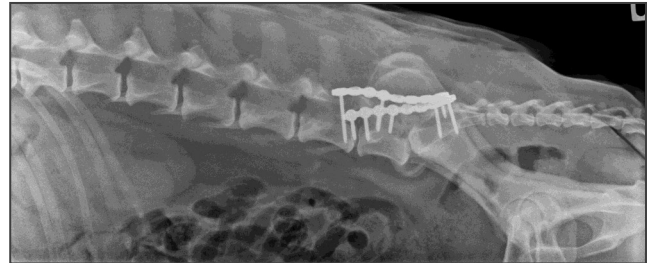


## CUVS CASE FILE: **Lumbosacral Luxation - Sit, Stay, Heal!**

A 13-year-old, spayed female Goldendoodle was referred to Dr. Juliette Hart of our Sports Medicine & Rehabilitation Service for management of complex neurologic injury. The dog had surgery at another specialty facility following a traumatic L7 vertebral arch fracture with right sciatic nerve root compression, requiring dorsal laminectomy and stabilization (right). One week post-operatively, she sustained a moderate, non-surgical lumbosacral subluxation. At that time, she was unable to sit or stand on her own.

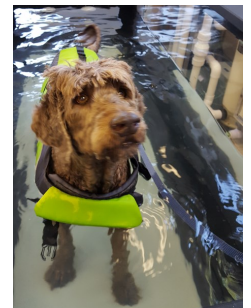


On presentation, Dr. Hart found that she could be placed into proper sit with moderate pelvic support, but was unable to rise on her own without pelvic support. The referring surgical team had set up a robust pain management protocol, but as she was so recently post-operative, special care was essential during her rehabilitation process. Recent major spinal surgery, combined with her acute lumbosacral luxation, posed additional challenges; careful handling and gentle improvements in mobility were paramount. A series of therapy goals were established.

**Goal #1: Pain Control.** Lumbosacral injuries, specifically those involving the articulation, tend to have a better prognosis than injuries that involve the vertebral column. In many cases, ambulation may be significantly negatively impacted by pain, in addition to neurologic dysfunction. In this case, the patient was on an appropriate pharmacologic pain management protocol, and exhibited neurologic deficits. Class IV laser therapy, acupuncture, and manual therapies supported her through this phase.

**Goal #2: Mobility.** Given the patient's inability to rise, a home protocol was established to enable the owner to appropriately help the dog to rise and sit with minimum rotation at her pelvis. Once in a standing position, she could walk with ~50% harness support during the first few weeks of instituting formal rehabilitation therapy. External harnesses and slings supported her through this part of her recovery.

**Goal #3: Strength.** Throughout recovery, the dog had mild-moderate neurologic deficits. So, in addition to proprioceptive work designed by our Sports Medicine team, the larger goal was initially focused on isometric contractions to start, then progressing her through a more active muscle strengthening protocol. At-home therapeutic exercises, underwater treadmill (UWTM) and acupuncture provided additional support. UWTM was utilized in this case to enable the patient to move in an environment that took weight off the articulation; she began with 91% of her body weight being supported by the water. This also enabled excellent retraining during ambulation (right). Bear in mind that she was also healing from spinal surgery and a vertebral fracture!



Over the subsequent 8 weeks, the patient continued to make excellent progress. Minor setbacks were managed with changes in pain management and/or changes to the degree of intensity of her therapeutic exercises. With each surgical recheck, she progressed through her therapy and was gradually returned to function.

These cases are challenging, not only due to the nature of spinal surgery and healing, but that unexpected events can occur during recovery which alter the rehabilitation plan. We are pleased to report that this patient is back to her usual antics, and continues to lead a wonderful life at home.

### Case presentation by:

Juliette Hart,  
MS, DVM, CCRT, CVA, DACVSMIR



For consultation, or to refer a patient:

**203.595.2777 | [info@cuvs.org](mailto:info@cuvs.org)**

**We are here for you and your patients 24/7.**

880 Canal Street, Stamford, CT 06902

**[www.cuvs.org](http://www.cuvs.org)**