

# Vestibular Disease (GVS) in Senior Dogs

## Basics

### OVERVIEW

- Sudden (acute) onset of a non-progressive disturbance of the peripheral vestibular system in senior dogs
- The vestibular system controls the pet's sense of equilibrium, balance, and orientation; it is composed of the inner ear, nerves, and brain

### SIGNALMENT/DESCRIPTION OF PET

#### Species

- Dogs

#### Breed Predispositions

- None reported
- Seems to occur more frequently in medium-to-large breeds

#### Mean Age and Range

- Senior dogs; pets usually greater than 8 years of age

### SIGNS/OBSERVED CHANGES IN THE PET

- Sudden onset of imbalance, disorientation, reluctance to stand, and (usually) head tilt and irregular eye movements (known as “nystagmus”)
- May be preceded or accompanied by nausea and vomiting
- Head tilt—mild to marked; occasionally erratic side-to-side head movements
- Mild to marked disorientation and wobbly, incoordinated or “drunken”-appearing gait or movement (known as “ataxia”) with tendency to lean or fall in the direction of the head tilt
- Strength is normal
- May be reluctant to stand
- May have base-wide stance

### CAUSES

- Unknown

## Treatment

### HEALTH CARE

- Mild vestibular disease—usually can manage as an outpatient
- Severe disease—pets that cannot walk (known as being “non-ambulatory”) or require intravenous fluid support should be hospitalized during the initial stages



- Treatment is supportive, including rehydration and/or maintenance intravenous fluids, if necessary
- Keep recumbent pets warm and dry using soft, absorbent bedding
- Severe disease—physical therapy, including passive manipulation of limbs and moving body to alternate sides, may be required initially

## ACTIVITY

- Restrict activity as required by the degree of disorientation and wobbly, incoordinated or “drunken”-appearing gait or movement (ataxia)

## DIET

- Usually no modification required
- Nausea, vomiting, and severe disorientation—initially withhold food intake by mouth

## Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Sedatives—for severe disorientation and wobbly, incoordinated or “drunken”-appearing gait or movement (ataxia), such as diazepam
- Medications to control nausea and vomiting (known as “antiemetic drugs”) or drugs against motion sickness—questionable benefit; medications include dimenhydrinate and meclizine
- Steroids—might be used if stroke expected; may or may not alter the course of the disease and may worsen other medical problems (such as dehydration)
- Antibiotics—advised when infection/inflammation of the middle ear (known as “otitis media”) and inner ear (known as “otitis interna”) cannot be ruled out; examples are trimethoprim-sulfa, first-generation cephalosporin (such as cephalexin), and amoxicillin/clavulanic acid

## Follow-Up Care

### PATIENT MONITORING

- Nervous system examination—repeat in 2–3 days, to confirm stabilization and initial improvement
- Discharge inpatient when able to walk (known as being “ambulatory”), eat and drink

### POSSIBLE COMPLICATIONS

- Fluid and electrolyte imbalances and inability to offset kidney insufficiency (if pet has decreased kidney function)—may follow vomiting and/or insufficient fluid and food intake
- Pressure sores

### EXPECTED COURSE AND PROGNOSIS

- Improvement of clinical signs usually starts within 72 hours, with resolution of vomiting and improvement of irregular eye movements (nystagmus) and wobbly, incoordinated or “drunken”-appearing gait or movement (ataxia)
- Head tilt and wobbly, incoordinated or “drunken”-appearing gait or movement (ataxia)—significant improvement usually occurs over 7–10 days; if no improvement in this time, other causes of vestibular disease should be evaluated
- Mild head tilt may remain
- Most pets return to normal within 2–3 weeks
- Recurrence—repeat episodes of senior vestibular disease in dogs can occur on the same or opposite side, but are uncommon; brief return of signs may occur with stress (such as following anesthesia)

## Key Points

- Although the initial signs of vestibular disease can be alarming and often incapacitating, the prognosis for rapid improvement and recovery is excellent and many dogs, even the very old do recover and do well