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Ouch, my back hurts!!

Neck and back pain, unfortunately, is a common issue we see in our pets. Signs of this are many and can be confusing. Some animals seem to have lost their appetites as it becomes painful for them to lower their heads to eat/drink. Some animals slow down and want to smell or sit while out on their usual walks. They may also have difficulty or hesitate to go up or down the stairs. Others will wave problems with moving or start dragging their feet. You may find them struggling to stand or slipping on the floors. These issues can signal a spinal cord injury that can happen suddenly or accumulate over time. The most common cause of back or neck issues is related to the intervertebral disc. The only way to determine specifically, what you are dealing with when any spinal cord issue requires an MRI or CT scan as nerves cannot be seen with an xray. A veterinarian is needed to determine if other causes such as embolisms, meningitis, infections or cancers are present. Some dogs can even get a form of Lou Gehrig's disease known as degenerative myelopathy.

To understand disc problems requires an understanding of the anatomy. There are three basic parts. Imagine the neck and back as a bridge similar to the golden gate in San Francisco. The vertebral bones are lined up in a row and form the scaffold of the bridge. Each bone is connected by a joint that includes cartilage or disc space which contributes to the cement that the cars run on. Then the cars and traffic (or spinal cord) run through the center of the bridge's vertebral scaffold. In a bridge setting, if there is an obstruction to the cement, then the flow of traffic slows or stop. Most of the time, damage to the spinal cord (traffic) is the result of the disruption of the cartilage (cement) which results in loss of sensation, pain or complete paralysis (traffic jams). In our animals, we see this as intervertebral disc disease.

Intervertebral disc disease (IVDD), also known as degenerative disc disease, has different forms. We have medically classified these issues into at least 5 different subgroups. However, for the purpose of this article, I'll mention the 2 main types; type I and type II. The first kind (IVDD type I) is a problem as we continue to breed dogs for certain looks. While smaller breeds such as the french bulldog, the dachshund, the pug, the shih-tzu, etc... are adorable, by breeding them for characteristic looks - we have literally smushed the vertebral scaffold together and created instability in the back. Be aware of this as you decide what type of dog to care for. There are also genetic markers that signal the cartilage to weaken and degenerate early on. These issues can trigger a sudden extrusion of disc material into the spinal cord space. Depending on how much material enters the space, symptoms range from severe pain, difficulties walking or dragging of feet to full on paralysis. This early degeneration can occur as early as 2 years old with the peak ages being around 3-6 years of age. However, the disc can technically rupture at any age.

Other causes of disc issues are related to chronic cartilage bulges into the spinal cord (type II IVDD). This, accumulates over time and slows down the signal. Typically, it's a source of chronic pain, toe dragging, unsteady movements that worsen over months to years. We see this more commonly in the bigger breeds as they age (shepherds, golden retrievers, setters, etc...)

So how is this problem treated? The big concept is that spinal cord issues take time to heal and the response to treatment depends on how long the problem has been there and the degree of the obstruction. Firstly, it always involves medication to help control the inflammation because the sooner the inflammatory signal resolves, the sooner the repair process begins. Some of the issues require surgery to physically remove the obstruction. In other issues, surgery cannot help or is not an option. In the past, we used to say that rest and confinement is needed to help promote scar tissue formation and repair the bridge. This is necessary but we also now understand that the repair cells (gliocytes) need signals to know where the problem area is and to fix it. These signals are generated by controlled movements, gravitational forces and electrical impulses. If all we do is lay in a cage or on the couch, atrophy and disuse occurs which lengthens the recovery time, healing occurs much faster if nerves are stimulated. This is where rehabilitation comes in. Rehabilitation and physical therapy work together to target specific areas of the body and generate spinal cord signals to promote healing and repair. This is done through a combination of tools such as supported and controlled movements, electrical stimulation, acupuncture, LASER treatments and others. A typical spinal cord issue that receives regular and consistent treatment will see improvements over a 2 to 4 week period of time.

If you have any concerns that your dog or cat is having a spinal cord issue, please contact us at Beach Animal Rehabilitation Center as we are more than happy to help in any way.