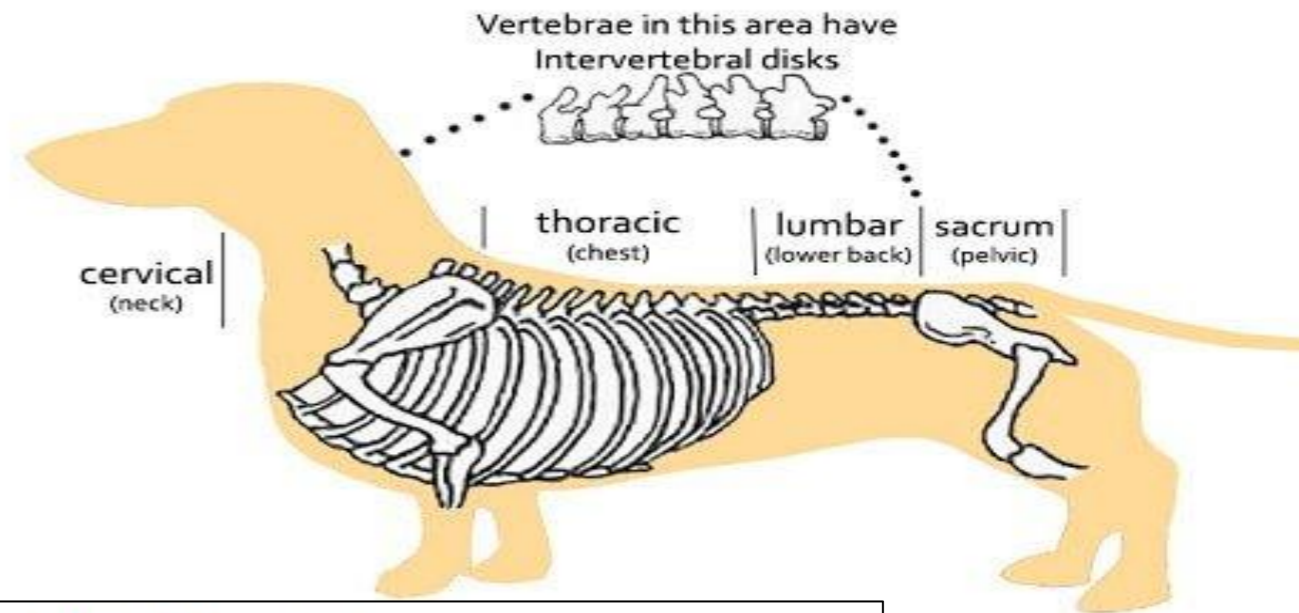
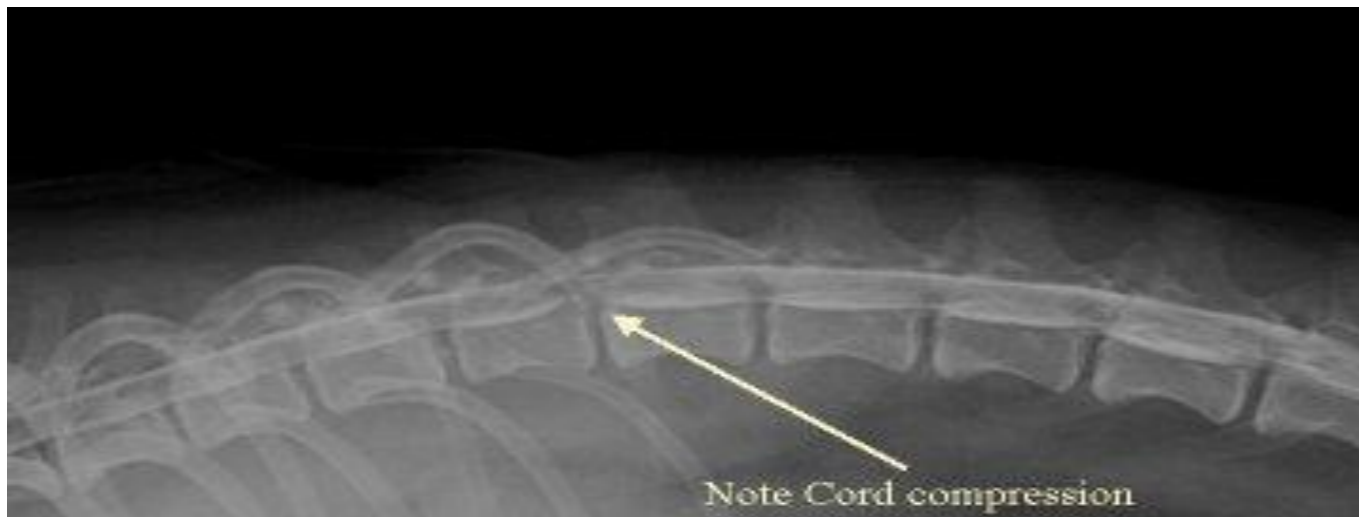


Abbey



Abbey is an 8 yr old female dachshund who is fond of playing ball and jumping on and off the couch in her owner's den. One morning, Abbey wasn't acting like herself and seemed very reluctant to get up from her bed to move around the room. When she did walk, she had a funny stilted gait that some describe as "walking on eggshells". By the time the owners were able to take Abbey to the veterinarian later that morning, she was unable to stand and was partially paralyzed in both of her rear legs.

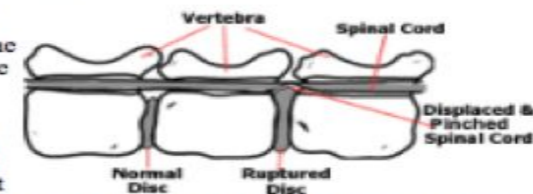
Abbey



Intervertebral Disc (Ruptured Disc) Disease in Dogs

Drs. Foster & Smith Educational Staff

The dog's spine is made up of numerous small bones called vertebrae. These extend from the base of the skull all the way to the end of the tail. The vertebrae are interconnected by flexible discs made of a cartilage-like material. These are called the 'intervertebral discs' or 'intervertebral disks'. These discs provide cushioning between each bone and permit the neck, spine, and tail to bend, allowing changes in position and posture. Each vertebrae has a tunnel running through it. The spinal cord runs through these tunnels, where it is protected by the bone surrounding it, except for the places in between the vertebrae where it runs over the top of the disks. The spinal cord is made up of a mass of nerve fibers that run back and forth between the brain and the rest of the body.



Findings from a thorough neurological exam and radiographs (attached picture of x-ray) suggested that Abbey had ruptured an intervertebral disc and that the contents had damaged her spinal cord. After surgery, Abbey still wasn't able to walk and so the veterinarian suggested that some kind of device was needed to help Abbey in her day to day life. The veterinarian felt that Abbey would improve, but would still need help moving for several weeks to come.

What Does Abbey Usually Do?

That's now not possible...

- Jump on the bed
- Chase the ball
- Walk to food
- Walk with the owner
- Swim
- Run
- Play with other dogs
- Tricks with the hind legs
- Chase her tail
- Dig with her back legs
- Catch a Frisbee
- Playwith owner
- Sit down
- Lie down

Constraints

Requirements for the assistive technology:

- Be comfortable for Abby: not too tight or too loose
- Easily attached and removed
 - Takes very little time
 - Nothing can be glued, taped, pinned, etc. to Abbey
- Support the lower back and legs
 - Back legs must be supported
 - Lower back and hips must be kept as still and stable as possible when the device is being used.