely. If the underlying cause of the episode was a tumor

of the brain or inner/middle ear, the outcome depends largely on whether the tumor can be treated. Similarly, if the underlying cause was an ear infection or thyroid problem, recovery depends on effectively managing these problems.