

Veterinary Corner

Animal health information from a licensed veterinarian to keep you informed about your pet's wellbeing.



IN THIS ISSUE

Vestibular Disease in Dogs

By Bartley Harrison, DVM

What could possibly make your happy, active dog suddenly act drunk and look like its world is spinning? Symptoms like these often make dog owners worry about a stroke or toxin, but a common, often harmless syndrome called vestibular disease can result in these changes.

Vestibular disease causes a rapid onset of signs that can include difficulty walking, falling to one side, rolling uncontrollably, a head tilt, rapid eye movement, and nausea. While there are some scary things that can cause these problems, most dogs suffer from a relatively benign version of this disease.

How Does Balance Work Anyway?

To understand this syndrome, some basic knowledge of anatomy is needed. Your dog maintains its balance by coordinating signals from the inner ear and the nerves supplying it, known as the *peripheral* vestibular system, and areas in the brainstem that receive and act upon these signals, known as the *central* vestibular system.

These systems work together with the other senses to process information from the world and respond to it appropriately. Sometimes things go haywire, and the signals give conflicting information. When this happens, it is important to try to find the source of the problem. It is easiest to do this by breaking the possible causes down by location.

Where is the Problem?

Fortunately, most incidents of vestibular disease are caused by problems outside the brain, in the peripheral vestibular system. Dogs with peripheral vestibular disease tend to be alert and aware of their surroundings despite their loss of balance. To help determine that the source of the problem is outside the brain, a veterinarian will look at the direction of your dog's eye movements, head tilt, and stumbling. A check of your dog's ear canals may show evidence of infection, though some problems like an inner ear infection or cancer may not be obvious without radiographs or a CT scan.

If the ears look healthy and there are no other signs of problems with the nervous system, it is usually assumed that the cause is idiopathic vestibular disease. Other names for this condition include geriatric vestibular disease or old-dog vestibular syndrome, since it is seen most commonly in senior pets. *Idiopathic* means that the underlying cause of the disease is unknown or that the disease occurs spontaneously. For reasons that are not entirely understood, the balance center in one ear starts sending incorrect signals to the brain. The unsteadiness, head tilt, and abnormal eye movements result from the brain trying to adjust to this conflicting information.

Obviously, problems within the brain are more worrisome and can be more challenging to diagnose. Dogs with central vestibular disease often have a change in behavior accompanying their loss of balance. The other nerves supplying their face may have problems as well, resulting in pupils of different sizes, a slack appearance to one side of the face, or decreased sensation on the lips.

Finding the cause of central vestibular symptoms can be challenging, since testing involving the brain is intensive. Checking for metabolic diseases like hypothyroidism or high blood pressure is a good first step but may not tell the full story.

A veterinary neurologist can be very helpful in diagnosing the cause of central vestibular symptoms. A neurologist can perform advanced diagnostics like an MRI,

spinal tap, or infectious disease testing to give you the best chance of finding out what's going on in your dog's head. These tests can help tell if inflammation (meningitis), an infectious disease, a tumor, or a stroke caused the problem.

How Do We Treat This?

The treatment for idiopathic vestibular disease is usually symptomatic. Depending on the severity of signs, a medication for motion sickness may be recommended to help with nausea. Confinement to a safe area will help prevent injury, and walks (with support!) will train the brain to process the information from the inner ear correctly again. If an ear infection is present, it may be treated with a combination of topical and systemic antibiotics, as well as other medications to help with pain and inflammation.

Most dogs with peripheral vestibular disease recover readily, and their symptoms tend to improve dramatically over the first few days. Some dogs can take a few weeks to recover completely, and a few will be left with a head tilt for the rest of their lives. This doesn't seem to bother them, and they will be active, happy dogs that look a little inquisitive all the time.

The treatment and prognosis for central vestibular disease varies depending on the cause. While the triggers for central vestibular disease tend to be more serious, effective treatments do exist for some conditions. Discussing options with your veterinarian or a veterinary neurologist will give your dog the best chance for recovery.

What To Do if Your Dog Loses Its Balance

Seeing a veterinarian is always the best course of action if your dog begins to act abnormally. If the symptoms described here occur, an urgent appointment with your family veterinarian or a trip to an emergency veterinary clinic is appropriate. Even if the cause turns out to be benign, medication can help keep your pup comfortable as they recover.