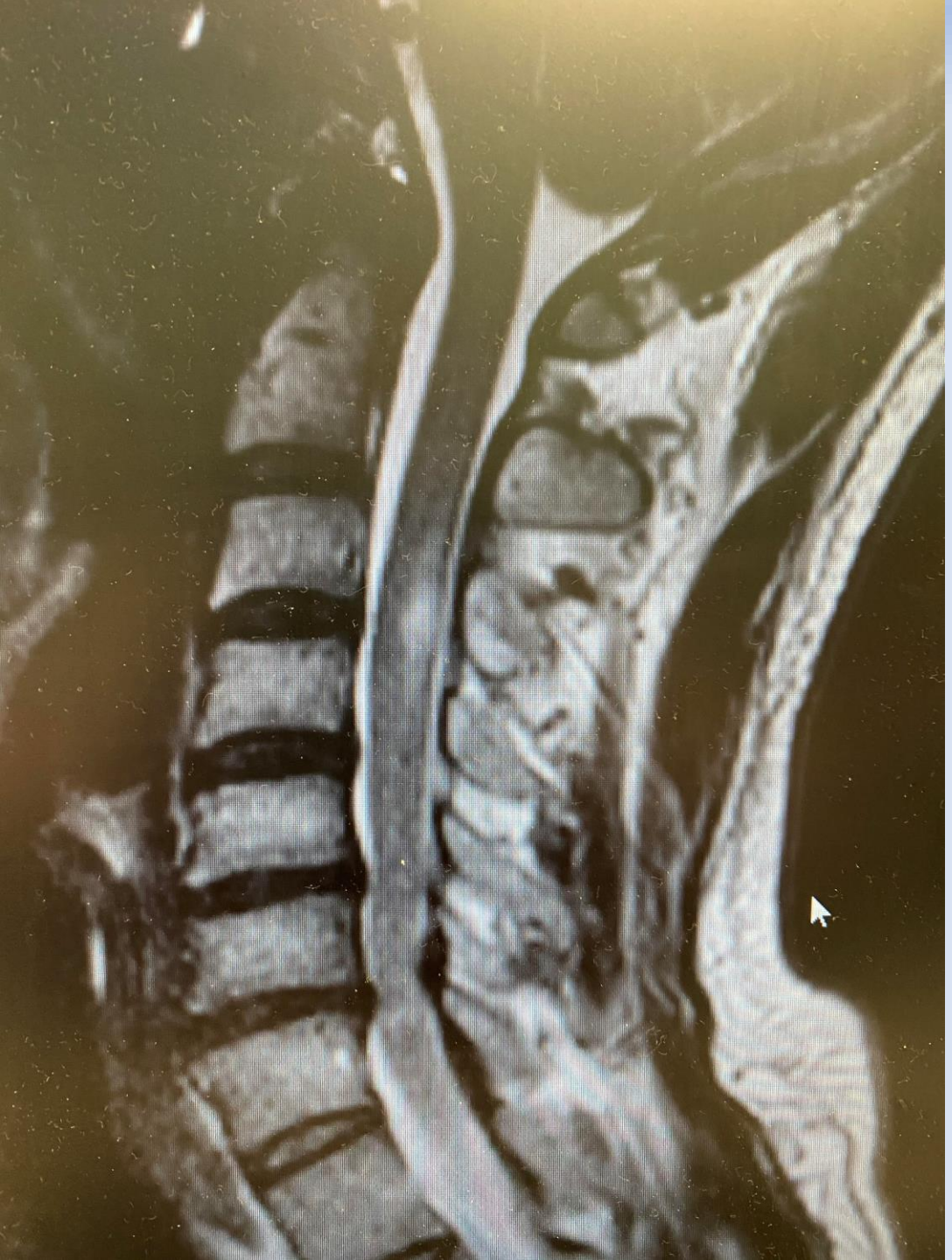
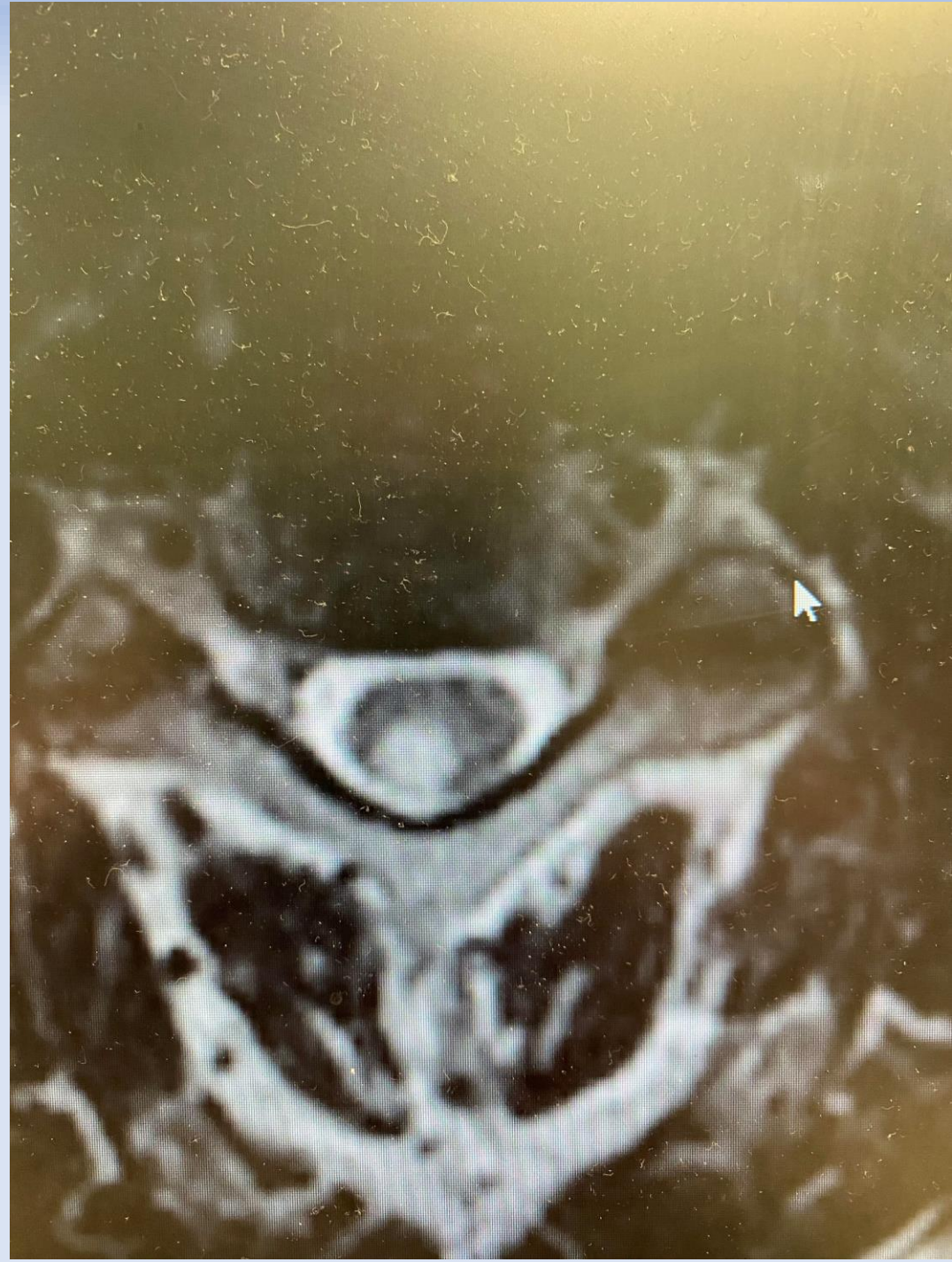
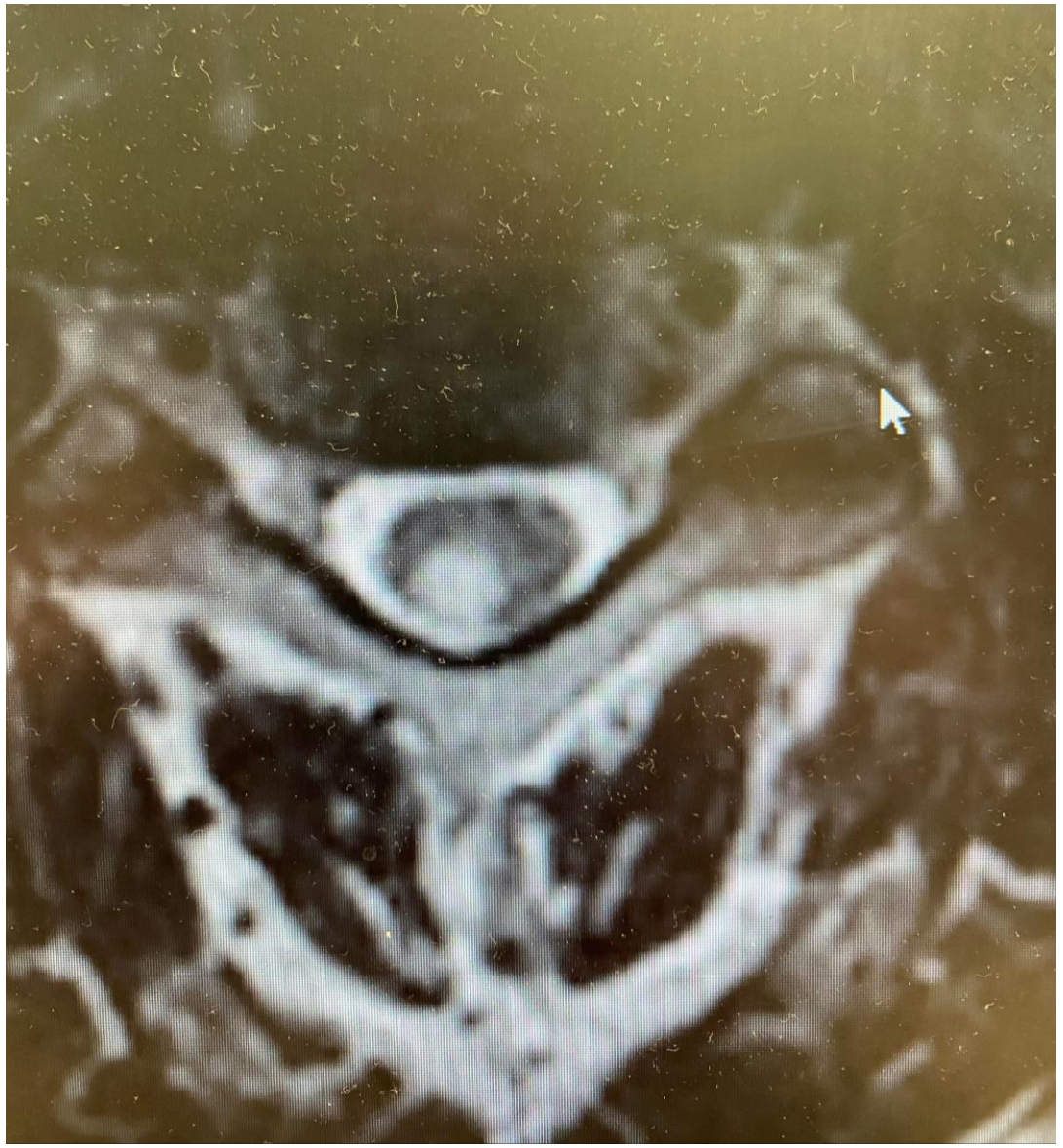
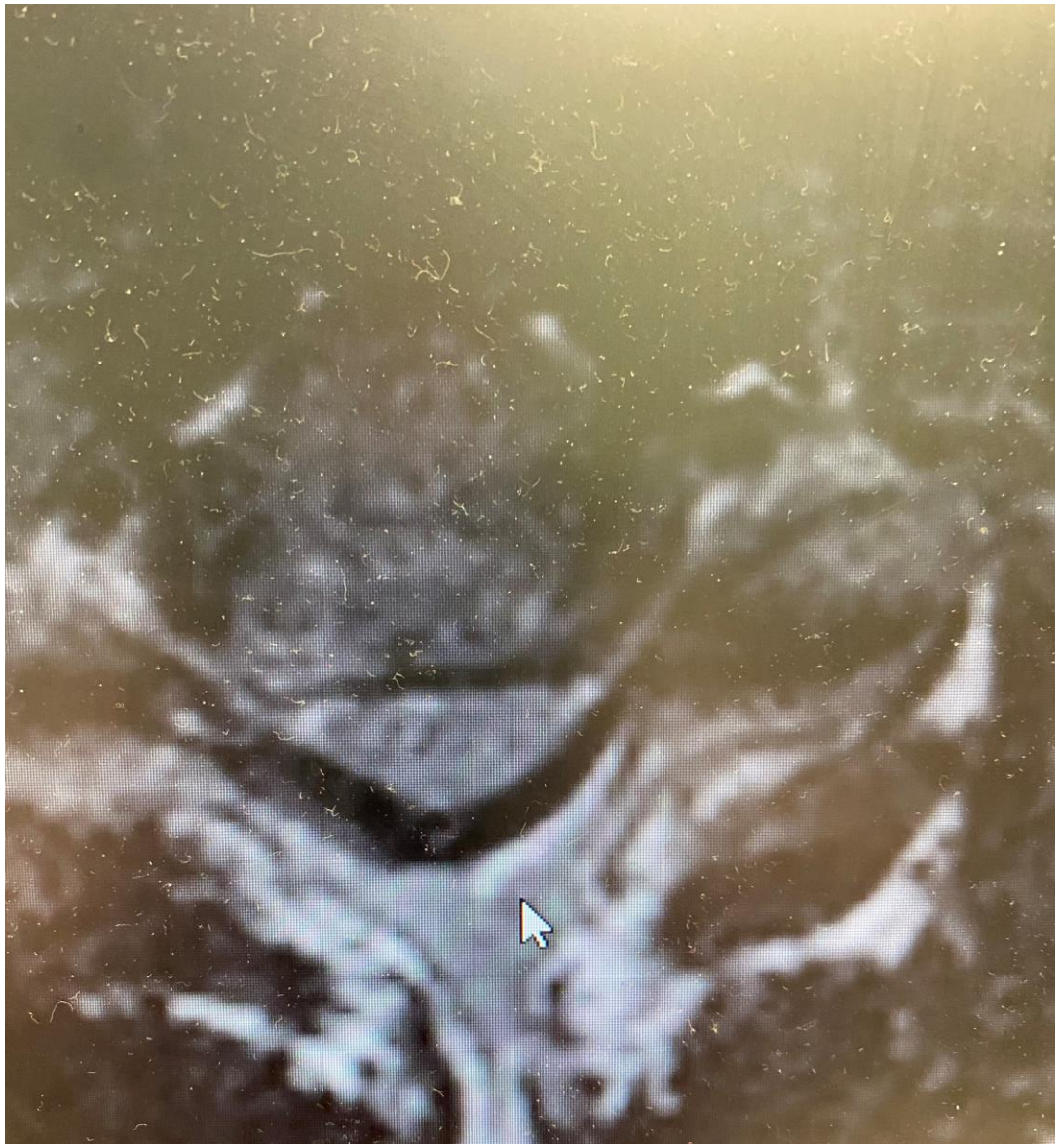
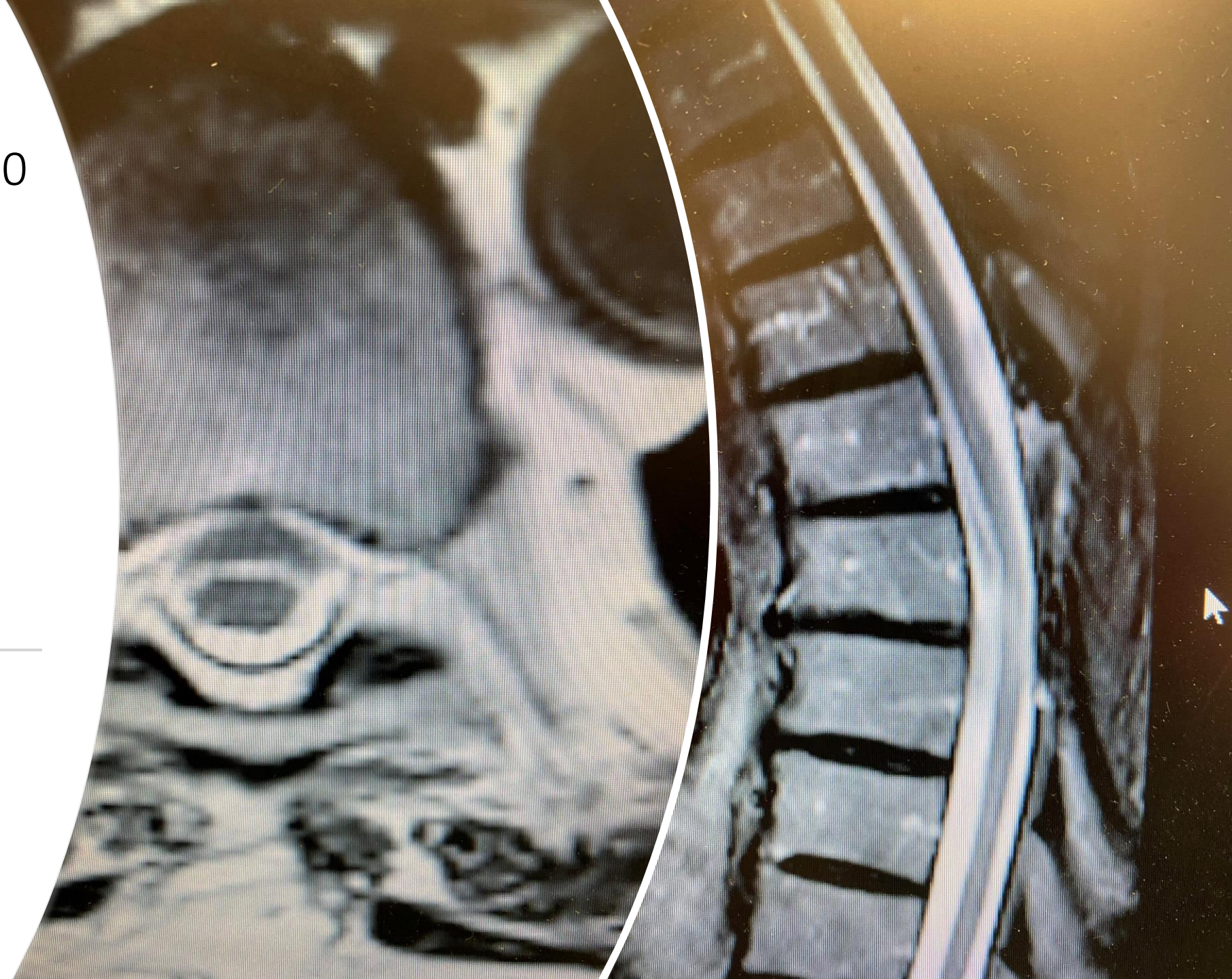




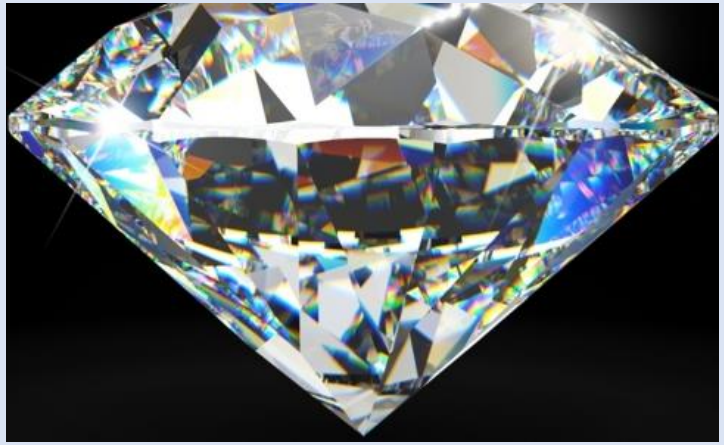




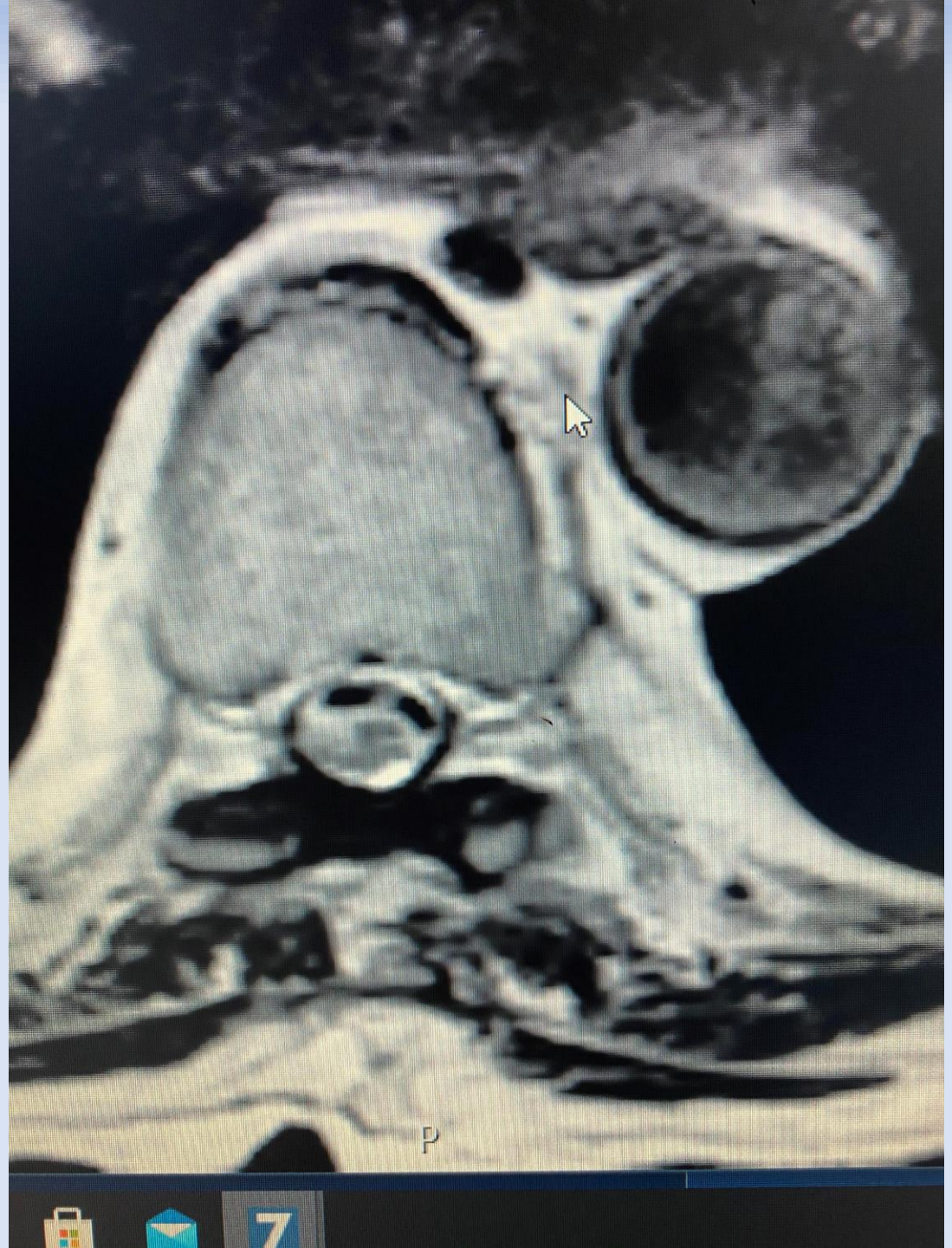
76 yr/old F. Remote 20 yr Hx of Thor decom Lam for “tumor” out of state. Recent L decom Lam. Right Thor radicular pain T789 ASIA points. Rib block and Thor Facet Block but no better. This prompted Thoracic MRI



Diamond: Severe peripheral neuropathy – regardless of etiology, will NOT manifest upper motor neuron findings due to absent afferent loop. MSR's will NOT detect critical CT stenosis/myelopathy of any etiology if there is afferent block.
IDDM + Critical C- stenosis-0/4



Hence you cannot detect myelopathy on physical Exam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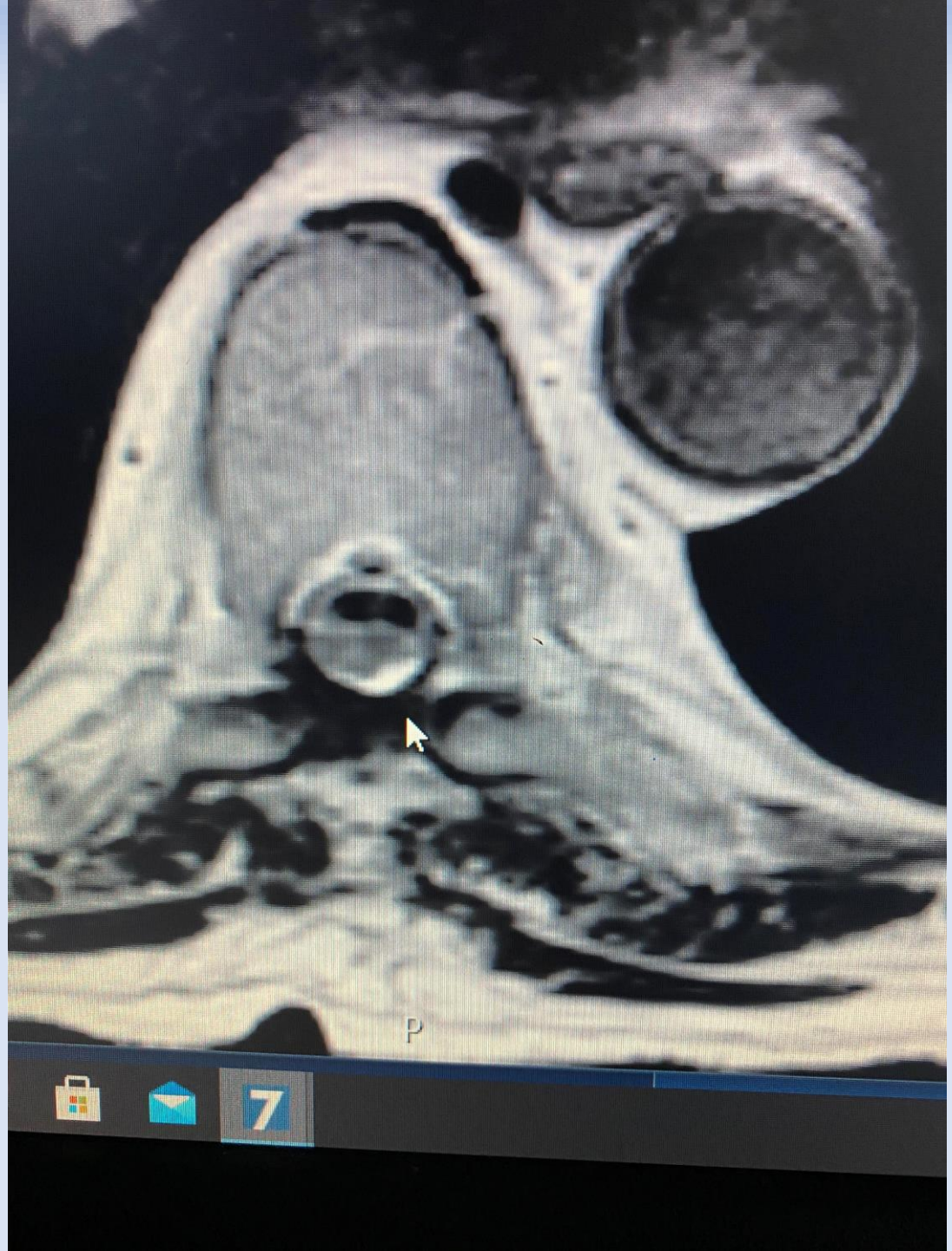
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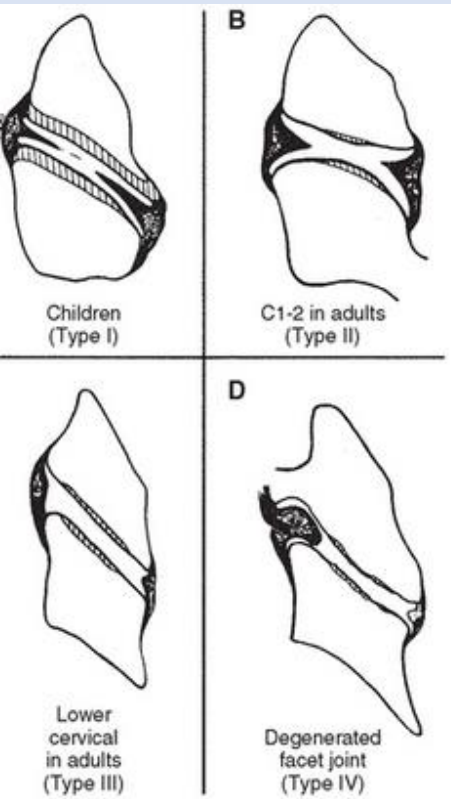
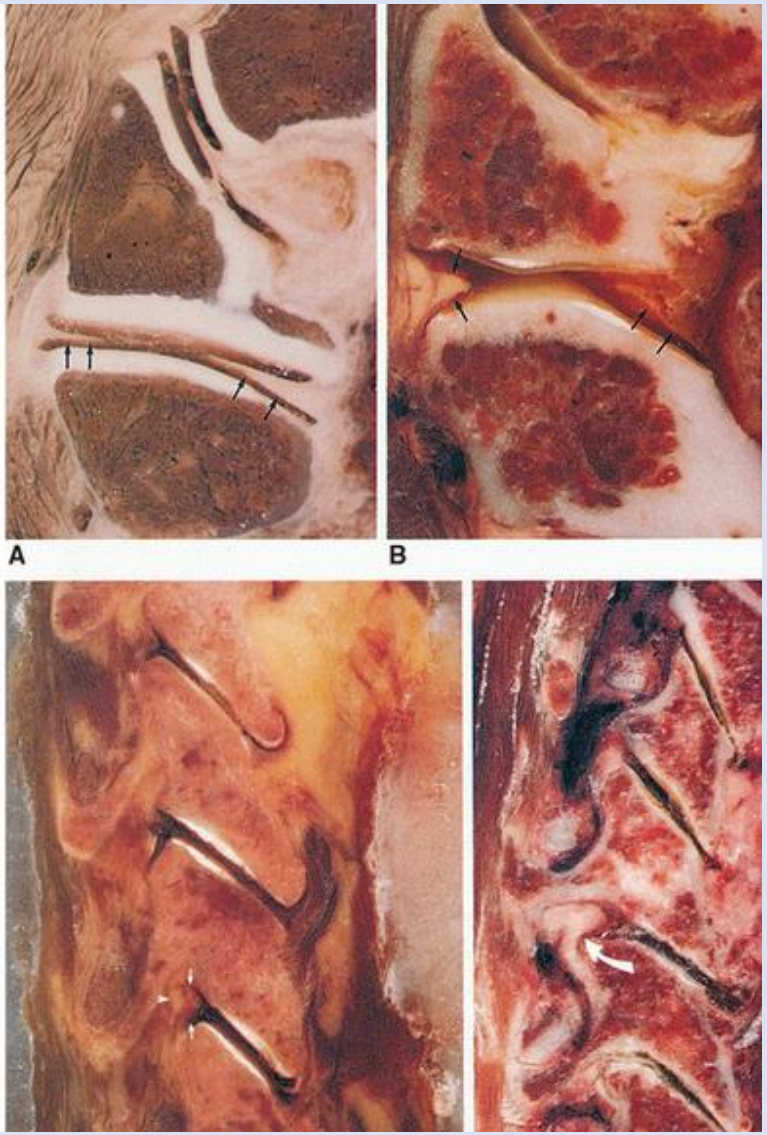
OMT is generally safe and reasonable in any appropriately implanted SCS, Interstim or Pain Pump after 6-12 weeks post-op period, but there may be a higher risk of lead migration in high C-Spine placement. It goes without saying that the practitioner should take the underlying pathology that was the reason for the implantable technology into consideration when choosing and executing their chosen techniques and modalities.

Spine-Based OMT requires us to discuss facet joints





- Facet Joint Internal Anatomy is often oversimplified.
- True Synovial Joint, with menisci, synovial fluid, cartilage and end-plates
- Competing theories on articulatory benefit, central processing at the cord and higher levels
- Sound generation etiology?
- Is it relevant?
- Microtrauma? Synovial Fluid?

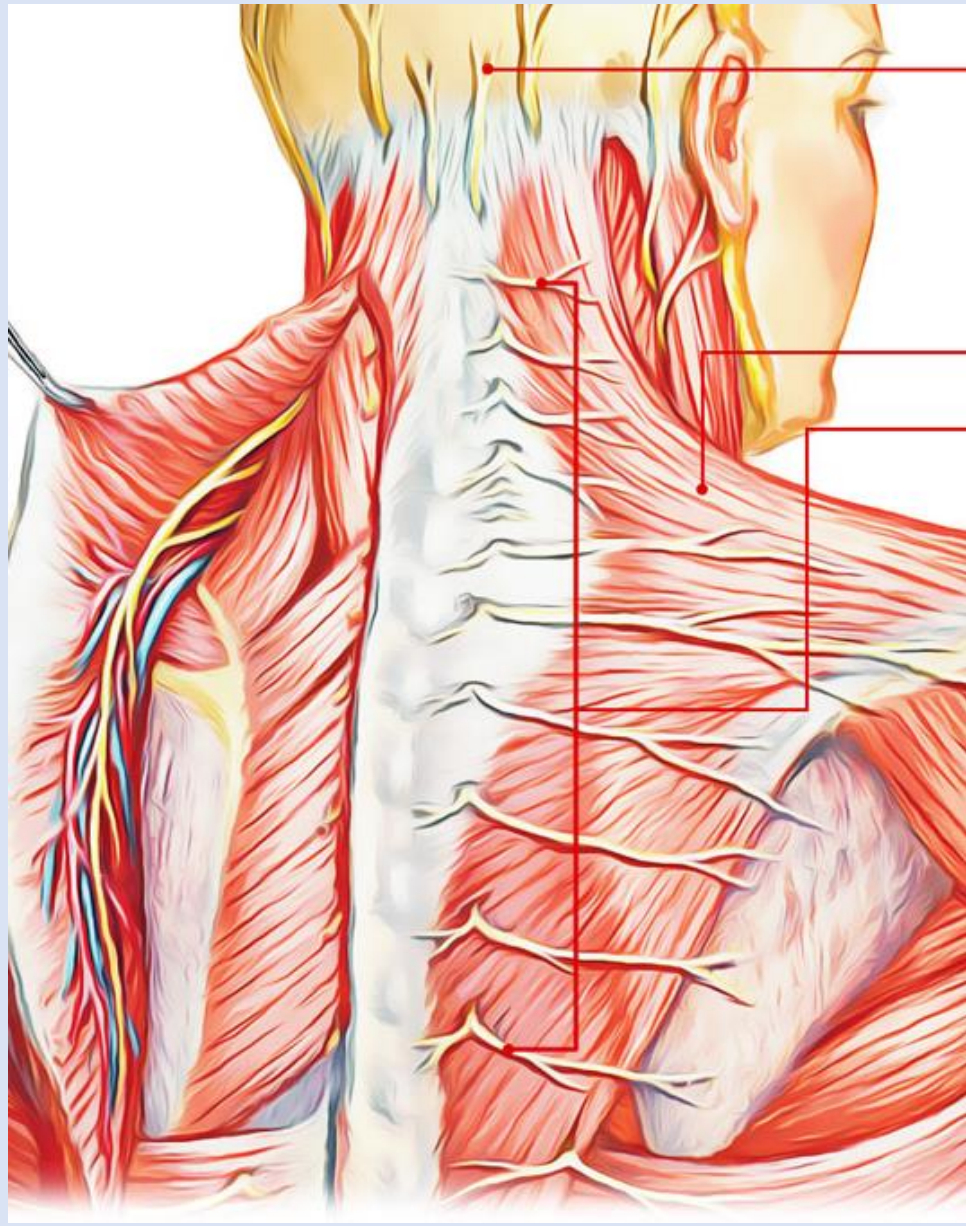
Basic Thoracic Mobilization

- Where most medical schools start
- If you had to pick one treatment
- “Kirksville Crunch” – “Crunch Bunch”
- Single Biggest Bang for the Buck
- Gratifying. F.U.E.L. acronym
- 2+ thenar positions, rostral to caudal
- Towel/pillow rolls – underused
- TRACTIONAL technique variation
- Overlaps with “fibromyalgia”
- Corner stretches

- Easiest & Safest but Random/Imprecise
- Potentially dis-elegant
- Often does not get Primary Lesion
- If using Muscle energy- commonly done seated.
- Ribs usually correct with Thoracic correction
- Upright Hug variant – very non P
- Lateral C7-T1 variant – cardiology
- Seldom gets the “Golden C7-T2”
- Prone C7-T1-2 – lip, E is Thoracic

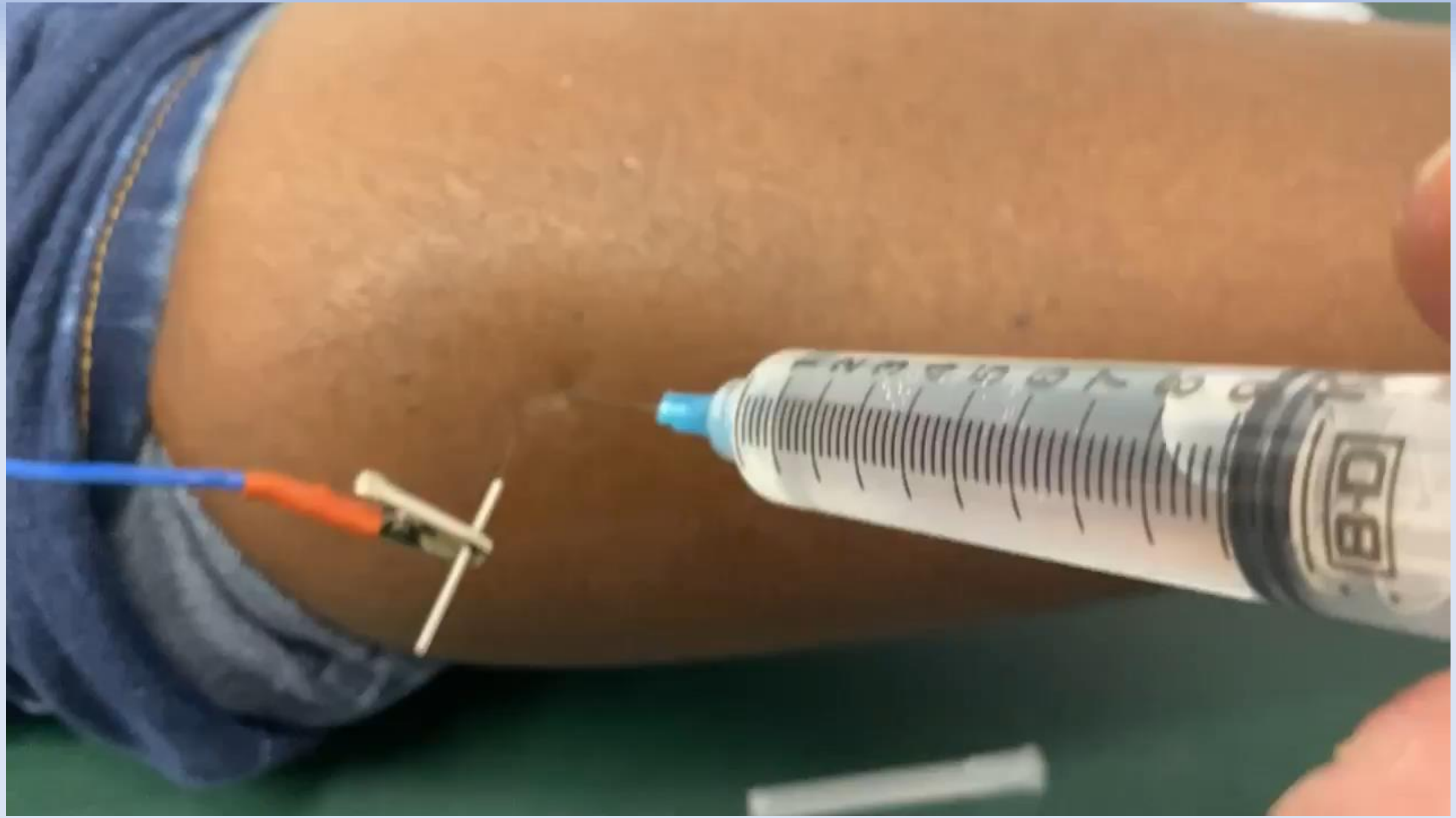
Hydrocollator / Moist Heat / Trigger Point Injection before and/or after OMT

- Bear in mind the soft tissues
- Is it an acute event? Chronic Ischemic? Depo v Lido
- Preparation for HLVA/ME
- What I was told critically in Med School about
- “Those old-school DO’s putin’ hot packs on em’ then comin’ back and just crunchin’ em’ ”
- Maybe it’s not only not such a bad idea, in fact, maybe it’s a very good Idea.
- Lidocaine greater motor block than Marcaine
- Trigger Point Injections definition vs Motor Point Blocks and their + effect on manual medicine
- Rationale Behind Corner Stretches

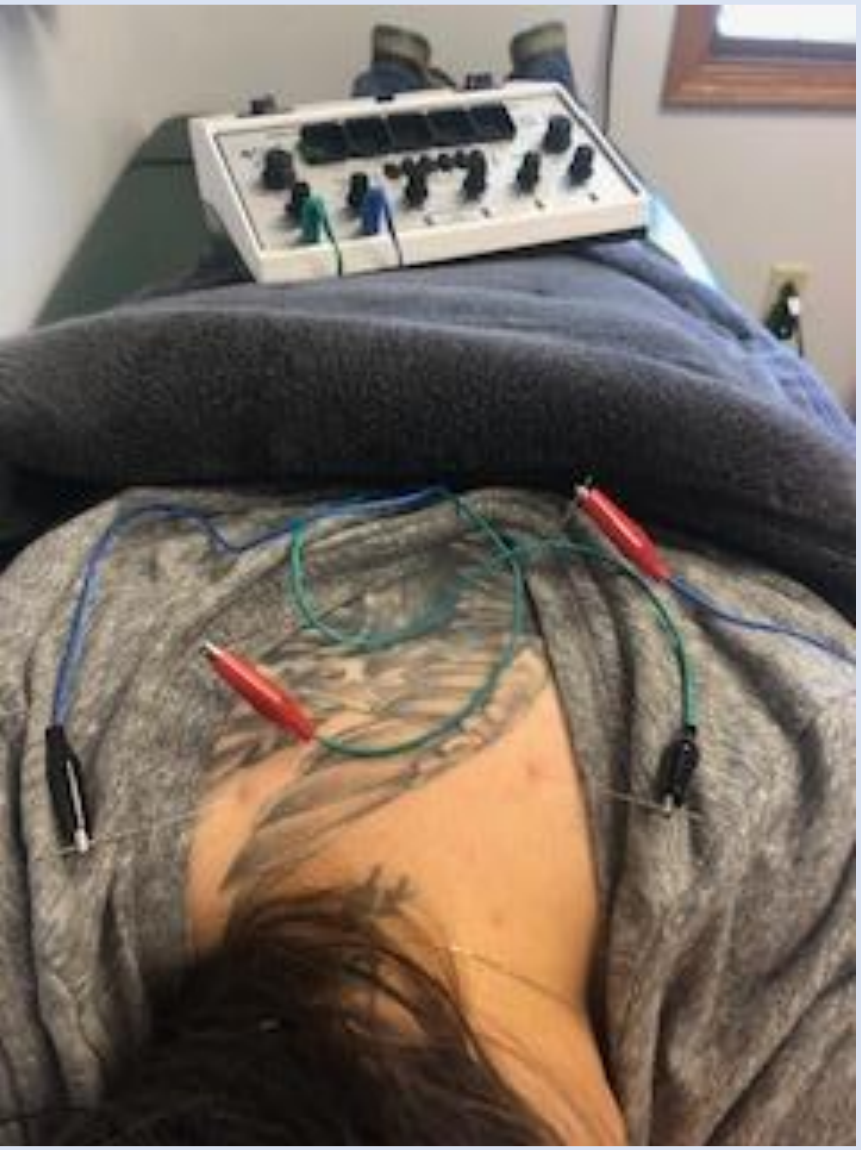


“Hydrocollator” – Pre manipulation and as a Passive Modality
Decreased pain, spasm, & reduced guarding – makes HLVA less traumatic

Dermatographia, relaxes patient – establishes trust


BD

Long-Term Myofascial Pain treatment without constant use of deposteroids, with OMT visits



- ***Treating the Myofascial COMPONENT of the pain syndrome***
- Average Chronic Myofascial/"fibromyalgia" patient
- Apts: Weekly, Q 2 weeks treatment expected/needed
- Apipuncture / Apitherapy (venom vs. live bees)
- D50
- EAP electroaccupuncture
- Sarapin pitcher plant extract / good luck getting in US
- Bicarb (IA) most Dz states are acidotic - locally
- Lidocaine/Marcaine
- Pumice stone extract
- Phenol … unforgiving – cannot take back
- Botox $
- Twitch Response Technique, 2% lido w/o epi cheap, but time-consuming and operator dependent

Dogma?
Topical treatments alone of in conjunction with therapeutic ultrasound. 2.2 watts/cm2
Pulse and non-pulse mode

3:1 ratio, (v/v)
Aloe Vera – EMG gel
“Menthol Based Substrate”

Myofascial along PSM’s

Save and protect your hands

Glass local Anesthetic Bottle
50ml
Smooth stone

Time consuming

Safe. Practice Builder – prep for articulatory techniques

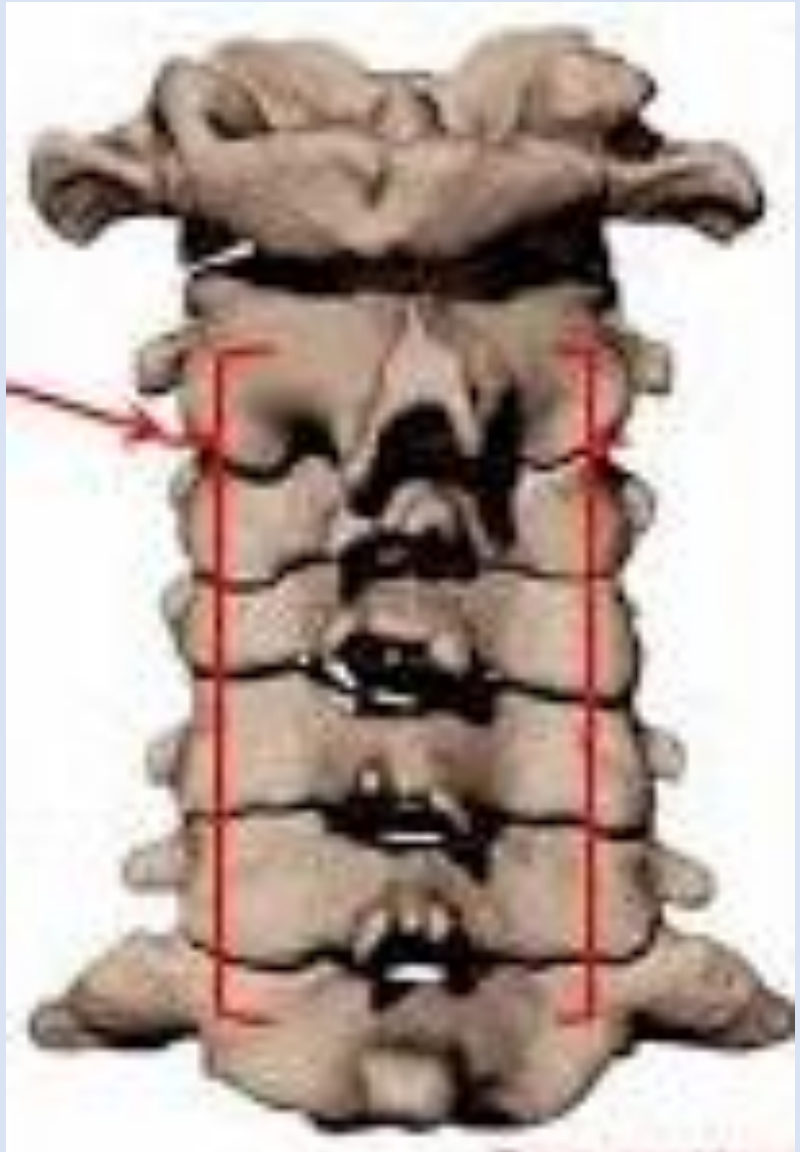
+CPT codes for US and Regional OMT

Basic Thoracic Mobilization – “Kirksville Crunch”
More than one thenar position

Basic Cervical Spine Mobilization

- Take a step back from Fryette Mechanics
- Palpate C Pillars first – lift ½”
- Look Straight Down, work side/side
- Start with Side bending ONLY
- “Tip Towards – Turn Away”
- Avoid Extension
- Short and Long Lever techniques exist along a spectrum
- Anterior pillar technique - carotid
- Not getting OA/AA or C2/3 -
- Direct and Indirect Releases
- Transition to Suboccipital release, CV4
- “Nudging” is ok - bilaterally.
- 30 millisecond delay on H reflex (NCS)
- Double Nudge to Trust during “repolarization” phase
- This Dr has found little utility in direct AA/OA trust techniques – ME, Resp A
- Say this -“Look, I know you didn’t hear it pop, but it moved”

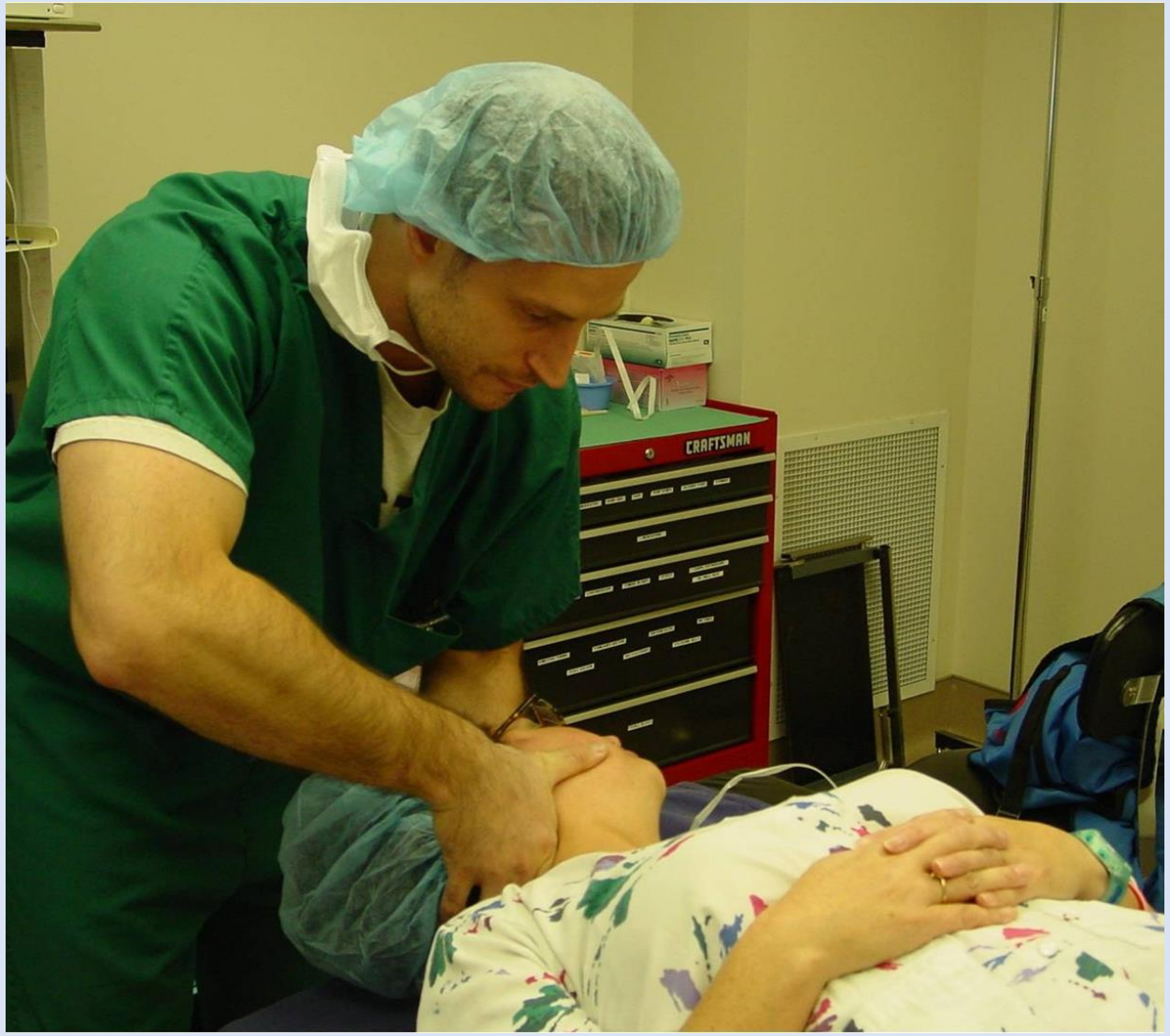
Initial Palpatory Set-Up.
YOUR finger Pads rest on their Cervical Pillars



Gently Lift – just to engage your pads on deeper palpation.
The gentle almost rhymical side to side rocking.
Take your time and you will notice asymmetry.
Pay attention to what you notice and what you feel releases – your subconscious will register it as a dysfunction

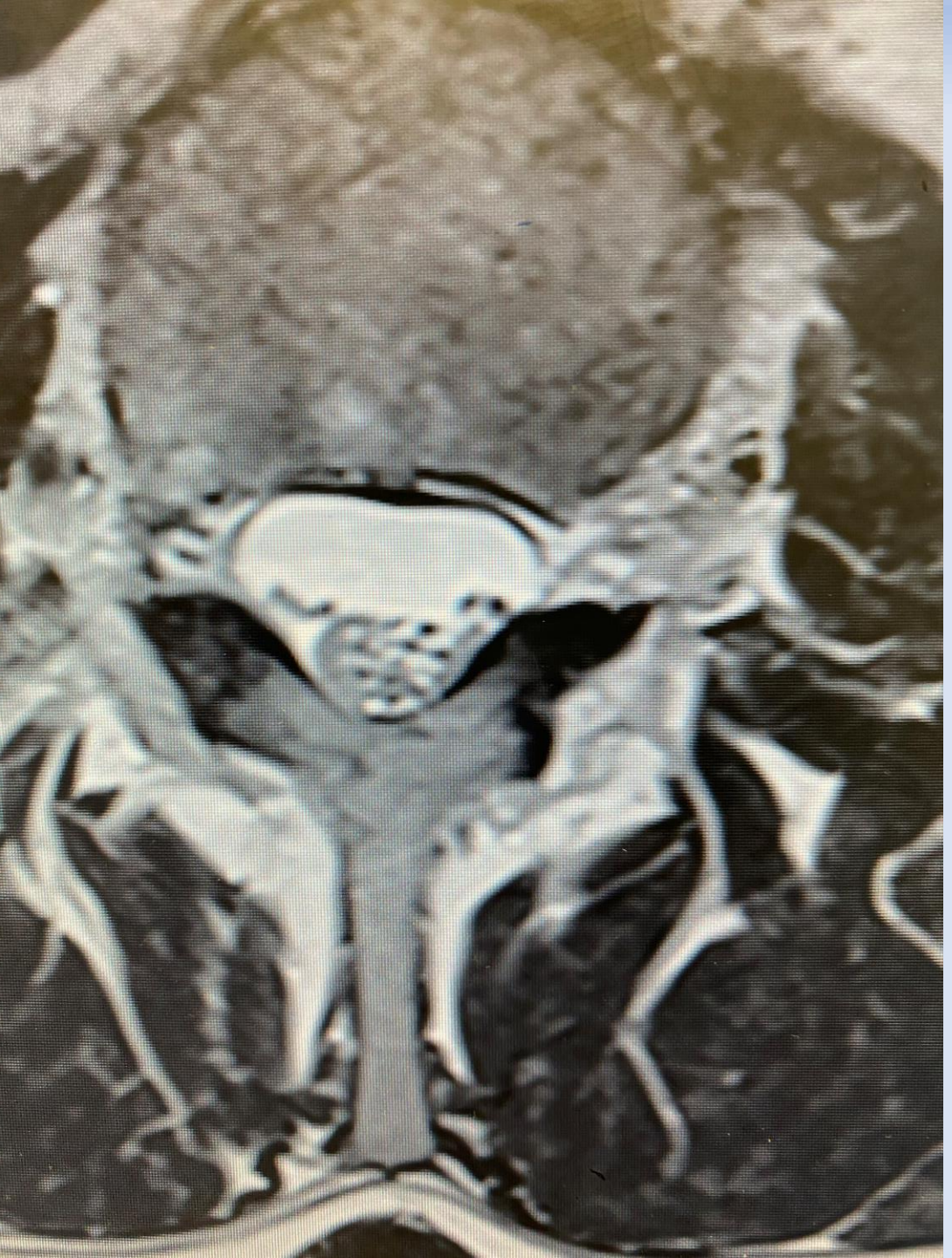
Next. Gentle Side-Bending and back & forth “averaging”

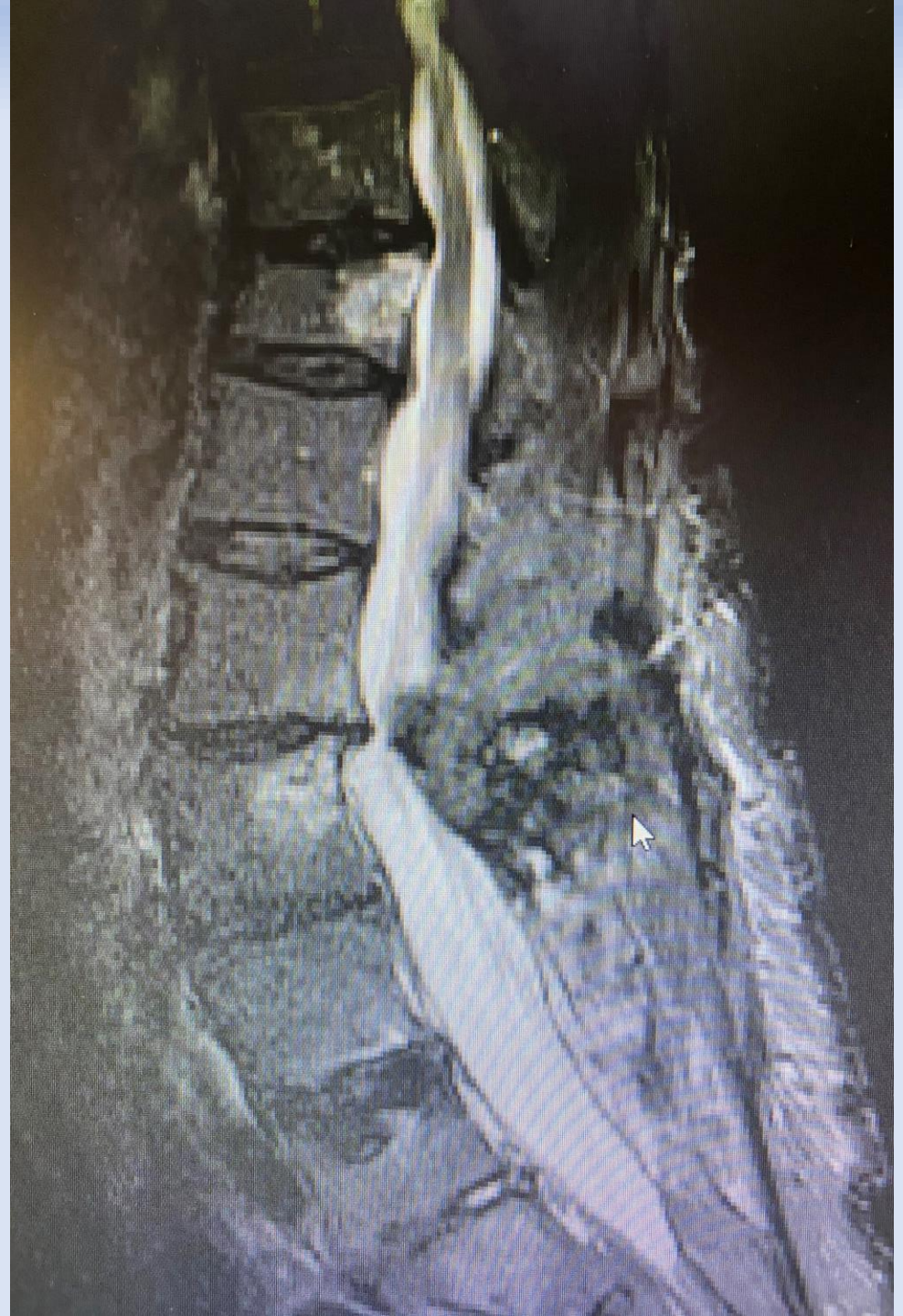
Transition From the palpatory exam into correction
Thumb along mandible – not over anterior soft tissues

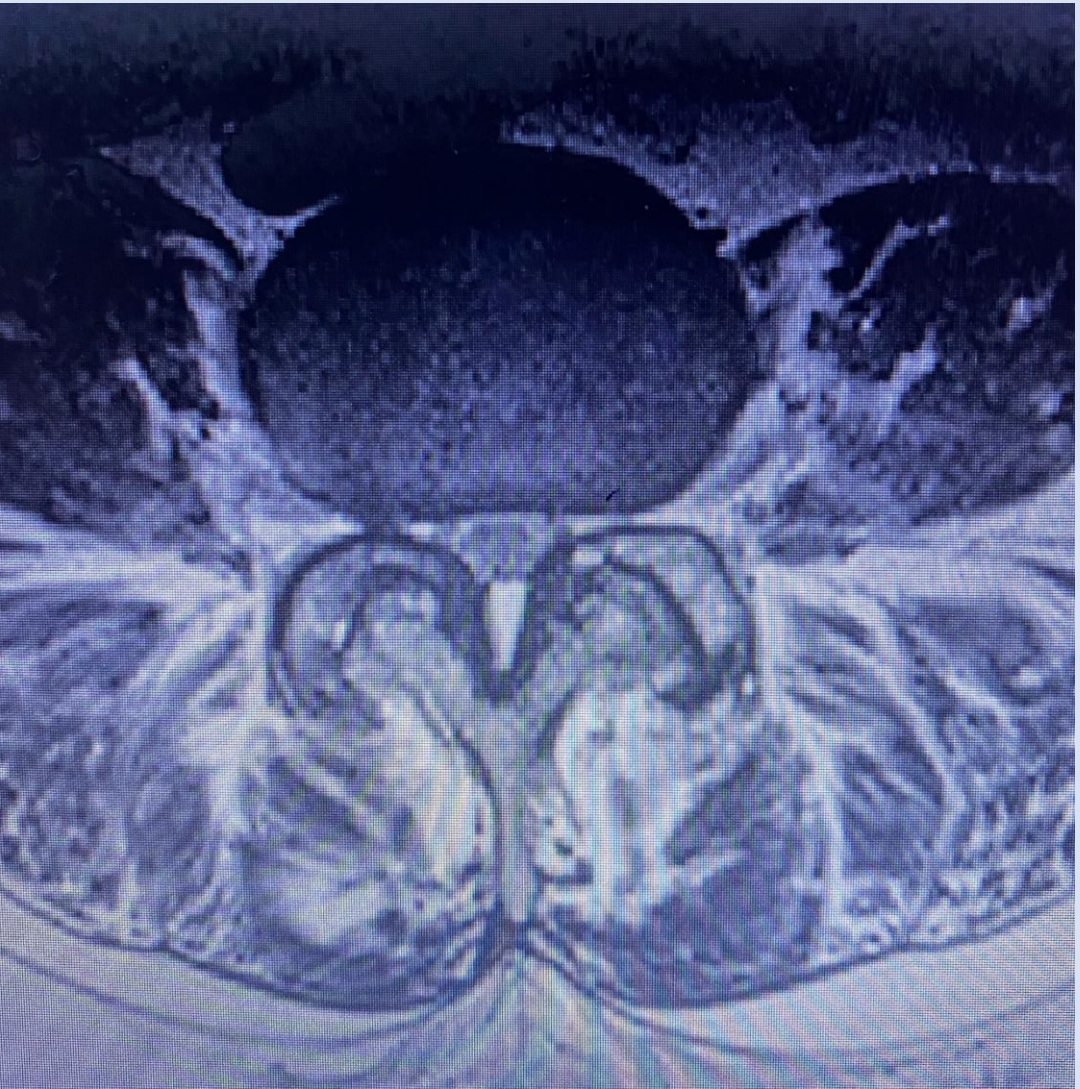


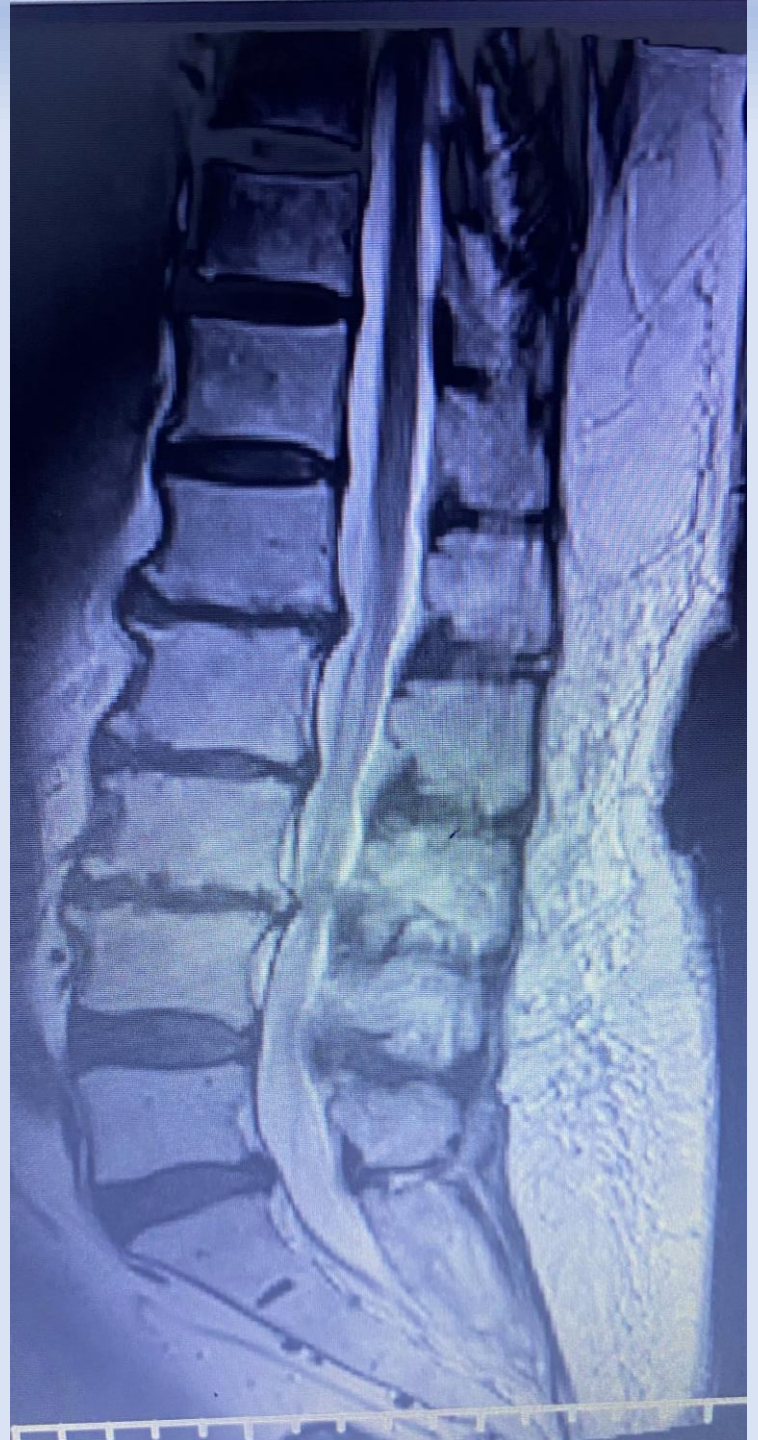
Lumbar Mobilization

- LBP? Low threshold for ESR/CRP/UA
- Plain Films Flex/Ext views
- Consider infectious etiology/peds
- SIJ primary or along for the ride?
- When positioning - L flex/ext.? –
- In lateral recumbent - Do not look to Thoracic.
- Thoracic will be flexed in order for L2,3,4,5 to be in neutral. This is OK. This is how we lock out upper segments and direct KE into L segments
- “Walk Around” - “Million Dollar Roll”
- Post partum/ Post MI (post thoracotomy, Lymphadenopathy) high BMI or “Dolly Parton’s Shoes”
- Wait for ASIS rise, then counterforce
- Hard to really hurt someone
- Imprecise – Diselegant? – but global/lymphatic
- Establishes trust –then on to more
- Can stress C Spine and shoulder if they say “stop”, “stop” but also let go.

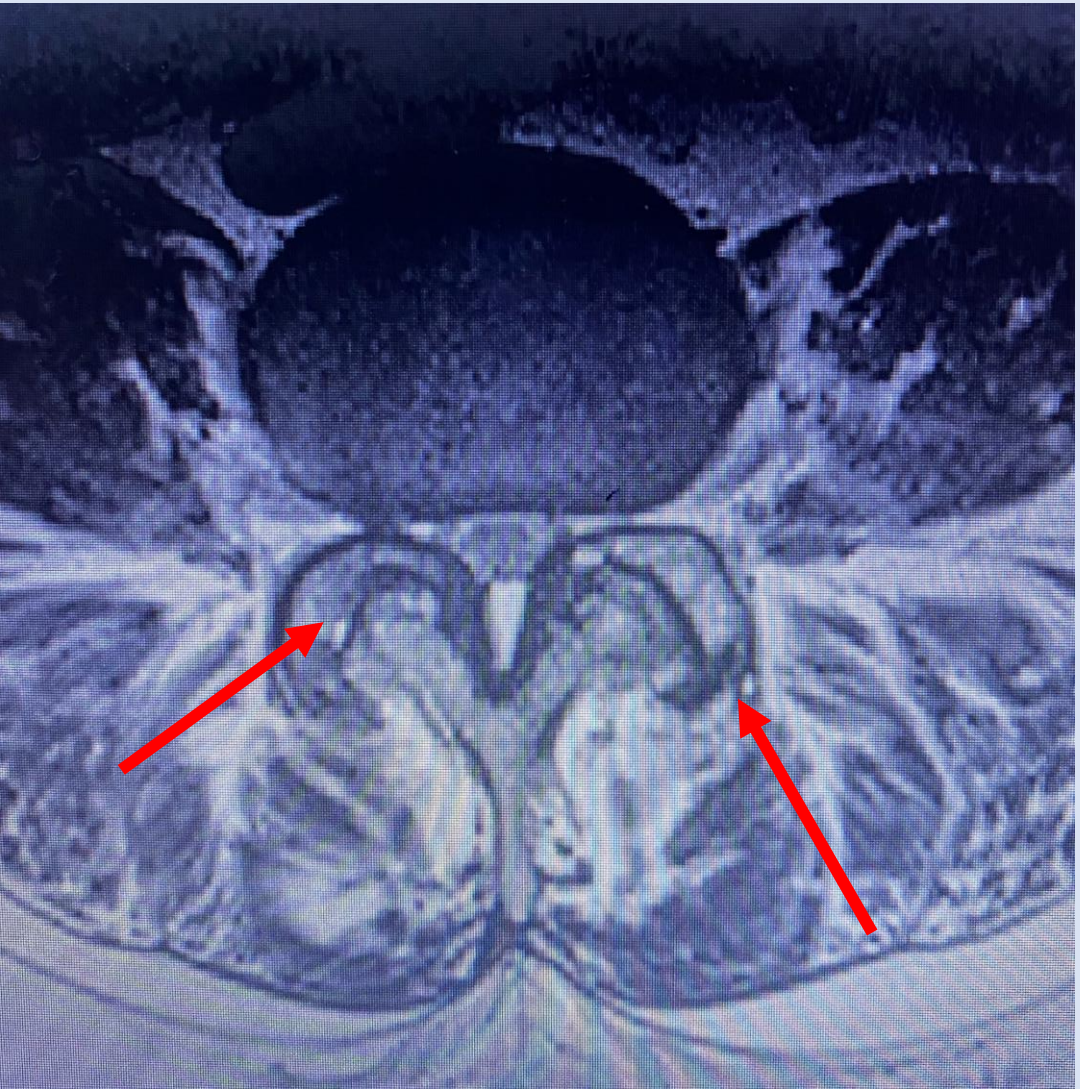


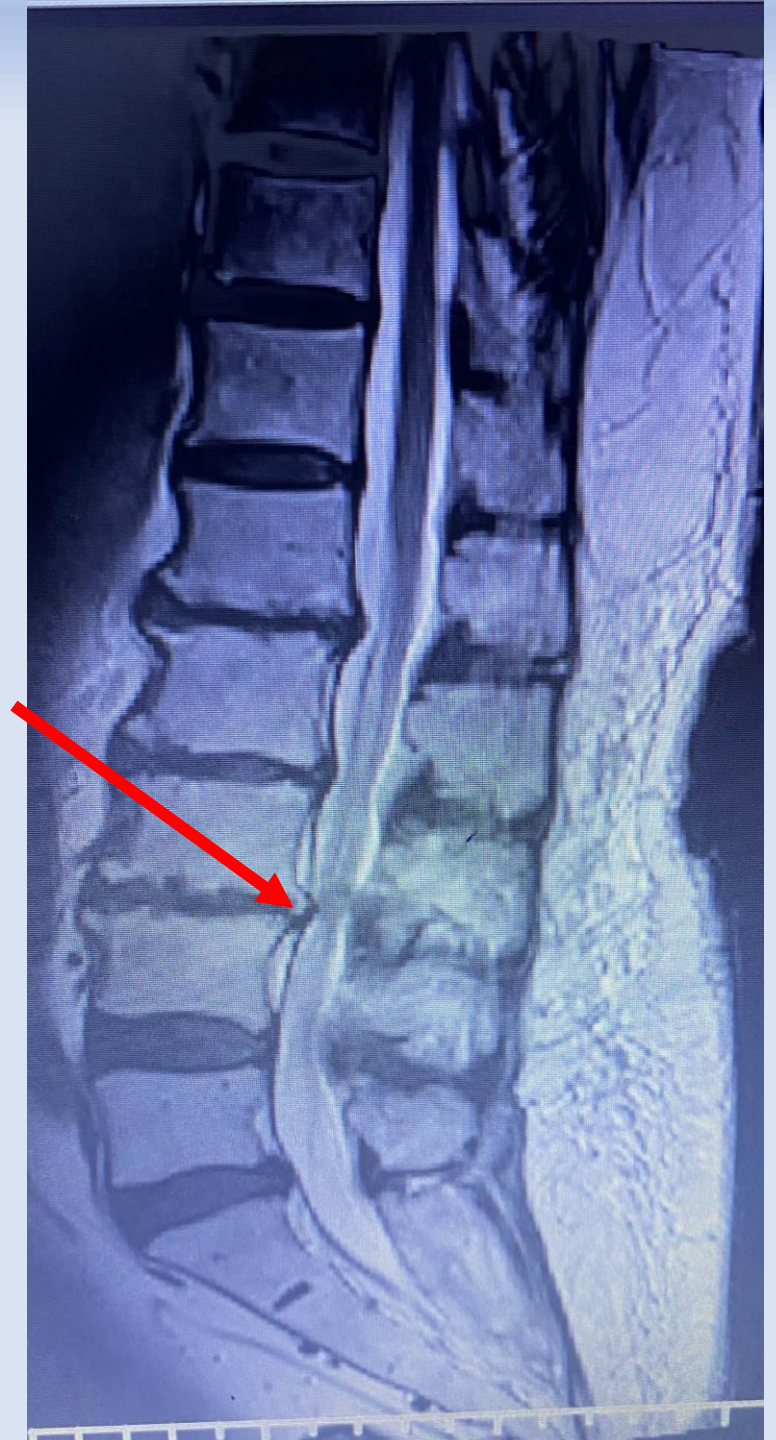






Facet Hypertrophy Essentially Fused





Basic Lumbar Roll – a good place to start

Lateral Lumbar Mobilization, (notice non-Popliteal – that's SIJ)

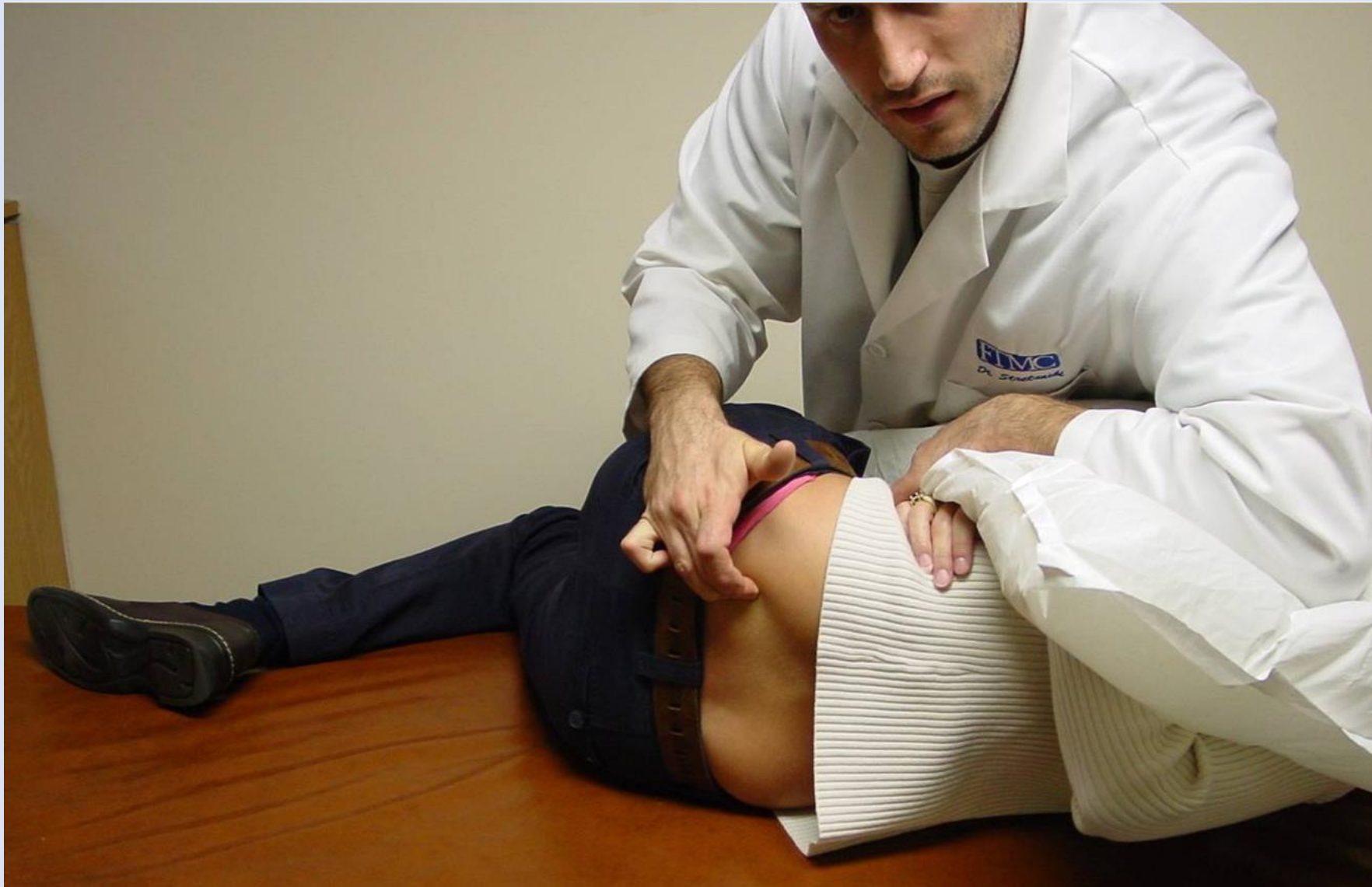
Simplify … Initially

Rotated Left? Left Side Up
Rotated Right? Right Side Up

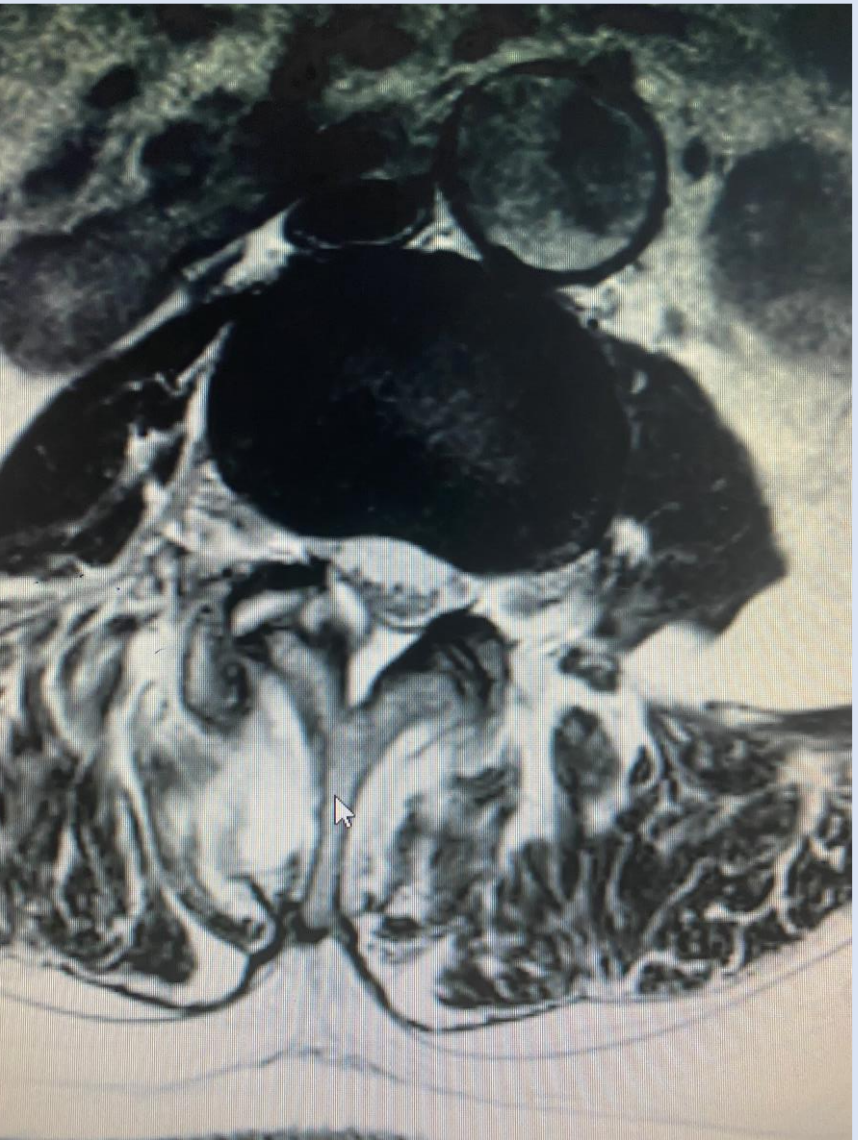
Getting the L Spine into Neutral almost always requires Thoracic Flexion

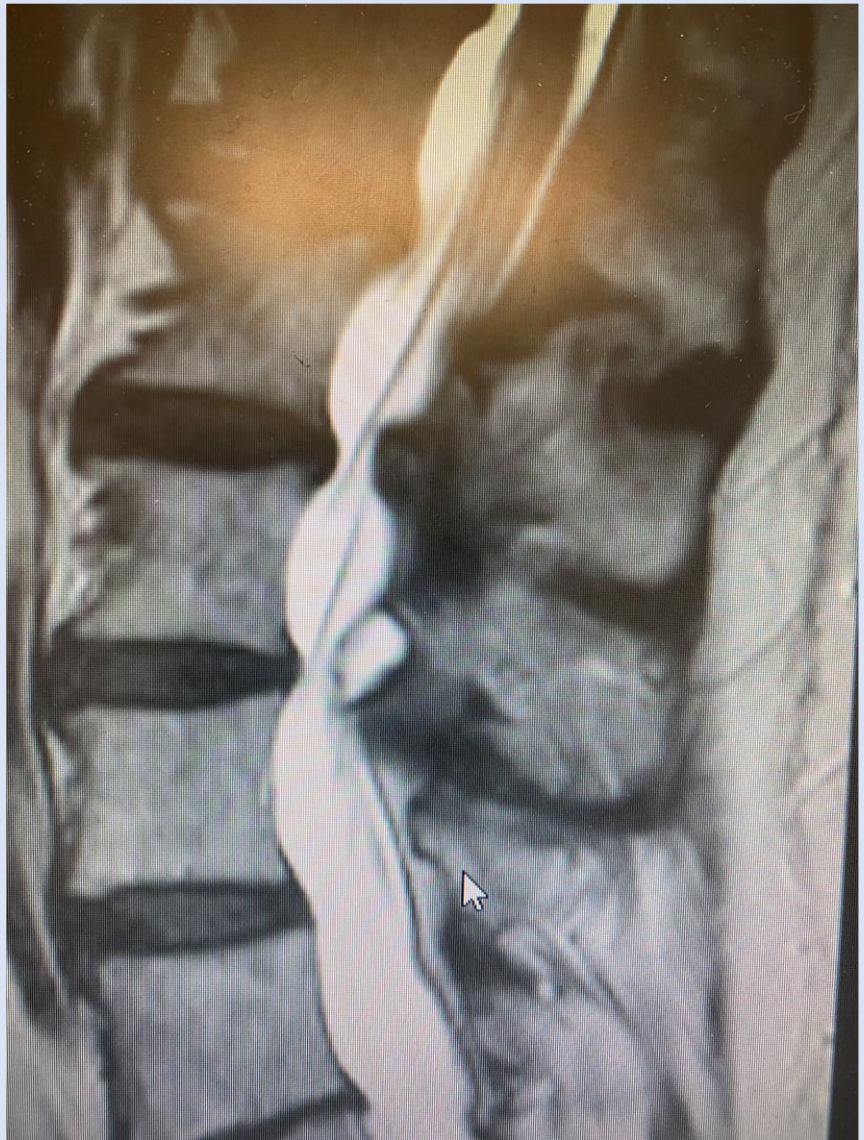
When in doubt, or legitimately short on time or just being empirical -, position the painful or more painful side up first. Then nudge both sides – again all restrictions are bilateral.

Academics and Purists may cringe, but high safety and efficacy.



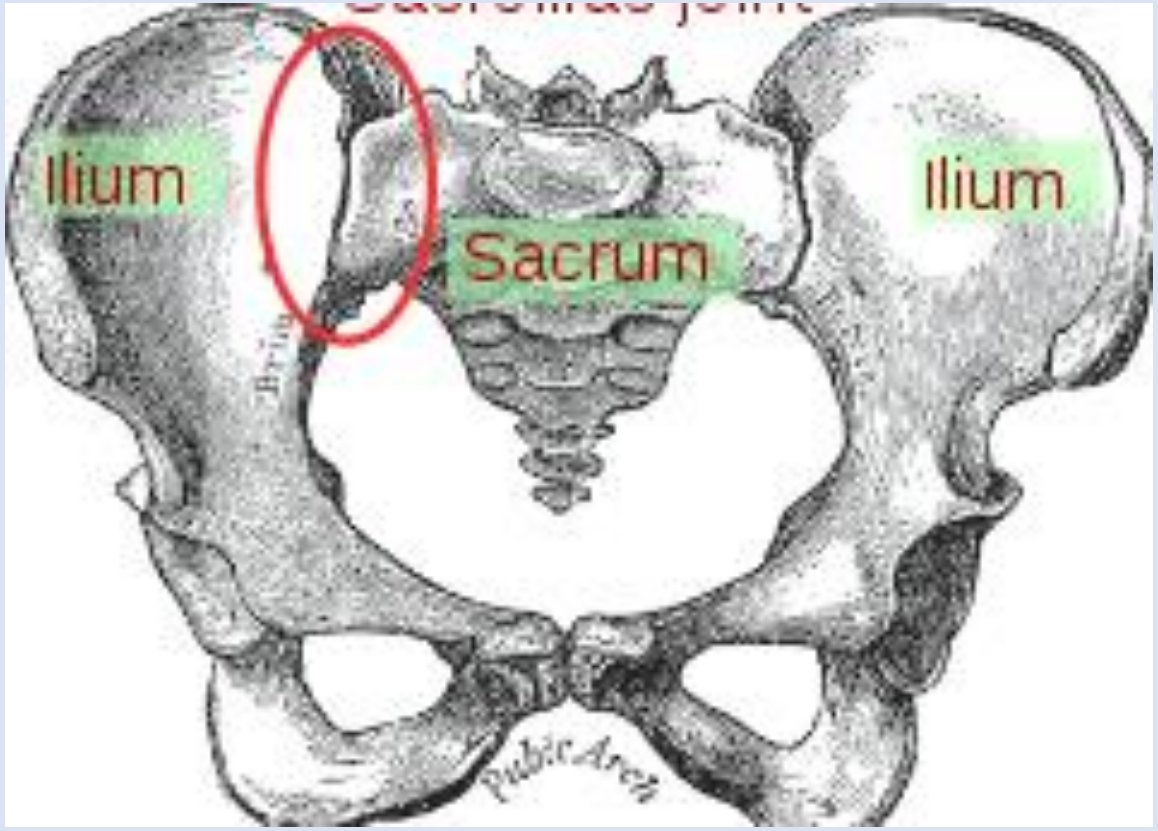
Lumbar Facet Cyst – notice irregularity of facet





Innominate, Pubic, Sacral Torsions & SIJ

- The painful/tender SIJ PSIS is usually the posterior side
- May benefit from injection
- Sacrum rotates towards P innominate
- P- “Posterior” - “Popliteal”
- Sacrum wants to return to lowest state of energy –w/o torsion – correct the innominate and torsion comes back along for the ride- might not palpate as anatomic neutral, but WNL for them.
- “Go ahead and move around a bit and tell me how that feels”



Clinical Observation

- The average person over 35 is walking around with and compensating for a slightly anterior innominate on one side and posterior on the other with the sacrum torsion. They are also usually tender over one sacral sulcus and have at least one tender trochanteric bursa.
- Is this compensation or design?
- It’s amazing what you can get used to

Innominate Rotation- Usually Primary Prone and Supine Exam

– ASIS anterior and Inferior

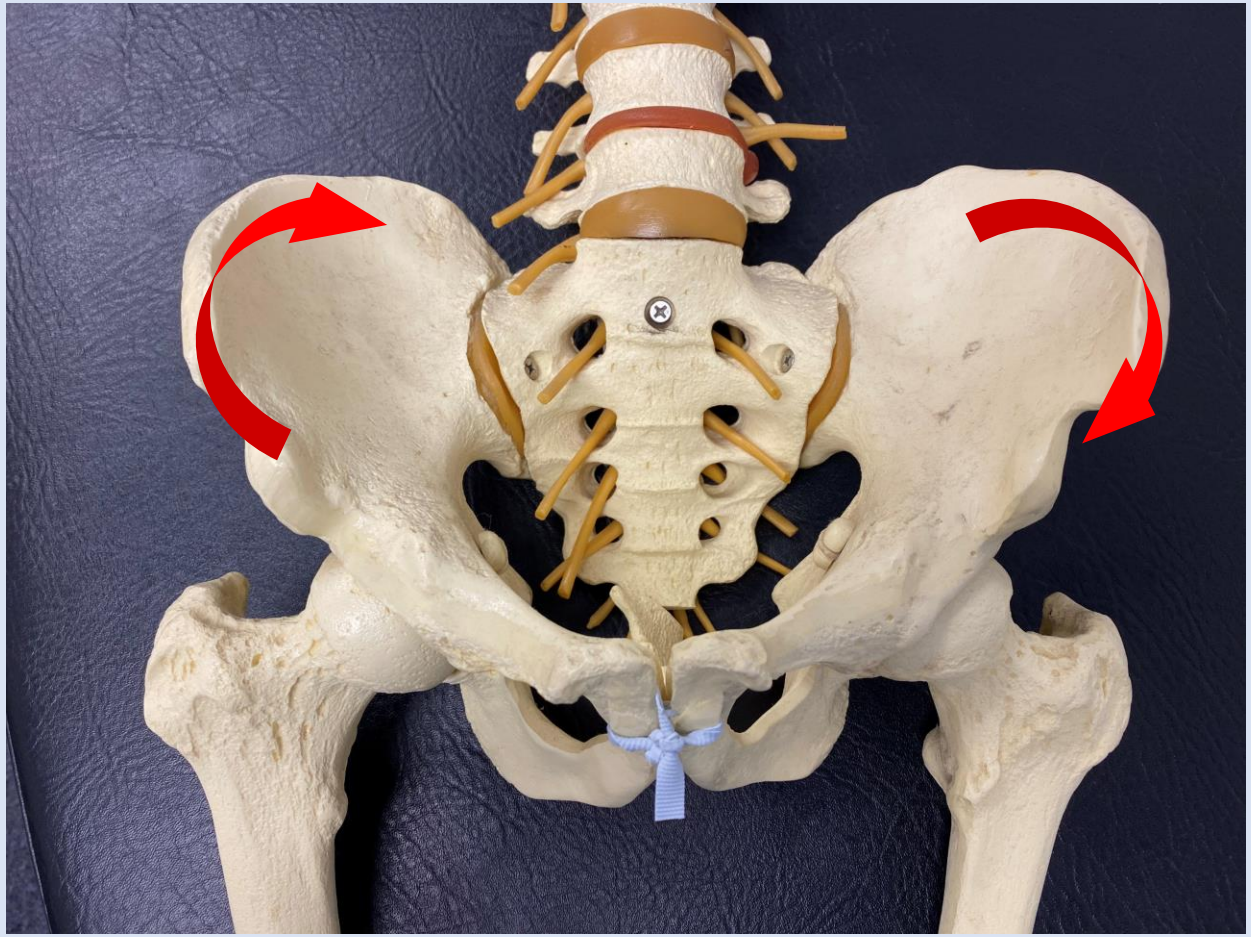
Contralateral Posterior and superior

Public Bone in Restriction or

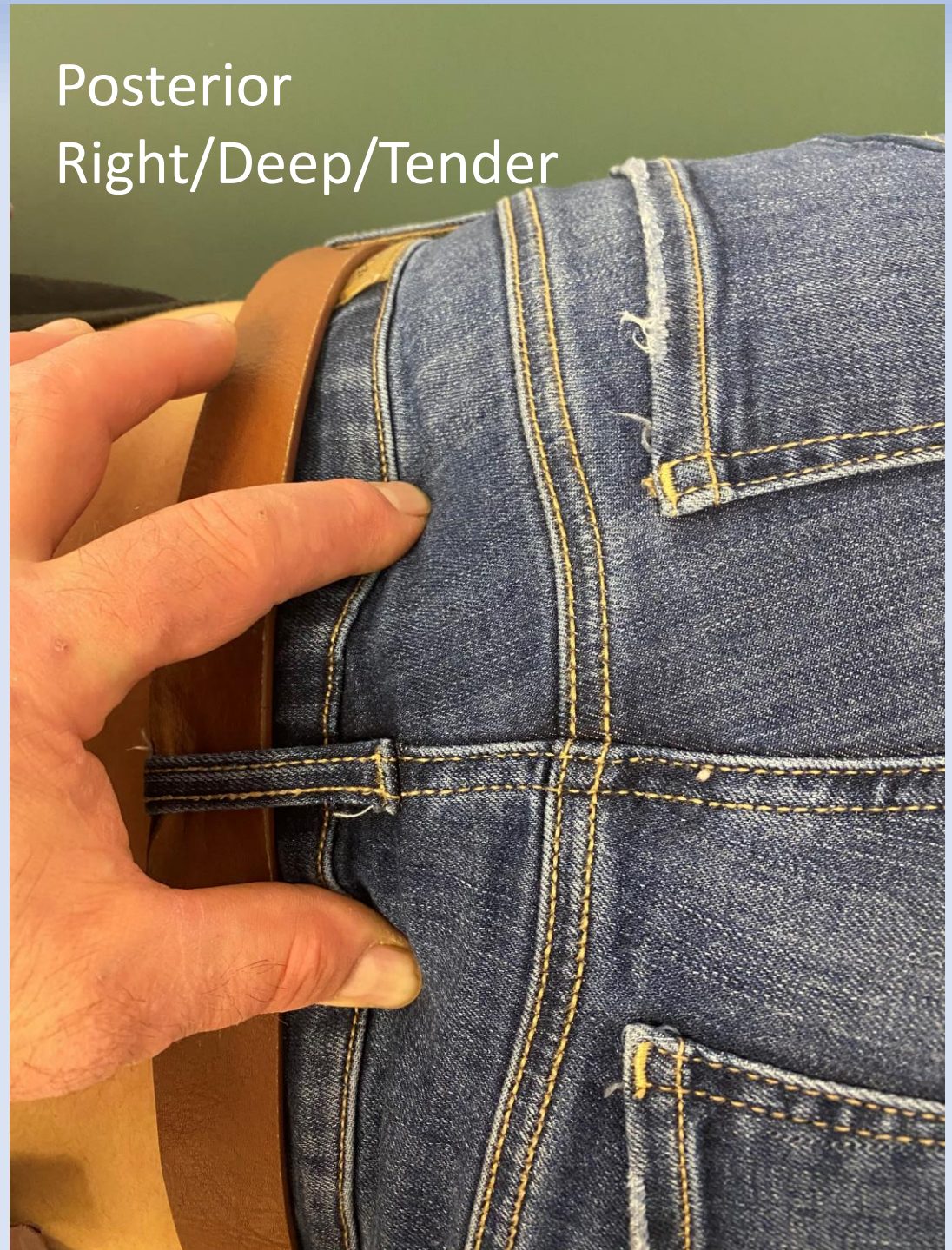
Potential Pubic Rotational Dysfunction

- Anterior Leg Longer
- SIJ Likely Tender

“Prone PSIS Posterior Popliteal”

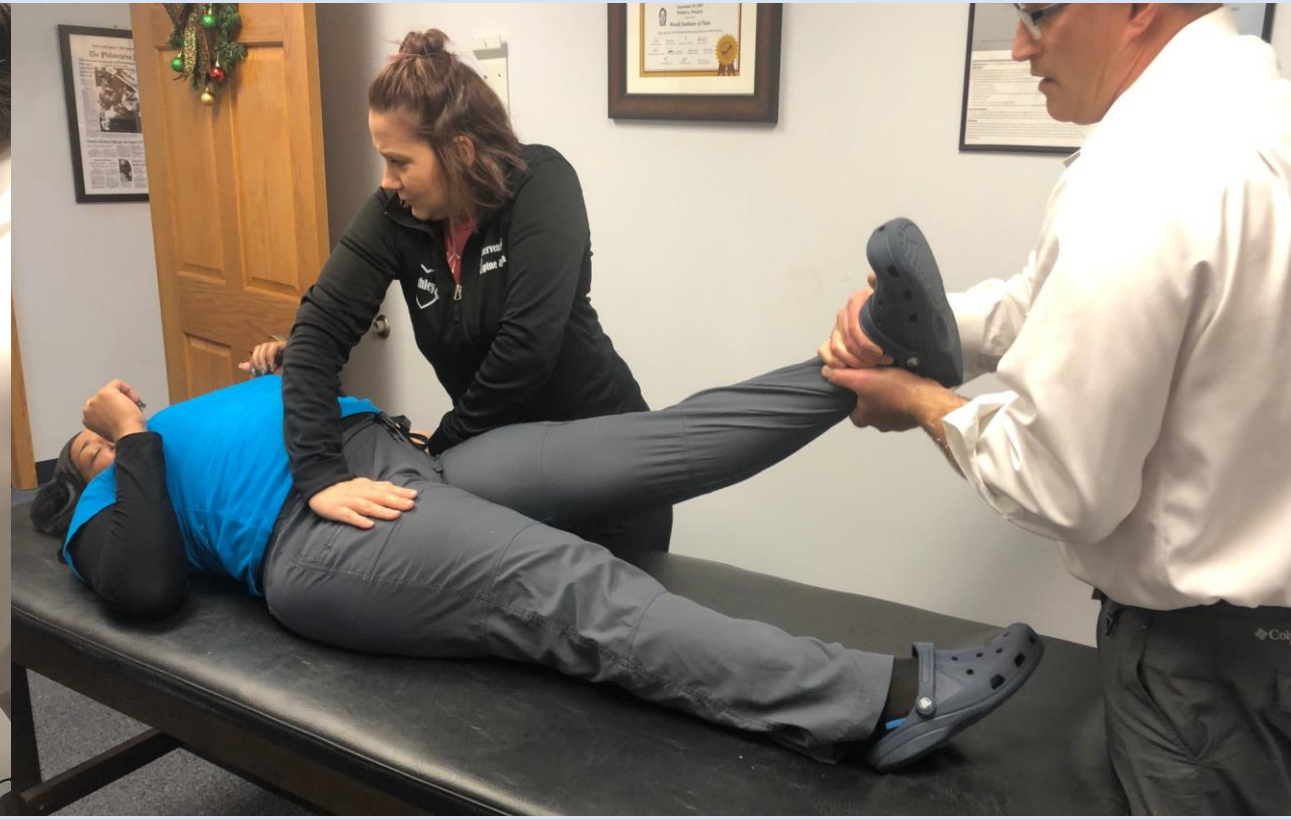


Posterior
Right/Deep/Tender



You can almost see the leg length difference

Posterior Right - Anterior Left Innominate
4 handed Leg-Pull is one Option, ME II easier?
No TKA/THA/ACL-recon. Gaps Knee, Ankle and Hip



Type II Muscle Energy for the Pubic Symphysis component of the Pelvic/SIJ/Innominate Dysf'n

Abduction and Hip/Knee Flexion s/p Pubic Symp Tx

Patients can be taught this as a self manipulation supine or standing

Their own fist or a Beachball

Innominate Inflares and Outflares (treat, re-examine)

– ASIS towards or away from midline

Public Bone in Restriction or

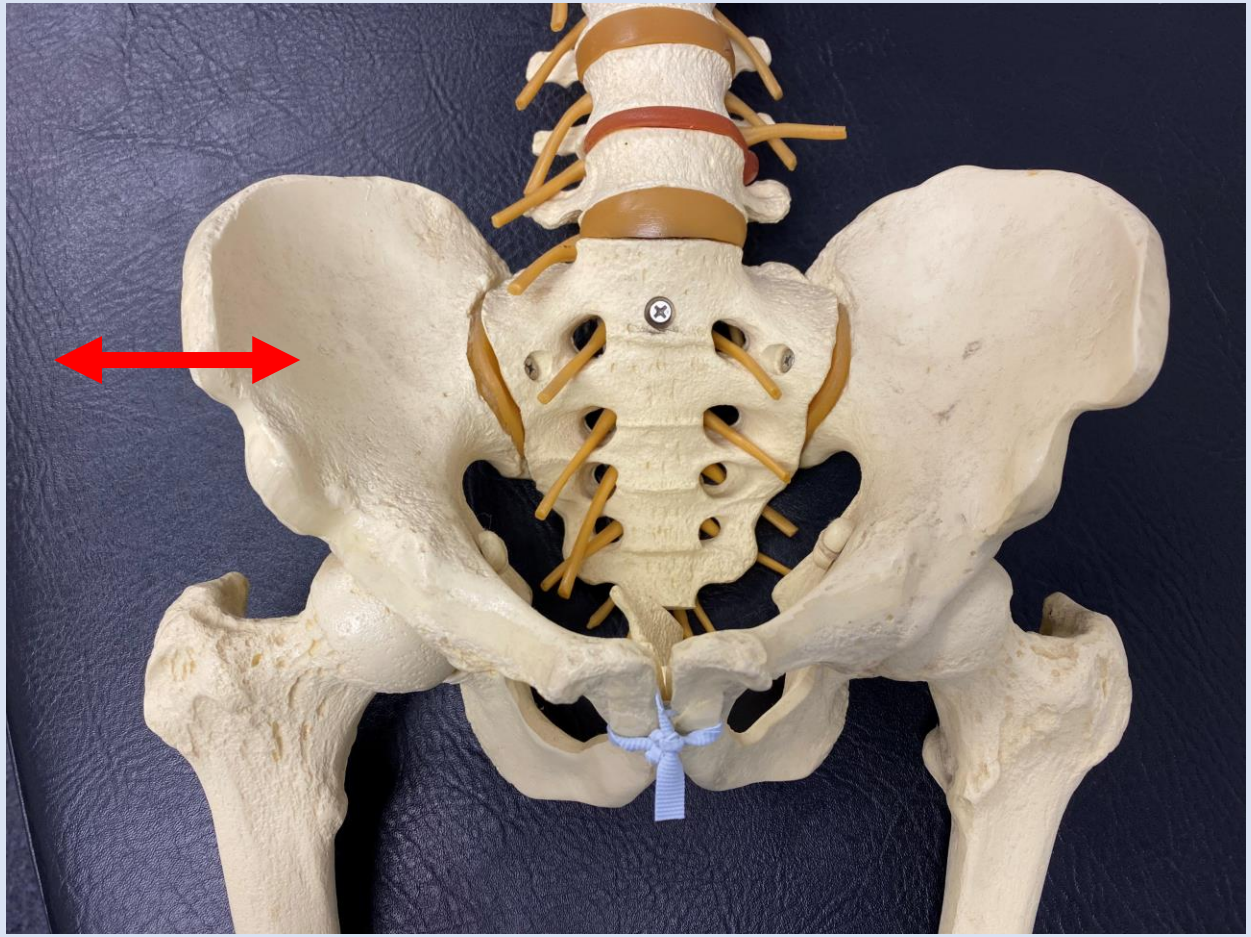
Potential Pubic Dysfunction

Upslip or Down slip Position

- Leg length typically same
- SIJ Likely Tender
- Rarely Primary

• Knee at 90, ME toward midline

Knee>90 and ME medial knee to sky



Superior and Inferior Innominate Shears

Upslip or downslip

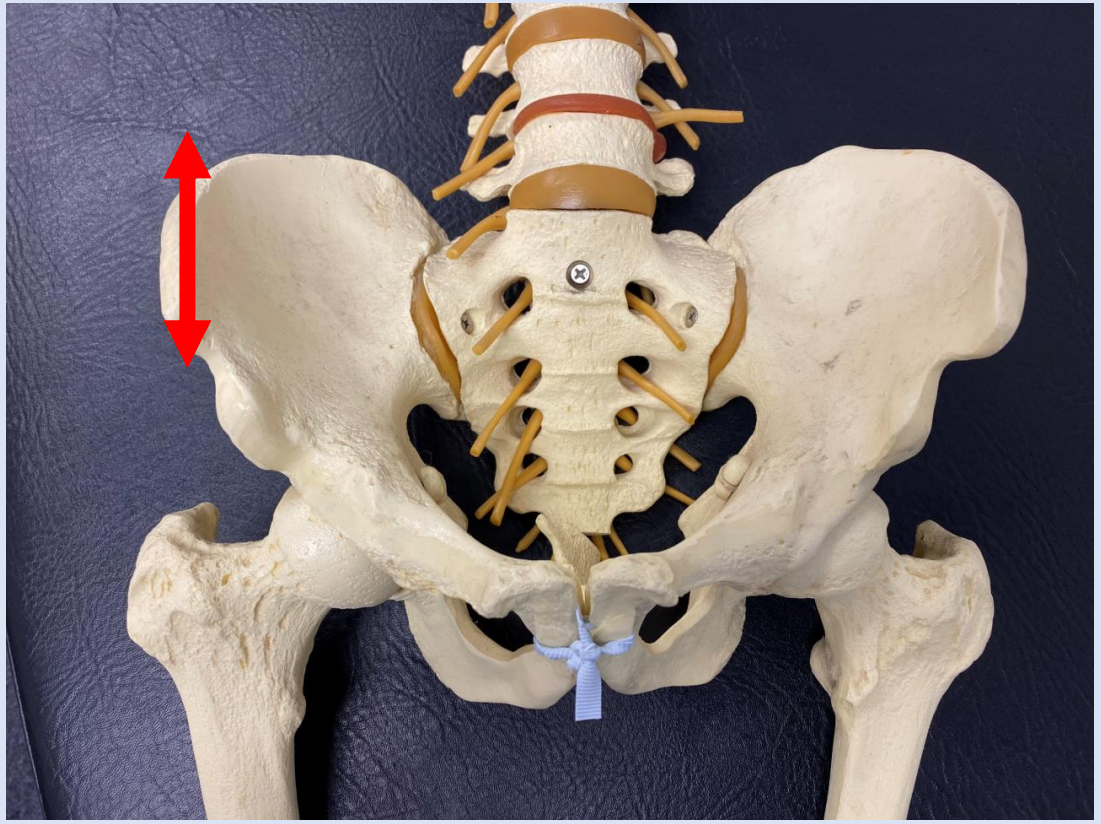
(innominate moves up or down along SIJ)

- Leg shorter on Upslip

Step off a curb

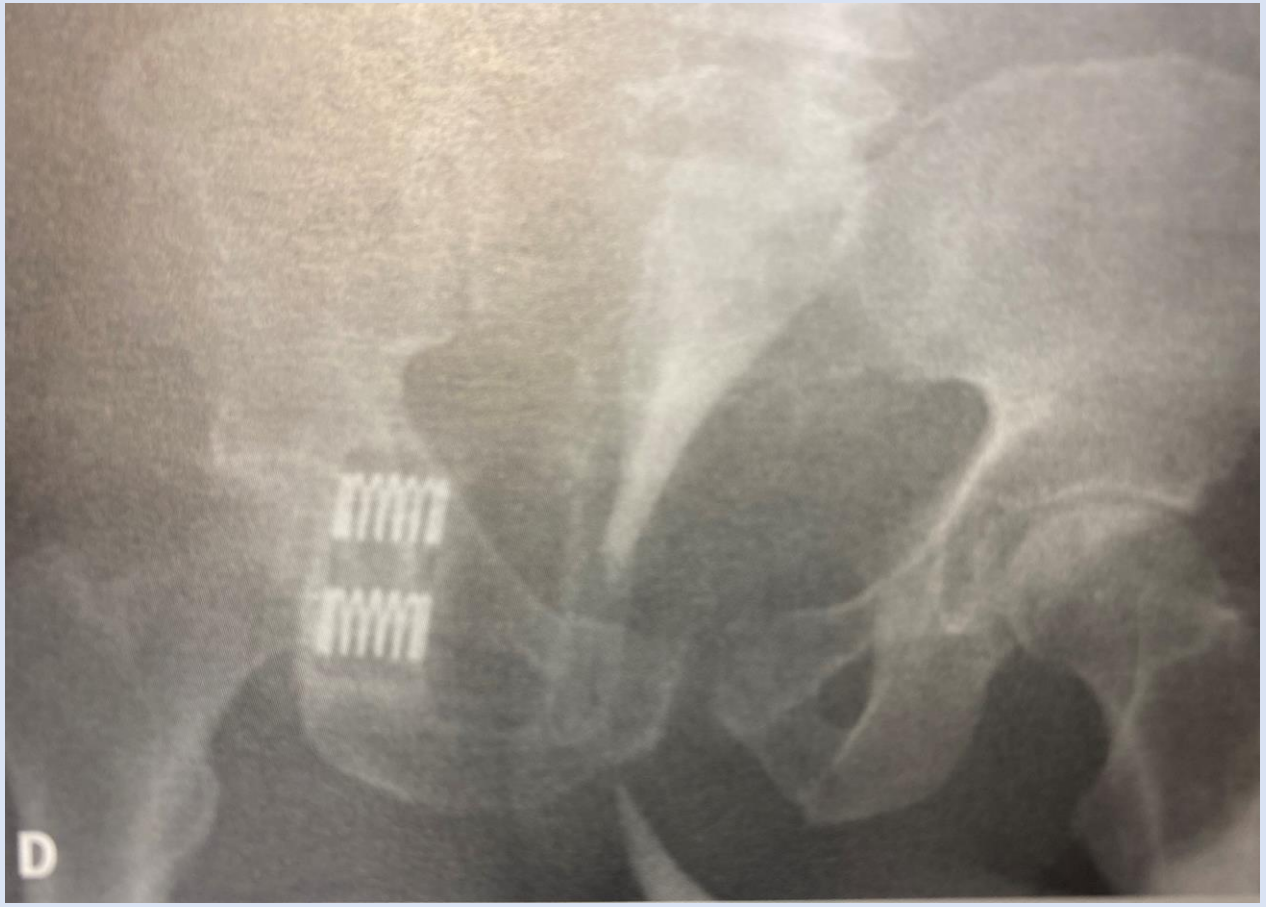
Off Back of a truck bed

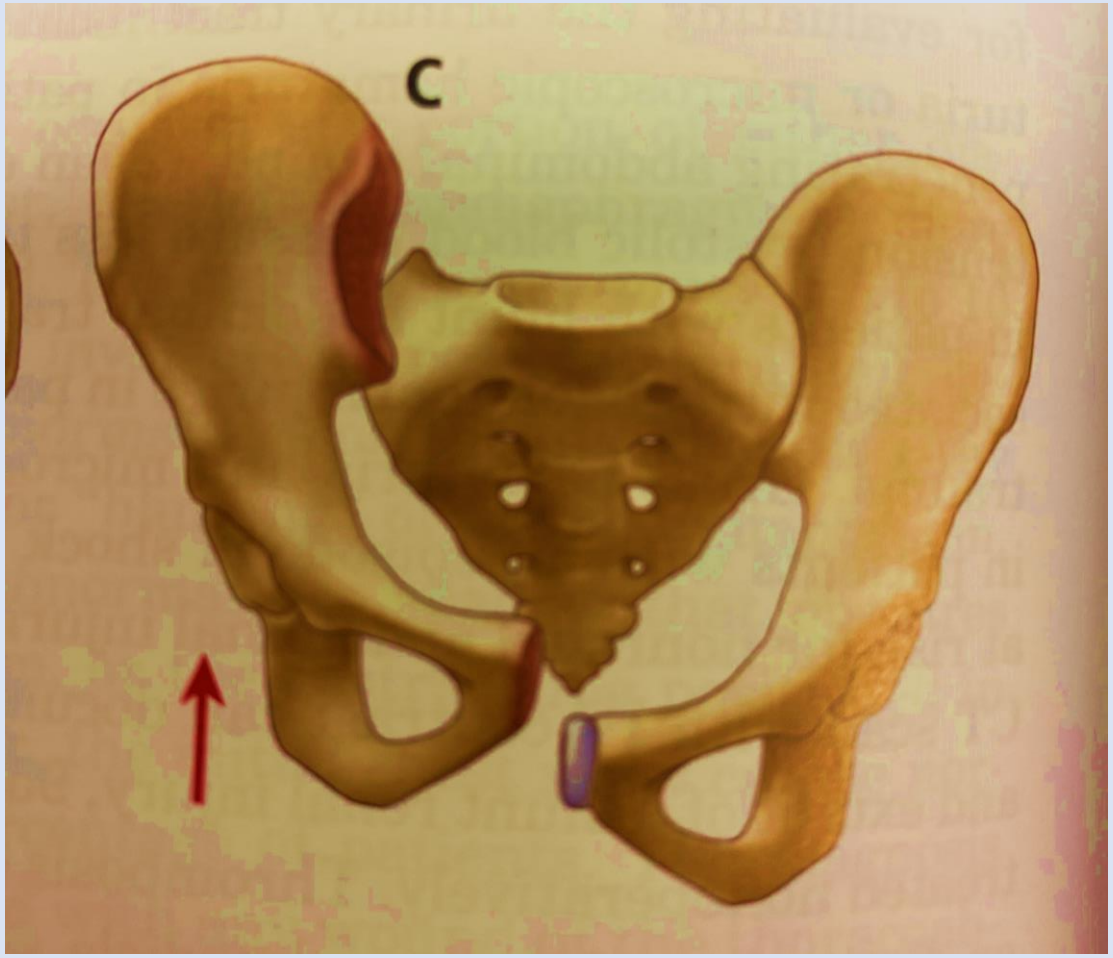
- Leg Longer on Downslip
- Downslip exceptionally rare
- Football side tackle



OSM's, Do not confuse with Open-Book Fx

Respectfully borrowed from ATLS textbook, Level I trauma, usually MVA or fall greater than LD50 for fall, vascular and neuro structure involvement, other injuries, transfusions, DIC - not good



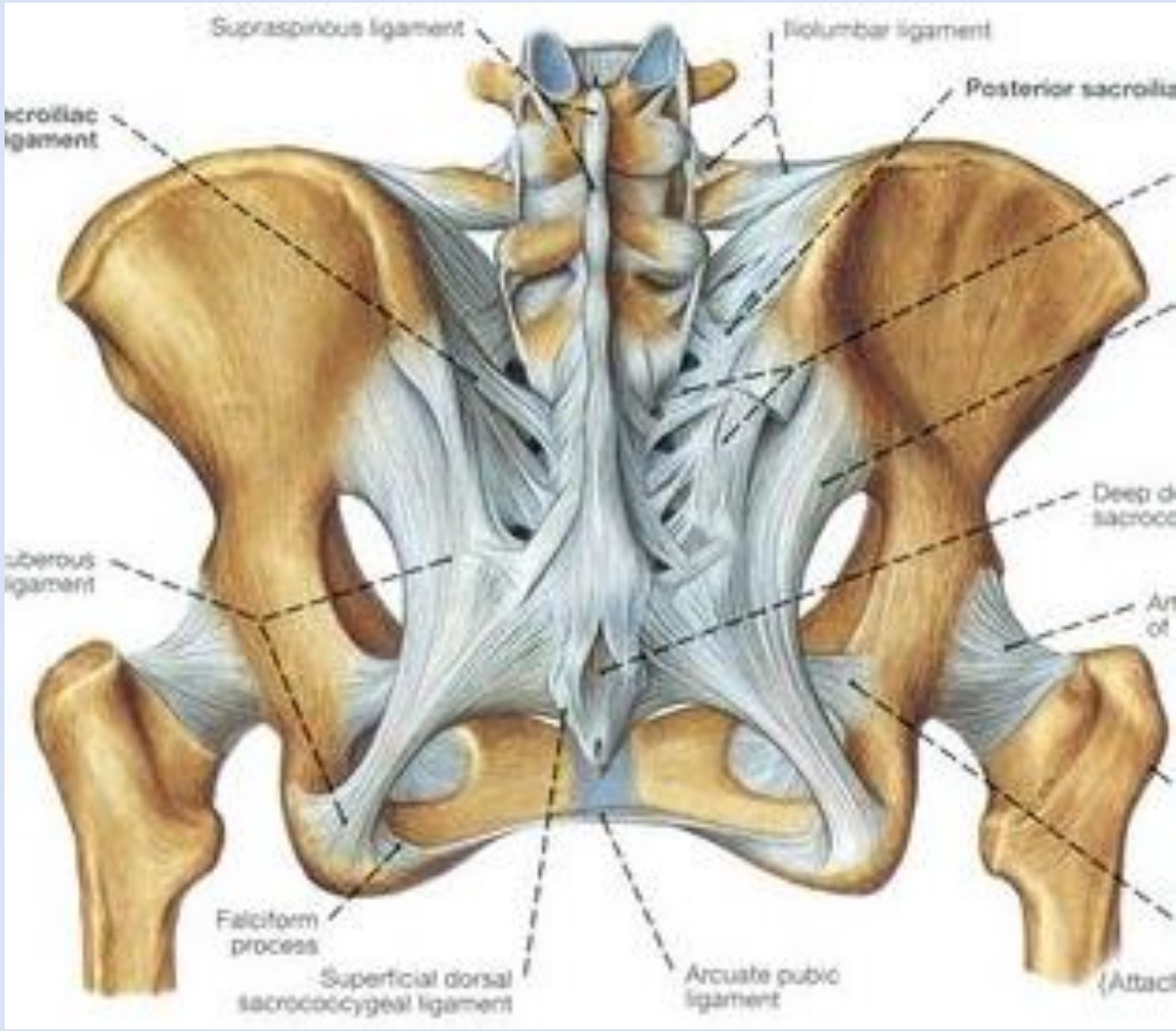


Why it not mandatory to initially be neurotically precise about sacral and pubic dysfunctions
Sacrum is kind of just chillin' with the innominate and kind of goes with the flow
(yes, under the right circumstances or trauma the sacrum can be primary)

Many Many ligaments, become
Under tension -
Tender
Painful
Inflamed
Enthesitis

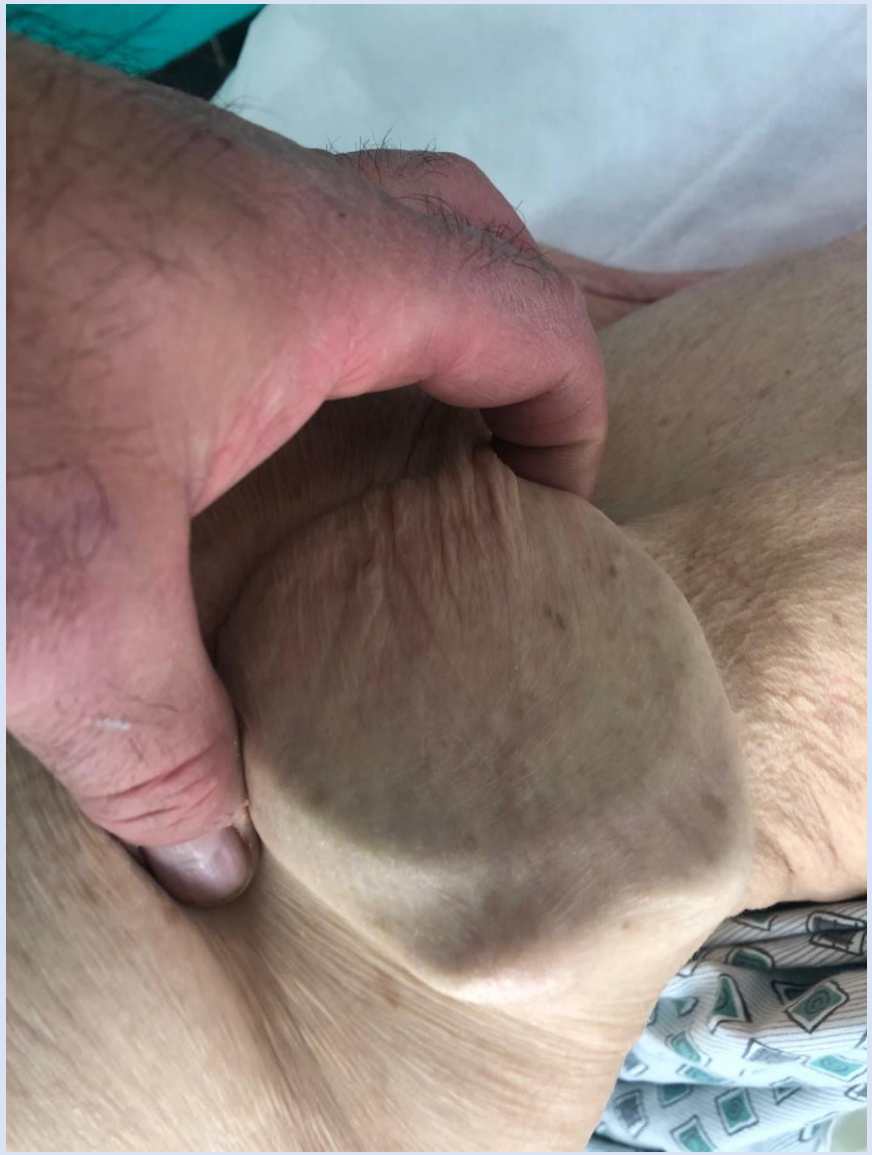
Sacrum WANTS to restore to lowest state of Entropy

Sacrum isn't looking for trouble



OB/post partum – different extension/flexion/pubic symp

Brief Words about Implantable Pain Technologies Spinal Cord Stimulator and Pain Pumps

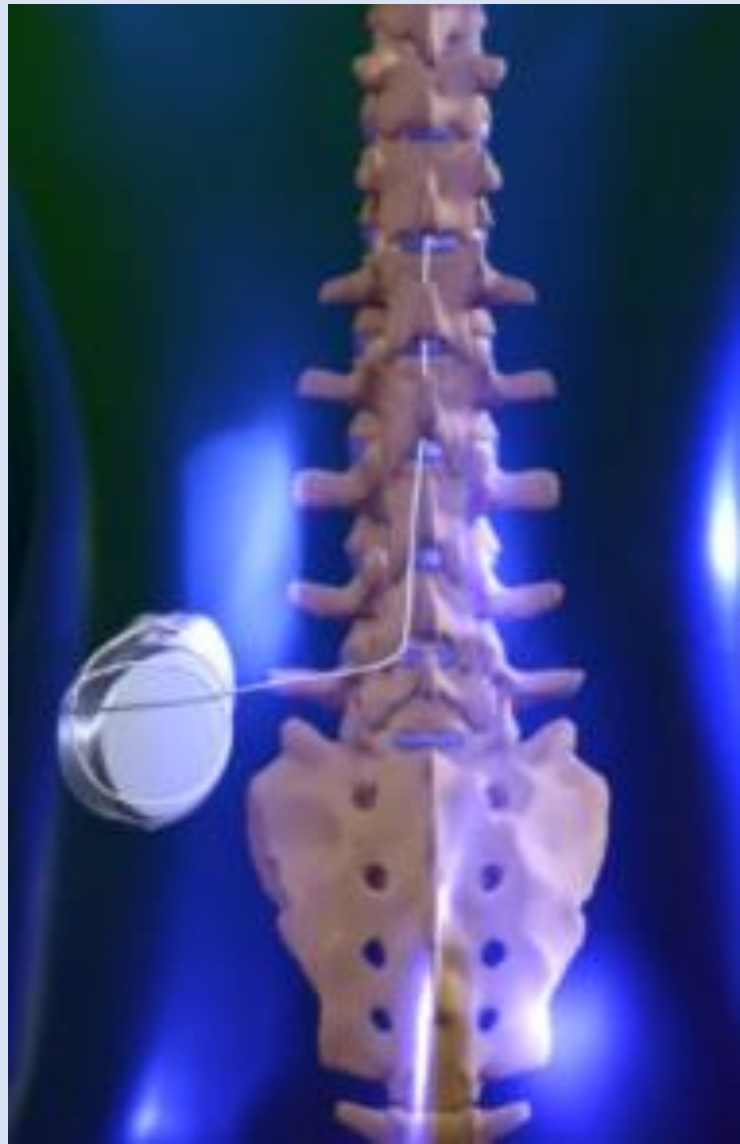


Slide from last year, subsequently
B-Cell Lymphoma

Anchors –
Sutures –
Anchor Points.
Almost immediately able to take L roll or K ville

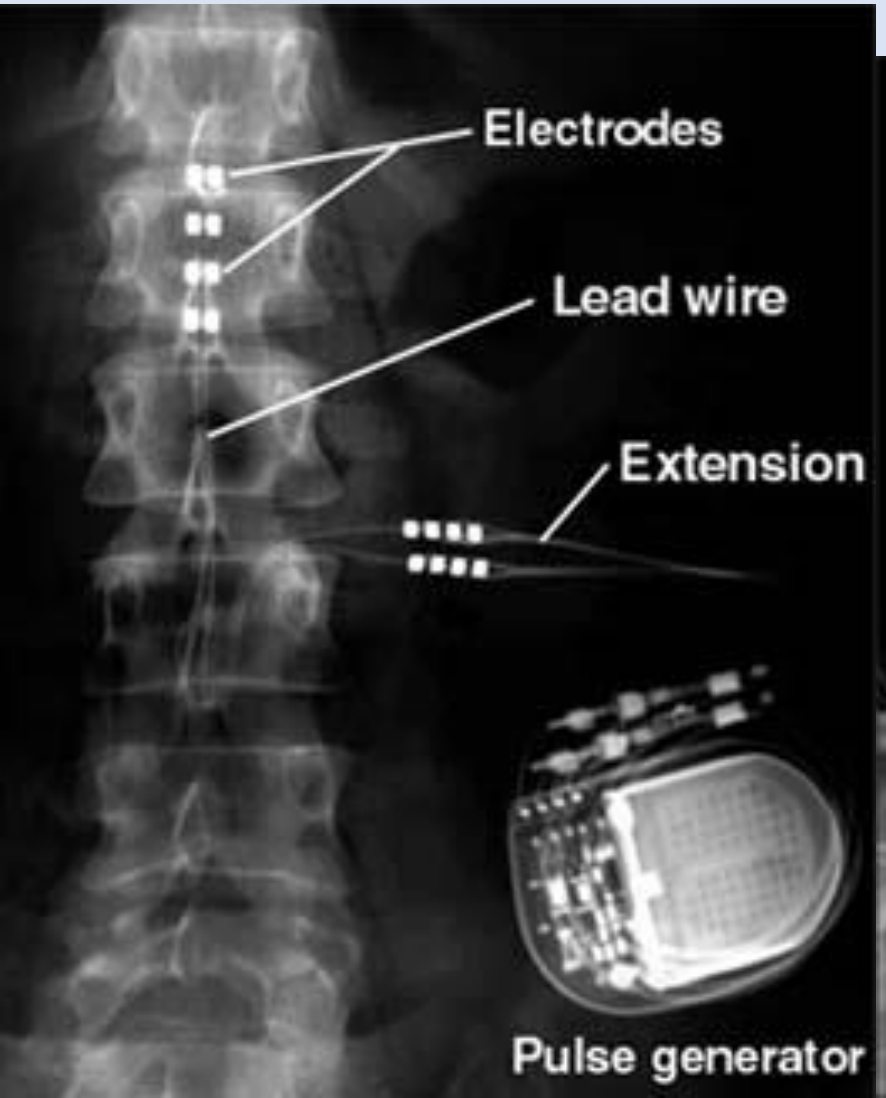
Surgical incision

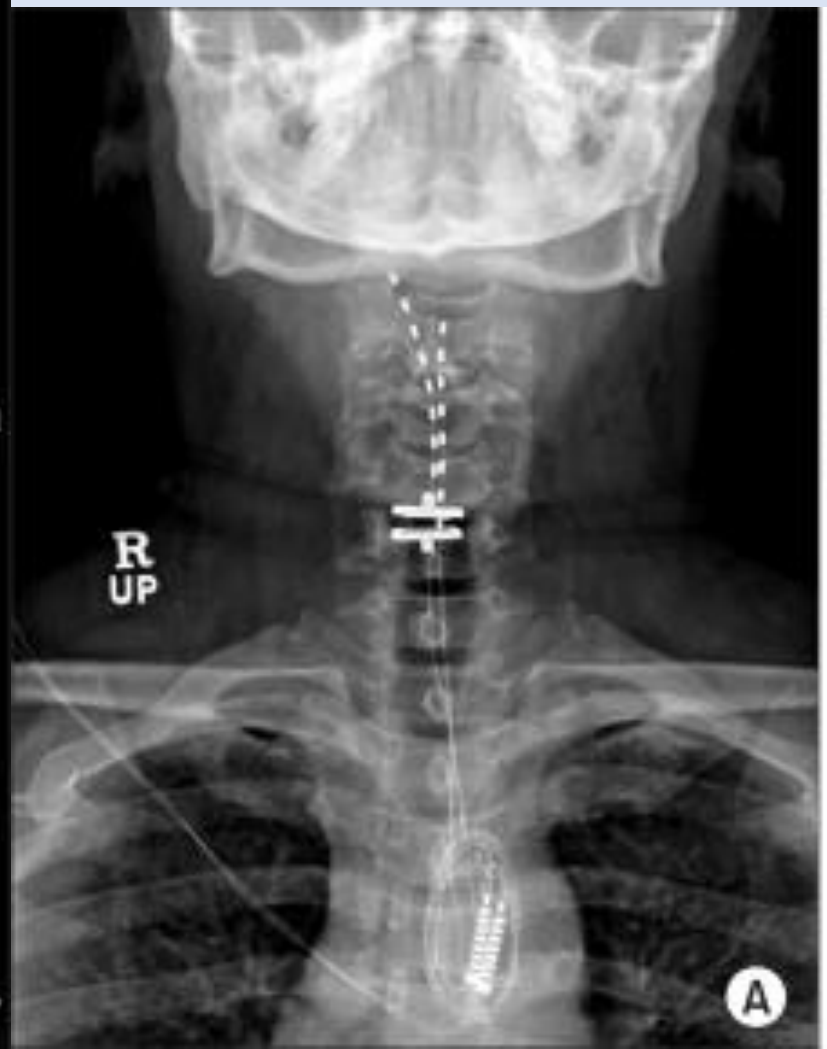
If recent implant, Protect like any other surgical wound

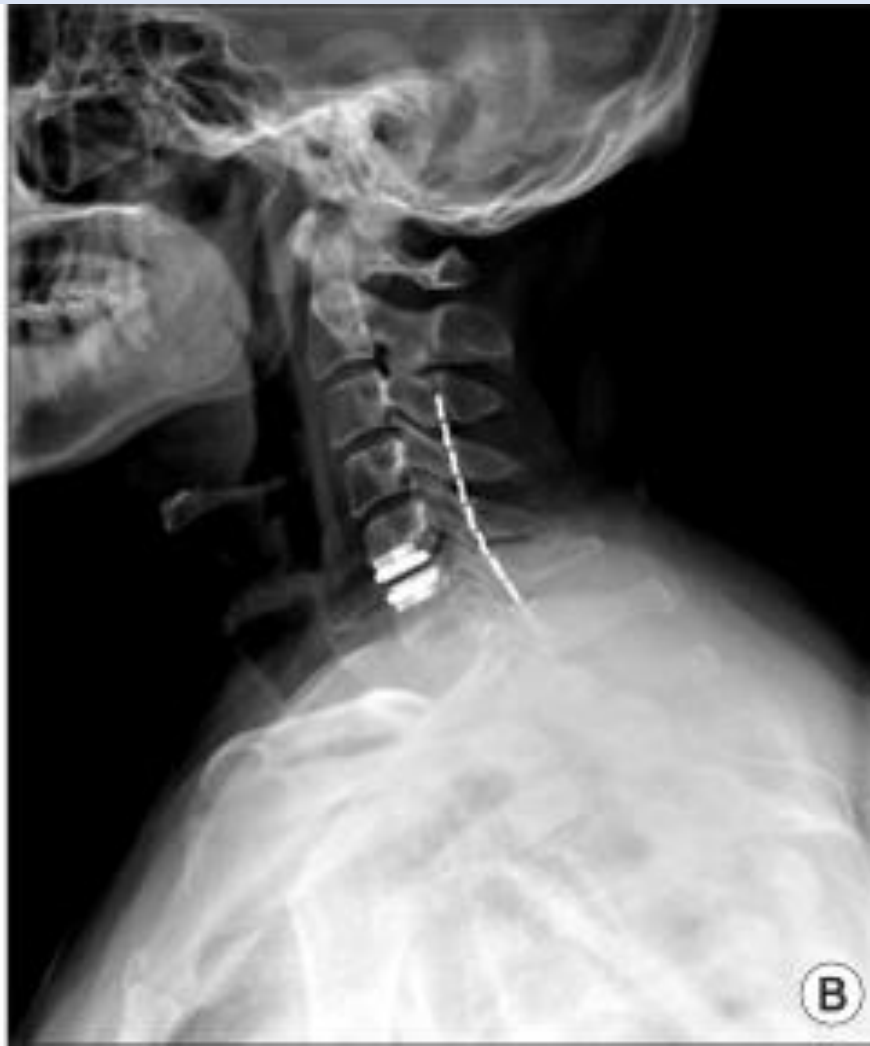


SCS placement: Thoracic 8.3, Retrograde, C spine

(Sweet Spot) 







46 y/o female 83 lbs

self-referred from outside facility

seeking “ a real pain doctor”

*MSContin 120mg TID

*Hydromorphone 12mg q4hr

*Klonopin 2mg tid

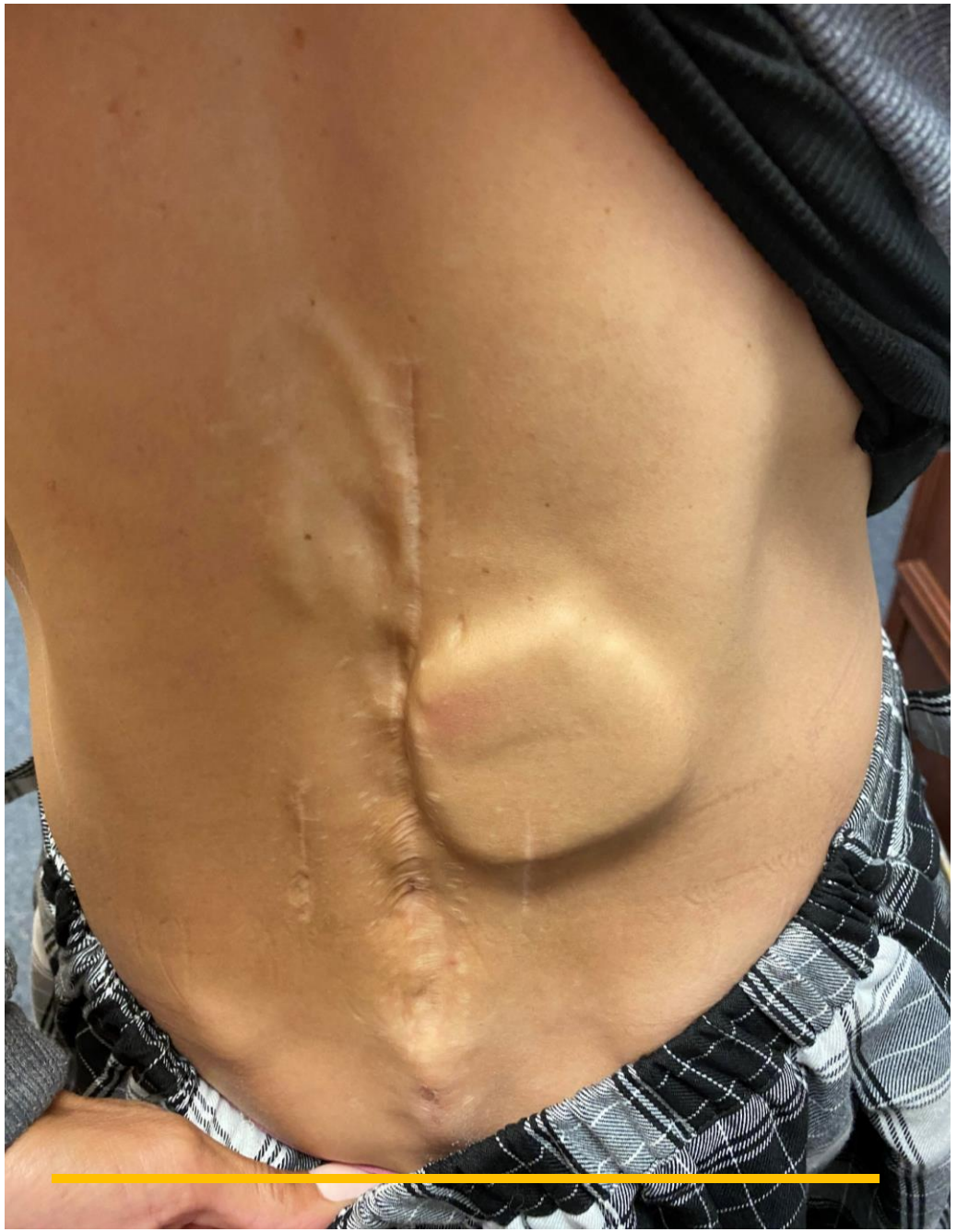
2 ppd smoker Poor hygiene

+THC one of 6/11 panel UDS

- Less than idea placement

- reasonable OMT candidate for selected techniques but other issues to consider

- MRI requirement is >5 cm from midline



Transition to Extremity Dysfunctions

Most fibular head are Posterior Dysfunction

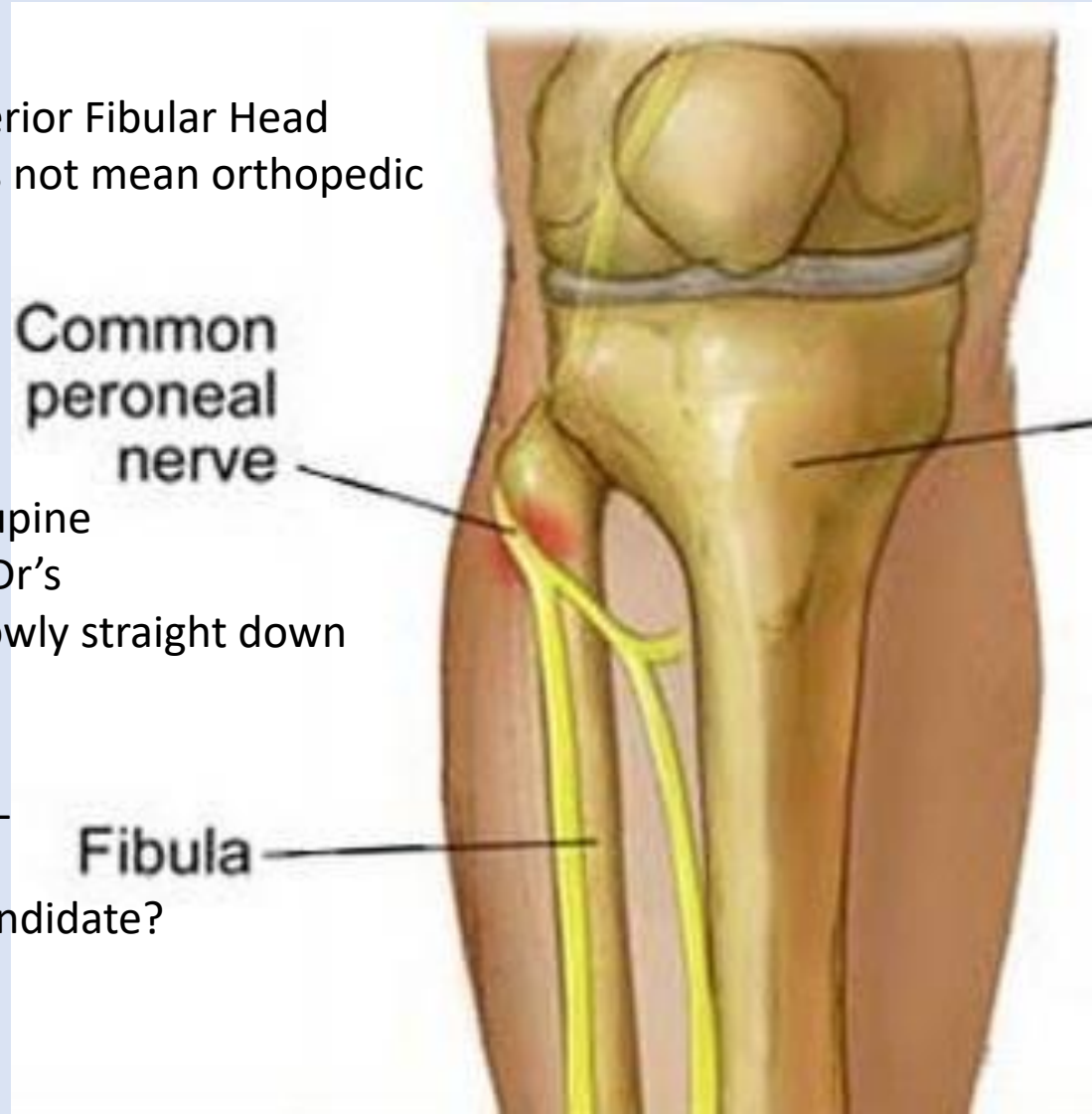
Not

Osteopathic Anterior Fibular Head Dysfunction does not mean orthopedic subluxation.

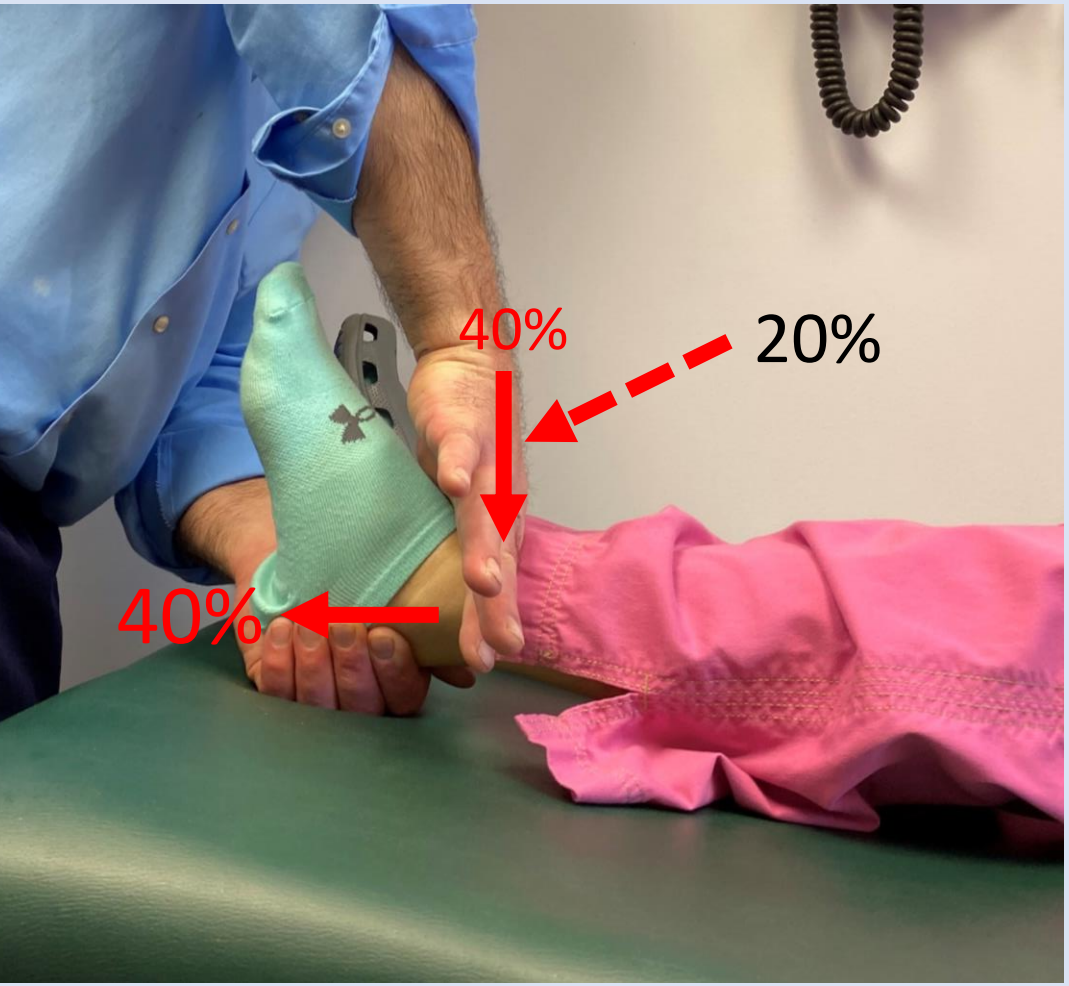
Towel in Lieu of Forearm

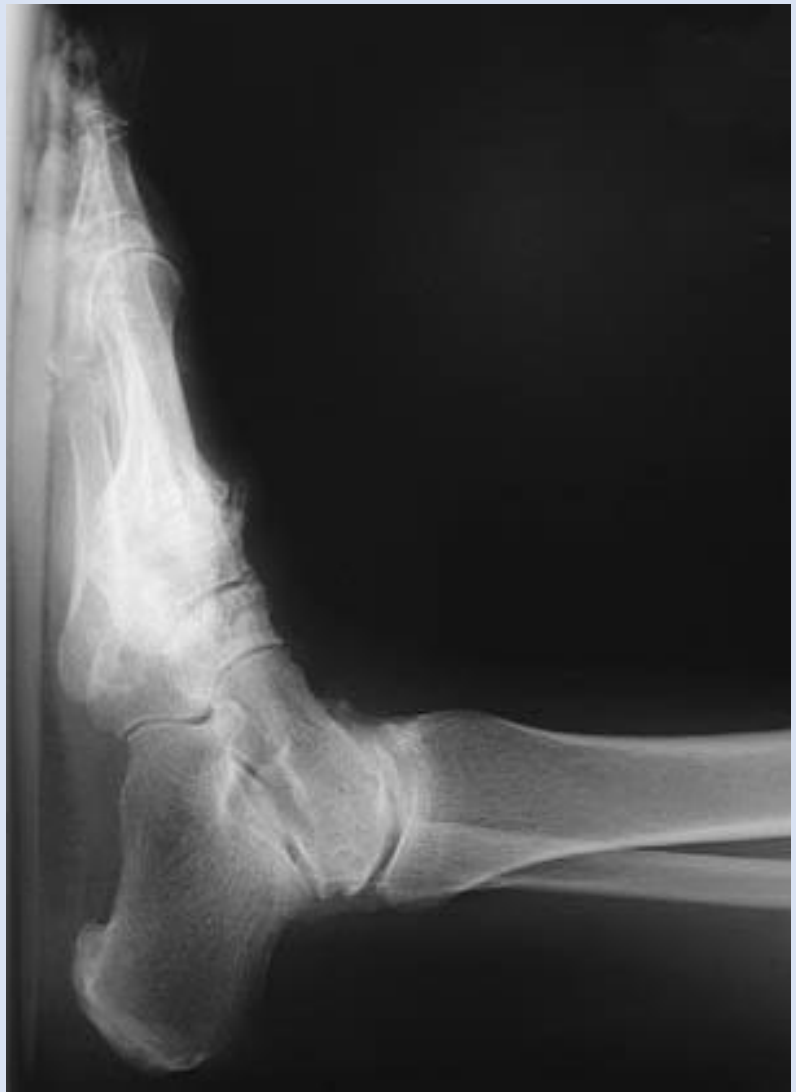
If Anterior – Pt supine
Leg straight and Dr's
Thenar vector slowly straight down
Into table

Consider ACL, LCL Stability
Sclerotherapy Candidate?

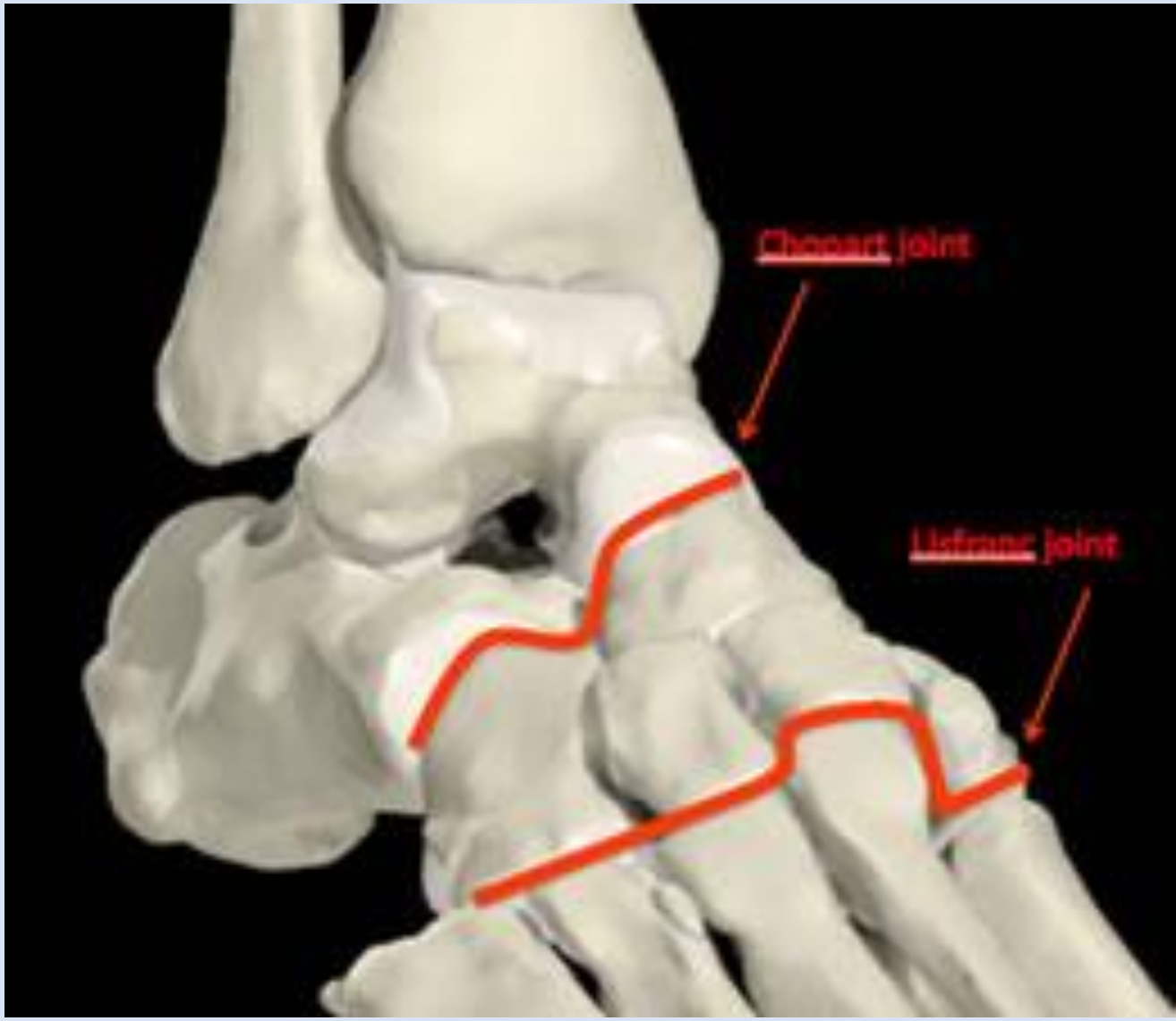


Ankle Mortise Osteopathic Dysfunction is usually stuck in anterior restriction, but is “jammed along the weight line”

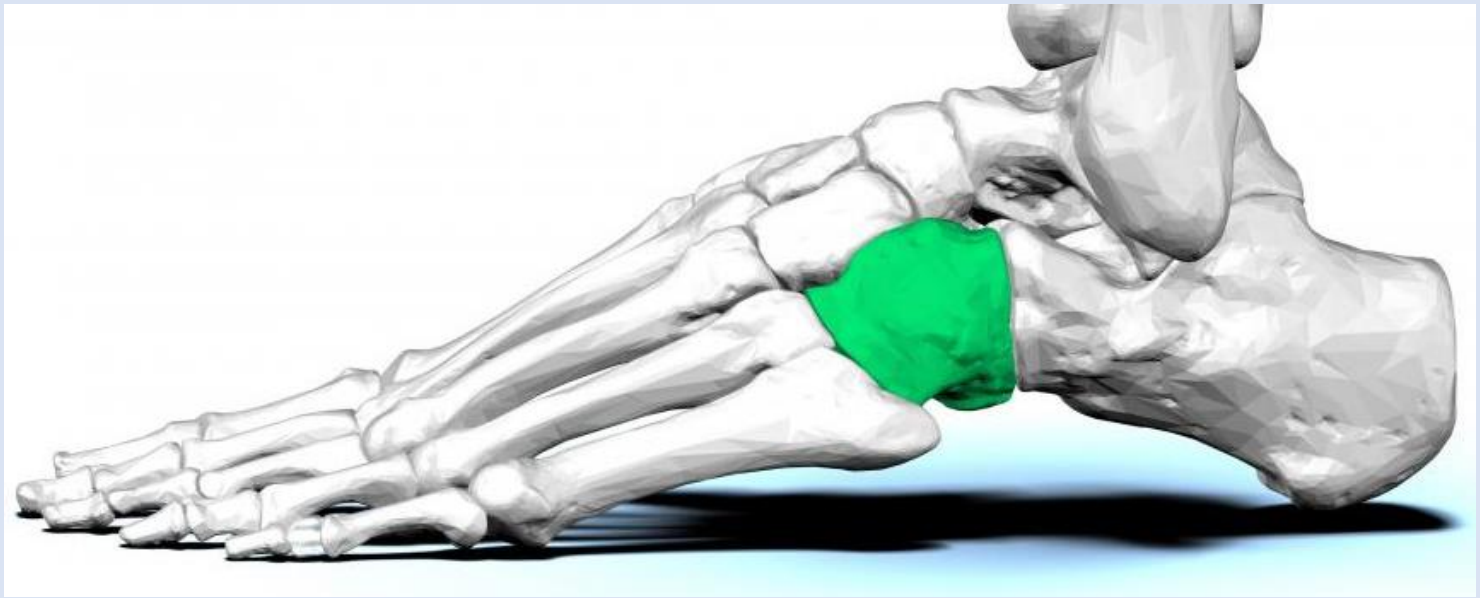




Midfoot Mobilization: artic or cranial, no ME



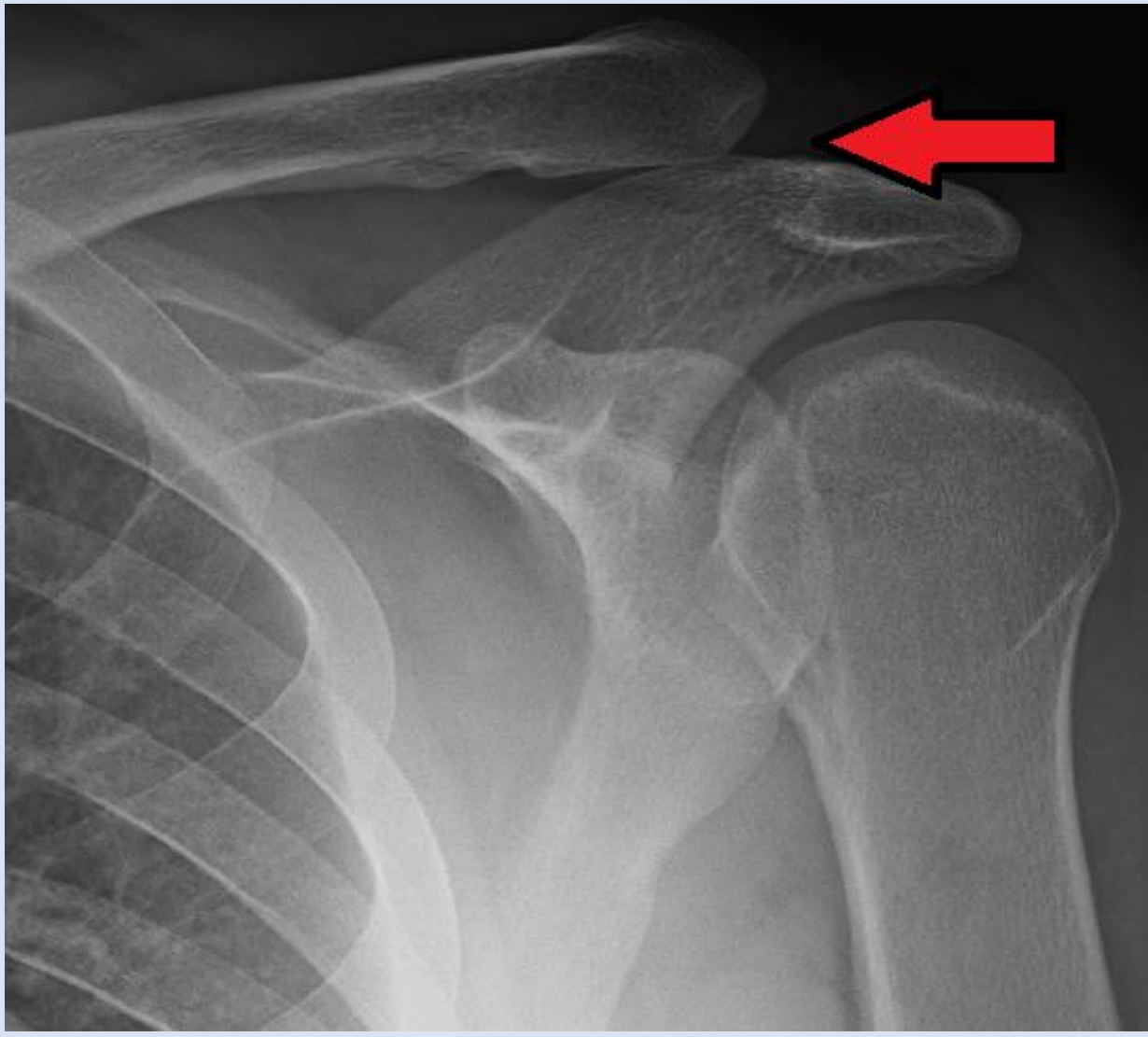
“Heel Whip” and Midfoot Mobilization



- Cuboid syndrome has been reported as difficult to recognize and is often misdiagnosed or improperly managed

Shoulder portion of UE

Osteopathic Dysfunction of AC is not separation, nor is Impingement or adhesive capsulitis but treating such entities from an Osteopathic standpoint must approach then as universally existing and best treated in concert.



Elbow

- Usually radial head
- Simple Pronation and Supination – resisted/advanced

Muscle energy II

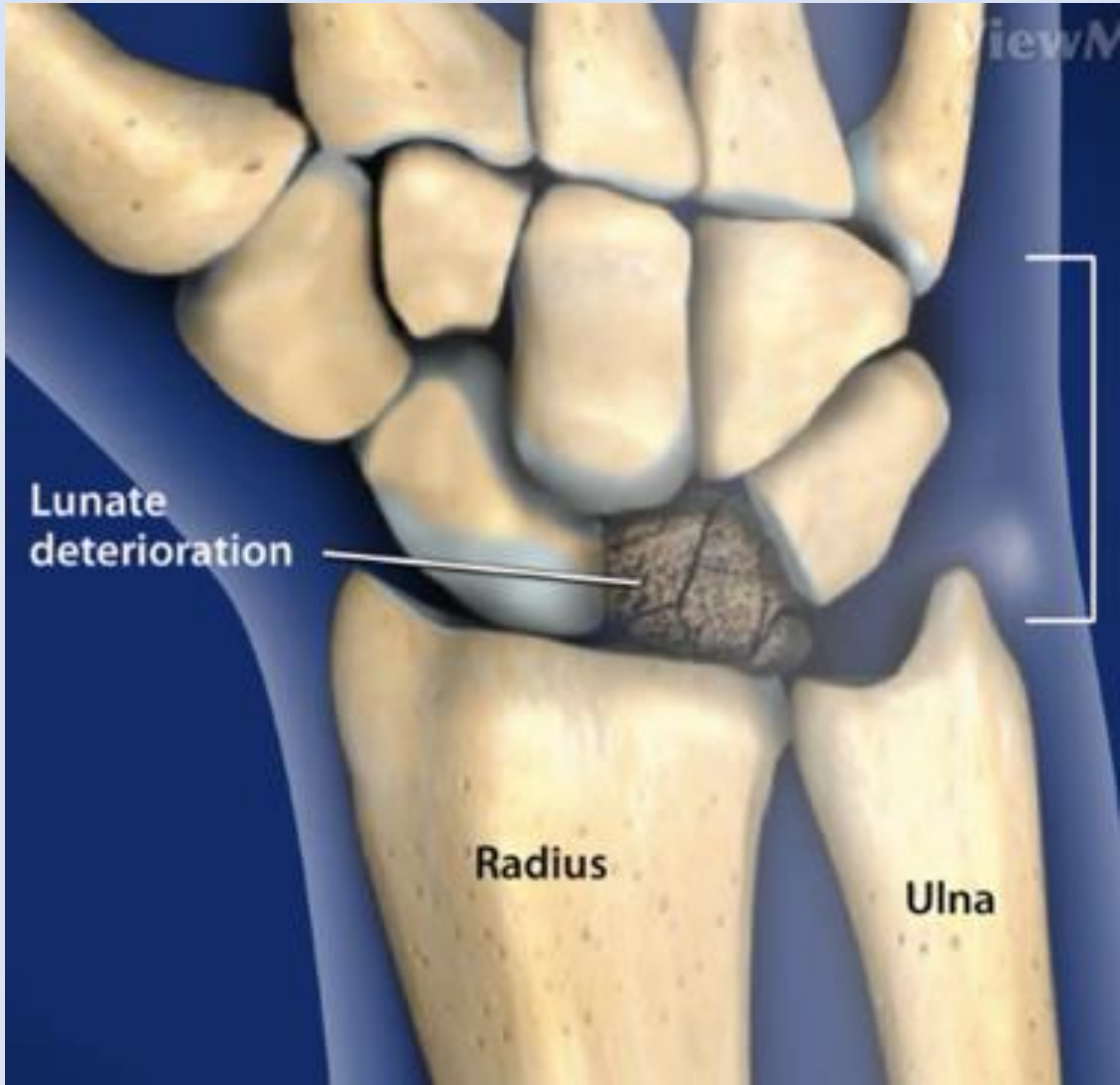
Rotatory assist pressure on radial head

Do not Gap or trust elbow

3 nutcrackers of the Elbow for peripheral nerve entrapment

Osteopathic Wrist Techniques

- Often Involve the Proximal Carpal Row usually dorsal osteopathic dysfunction
- Muscle Energy Type II
- Articulatory
- Cranial
- Facilitated Positional Release
- Kienbok's warrants mention



Wrist Techniques

- Loosely extend arm and wrist
- Let the weight of the arm hang down and retract – proximal row articulatory technique.
- Can have patient “resist neutral” ME II
- Pull wrist up like you are stopping the traffic
- Cranial – simply the R across the Joint
- FPR/Fascial Release supine elbow at 90, ice cream cone technique

SUMMARY – Safely Heading Home …

OMT is most effective as a pillar with context of advanced imaging and conventional pain mgmt & MSK techniques.

Thoracic is the easiest and a good starting point
2-3 positions of thenar eminence “pop” is not necessary
Ribs go along for the ride – usually
Top C7-T2 “tractional component” pillows/rolls/prone

Cervical Spine start with pillars
Tip toward/turn away, Direct and Indirect Release
Gentle nudge – articulatory rotation
Upper C spine? ME, LAR and stretching

Lumbar easy to do the roll –after K-Ville
Intimate with SIJ- tender side up
P=posterior innominate =popliteal

Sacral torsions/pubic often correct with Innominate/lumbar corrections and pubic as lowest energy state

Peripheral Joints can be MEII, Cranial or LAR/Still Technique

- Questions

My documentation is at end of this slide

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DISCLAIMER

These are my personal general OMT templates – I modify them often case-by-case and they don't specify Left/Right. They reflect how I personally document what I feel and perceive and how I verbally express my treatment for documentation. They are not endorsed by any organization, not Iron-Clad and have never been subjected to Medicare Audit, but have been received by and reimbursed in my area by third-party payors within the context of the rest of my NeuroMSKOrtho note.

Happy to email them to anyone in Microsoft word format, to edit.

If you choose to use them, use them as a starting point and make them what YOU feel and perceive.

TEMPLATE “OMT CTR”

Multiple areas of common osteopathic dysfunction, with associated rib dysfunctions mostly in inhalation, in addition to restrictions noted in Thoracic and Cervico-Thoracic junction, which had been identified and appreciated on initial physical exam, were treated transitioning from physical exam into treatment sequence.
The hydrocollator was removed from the supine patient. A Standard Kirksville maneuver with Tractional vector and F.U.E.L . acronym technique, approximately T1-4 flexed and T4,5,6 extended, was gently articulated. Specific attention was given to the C7-T1 which was articulated separately with extension hand-up move. Multi-level, bilateral rib dysfunctions reseated with the modified side bending and “K-ville” using the fulcrum more laterally. Lower thoracic mobilized from AP compression as well with side-bending consideration. Additional levels mobilized in neutral and lateral tractional rotational maneuver lifting the shoulder from the back and rolling towards me while placing a counter vector into the ASIS. Type II Muscle energy was used for pubic symphyseal gapping/articulation, following which the legs were ABDucted, the hips and knees flexed to end ROM and then reextended straight well tolerated and subjective improvement was noted.

TEMPLATE “UE OMT”

The lunate/ mid-wrist was re-seated and longitudinally gapped with pressure over the mid-wrist and a wrist extension muscle energy and whip technique. Ipsilateral AC joint was reseated with facilitated positional release and shoulder anterior rotation Radial head was verified without osteopathic restriction. Type II Muscle energy was used for pronation/Supination for ROM symmetry.

Template Exam-OMT dysfnx: PHYSICAL EXAM SECTION OF NOTE – justification for treatment

Multiple areas of intersegmental dysfunction are noted - Thoracic and Assoc rib. Approximating T1-4 flexion and 4-6 extension. C4,5,6 RrSl, T1/2 restricted with Assoc 1st rib restriction. Taut banding and trigger areas with tissue asymmetry along thoracodorsal fascial and well up into C spine. Unilateral posterior innominate with contralateral anterior with Assoc pubic symphyseal restriction. Minimal Up slip on posterior innom side, not on contralateral. L5/S1 rotated towards posterior innom and secondary sacral torsion with axis on contralateral side, with additional rostral lumbar dysfunction. No flexion or extension sacral dysfunction is appreciated. L restriction L1-4 is noted with tissue asymmetry and involuntary guarding.

TEMPLATE for OMT Sub-Occiput

Sub-occipital release techniques in a supine position were performed with use of type II muscle energy for rotation and nutation/counter-nutation appreciating the tight sub-occipital side on examination. Direct stretching without Type III muscle energy, V-spread techniques and OA /AA stretching with rocking and nudging but without high-velocity OA AA techniques were employed. Type II muscle energy is used for AA rotation in the direction of the restricted side.

TEMPLATE Lumbar Stabilization

Reviewed basic isometric abdominal stabilization program and core strengthening. Gave tactile and verbal feedback during pelvic tilt. Advised to hold for 10-20 seconds and rest for 10-20 seconds and 5-10 cycles in the evening such as during TV show, doing them during commercials etc. Explained how is it not quite a sit-up but similar, and they can progress to sit-ups. Advised to avoid Lumbar sacral extension, and focus on tightening their abdomen.

TEMPLATE Corner Stretches

Demonstrated “corner-stretches” as a home modality/exercise program for anterior chest stretching for 15-30 seconds and leaning in slowly, not jerking, as part of the myofascial home exercise/stretching program. Using a 90 degree corner and placing hands at or slightly below level of shoulder/GH region. Reviewed then alternating with the posterior rhomboid isotonic contractions with elbows at 90 and shoulder ABDucted, done in-between the corner stretches holding for 10-15 seconds and the corner stretches in between, and a TheraBand or other resistance can also be used. Reviewed that this is approaching myofascial pain as a type of relative deconditioning and is the early portion of a home exercise program.

Paraffin Bath. Deep Heat. Skin and MSK. TV. Raise Hands. Multiple Dips/Wrap.
Physician Wellness is Important (critical)/Underestimated