

# Physical therapy in the context of spinal CSF leak

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**Bridging the Gap**

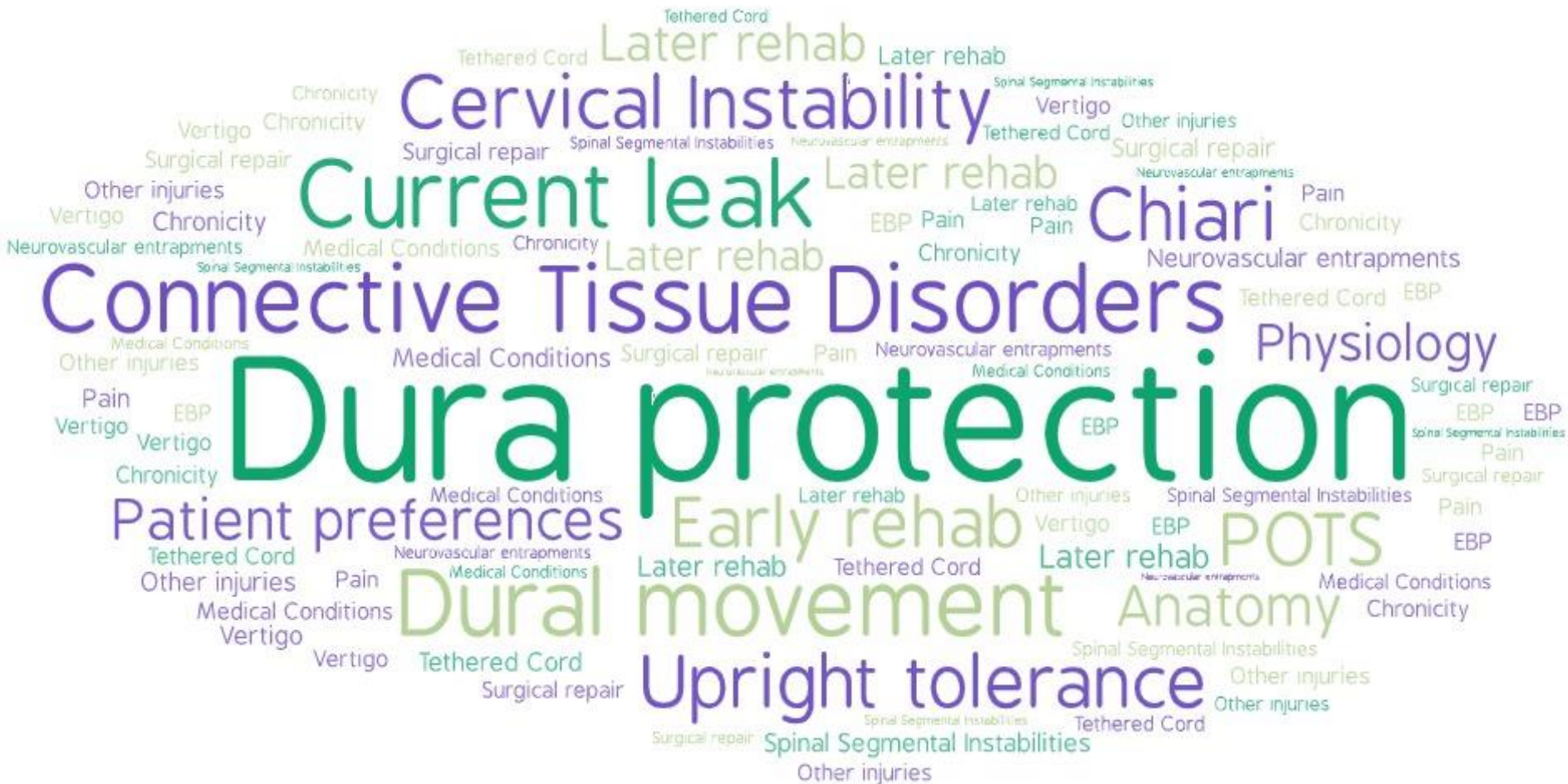
# Evidence based practice

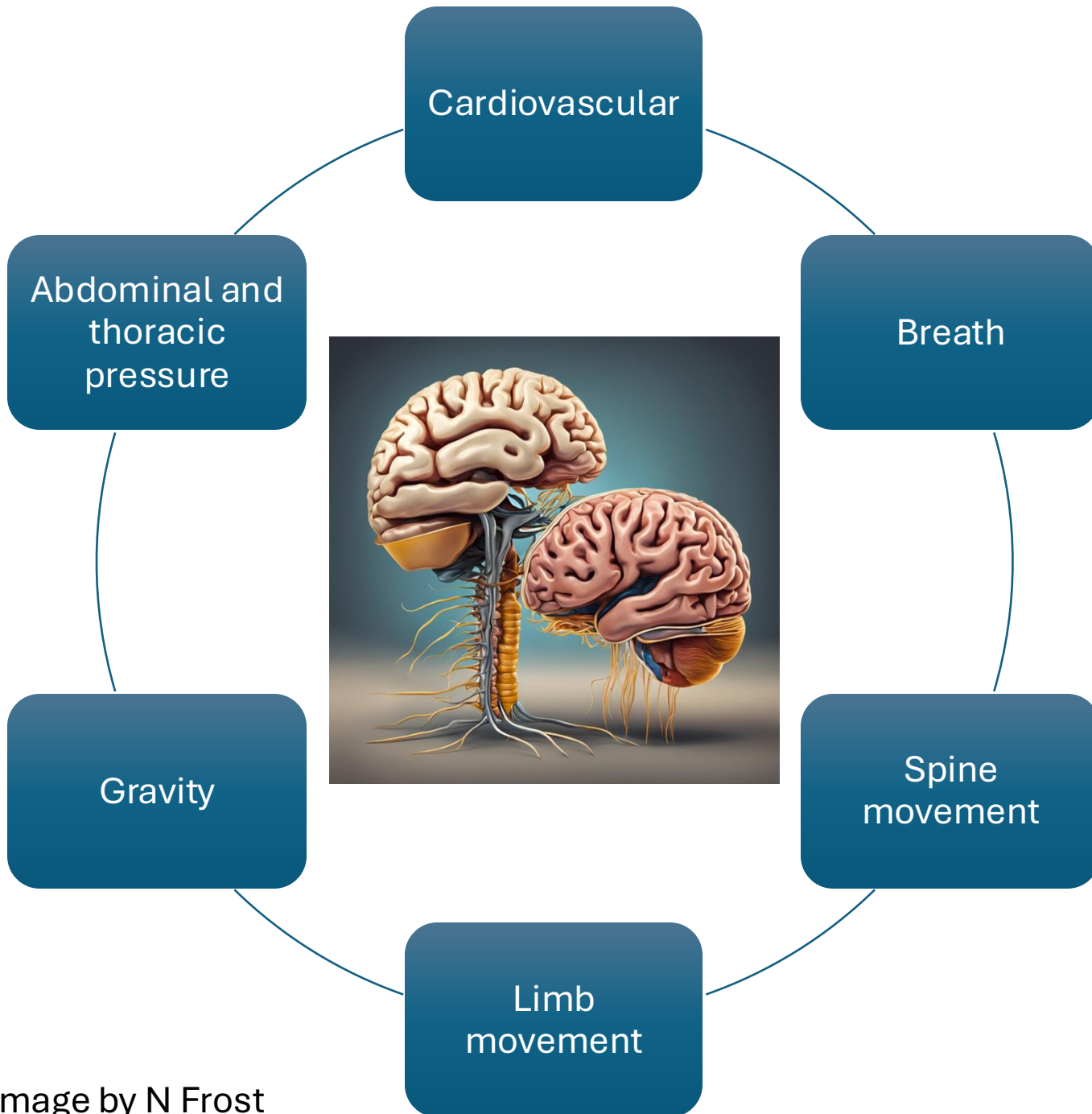


N Frost, produced using AI

- Meta analyses
- Systematic reviews
- Randomised Controlled Trials
- Case control/cohort studies
- Case studies
- Basic science

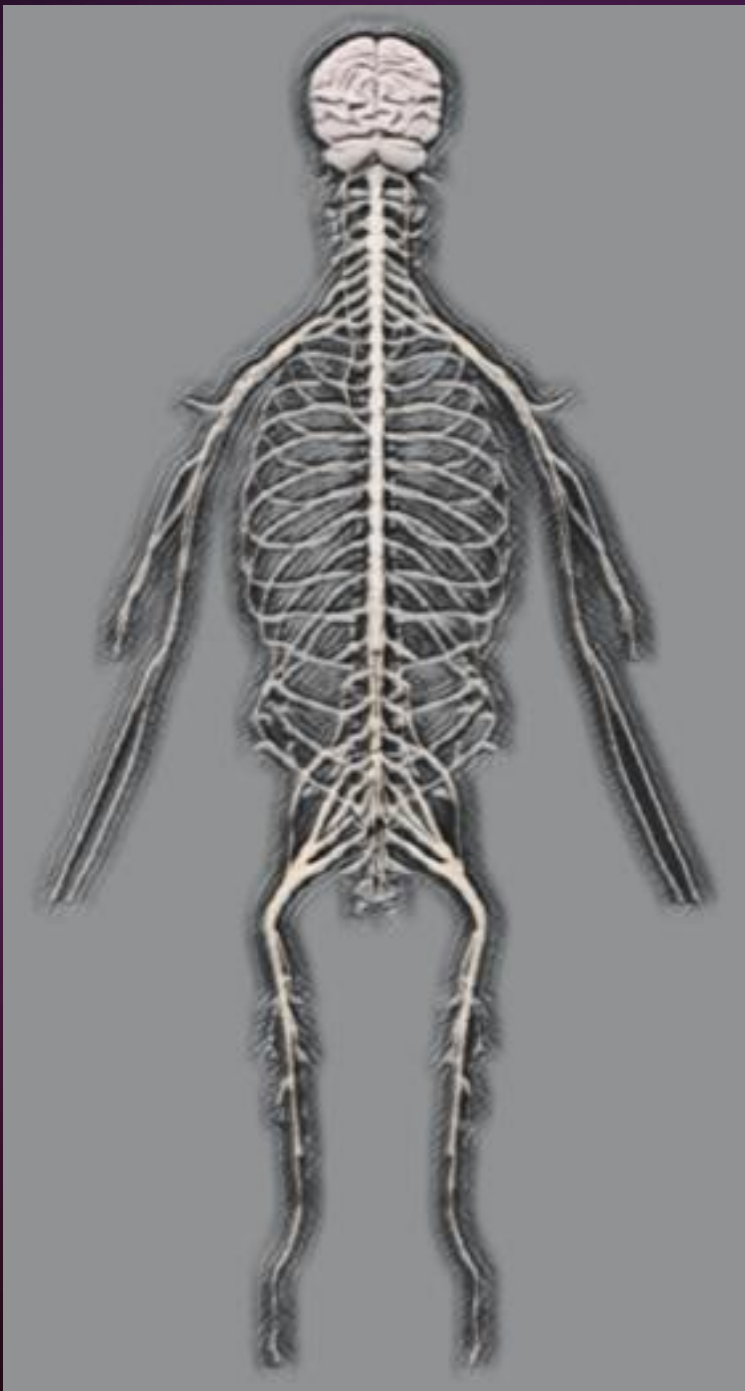
# Physical Therapy Considerations





# Movement of the dura & neural system





# Connectivity to peripheral nerves

Peripheral nerve entrapments can affect  
dural mechanics

# Connectivity to spine

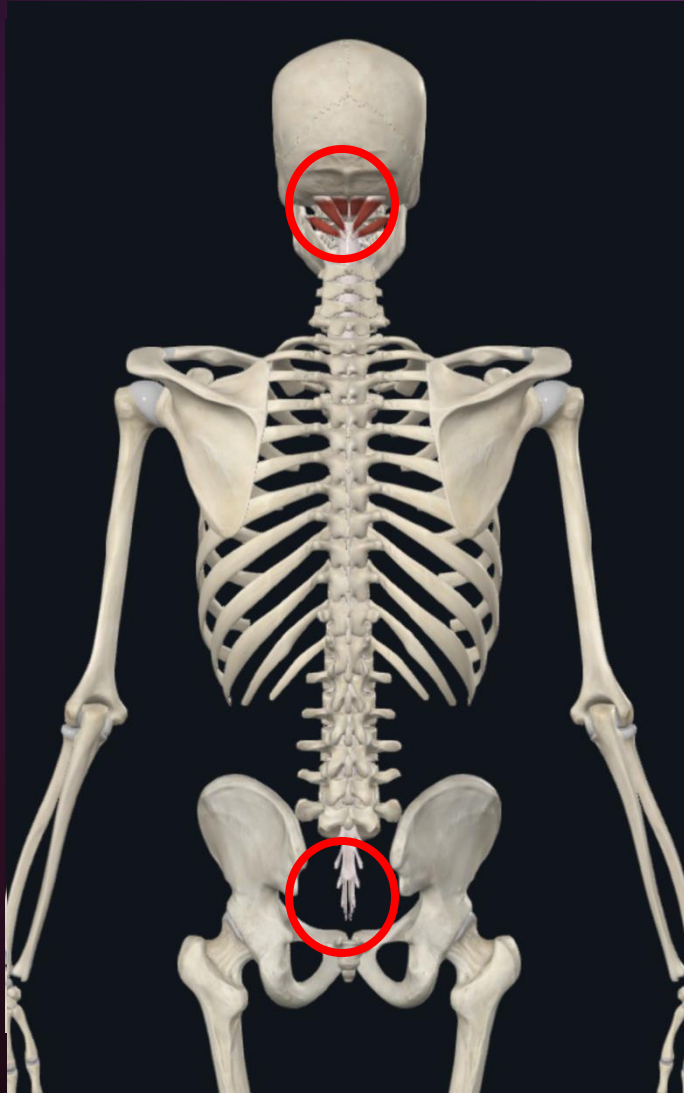


Image: Complete Anatomy

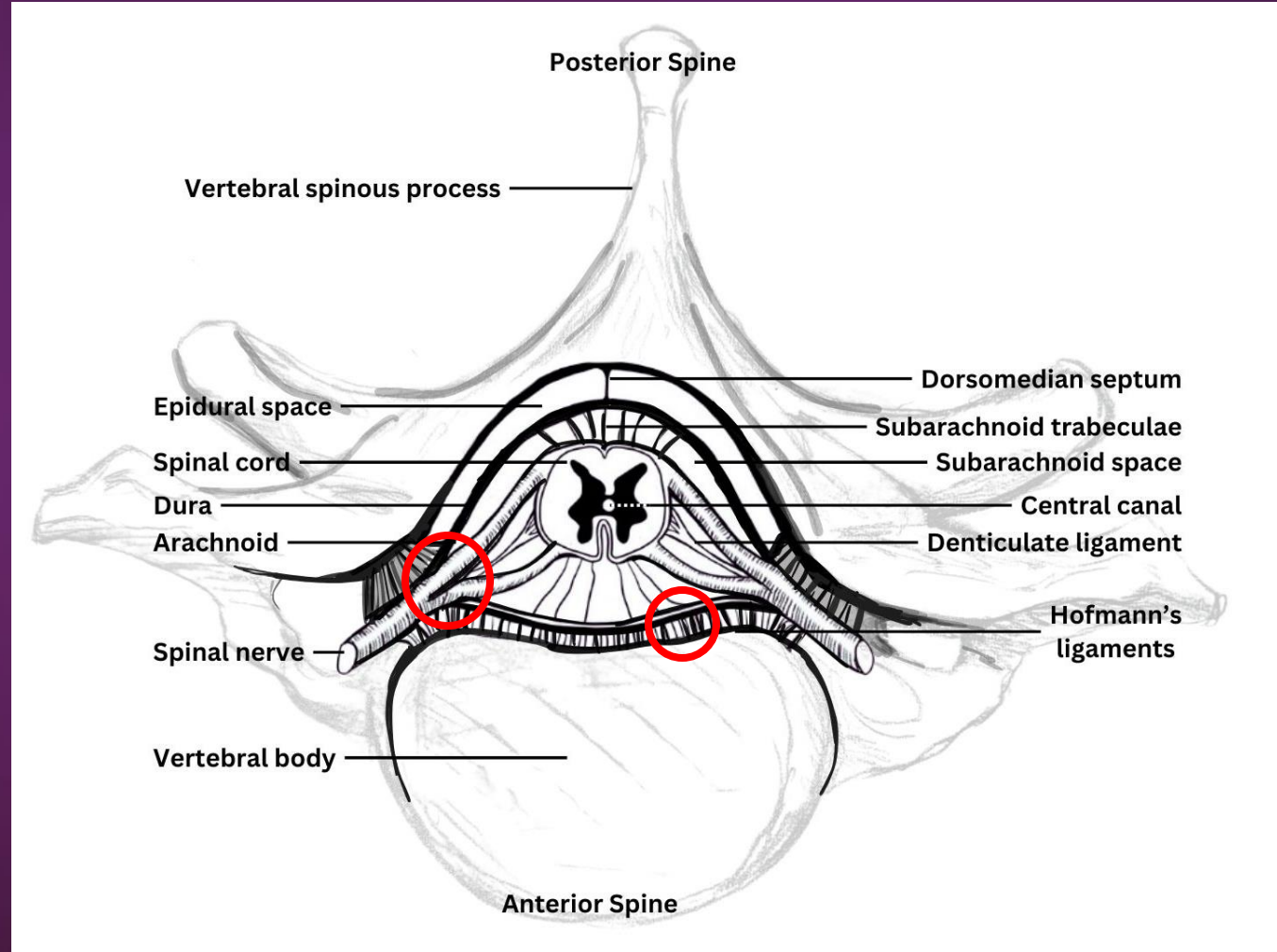


Image adapted from Butler 1991 by Leah Harris & Rouha MS Granfar

# Spinal cord motion with trunk movement



Image: Adapted from Breig 1960 & Complete Anatomy





# Spinal rotation

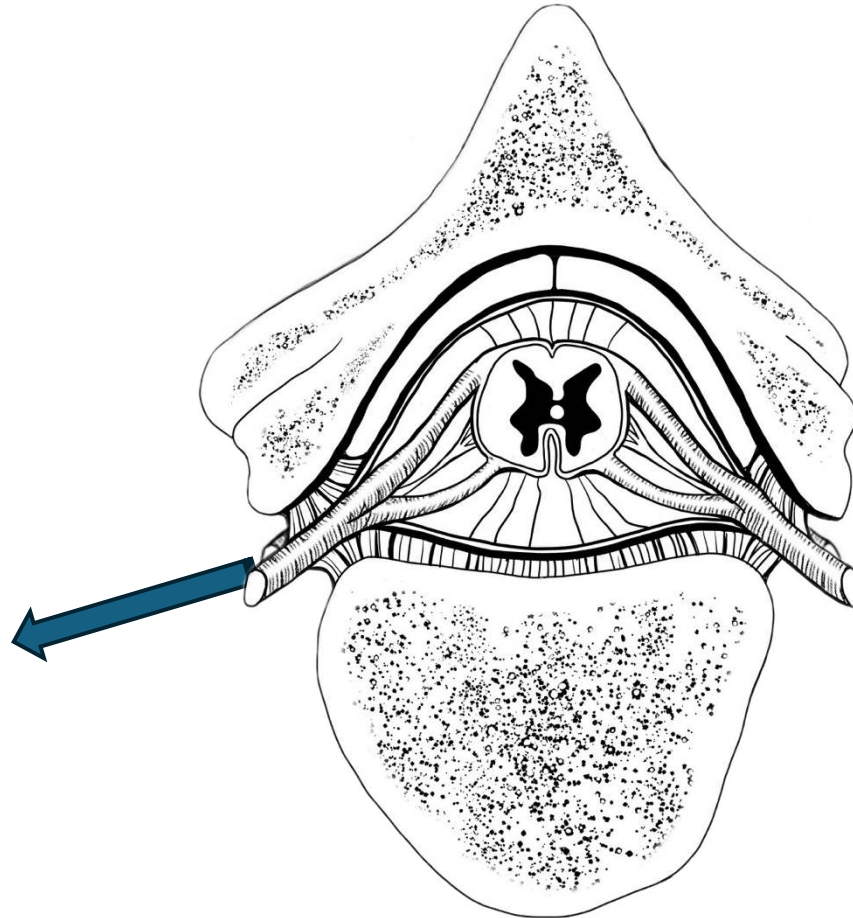


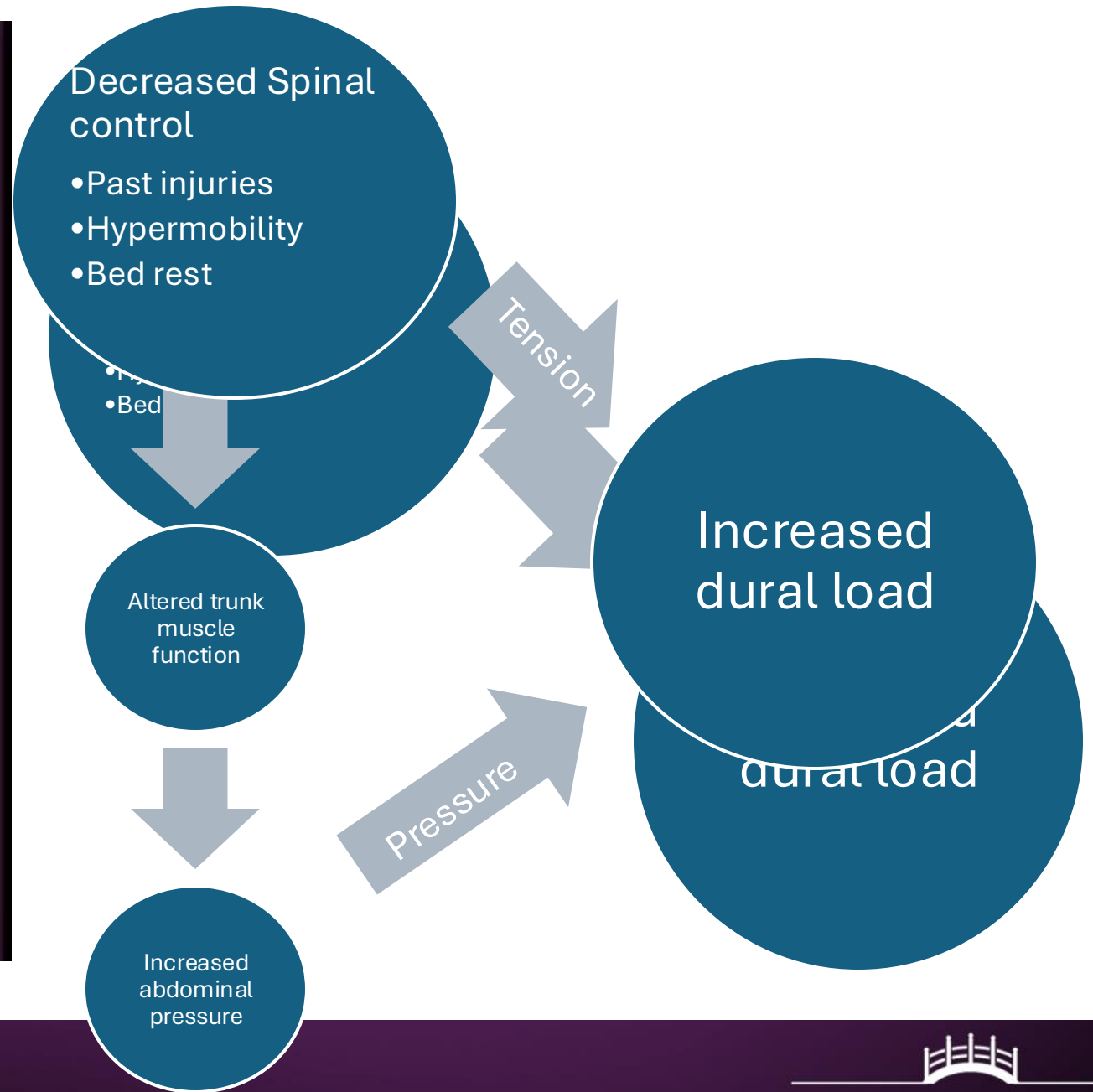
Image: Leah Harris, adapted from Butler, 1991





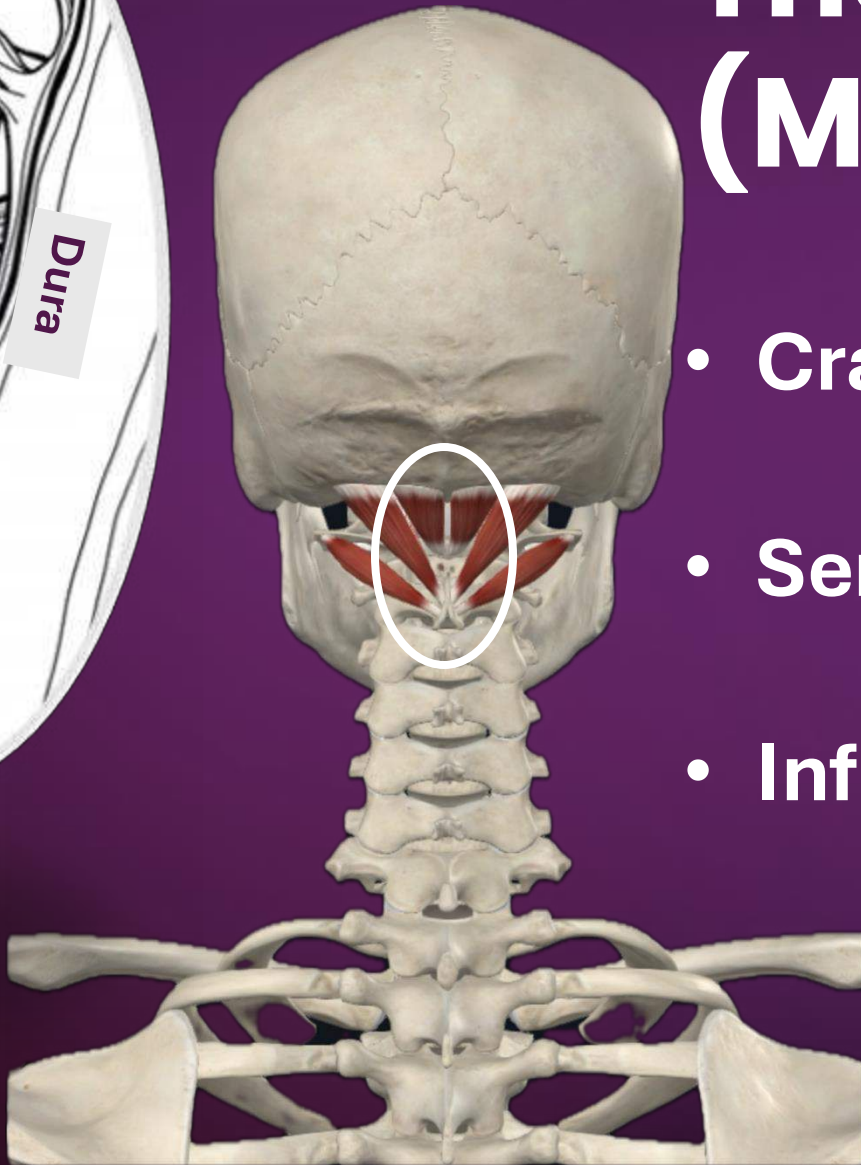
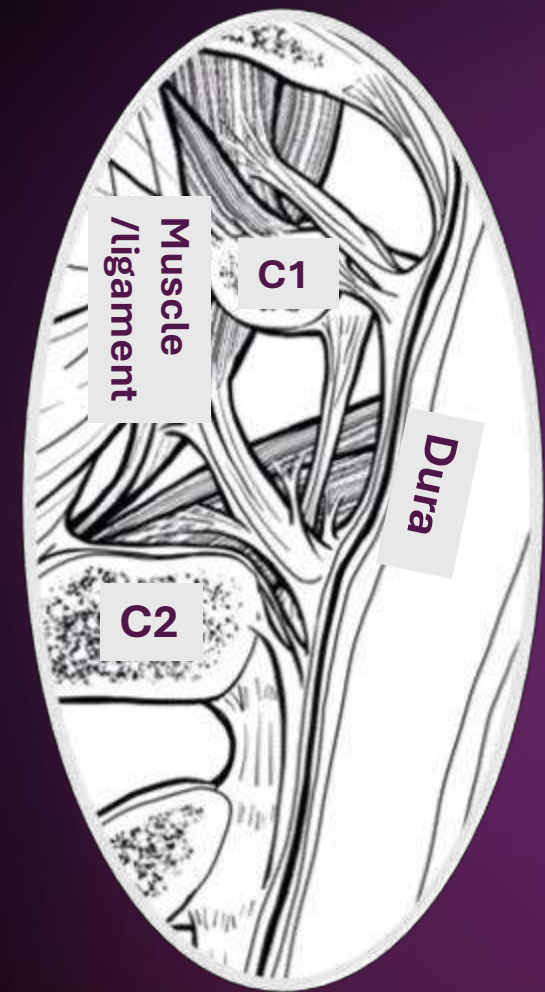


Image: Complete Anatomy



# The Myodural Bridge (MDB)

- Craniocervical stabilisation
- Sensory/proprioceptive functions
- Influence on CSF circulation

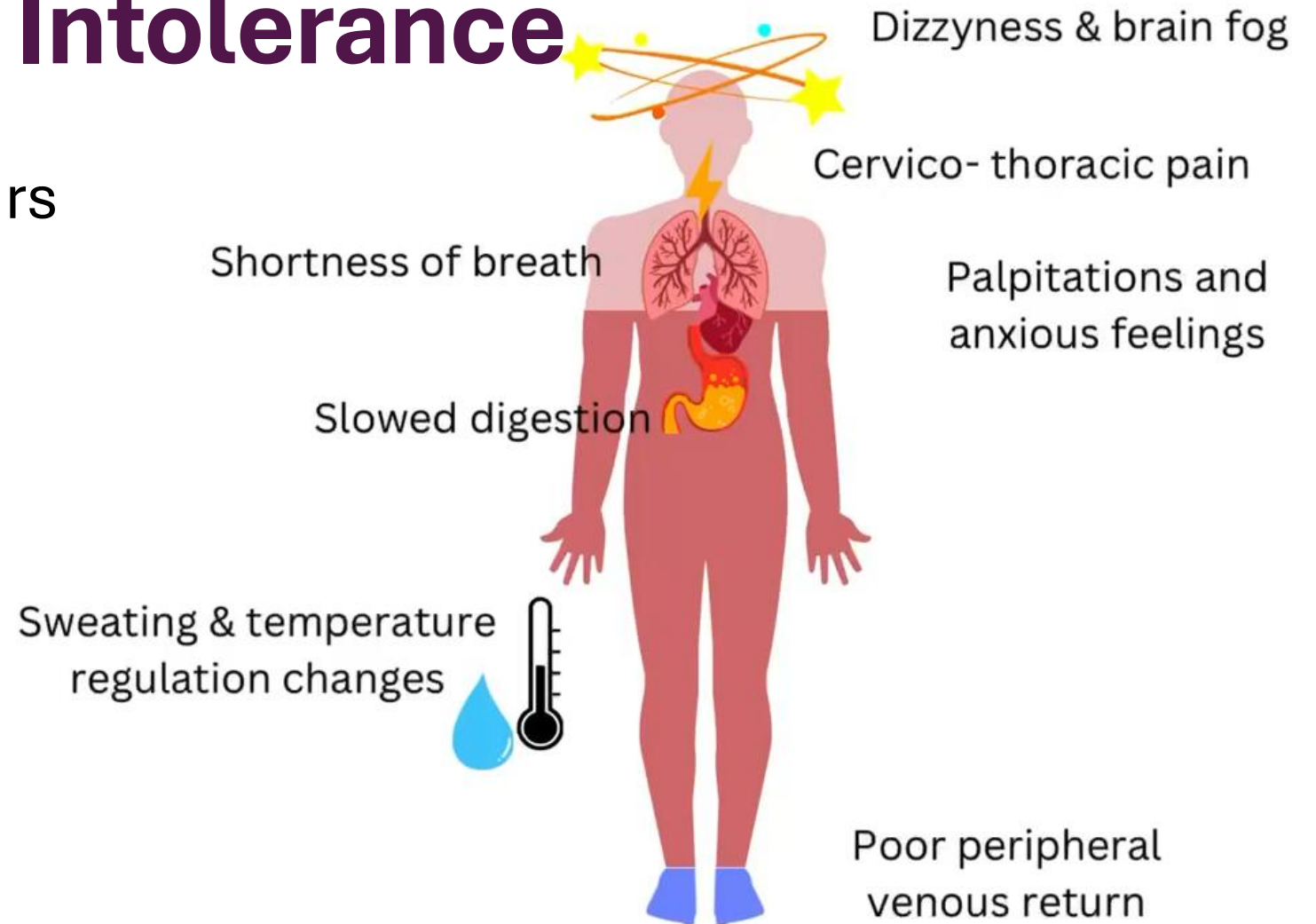


# POTS/Orthostatic Intolerance

- POTS commonly co-occurs
- Exacerbated by deconditioning

## Management:

- Leg strengthening
- Cardiovascular exercise





# Summary

- Consider the impacts on dura of every intervention
- Address neurovascular entrapments & subluxations
- Spinal alignment and stabilisation, especially upper cervical
- Sensorimotor control and proprioception
- Cardiovascular conditioning & breath control work
- Limb muscle strength/endurance



# Resources & Reference list



The image shows a video player interface for a presentation. The video title is "Sensible Physical Limitations after Epidural Patching Procedures or Surgery" by Laura Freed, MPT. The video is part of an "Intracranial Hypotension Symposium" organized by CEDARS-SINAL and the spinal/csf leak FOUNDATION. A QR code is positioned to the right of the video player, which likely links to the full video content.

Clinician resources and presentation references

Spinal CSF Leaks

Management resources for clinicians



**Thank you!**