COMLEX LEVEL 1 & LEVEL 2 — PEER REVIEW RESOURCE

Comprehensive OMM Review Guide

High-yield, resident-authored COMLEX preparation. Covers the highest-tested OMM concepts — Chapman Points, Fryette Principles, Techniques, Ribs, Counterstrain, Sacral OMM, Cranial OMM, MSK Tests, and Viscerosomatics.

10 Content Sections	COMLEX 1 & 2 Coverage	Resident-Authored Resource

Important Disclaimer

This is not an exhaustive review. It is a peer-to-peer resource covering the highest-yield aspects of OMM for COMLEX Level 1 and Level 2, compiled from a variety of review resources. Use this as a blueprint in the days leading up to your exam. This should **NOT** be your sole preparation resource.

01

Chapman Points

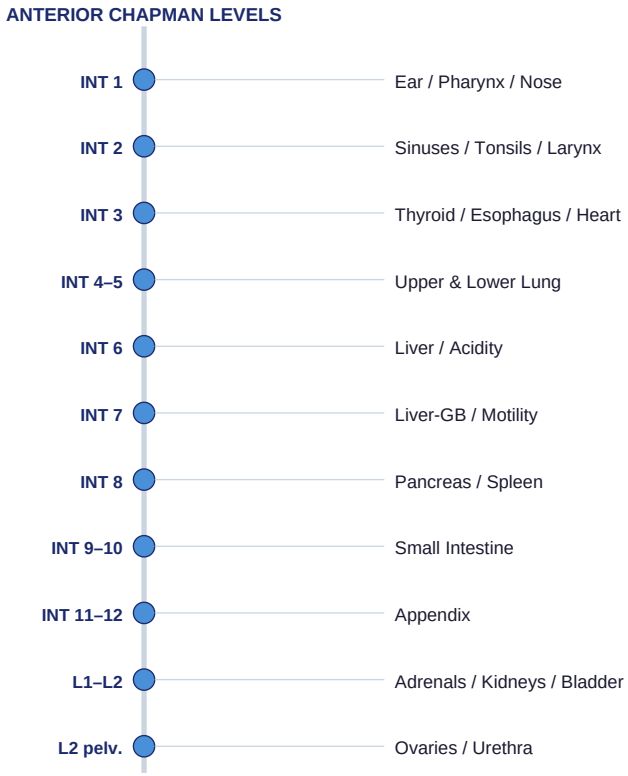
Viscerosomatic reflex reference — increased sympathetic tone

Core Concept

Chapman Points reflect an **increase in sympathetic tone** in a specific body region — a viscerosomatic reflex. Anterior points are diagnostic; posterior points are used for treatment. Know both locations and their anatomic descriptions in detail.

Level	Left / Bilateral	Right
INT 1	Ear, Pharynx, Nose	Pharynx
INT 2	Sinuses, Larynx/Tongue	Tonsils
INT 3	Thyroid/Esophagus/Myocardium	Heart (<3)
INT 4	Upper Lung	—
INT 5	Lower Lung	—
INT 6	Liver	Acidity
INT 7	Liver/Gallbladder	Motility
INT 8	Pancreas	Spleen
INT 9–10	Small Intestine	Small Intestine
INT 11–12	Appendix	—
L1–L2	Adrenals/Kidneys	Bladder/Ovaries/Urethra

Anterior Chapman Points — Spinal Level Reference



Posterior Chapman Points — Key Associations

Level	Left	Right
C1–C2	Ear	Ear
C2	Nose, Sinus, Tonsils, Larynx, Pharynx	←
T1–T2	Esophagus / Myocardium	Heart
T3–T4	Lung (bilateral)	←
T5–T6	SA node / Liver	Liver / Gallbladder
T6–T7	Spleen	Pancreas
T8–T10	Small Intestine	Small Intestine
T10–T12	Ovary	Ovaries
L1–L5	PSTS / Prostate / Vagina / Broad Ligament	←

02 TART Findings & Barriers

ACUTE TART	CHRONIC TART
• Boggy texture • Increased muscle tone • Edema • Warm, moist skin	• Ropy / stringy texture • Flaccid muscles • Cool, dry skin • Dull pain, atrophy

Key Point

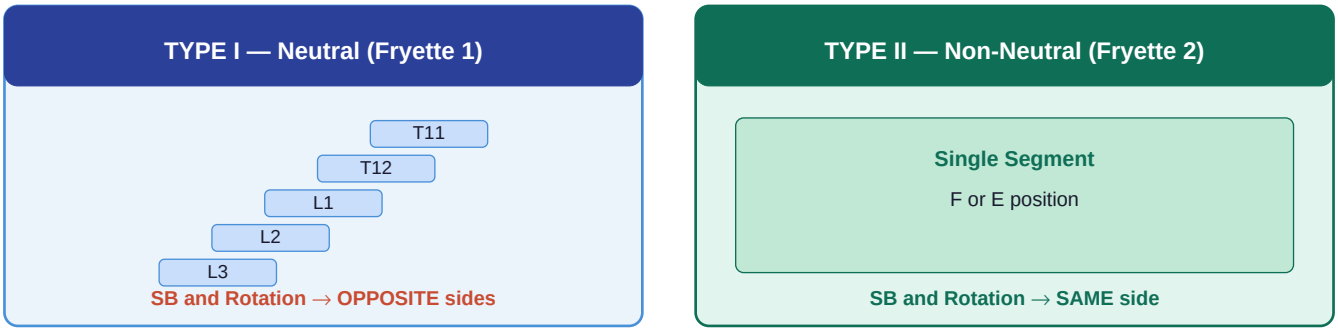
The **only subjective** TART finding is **Tenderness**. All other TART findings are objective. **Trigger point:** refers pain to another body part when pressed. **Tender point (Counterstrain):** does NOT refer pain when pressed.

Barrier	Definition
Physiologic	Patient moves actively — the limit of active motion
Anatomic	Physician moves the patient — the limit of passive motion
Restrictive	Somatic dysfunction limits motion before the physiologic barrier

03 Fryette Principles & Spinal Mechanics

Applies to thoracic and lumbar vertebrae only

Fryette Type I vs. Type II — Visual Reference



Principle	Position	SB / Rotation	Notes
Type I (Fryette 1)	Neutral	OPPOSITE sides	Group curve; neutral position; SB and R opposite
Type II (Fryette 2)	Non-neutral (F or E)	SAME side	Single segment; F or E position; SB and R same side

Regional Spinal Mechanics

Region	Primary Motion	SB/R Mechanics
Thoracic Spine	Rotation	Fryette principles apply
Lumbar Spine	Flexion / Extension	Fryette principles apply
OA (Occipitoatlantal)	Flexion / Extension	OPPOSITE SB/R — major motion is F/E
C1 — Atlas/AA	Rotation only	C1 on C2 — purely rotational; no F/E or SB
C2–C7	Sidebending	SB and R to the SAME side (Type II) — may also be neutral

Axis & Planes

Motion	Axis	Plane
Flexion / Extension (F/E)	Transverse axis	Sagittal plane
Rotation (R)	Vertical axis	Transverse plane

Motion	Axis	Plane
Sidebending (SB)	Anteroposterior (AP) axis	Coronal plane

Rule of 3s — Spinous Process (SP) to Transverse Process (TP)

Vertebral Levels	SP Location Relative to TP
T1–T3 and T12	SP at the SAME level as TP
T4–T6 and T11	SP is HALF a segment BELOW the TP
T7–T10	SP is at the TP of the SEGMENT BELOW

Spinal Landmarks

Landmark	Level	Landmark	Level
Vertebral Prominens (C7)	SP of C7	Nipple line	T4
Sternal Notch	T2	Inferior angle of scapula	SP of T7 / TP of T8
Sternal Angle (angle of Louis)	SP of T4	Umbilicus	T10
Spine of scapula	T3	ASIS (reference)	L4–L5

04

OMM Technique Rapid Reference

Direct vs. Indirect | Active vs. Passive | Mechanism

Direct Techniques	Indirect Techniques	Both Direct & Indirect
Muscle Energy (ME) Active, patient pushes **HVLA** Passive, physician thrusts **Lymphatic / Chapman** Passive **Articulatory** Passive, low-vel. high-amp. **Stretching** Passive, elongates muscle	**Counterstrain (CS)** Passive, fold & hold 90 sec **FPR** Facilitated Positional Release Passive **BLT** Balanced Ligamentous Tension Passive, hold to release	**Still's Technique** Combines direct, indirect and passive phases

Technique	Direct / Indirect	Active / Passive	Key Detail
Muscle Energy (ME)	Direct	Active (patient)	MAD — into barrier, push toward freedom 3–5 sec; targets Golgi tendon organs
Counterstrain (CS)	Indirect	Passive	CIP — fold and hold 90 seconds; position of comfort; targets muscle spindles
HVLA	Direct	Passive (physician)	HPD — high velocity, low amplitude thrust; resets Golgi tendon organs
Lymphatic / Chapman	Direct	Passive	Promotes lymphatic drainage; Chapman points use direct passive technique
FPR	Indirect	Passive	Facilitated Positional Release — indirect + passive; add compression or torsion

Technique	Direct / Indirect	Active / Passive	Key Detail
BLT	Indirect	Passive	Balanced Ligamentous Tension — into freedoms, hold until release felt
Still's Technique	Direct + Indirect	Passive	Combined direct, indirect, and passive — unique three-phase technique
Articulatory	Direct	Passive	Low velocity, high amplitude; engage barrier (e.g., rib raising, Spencer's)
Stretching	Direct	Passive	Elongate the muscle; direct passive technique

Clinical Pearl — Patient Selection

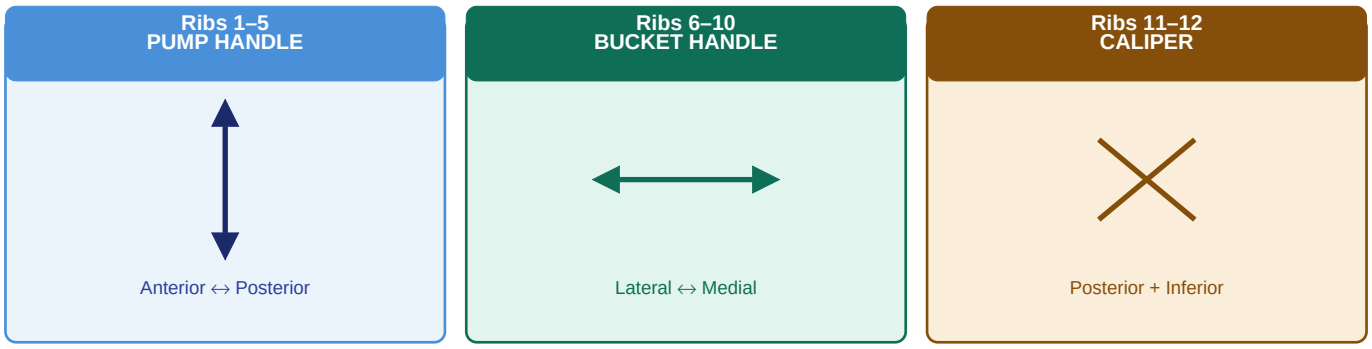
Use direct techniques for younger patients with non-painful, chronic dysfunctions.
Use indirect techniques for older patients with acute or painful conditions.

HVLA — Contraindications

Absolute Contraindications	Relative Contraindications
• Osteoporosis • Osteomyelitis • Fracture (any bone) • Bone metastasis • Rheumatoid arthritis (RA) • Down syndrome (atlantoaxial instability)	• Whiplash injury • Pregnancy • Herniated disc / radiculopathy • Vertebral artery insufficiency • Anticoagulation therapy

05 Ribs & Respiration

Rib Motion Patterns — Visual Reference



Rib Classification

Category	Ribs	Key Features
Typical	3–10	Standard rib anatomy and mechanics
Atypical	1, 2, 11, 12	Atypical if the rib number contains a 1 or 2
True Ribs	1–7	Attach directly to sternum via costal cartilage
False Ribs	8–12	Do not attach directly to sternum
Floating Ribs	11–12	No anterior attachment whatsoever

Rib Motion Mechanics

Ribs	Motion Type	Inhalation	Exhalation
1–5	Pump handle	Move anterior and superior	Move posterior and inferior
6–10	Bucket handle	Move lateral and cephalic	Move medial and caudal
11–12	Caliper	Move posterior and inferior	Move superior and anterior

BITE Mnemonic — Key Rib Treatment by Muscle

Rib 1 (Inhalation dysfunction): Anterior/Middle Scalene
Rib 2 (Exhalation dysfunction): Posterior Scalene
Ribs 3–5 (Exhalation dysfunction): Pectoralis Minor
Ribs 6–8 (Exhalation dysfunction): Serratus Anterior via Muscle Energy
Ribs 9–12: Latissimus Dorsi or Quadratus Lumborum (QL)

Scalene Muscle — Respiratory Role

Anterior/Middle scalene: assist exhalation (attach to rib 1). **Posterior scalene:** assist inhalation (attach to rib 2). QL attaches to rib 12 and TP of L1–L4; supports exhalation. Diaphragm attaches at ribs 6–12 and L1–L3.

High-Yield Muscular Attachments

Muscle	Attachment Points
Latissimus Dorsi	Ribs 9–12, T7–T12, inferior angle of scapula
Psoas Major	Bodies of T12–L5, transverse processes (TP) of L1–L5
Serratus Anterior	Upper 8 ribs and intercostal membranes (inner surface)
Quadratus Lumborum (QL)	Rib 12, TP of L1–L4
Diaphragm	Ribs 6–12, L1–L3 (via crura)

06 Counterstrain Tender Points

Anterior Lumbar Counterstrain (AL) — Setup Positions

Point	Location	Treatment Position
AL1	Medial to ASIS on iliopectineal line	Hip flexion, slight SB toward, rotation away

Point	Location	Treatment Position
AL2	Medial to AL3 on iliopectineal line	Flex hip, SB toward, rotation away
AL3	Lateral aspect of superior pubic ramus	Flex hip, abduction, internal rotation
AL4	Superior aspect of pubic ramus	Flex hip, abduction, internal rotation
AL5	Near pubic symphysis / inferior arcuate line	Flex hip, adduction, internal rotation

Posterior Lumbar / Pelvic Counterstrain — Setup

Tender Point	Treatment Position
Piriformis	Flex hip, abduct, external rotation
Upper L5	Extend hip, adduct, internal rotation
Lower L5	Flex hip, adduct, internal rotation
Gluteus Medius	Extend hip, abduct, external rotation
L1–L5 TP/SP points	Extend, adduct, and rotate (toward side of TP)

Anterior Thoracic CS — Treatment Rule

Ribs 1–6: Flexion only (no rotation or sidebending)
Ribs 7–12: Flexion + SB toward the tender point + Rotation away
Posterior thoracic TPs: Extend + add SB and R AWAY from TP (if non-midline)

Anterior Rib Tender Points (AR) for Counterstrain

Point	Location	Treatment Position
AR1	Below the clavicle at first chondrosternal articulation	Supine; flex, SB, and rotate cervical-thoracic spine toward point
AR2	Superior aspect of 2nd rib at midclavicular line	Same as AR1
AR3–AR10	On the rib at the anterior axillary line	Seated; flex, SB, and rotate toward the tender point

Posterior Cervical Tender Points (PC) for Counterstrain

Point	Location	Treatment
PC1 inion	Inferior nuchal line, lateral to inion	OA flexion; minor SB toward, rotation away
PC1 occiput	Inferior nuchal line: midway between inion and mastoid (splenius capitis)	OA extension; mild head compression, slight SB + rotation away
PC2 occiput	Inferior nuchal line within semispinalis capitis	OA extension; mild compression, slight SB + rotation away
PC2 midline	Superior or superolateral tip of C2 spinous process	OA extension; mild compression, slight SB + rotation away
PC3 midline	Inferior or inferolateral tip of C2 spinous process	Flexion; SB away, rotation away
PC4–PC8 midline	Inferolateral tip of SP above dysfunctional segment	Extension; slight SB and rotation away
PC3–PC7 lateral	Posterolateral tip of articular process on dysfunctional segment	Extension; slight SB and rotation away

07 Spinal Facts, Short Leg & Viscerosomatics

High-Yield Spinal Conditions

Condition	Key Points
Erector Spinae (SILO)	Spinalis, Iliocostalis, Longissimus — from medial to lateral
Spinal Stenosis	Hypertrophy of facet joints OR Ca in ligamentum flavum; positive shopping cart sign (relief with forward flexion)
Spondylolisthesis	Anterior slippage of one vertebra on another; defect in pars interarticularis; pain with EXTENSION; lateral X-ray
Spondylolysis	Fracture of the pars interarticularis (no slippage); Scotty dog collar sign on oblique X-ray

Short Leg Syndrome

Finding	Side
Sacral base — LOWER	Side of the SHORT leg
Anterior innominate rotation	Side of the SHORT leg
Posterior innominate rotation	Side of the LONG leg

Heel Lift Protocol

Step 1 — Always: OMM first to correct all dysfunctions. Re-evaluate. If discrepancy persists, obtain imaging.
Young patients: Start with 1/8 inch lift. **Older patients:** Start with 1/16 inch lift.
Maximum inside shoe: 1/4 inch. Remainder goes outside the shoe.
Total maximum: 1/2 inch — UNLESS the discrepancy is trauma or surgery induced (may correct entire discrepancy).

Viscerosomatics — Spinal Levels (High Yield)

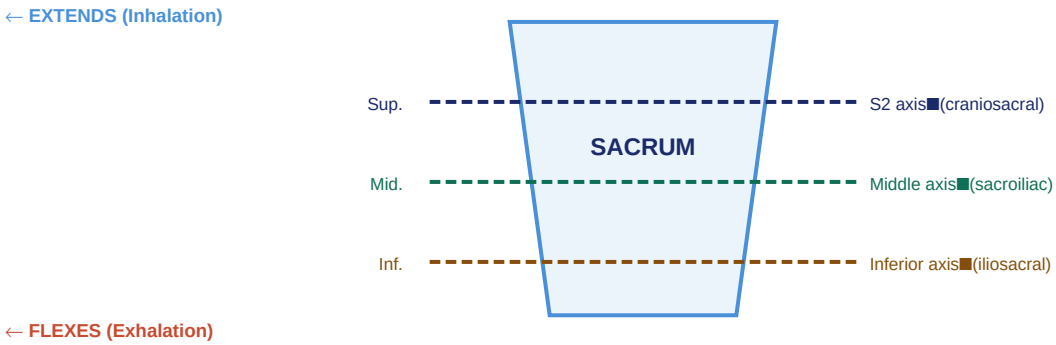
Structure	Level	Structure	Level
Head and Neck	T1–T4	Kidneys	T10–T11
Heart	T1–T5	Upper Ureters	T10–T11
Respiratory System	T2–T7	Lower Ureters	T12–L1
Esophagus	T2–T8	Bladder	T11–L2
Upper GI Tract	T5–T9	Gonads	T10–T11
Middle GI Tract	T10–T11	Uterus / Cervix	T10–L2
Lower GI Tract	T12–L2	Erectile Tissue	T11–L2
Appendix	T12	Prostate	T12–L2
Arms (upper extremities)	T2–T8	Legs (lower extremities)	T11–L2

08

Sacral OMM

Torsions, seated flexion test, spring test, L5 diagnosis

Sacral Axes — Visual Reference



Core Sacral Mechanics

Sacrum moves **OPPOSITE** to the spine (flex forward → sacrum extends).
Sacrum **EXTENDS** during **inhalation**; **FLEXES** during **exhalation**.
In sacral torsion, **L5 rotates AWAY from the sacrum**.
Birthing causes a **bilateral sacral flexion** dysfunction.

Seated Flexion Test (SFT) & Spring Test Interpretation

Test	Result	Finding	L5 Diagnosis
SFT	Positive (+)	Side of + SFT = opposite side is sacral axis	L5 SB to same side as axis (opposite + SFT side); Type II — SB and R same side
Spring Test	Positive (+)	Sacrum in EXTENSION (backward torsion or unilateral extension)	L5 non-neutral (F or E); R and SB same side
Spring Test	Negative (–)	Forward torsion; sacrum in flexion	L5 neutral (Type I); SB OPPOSITE sacral rotation — negative is neutral
Sphinx Test	Positive (+)	Increased asymmetry of sacral sulci on lumbar extension	Backward torsion or unilateral sacral extension

Sacral Torsion — Diagnosis & Muscle Energy Treatment

Sacral Torsion	L5 Diagnosis	ME Treatment Position
Forward — Left on Left	NS(L)R(R)	Lateral recumbent; axis DOWN; torso rotated TOWARD table
Forward — Right on Right	NS(R)R(L)	Lateral recumbent; axis DOWN; torso rotated TOWARD table
Backward — Right on Left	F or E — R(L)S(L)	Lateral recumbent; axis DOWN; torso rotated AWAY from table
Backward — Left on Right	F or E — R(R)S(R)	Lateral recumbent; axis DOWN; torso rotated AWAY from table

Sacral Counterstrain Tender Points

Tender Point	Location
PS1	Medial to PSIS at the S1 level
PS2, PS3, PS4 (midline)	Midline on sacrum at the corresponding sacral level
PS5 (bilateral)	Medial and superior to the ILA (inferior lateral angle)

Sacral Axes & Ligament Summary

Superior transverse axis (S2): Craniosacral rhythm motion
Middle transverse axis: Sacroiliac (SI) axis
Inferior transverse axis: Iliosacral axis
Sacrospinous ligament: Separates greater and lesser sciatic foramina

09 Cranial OMM

Primary Respiratory Mechanism, Cranial Nerves & Vault Hold

Flexion vs. Extension Phase — Visual Reference

FLEXION PHASE

- SBS rises (cephalad)
- AP diameter decreases
- Transverse: wider
- Paired bones: external rot.
- Sacrum: counternutation
- Mastoids: move medial

EXTENSION PHASE

- SBS descends
- AP diameter increases
- Transverse: narrower
- Paired bones: internal rot.
- Sacrum: nutation (anterior)
- Mastoids: move lateral

Cranial Nerve — Bone Associations

Cranial Nerve(s)	Associated Bone	Clinical Note
CN I (Olfactory)	Ethmoid bone	Smell / olfactory dysfunction
CN II–VI	Sphenoid bone	Vision, eye movement, facial sensation, mastication
CN VII–IX	Temporal bone	Tinnitus or hearing changes if temporal bone dysfunction
CN IX–XI	Temporal + Occipital bones	Swallowing, vagus nerve, SCM/trapezius

Cranial Nerve(s)	Associated Bone	Clinical Note
CN XII (Hypoglossal)	Occipital bone	Poor sucking reflex in newborn → condylar compression

Primary Respiratory Mechanism (PRM)

Normal rate: **10–14 cycles/minute**. Involves: CNS, CSF, dura, cranial bones, and sacrum.

5 Components: (1) Inherent mobility of the brain and spinal cord | (2) CSF fluctuation | (3) Intracranial and intraspinal membrane movement | (4) Cranial bone articular mobility | (5) Involuntary movement of the sacrum and ilia.

Factor	Effect on Cranial Rhythm
Exercise, fever, OMM treatment	INCREASES cranial rhythmic impulse
Stress, depression, fatigue, chronic infection	DECREASES cranial rhythmic impulse

Key Cranial OMM Techniques

Technique	Description
CV4 (4th Ventricle Compression)	Enhances cranial rhythmic impulse; resist occiput flexion, enhance extension until still point; indirect, passive
V-Spread	Applied at any cranial suture to restore normal motion; occiputomastoid suture used to balance vagus nerve (CN X)
Parietal Lift	Corrects dysfunction at the squamous suture (temporal-parietal)
Vault Hold	Primary diagnostic technique; specific finger placement over cranial bones (see below)

Vault Hold — Finger Placement (Commonly Tested)

5th digit (pinky): Squamous portion of occiput, medial to occipitomastoid suture
4th digit (ring finger): Petrous portion of temporal bone, near mastoid process
3rd digit (middle finger): Squamous portion of temporal bone (approximating zygomatic process of temporal)
2nd digit (index finger): Greater wing of the sphenoid
Thumbs: Either meet and cross above the cranium OR rest on the frontal bone — both positions are acceptable

Key Cranial Sutures

Suture	Bones Involved	Clinical Note
Occipitomastoid	Occiput + Temporal	V-spread here balances vagus nerve (CN X)
Lambdoidal	Occiput + Parietal	Posterior cranial suture
Sphenobasilar Synchondrosis (SBS)	Occiput + Sphenoid	Primary cranial joint; site of flexion/extension, torsions, strains
Squamous	Temporal + Parietal	Parietal lift corrects dysfunction here

Sphenoid/Occiput — High-Yield Rules

Sphenoid and occiput rotate on AP axis in the **same direction** and on 2 vertical axes in **opposite directions**.
When sphenoid and occiput rotate **right** on the vertical axis, their bases move **laterally to the left**.
Vertical strain: cephalad or caudad movement of the sphenoid base relative to the occiput.
Dural attachments: foramen magnum, C2 (axis), C3, S2.

10 MSK Special Tests, Fibular Head & Radial Head

MSK Special Tests — High Yield

Test	Condition Tested	Positive Finding
Drop Arm Test	Supraspinatus tear	Patient cannot hold arm abducted at 90° — arm drops
Spurling Test	Cervical radiculopathy (narrow neural foramen)	Axial head compression reproduces shooting arm pain
Wallenberg Test	Vertebral artery insufficiency	Dizziness or nystagmus with neck flexion while supine
Adson Test	Thoracic Outlet Syndrome (TOS)	Radial pulse diminishes with arm positioning and head rotation
Allen Test	Radial/ulnar artery patency to hand	Sequential occlusion reveals dominant blood supply (flushing pattern)
Phalen Test	Carpal Tunnel Syndrome	Paresthesias in median nerve distribution with wrist dorsiflexion held together
Apley Scratch Test	Rotator cuff mobility (overall)	Asymmetric reach behind the head and back
Yergason Test	Bicipital tendonitis	Pain at bicipital groove with resisted forearm supination
Neer Test	Subacromial impingement syndrome	Pain with passive internal rotation and forward shoulder flexion
Thomas Test	Iliopsoas contracture / tightness	Hip cannot fully extend supine; treat with bilateral hip flexion + SB toward tender side
FAIR Test	Piriformis syndrome	Pain with flexion, IR, and abduction while prone; TP midway between sacral ILA and greater trochanter
Ober Test	IT Band hypertonicity	Hip abduction contracture in side-lying position
Patrick / FABER Test	Sacroiliitis or hip pathology	Flexion, Abduction, External Rotation reproduces groin/SI joint pain
ASIS Compression Test	Sacroiliac joint dysfunction	Pain with bilateral compression of the ASIS inward

Fibular Head Mechanics

Foot/Ankle Motion	Fibular Head Glide	Clinical Association
Pronation (dorsiflexion, eversion, abduction)	Moves ANTERIORLY	Ankle sprain (inversion injury) → posterior fibular head dysfunction
Supination (plantar flexion, inversion, adduction)	Moves POSTERIORLY	Posterior fibular head → peroneal nerve entrapment risk

Fibular Head Key Points

Posterior fibular head: **ease** with plantar flexion and inversion; **restriction** in dorsiflexion and eversion.
"Anterior lateral malleolus" = malleolus restricted in **posterior glide**.

Radial Head Mechanics

Forearm Motion	Radial Head Glide Direction
Pronation	Glides POSTERIOR
Supination	Glides ANTERIOR

Nursemaid's Elbow (Pulled Elbow / Radial Head Subluxation)

Child presents with elbow **flexed, adducted, and pronated** after axial traction on the arm.
Increased carrying angle: Ulna abducts, wrist adducts. **Decreased carrying angle:** Inverse relationship.