

# Physician Alert



## Case Report

54 year old male with a 4 year history of cervical disc damage

### ABSTRACT

AS is a 54 year old male with a 4 year history of cervical disc damage with ongoing neck and upper extremity pain, that has gotten progressively worse during the last 8 months. He reported his initial pain intensity as a 4/10. A cervical MRI taken within the last 6 months revealed a fusion at C4-5 with multilevel degenerative changes. These results indicated a need for the patient to be treated with spinal decompression using the Cervical DRX 9000 as well as aquatic and land based Postural Restoration. Following treatment sessions, patient experienced a significant decrease in his symptoms and reported a 100% overall improvement. His Oswestry Questionnaire scores decreased from 14% at his initial evaluation to 0% at discharge. His experience confirmed that The Rejuvenation Center is a very positive treatment alternative to help referring providers successfully deal with difficult neck pain patients.

(detail study on back)



### TESTIMONIAL

When I first came in, I was in a great deal of pain in my neck and it radiated into my left shoulder and sometimes into my left arm to the elbow. After going through the program here, the overall pain in my neck and shoulders is gone.

I'd like to complement your excellent facility and your great staff. Everyone was very knowledgeable. I love how you teach people to help themselves. I have had a great experience.

AS

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## History

AS is a 54 year old male with a **4 year history of ongoing neck and upper extremity pain, that has gotten progressively worse during the last 8 months.** He has a history of cervical disc damage from a fall while playing basketball 17 years ago. This led to a cervical spinal fusion of his C4-5 segments the year after the injury, with no major problem until 4 years ago.

His initial neck pain was described as a constant ache at an intensity of 4/10 in the left cervical region that occasionally radiates into the left upper trapezius, along the C6-7 dermatome, to the elbow, and sometimes into the forearm. Left occipital headaches can also accompany these pain symptoms. The recent increase in pain correlated with increased work demands, requiring longer periods of time spent on his feet. **He reports only limited success with rest, use of a heating pad or OTC medications.**

## Examination

A cervical MRI taken within the last 6 months revealed the following

### At C4-C5

- a fusion with multilevel degenerative changes, most advanced above and below the fusion.
- several disc osteophyte complexes with bilateral facet hypertrophy

### At C5-C6

- varying degrees of central canal and bilateral neuroforaminal narrowing

Patient's biomechanical neck, lumbopelvic, rib, and hip re-assessment was as follows:

	Right	Left
C3-C7 Rotation	Normal	Limited
Anterior Rib Angle	Near Normal	Flared
Apical Chest Wall Expansion	Limited	Normal
Hip Add (mod Ober)	Full	Limited
Hip Ext (mod Thomas)	Limited	Limited
Trunk Rotation (hook lying)	Limited	Normal

These measures are consistent with cervical and spinal segments positioned to the right with the right oriented pelvis and thoracic rib cage compensation back to the left with left rib cage ER and right rib cage IR<sup>1</sup>. This neck position limited C3-7 rotation to the left because of the way the spinal segments are oriented and the internally rotated right ribs limited right apical chest wall expansion and lowered the position of the right shoulder. Because the pelvis and lower trunk had shifted and oriented right, the upper trunk rotation to the left was normal, and the right was limited.

## Intervention

- 6 Cervical DRX disc decompression sessions.
- 12 Aquatic Postural Restoration sessions
- 11 Postural Restoration Sessions

Due to patient's tendency to stand and walk with his pelvis shifted right and his spine turned right, his rehab was started on the aquatic treadmill in the HydroWorx therapy pool. Aquatic therapy focused on gait retraining to restore alternating reciprocal pelvic and trunk rotation and introduction of left pelvic shifting activities. Once AS's pelvis and spine were positioned correctly, ribcage and diaphragm repositioning was initiated. This allowed proper expansion of the right side of his ribcage with breathing. His aquatic repositioning program was advanced to land-based postural corrective exercises

with emphasis on maintaining correct pelvic position, core trunk stability and proper position of his rib cage and diaphragm for balanced breathing and decreased neck strain.

## Outcomes

After decompression and postural restoration sessions patient reported:

- pain decreased to 0/10
- 100% overall improvement with both his neck and upper extremity pain symptoms.
- Oswestry Questionnaire score improved from an initial 14% to 0% after completing the treatment.

His biomechanical neck, lumbopelvic, rib, and hip re-assessment was as follows:

	Right	Left
C3-C7 Rotation	Normal	Normal
Anterior Rib Angle	Normal	Normal
Apical Chest Wall Expansion	Normal	Normal
Hip Add (mod Ober)	Full	Full
Hip Ext (mod Thomas)	Full	Full
Trunk Rotation (hook lying)	Normal	Normal

## Discussion

AS's MRI findings and his biomechanical position measures indicated a need to begin The Rejuvenation Center's specialized spine rehabilitation program of interdiscal decompression, Postural Restoration, and aquatic therapy.

Aquatic therapy helped AS to properly coordinate balanced gait mechanics and isolate the specific muscles required for both upper and lower quadrant repositioning. Overall, the aquatic postural restoration protocol successfully allowed him to transition to land-based exercises without unwanted compensation by faulty muscle patterns.

These aquatic and dry land exercises dramatically decreased AS's neck strain by properly repositioning both his spine and his rib cage using specialized corrective exercises. The strain was primarily the result of structural torque across the lower cervical segments as the spine was positioned towards the right and the rib cage had countered back to the left. An uneven pattern of chest wall expansion during normal breathing was feeding into this faulty rib cage position with every breath. Therefore, proper breathing was incorporated into all of the aquatic and dry land exercise activities.

**Restoration of pelvic, spine, and ribcage position** (as seen in the post-treatment re-assessment measures) **provided a neutral cervical resting position that decreased the joint torque and strain in the neck after only 4 visits.** The subsequent chest expansion and core abdominal stabilization exercises helped ensure functional stability and a long term successful outcome.

**After years of dealing with cervical pain, it is significant to note AS's successful outcome. His experience confirmed that The Rejuvenation Center is a very positive treatment alternative to help referring providers successfully deal with difficult neck pain patients.**

## References

1. Hruska, RJ. *Postural Respiration—An integrated approach to the treatment of patterned thoraco-abdominal pathomechanics*, Postural Restoration Institute, Lincoln, Nebraska, 2007.

