Myofascial Release

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Objectives

- Discuss the difference between direct and indirect OMT techniques.
- Demonstrate the initial setup for direct and indirect versions of myofascial release for the thoracic inlet, abdominal diaphragm, and the cervical spine.
- Discuss the clinical indications for using myofascial release of the thoracic inlet, abdominal diaphragm, and the cervical spine.

Types of OMT

Direct

- Articular techniques
- Direct myofascial release
- High velocity low amplitude (HVLA)
- Low velocity moderate amplitude (LVMA)
- Muscle Energy
- Soft tissue technique
- Still technique

Indirect

- Counterstrain
- Balanced ligamentous tension (BLT)
- Exaggeration technique
- Facilitated positional release
- Functional Technique
- Indirect myofascial release
- Indirect technique
- Ligamentous articular strain

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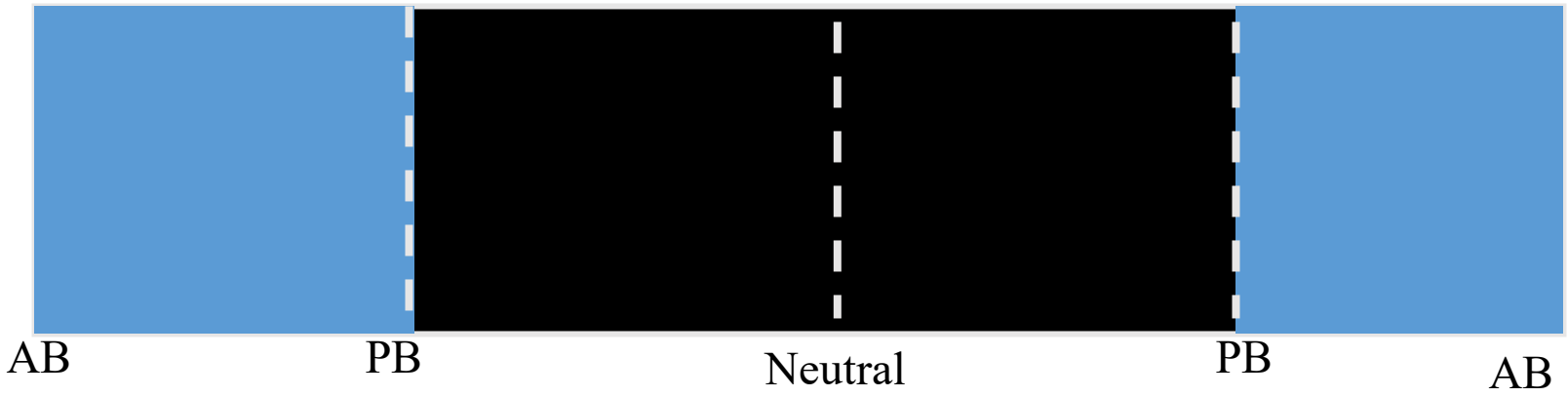
Range of Motion

Right Rotation

Left Rotation



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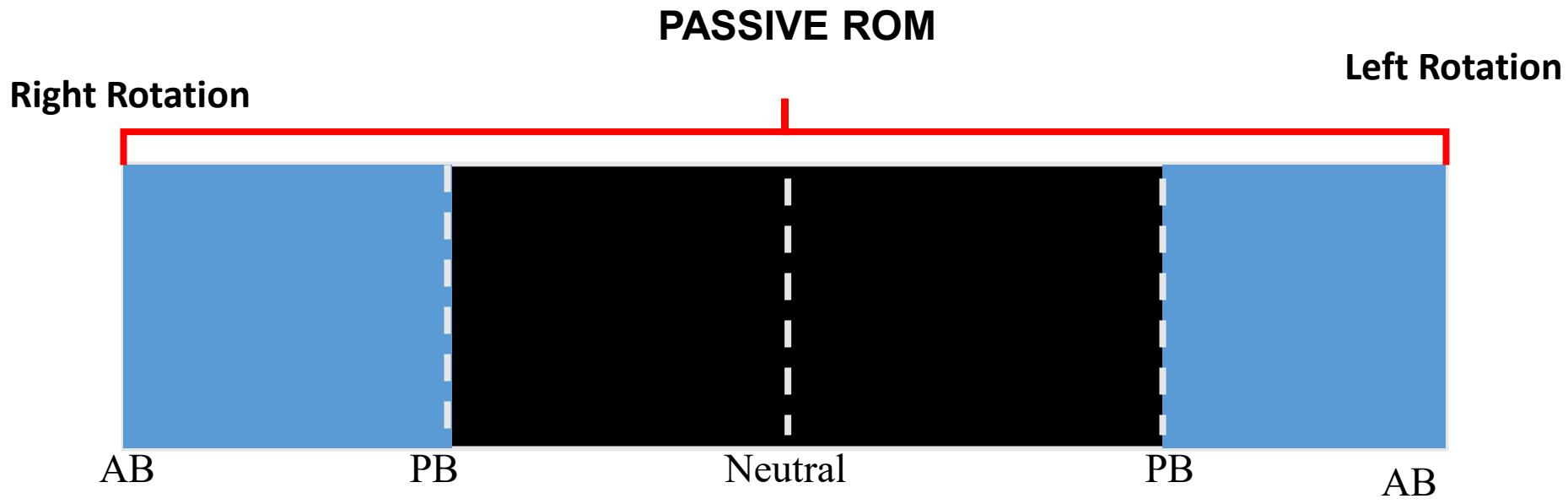
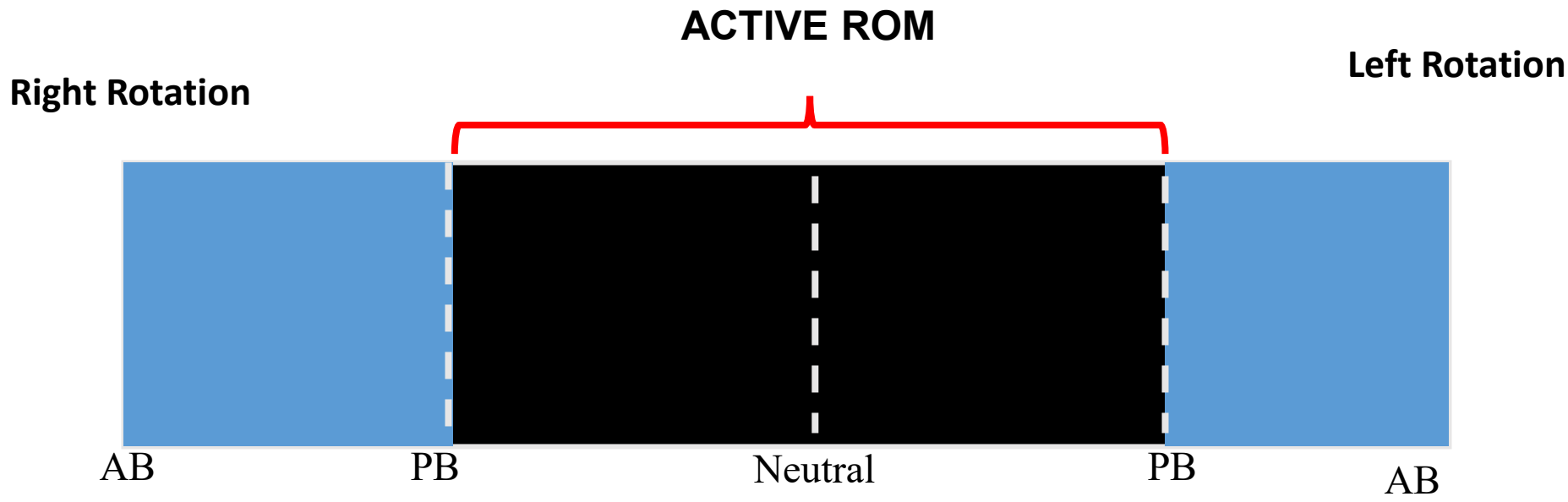


AB = Anatomical Barrier

Range of Motion



PB = Physiological Barrier

Range of Motion

Right Rotation

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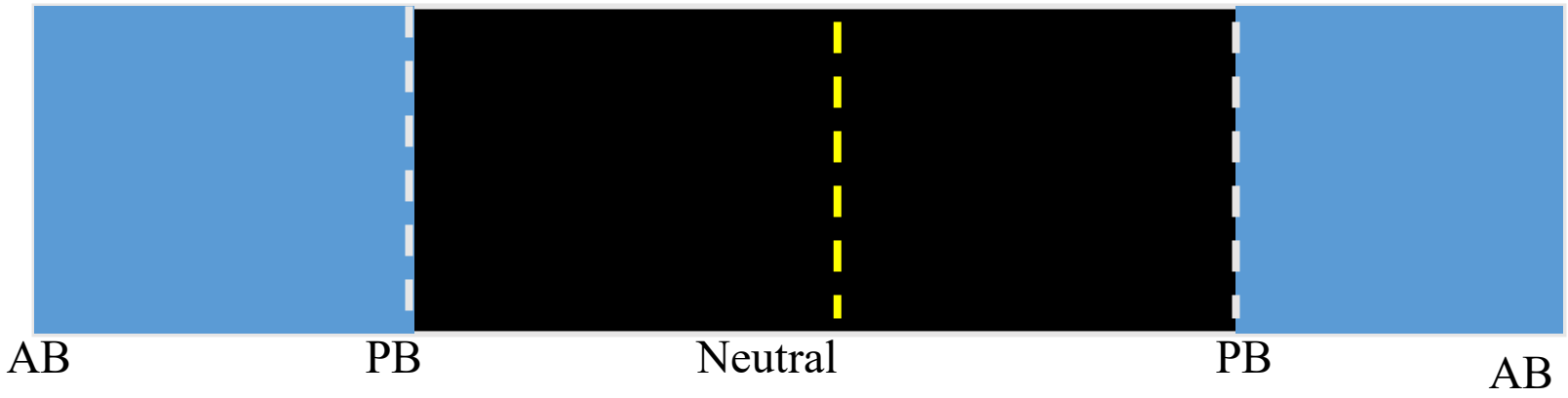

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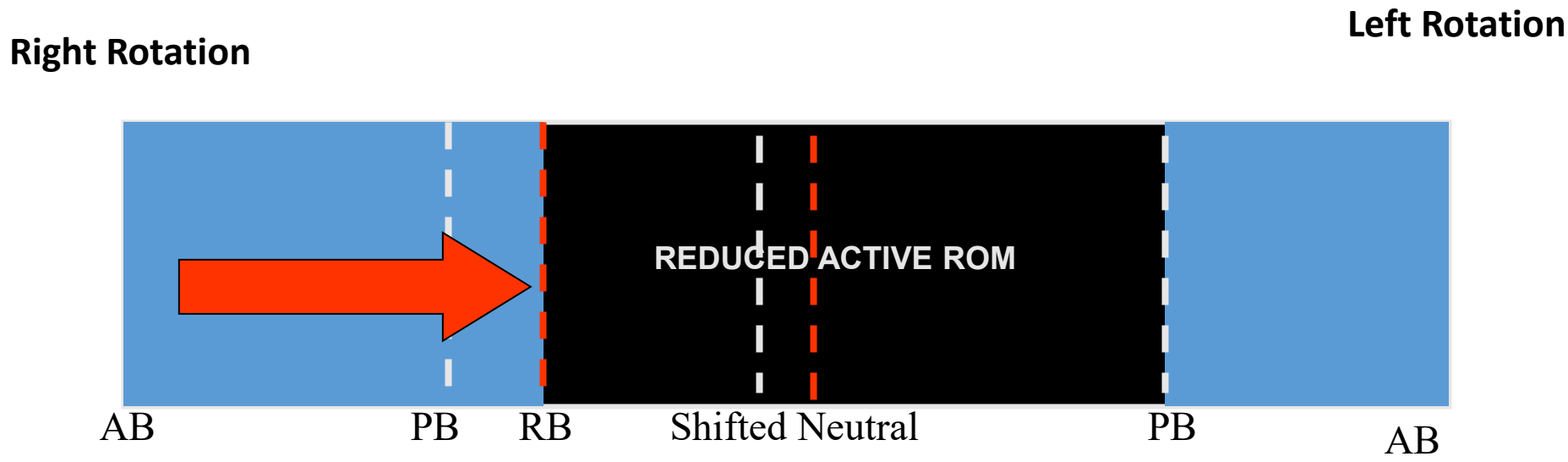
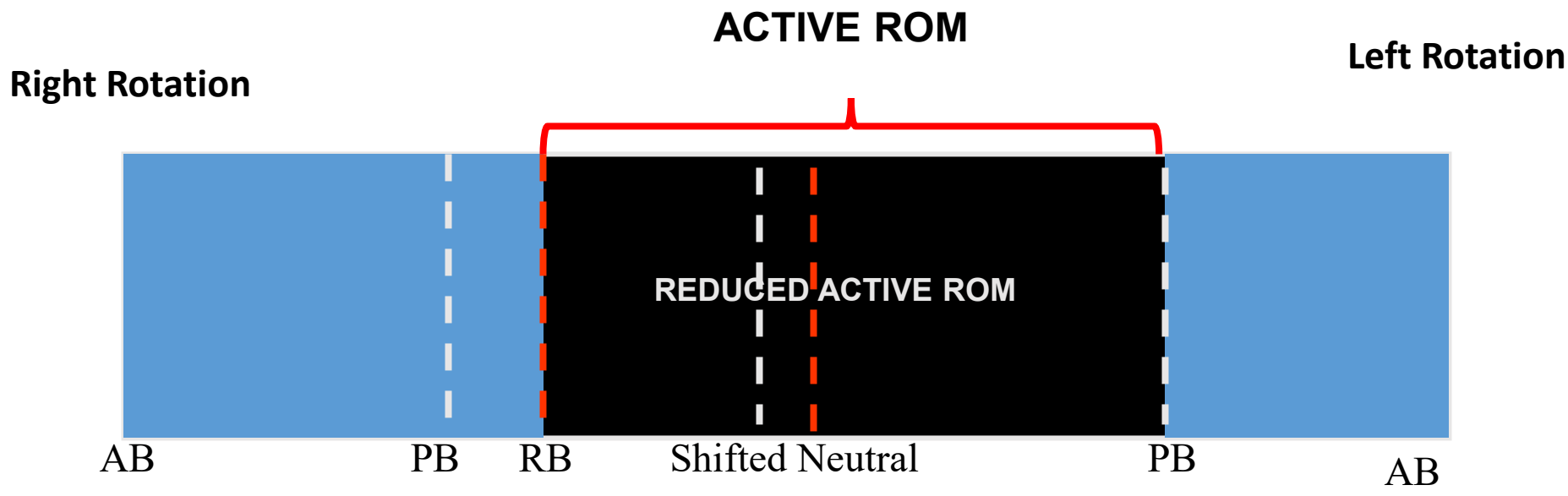


RB = Restrictive Barrier

Range of Motion



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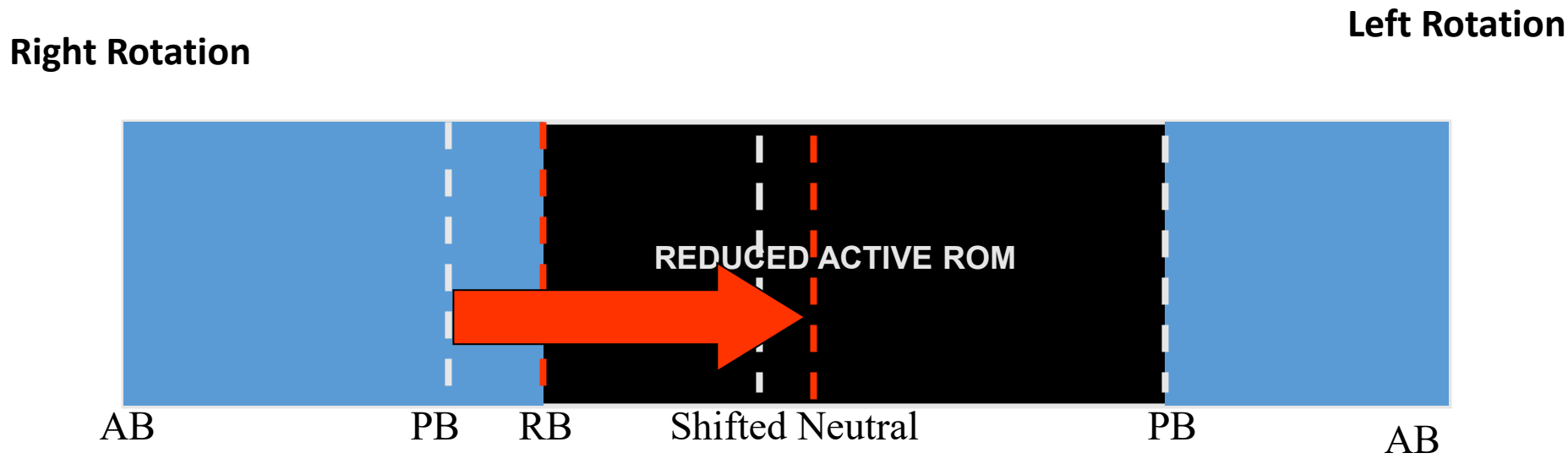
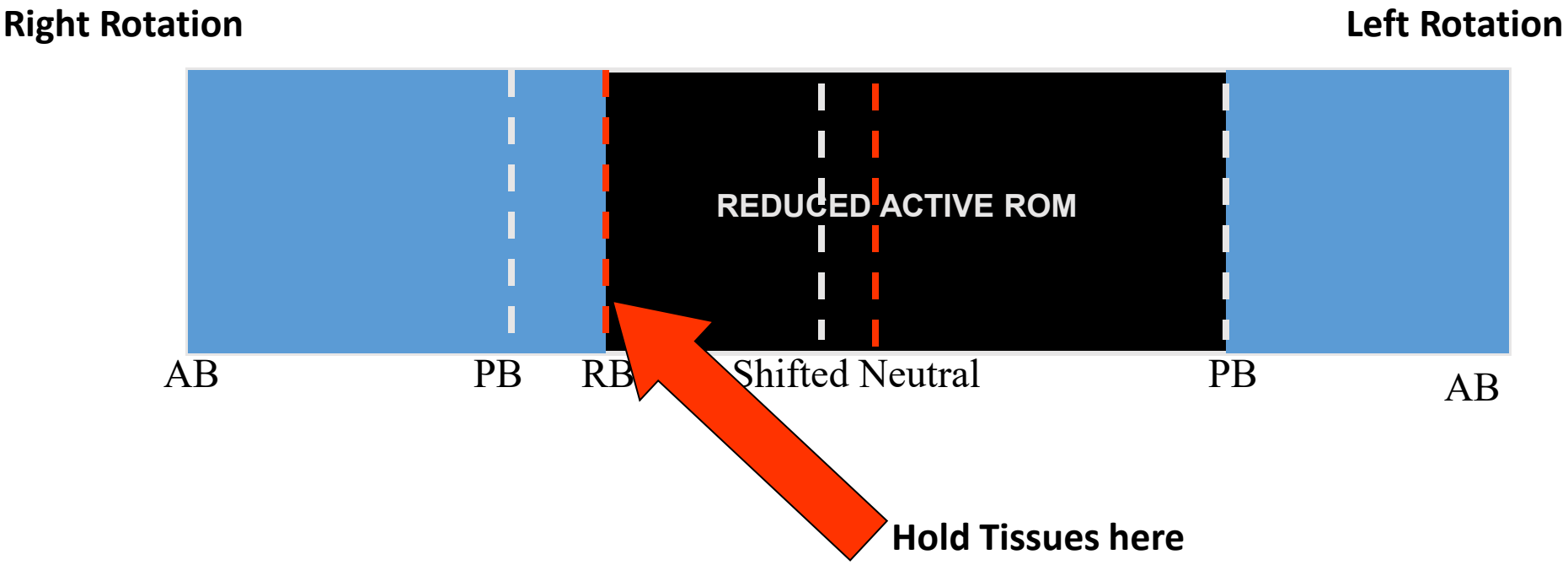


Direct Techniques

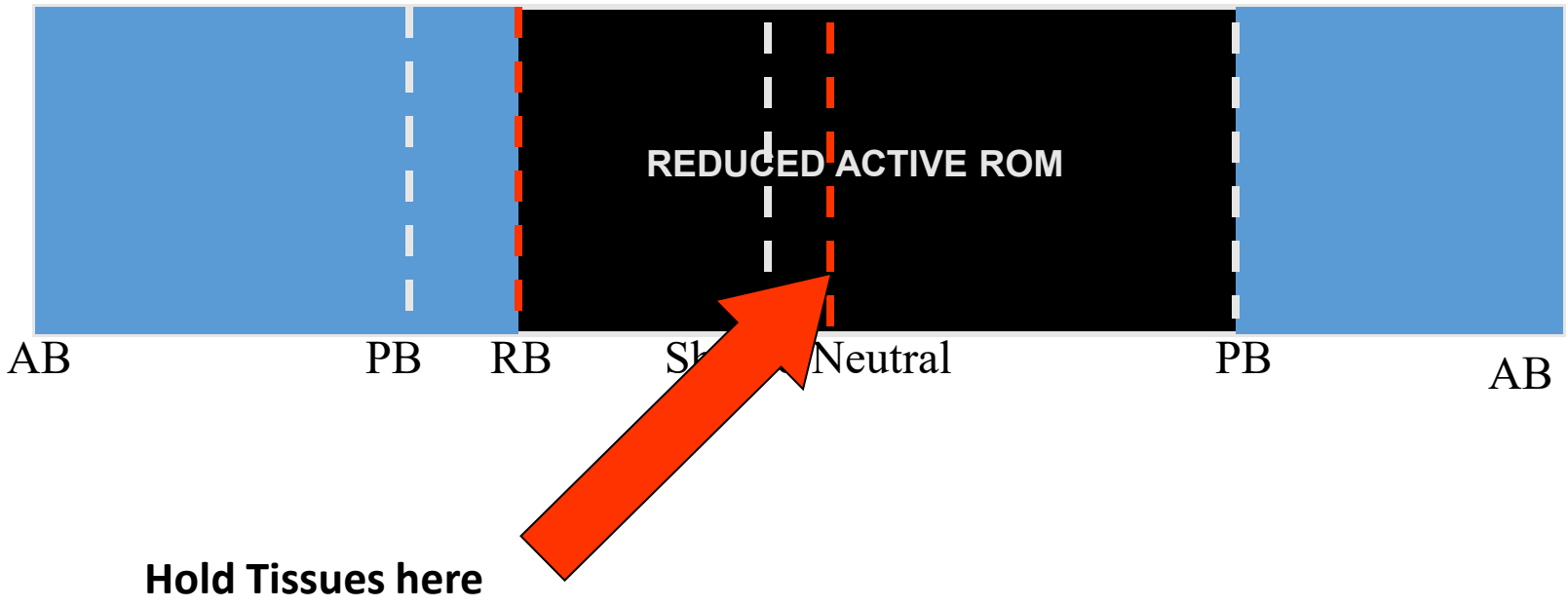
Direct techniques typically have an initial set up at the restrictive barrier



Indirect Techniques

Indirect techniques typically have an initial set up at either the shifted neutral or by exaggerating the position of ease to the physiologic barrier opposite the restrictive barrier

This is likely due to the underdeveloped GI system



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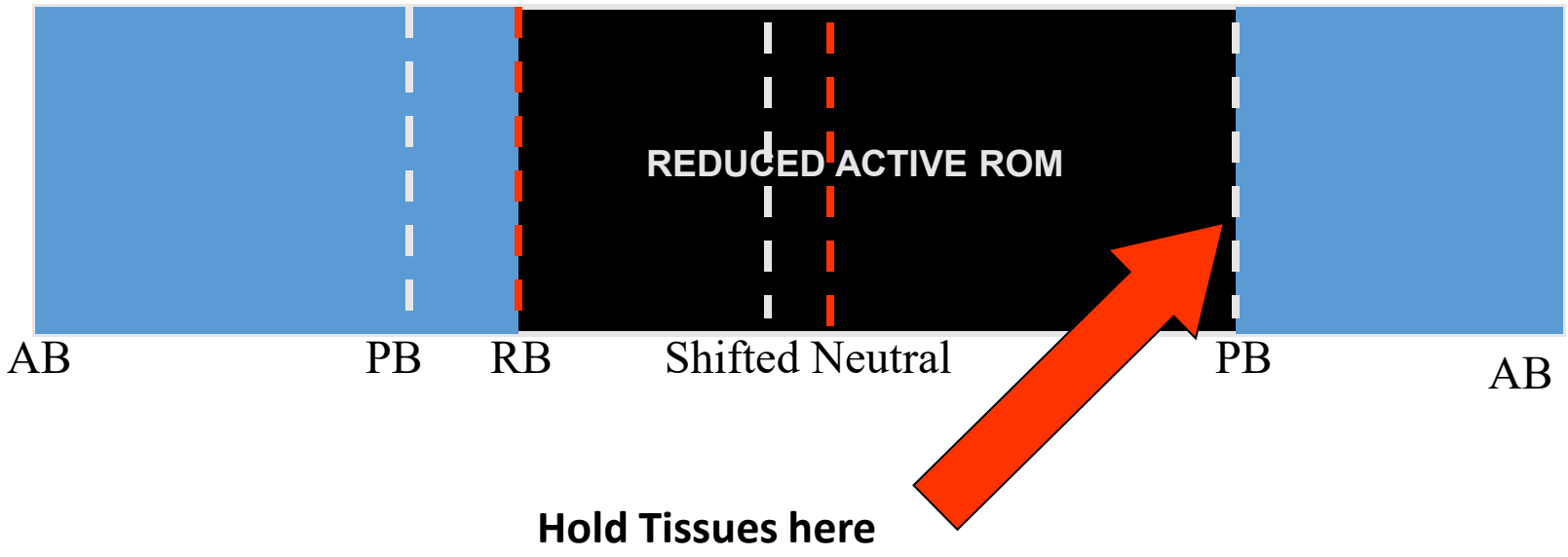
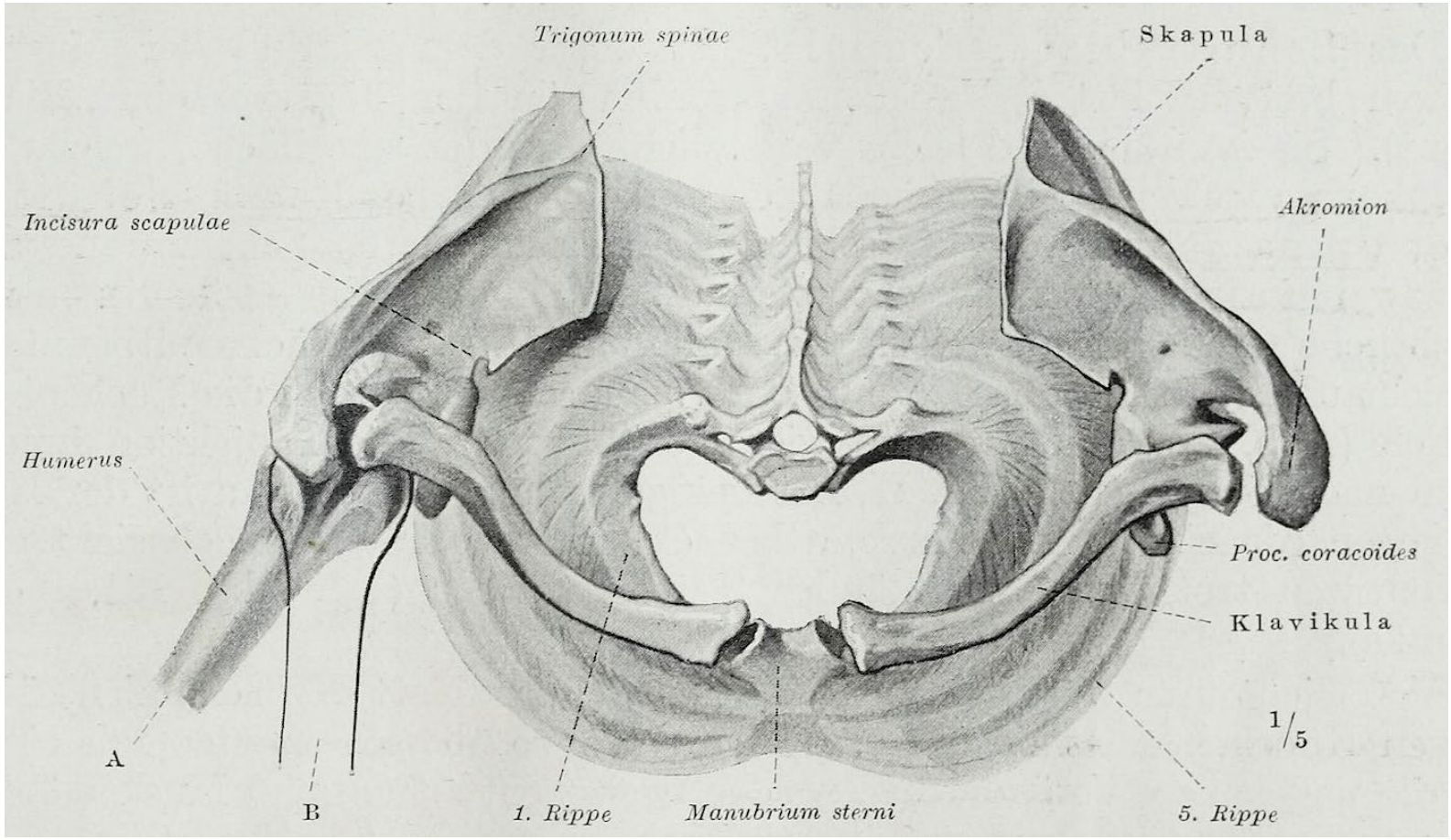


Diagnosis of Thoracic Inlet

Thoracic Inlet

Anatomical borders
- First ribs
- T1
- Manubrium
- Suprapleural membrane (Sibson's fascia)

Affected by
- Lower cervical vertebra
- Upper thoracic vertebra
- Clavicles
- Muscles
- Fascia



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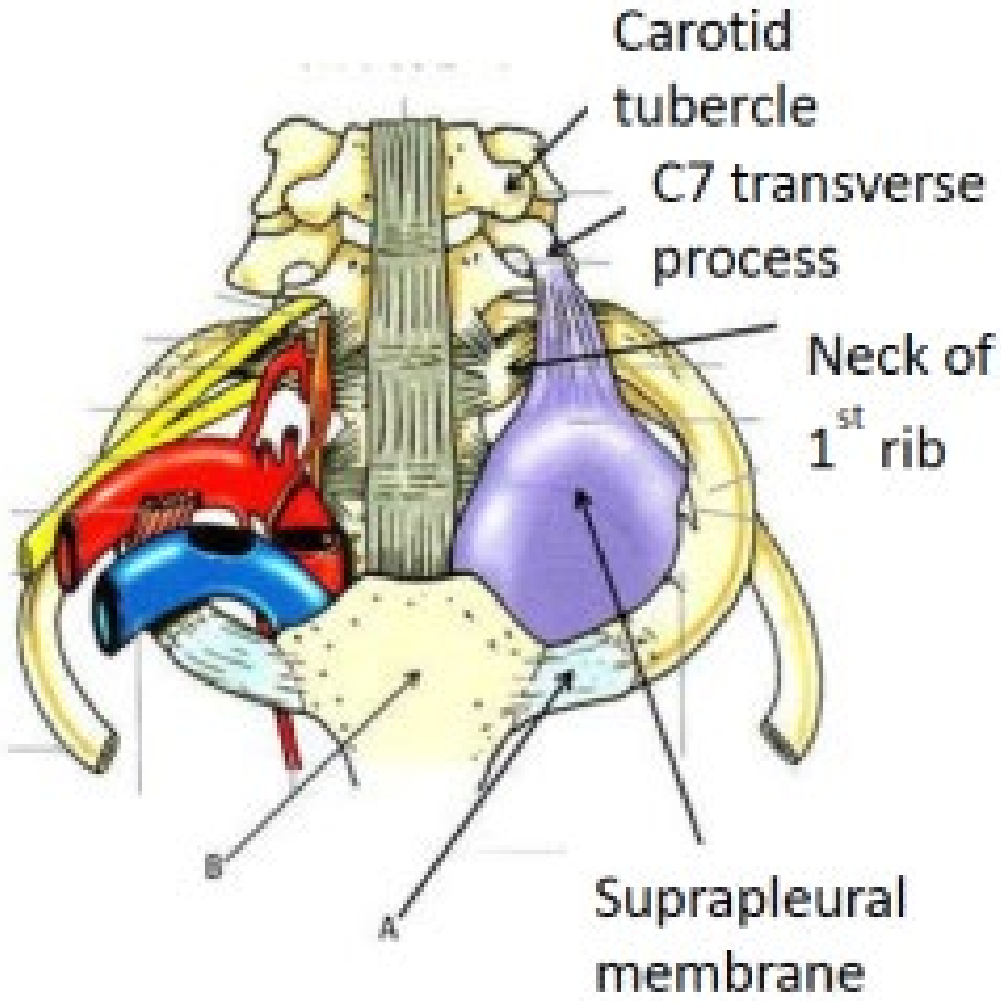
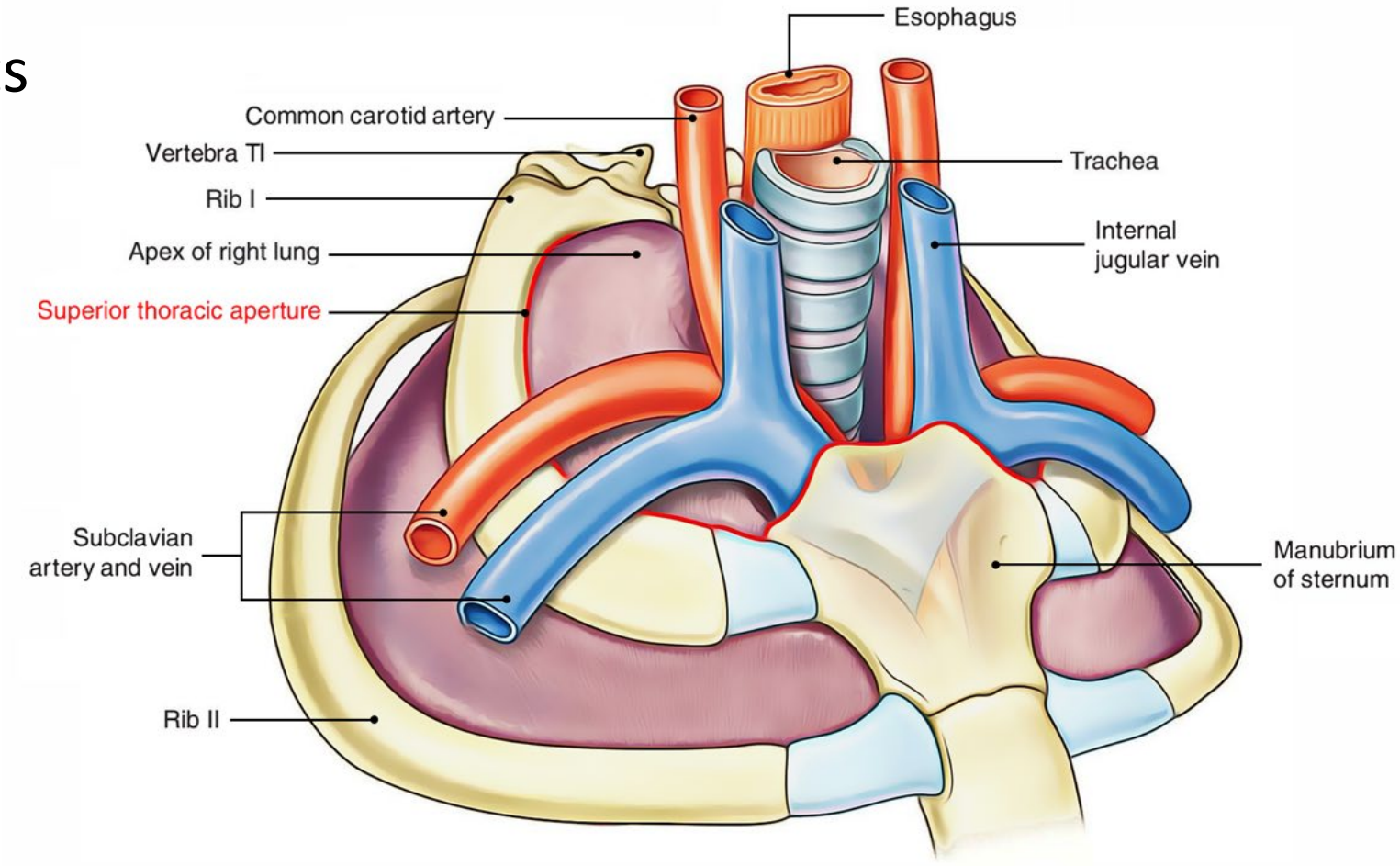


Thoracic Inlet

Somatic Dysfunction affects

- Vascular flow to head, neck, upper extremity
- Lymphatic drainage from the entire body
- Posture

- The presence of somatic dysfunction is the clinical indication for using OMT



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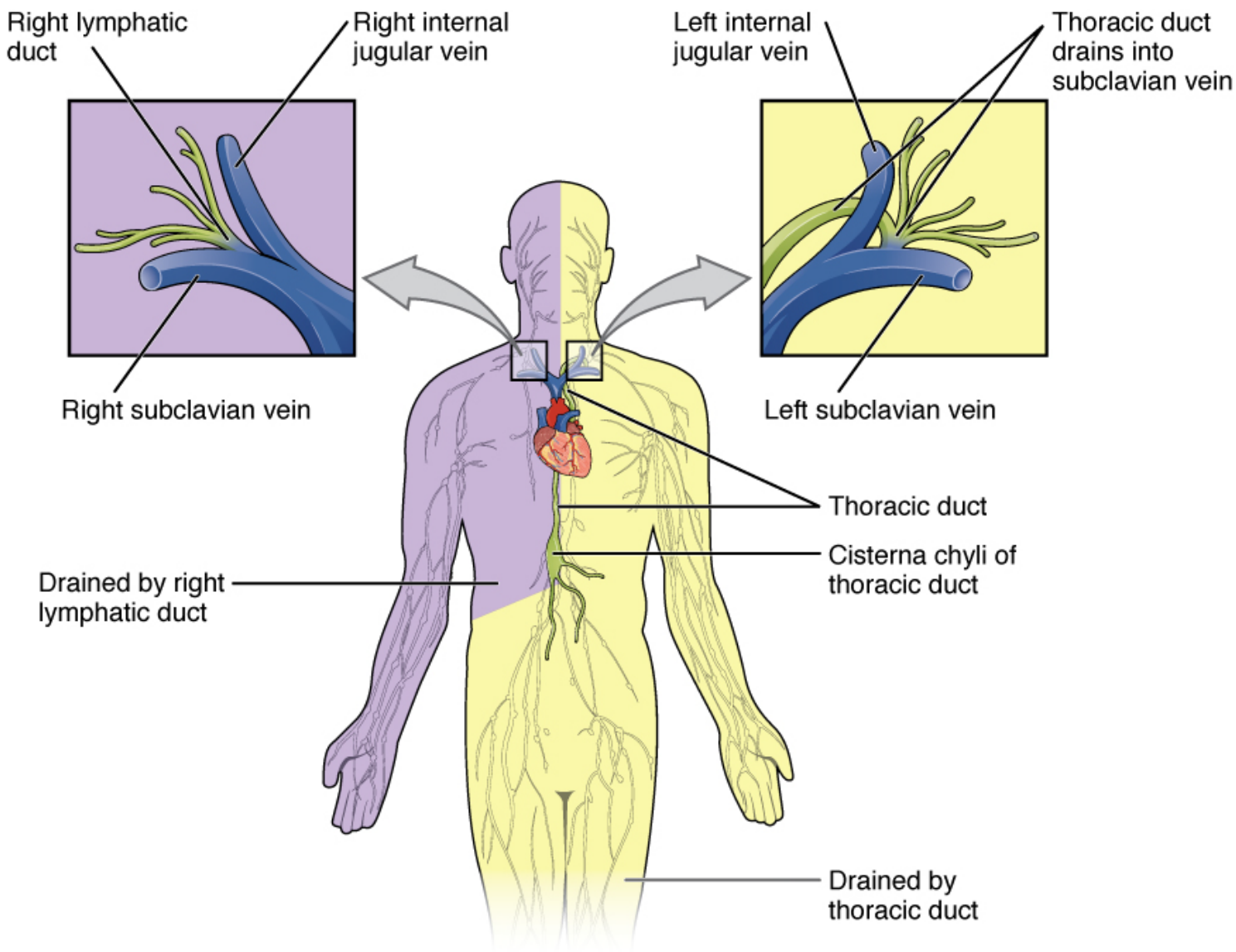

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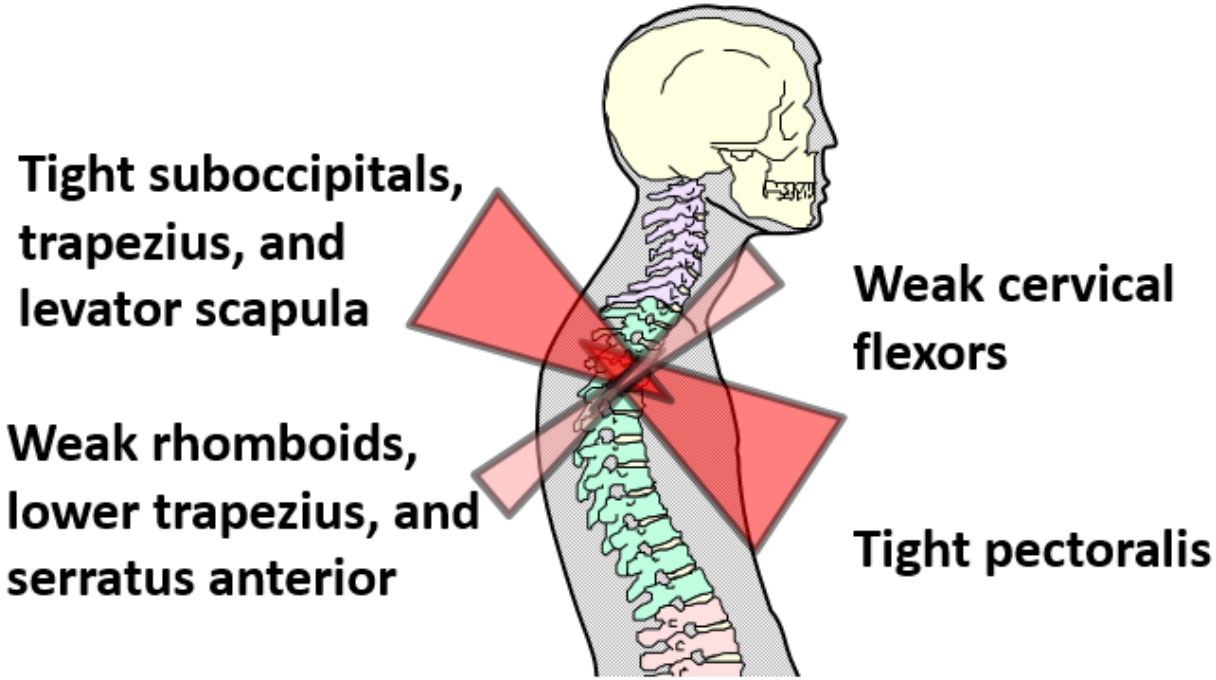

Upper cross syndrome – postural muscular imbalance characterized by tight suboccipitals, upper trapezius, pectoralis major and minor, and levator scapula with weak cervical flexors, rhomboid, and lower trapezius

Triplanar Diagnosis of Thoracic Inlet Somatic Dysfunction

- Assess flexion and extension motion – name for motion preference
- Assess right and left rotation – name for motion preference
- Assess right and left sidebending – name for motion preference

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Lab Exercise

- Assess flexion and extension motion – name for motion preference
- Assess right and left rotation – name for motion preference
- Assess right and left sidebending – name for motion preference

Direct Myofascial Release of the Thoracic Inlet

Thoracic Inlet - Direct Myofascial Release

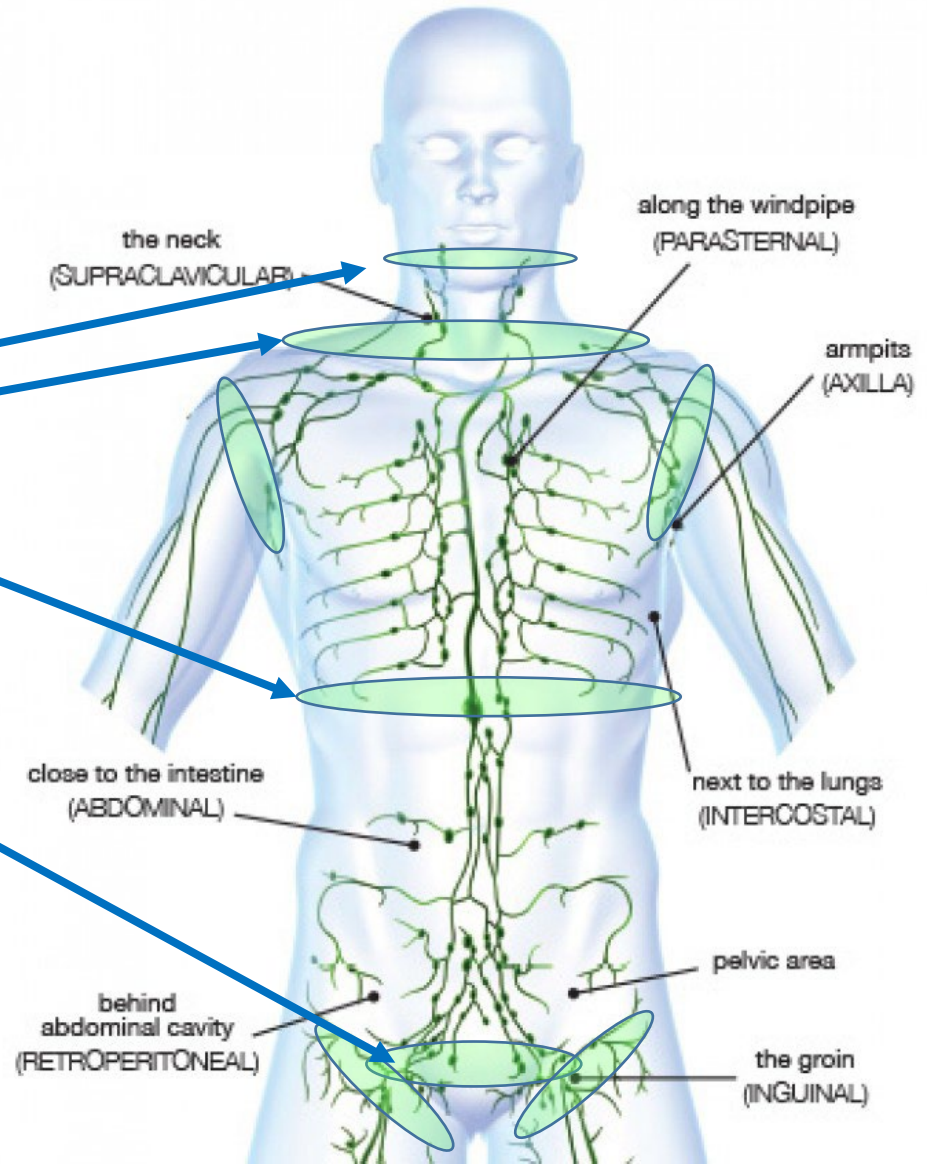
Goal: improve chest biomechanics and lymphatic drainage from the entire body

1. Place your hands so that your fingers overlie the clavicles and your thumb contact the transverse processes of T1.
2. Evaluate flexion/extension, rotation and sidebending for ease of motion.
3. Position the tissues at the direct motion barrier.
4. Allow a myofascial unwinding to occur by constantly reassessing and maintaining the tissues at the direct motion barrier.
5. Reassess if the tissues stop moving or a release is felt. Repeat if needed.

OMT to Optimize Lymphatic and Vasculature Drainage

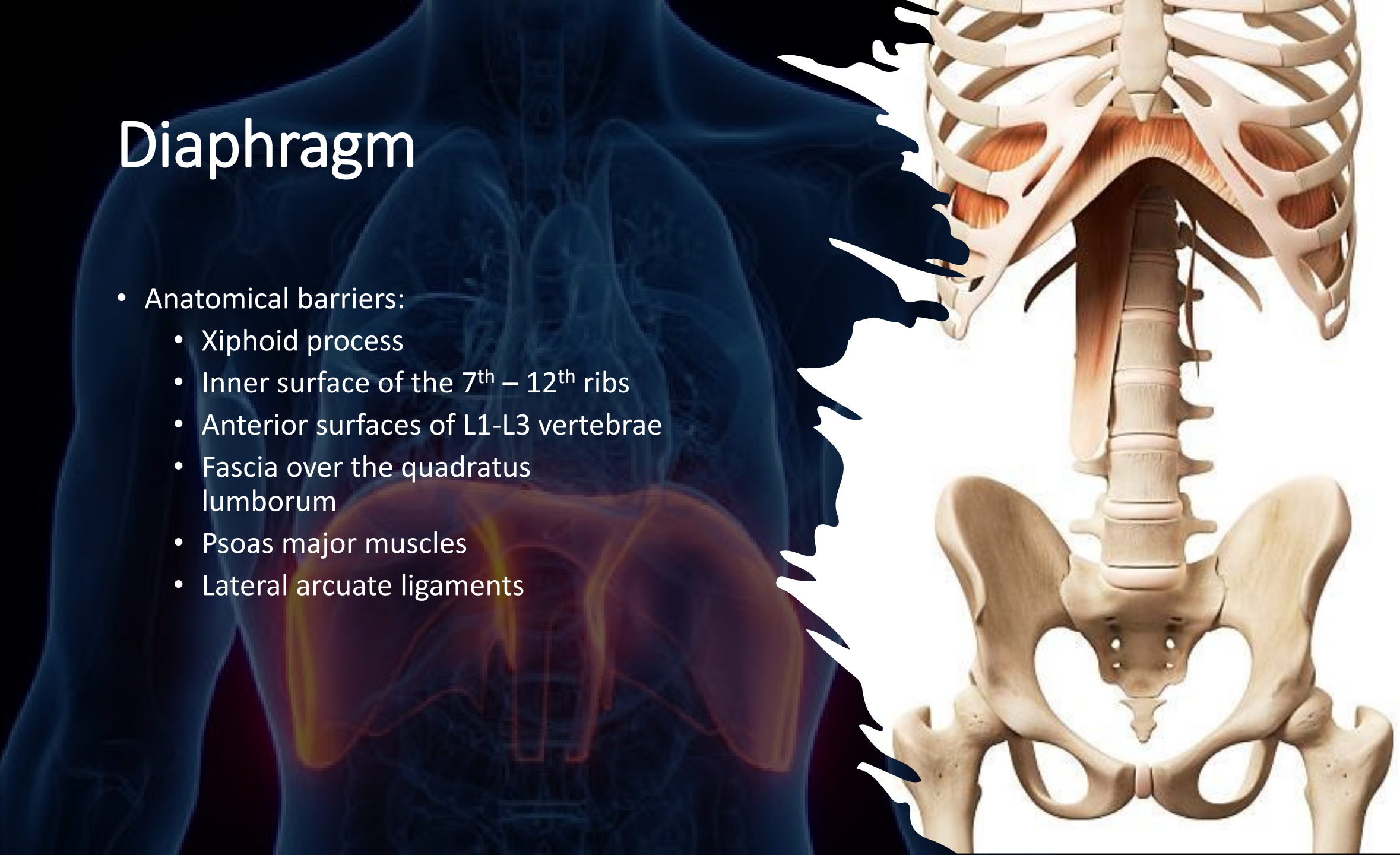
Assess and treat fascial transitional zones

- Diagnose and treat suboccipital area
- Diagnose and treat thoracic inlet
- Diagnosis and treat the abdominal diaphragm
- Diagnosis and treat the pelvic diaphragm



Diaphragm

- Anatomical barriers:
  - Xiphoid process
  - Inner surface of the 7^{th} – 12^{th} ribs
  - Anterior surfaces of L1-L3 vertebrae
  - Fascia over the quadratus lumborum
  - Psoas major muscles
  - Lateral arcuate ligaments



Abdominal Diaphragm Indirect Myofascial Release

- Improve respiratory biomechanics and lymphatic drainage from entire body

1. Place one hand on each side on the lower ribs.
2. Evaluate flexion/extension, rotation and sidebending for ease of motion.
3. Position the tissues at the indirect motion barrier, by exaggerating the motion preference.
4. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the indirect motion barrier.
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Lab Exercise

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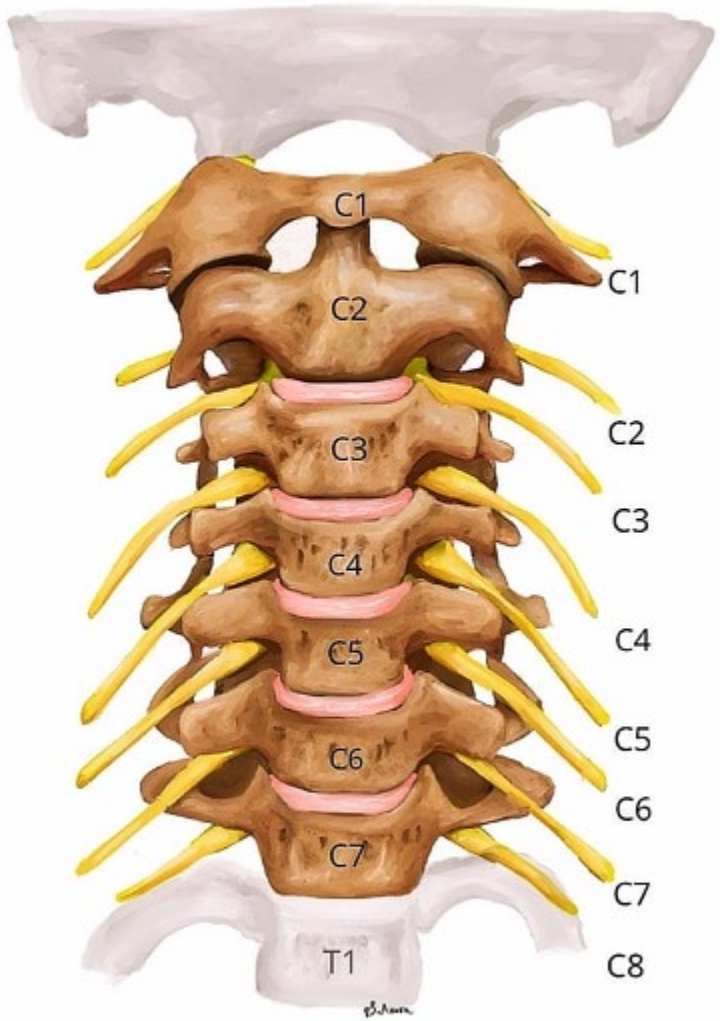
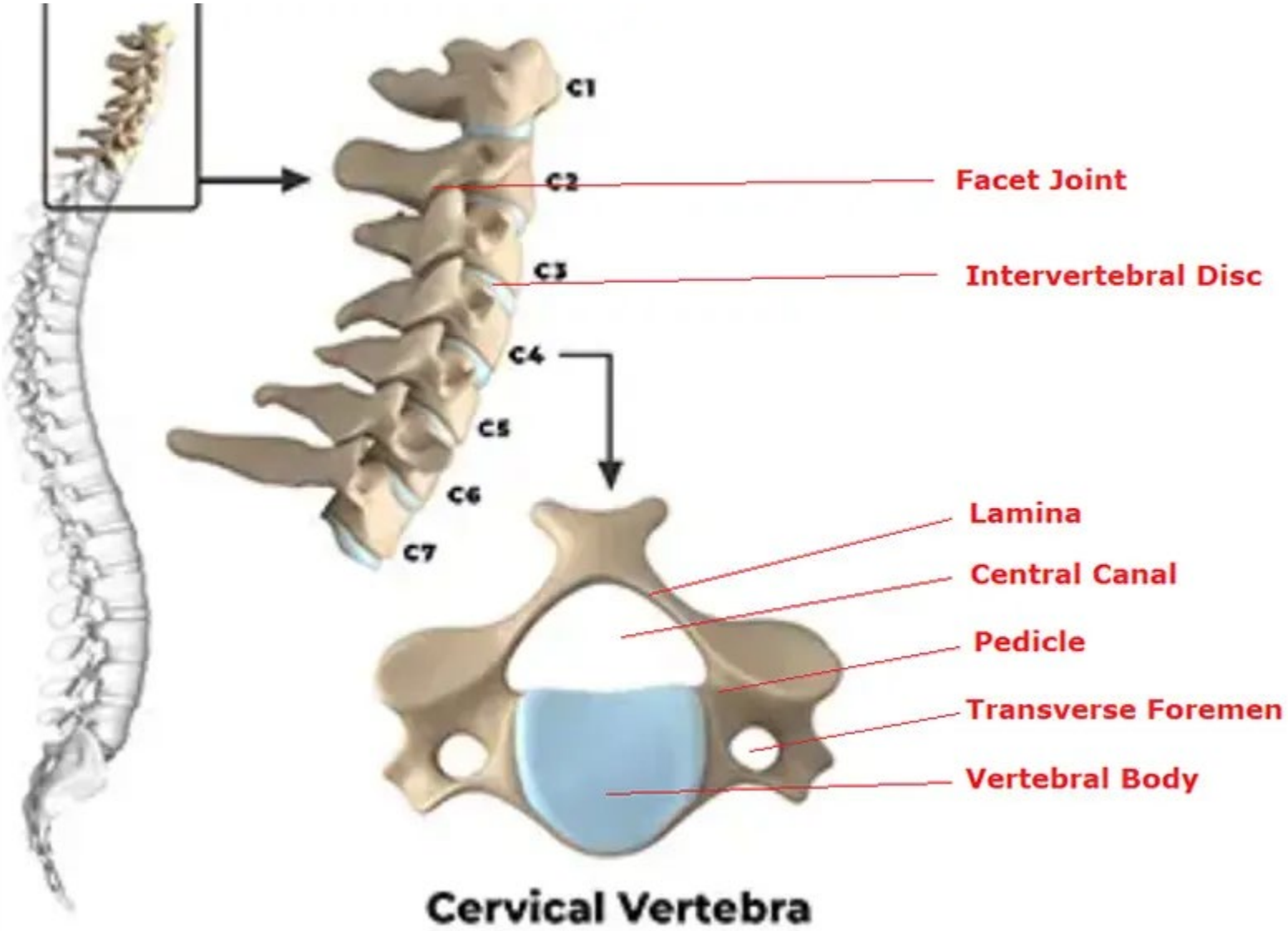
Indirect or Direct Myofascial Release of the Cervical Spine

Cervical Spine





Indirect or Direct Myofascial Release of the Cervical Vertebra

Goal: reduce myofascial and articular cervical somatic dysfunction

1. Identify significant somatic dysfunction of the cervical spine. Diagnose motion preference of all three planes
2. Place your fingers posterior to the transverse processes and check tissue motion in all three planes (be sure to check compression).
3. Position the vertebra as desired
    1. **Indirect MFR** - at indirect motion barrier in all three planes (exaggerate position of ease)
    2. **Direct MFR** – at direct motion barrier in all three planes (opposite the position of ease)
4. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the indirect motion barrier.
5. Reassess if the tissues stop moving or a release is felt. Repeat if needed.

Lab Exercise

Indirect or Direct Myofascial Release of the Cervical Vertebra

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    1. Indirect MFR - at indirect motion barrier in all three planes (exaggerate position of ease)
    2. Direct MFR – at direct motion barrier in all three planes (opposite the position of ease)
4. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the indirect motion barrier.
5. Reassess if the tissues stop moving or a release is felt. Repeat if needed.

Summary

- Direct myofascial release initially positions the dysfunctional tissue at the direct motion barrier in all 3 planes.
- Indirect myofascial release initially positions the dysfunctional technique at the indirect barrier in all 3 planes.
- Somatic dysfunction found on physical exam is the clinical this indication for OMT.
- Assessment for myofascial somatic dysfunction should be performed anytime a patient presents with musculoskeletal pain or clinical conditions that involve impaired vascular or lymphatic drainage.
- Thoracic inlet release and abdominal diaphragm myofascial release can be used for any clinical condition impacting the lymphatic drainage or The mechanics.

References

- Halma, K.(Ed), Kimberly, P. (2008). *The Kimberly Manual*
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