
Diversified Adjusting Procedures

General Rules

When preparing to demonstrate diversified adjusting procedures, think about the following setups.

- A) Is the patient properly gowned or skin exposed for the adjustment?
- B) When you learn the vertebral level or area to be adjusted analyze your requirements with respect to:
 - 1) The table set-ups: head piece, abdominal piece, pelvic piece, foot piece.
 - 2) Patient position and comfort for proper adjustment setup.
- C) Examine (palpate) and mark the area with a skin marking pencil.
 - 1) Be ready to demonstrate doctor position: proper stance and direction.
 - 2) Proper hand contacts on the part to be adjusted.
Inferior/superior hand: pisiform, thenar, flat thumb, hand heel, etc.
 - 3) Non-adjusting hand in the proper position.
 - 4) Type of thrust required to make the adjustment.
Recoil, lunge and hold, impulse, shoulder drop, body drop.
- D) Proper attention to the patient following the adjustment is essential.

References: Motion Palpation and Chiropractic Technique, R. C. Shafer, D.C., L.J. Faye, D.C., Second Edition; The Motion Palpation Institute.

Fundamentals of Chiropractic Techniques and Practice Procedures, Otto C. Reinert, D.C., FICC. Fifth Edition; Marian Press Inc.

Pelvic Adjusting Procedures

Prone Moves

Posterior Ilium Prone A: Patient prone, head piece level or slightly lowered. Shoulders spaced approximately one inch below the head piece. Abdominal piece unlocked. Pelvic piece positioned just below the greater trochanter. Foot piece up. Doctor facing superior at 45° on the side of subluxation. Inferior hand pisiform on the PSIS, torque fingers laterally. LOD is anterior - body lunge and hold.

Posterior Ilium Prone A-Modified: Patient and table position same as above. Doctor facing superior at 45° on the side of subluxation. Inferior hand is under the thigh of the patient just above the knee. Patient knee may be extended or flexed to 90°. Adjusting hand is the superior hand, pisiform contact on the PSIS with fingers directed medially across the sacrum. Superior hand applies anterior pressure on the PSIS, Inferior hand raises thigh to lock out the joint. LOD is anterior with adjusting hand-body lunge and hold.
Note: Pollicus contact may be used instead of the pisiform. Superior hand pollicus on the PSIS with **fingers directed laterally**.

Posterior Ilium Prone B: Patient and table position same as above. Doctor stands on side opposite subluxation, facing patient at 90°. Inferior hand pisiform on the PSIS with fingers directed laterally. Superior hand placed anterior under T8-T10 ribs tractioning posterior. LOD is anterior with inferior hand - shoulder drop and hold.

Anterior Ilium Prone Move: Patient and table position same as above. Doctor stands on same side as subluxation facing superior at 45°. Superior hand cup the ASIS, inferior hand pisiform or hand heel on the sacrum. LOD is posterior with superior hand - shoulder shrug.

Side Posture

Posterior Ilium Side Posture: Patient side posture with subluxation up. Head piece up, abdominal piece locked, pelvic piece close to abdominal piece, foot piece lowered. Patient leg against table is extended, upper leg is flexed to 90°. Patient inferior hand crossed to superior shoulder. Doctor facing superior at 45°. Patient flexed leg is stabilized between doctor's legs. Inferior hand pisiform on the PSIS with fingers directed laterally. Superior hand stabilizing patient shoulder. LOD is anterior with adjusting arm parallel to the ground and perpendicular to the patient -thrust from the shoulder and hold.

Pelvic Adjusting Procedures - Side Posture Continued

Inferior Ilium Side Posture: Patient side posture with subluxation up. Head piece up, abdominal piece locked, pelvic piece close to abdominal piece, foot piece lowered. Patient leg against table is extended, upper leg is flexed to 90°. Patient inferior hand crossed to superior shoulder. Patient flexed leg is stabilized between doctor's legs. Doctor position same as above, except hand heel contact on the ischial tuberosity with inferior hand, fingers directed superior toward the iliac crest. Superior hand braces patient shoulder inferior to assist lock out. LOD superior with inferior hand - thrust from the shoulder and hold.

Posterior-Inferior Ilium Side Posture: Patient and table position same as above. Doctor position same as above except hand heel contact on the PSIS fingers directed anterior-superior, elbow directed posterior-inferior at 45°. LOD is anterior-superior, thrust is from the shoulder and hold

Anterior Ilium Side Posture - ASIS Contact: Patient and table position same as above. Doctor position same as above except superior hand stabilizes the patient shoulder. Inferior hand hooks ASIS, drop forearm across both PSIS to brace the sacrum. LOD posterior with elbow directed to the floor - body drop and hold.

Anterior Ilium Side Posture - Ischial Contact: Table position same as above, patient side posture subluxation up. Hands overlapped across lateral ribs 9-10. Doctor same position as above except both legs positioned below patient bent knee to traction leg superior. Inferior hand contact on the ischium either pisiform or hand heel, superior hand over patient's hands to stabilize. LOD anterior on ischium - shoulder thrust and hold.
Note: This is a long lever move.

Anterior-Superior Ilium Side Posture: Table position same as above. Patient side posture with shoulders squared to the table, patient inferior hand crossed to superior shoulder. Doctor straddles bent knee, superior hand supports the patient shoulder, inferior hand cups anterior-superior aspect of ASIS with forearm directed posterior-inferior at 45° between the PSIS and the ischium. LOD posterior-inferior at 45° - body drop and hold.

Superior Ilium Side Posture: Table position same as above. Patient side posture with shoulders squared to the table, patient inferior hand crossed to superior shoulder. Doctor straddles patient bent leg, superior hand tractions patient shoulder superior. Inferior hand web contact into popliteal fossa of the bent knee. Superior thigh of doctor assists with inferior traction of the patients flexed leg. LOD inferior with a shoulder drop.
Note: This is a long lever move.

Lumbar Adjusting Procedures

Prone Disc Moves - Terms used: Open wedge, lateral flexion malposition.

Posterior Lateral Disc - L4/5 and above Thumb Pisiform

Patient prone, foot piece 3rd notch, head piece level, pelvic piece below the level of the greater trochanters, abdominal piece unlocked - with tension (support).

Doctor stands on the side of open wedge facing superior at 45°. Superior hand flat thumb into the open wedge, inferior hand on the high mammillary of the superior vertebra.

LOD is anterior-medial with the superior hand for the disc, inferior hand torque anterior-superior to close the open wedge. Adjustment is a body drop and hold.

Posterior Lateral Disc - L5/S1 and L4/L5 Thumb Pisiform

Patient and table position same as above. Head may be turned toward the side of involvement or straight down. Doctor stands on side of open wedge facing superior at 45°, superior hand is a flat thumb into the open wedge. Inferior hand pisiform on the sacral ala same side, locked into thumb of the superior hand.

LOD is anterior-medial with superior hand for the disc, anterior-superior torque with pisiform to close wedge. Lean in body drop and hold.

Posterior Lateral Disc with Rotation - Double Thumb

Patient and table position same as above. Doctor stands on side of open wedge facing superior at 45°, superior hand is flat thumb into open wedge, inferior hand flat thumb on high mammillary of the superior vertebra.

LOD is anterior-medial for disc, anterior-superior on high mammillary for rotation and lateral flexion. Lean in, body lunge and hold. **Note:** L5/S1 (or higher) can not affect facet without affecting the disc and vice versa.

Bilateral Posterior Disc (Usually L5/S1, or L4/L5) Double Thumb

Patient and table position same as above. Doctor stands on either side facing superior at 45°. Flat thumbs bilaterally into the open wedge.

LOD is anterior with slight inferior position through the disc plane, Episternal notch is slightly above the lesion. Body lunge and hold.

Note: AKA Flexion Malposition.

Posterior Lateral Disc (L5/S1, and L4/L5) Pisiform Leg Lift

Patient and table position same as above. Doctor stands on side of open wedge facing superior at 45°. Superior hand pisiform into open wedge, inferior hand wrapped around patient thigh just above knee on the same side as lesion. Set pisiform into open wedge, traction posterior first then lateral with thigh.

LOD is anterior-medial with pisiform, thrust is from the shoulder - body lunge and hold. **Note:** Superior hand contact can also be flat thumb into open wedge.

Lumbar Side Posture Disc Moves

Pull Through - Lateral Lift L4/L5 and L5/S1

Patient side posture head piece up, abdominal piece locked, pelvic piece touching abdominal piece, foot piece down. Disc involved side down superior leg bent.

Doctor stands at 45° facing superior. Traction patient bent leg inferior with your leg. Superior hand traction patient shoulder superior. Inferior hand around the ASIS with forearm bracing against the area of lesion, roll patient forward to take contact, roll back to neutral before adjusting.

LOD is medial lift (causes suction effect) - Lift with legs to lock out, quick short thrust by shoulder shrug and hold. **Note:** For patient who can not lay prone.

Accordion Move - Sacral Ala L4/L5 and L5/S1

Patient side posture, head piece up, abdominal piece unlocked, pelvic piece set at the greater trochanter, foot piece at 3rd notch. Doctor stands at 45° facing superior. Superior hand traction patient shoulder inferior. Inferior hand pisiform or hand heel on the sacral ala with superior-medial torque. Start with fingers directed superior torque contact medially toward the disc being adjusted.

LOD is inferior with superior hand, superior-medial with inferior hand - lunge together and hold. **Note:** For patient who can not lay prone.

Vertebral Rotation - Prone Moves

Thumb Pisiform

Patient prone, head piece level, abdominal piece unlocked, pelvic piece at greater trochanter, foot piece 2nd notch or higher. Doctor stands on side of spinous laterality facing superior at 45°. Superior hand distal thumb onto lateral side of spinous process, inferior hand pisiform high mammillary - same vertebra. LOD is medial with distal thumb, anterior with pisiform - body lunge and hold.

Note: Can not do this move at L5.

Double Thumb

Patient and table position same as above. Doctor Position same as above. Superior hand distal thumb on spinous process, inferior hand flat thumb on the high mammillary on the opposite side.

LOD is medial for spinous, anterior for mammillary - body lunge and hold.

Spinous Recoil

Patient and table position same as above. Doctor faces patient at 90° on the side of spinous laterality, feet shoulder width apart, knees bent, back flat. Have patient **turn head** toward the side of spinous laterality.

**** L1 and L2.** Superior hand pisiform on spinous process, inferior hand supports contact hand.

**** L4 and L5.** Inferior hand pisiform on spinous process, superior hand supports contact hand.

**** L3** Either hand position acceptable.

LOD anterior-medial. Lean in with episternal notch over adjusting hand, thrust is short quick thrust from slightly flexed arms to full extension - recoil off.

Lumbar Vertebral Rotation - Prone Continued

Single Mammillary

Patient and table position same as above. Doctor stands on the side of spinous laterality facing in at 90°.

** L1 and L2. Superior hand pisiform on the high mammillary.
Inferior hand under ASIS with posterior traction.

** L4 and L5. Inferior hand pisiform on the high mammillary.

Superior hand under the 9th and 10th ribs with posterior traction.

** L3.....Either hand position acceptable.

LOD is anterior with hand contact on the mammillary, non-adjusting hand traction posterior. Short thrust by shoulder drop and hold:

Note: Good move for older patients.

Pisiform Thumb - Facet Syndrome

Patient and table position same as above. Doctor stands on side of spinous laterality facing patient at 45°.

** L1 and L2 Doctor faces superior. Inferior hand flat thumb on high mammillary on the opposite side. Superior hand pisiform on the spinous process.

** L4 and L5 Doctor faces inferior. Superior hand flat thumb on high mammillary on the opposite side. Inferior hand pisiform on the spinous process.

** L3 Either stance acceptable.

LOD is medial with pisiform, anterior with flat thumb. Body drop and hold.

Note: Pisiform contact is a better move for a painful spinous process.

Side Posture

Single Mammillary

Patient side posture, head piece up, abdominal piece locked, pelvic piece supporting iliac crest, foot piece down, up leg flexed, spinous laterality down.

Doctor straddles patient bent leg facing superior at 45°. Superior hand stabilizes patient shoulder, inferior hand contact on the high mammillary, lock out anterior.

LOD is anterior - shoulder thrust and hold.

Note: Adjusting hand contact can be any of the following.

Pisiform.....Fingers directed laterally.

Hand heel.....Fingers directed laterally.

Flat thumb.....Fingers directed medially.

Thenar.....Fingers directed medially.

Lumbar Adjusting Procedures Continued

Retrolisthesis

Prone - Double Thumb

Patient prone, head piece level, abdominal piece unlocked, pelvic piece supporting iliac crest, foot piece up. Doctor stands on either side facing superior at 45°. Flat thumbs bilaterally, take tissue slack from inferior to superior.

Contacts on the mammillary processes.

LOD anterior-superior, body lunge and hold,

Side Posture - Thumb Index

Patient side posture, up leg flexed, head piece up, abdominal piece locked, pelvic piece supporting iliac crest, foot piece down. Doctor straddles bent leg facing superior at 45°. Superior hand stabilizes patient shoulder, inferior hand takes tissue slack from inferior to superior with flat thumb and lateral index on the mammillary process.

LOD anterior- superior, shoulder thrust and hold.

Lumbar Moves - Miscellaneous

Lateralisthesis

Patient side posture, up leg flexed, lesion side up. Head piece up, abdominal piece **unlocked**, pelvic piece below iliac crest, foot piece **3rd notch**. Doctor straddles patient flexed leg facing superior at 45°. Superior hand braces patient shoulder, inferior hand flat thumb onto spinal-laminar junction. Keep elbow of adjusting hand close to your body.

LOD is medial from shoulder - body lunge and hold.

Spondylolisthesis - For symptomatic relief only.

Patient supine, head piece up, abdominal piece **unlocked**, pelvic piece set at PSIS, foot piece 3rd notch. Patient braces with hands against pelvic piece. Doctor stands at foot of the table tractioning inferior with hands around the patient ankles. While tractioning inferior doctor applies inferior thrust, then flexes patient knees and hips to bring knees to chest. Doctor wraps arms around patient to contact the PSIS bilaterally. Doctor pulls anterior on the PSIS and leans in posterior with chest against the patient bent legs.

LOD posterior - shoulder drop and hold.

Note: If patient has knee problems doctor contact with inferior shoulder and arm bilaterally against patient popliteal fossa. Reach around to PSIS and thrust posterior.

For large patient, or female doctor, contact against patient anterior legs with forearms, thrust posterior.

Thoracic Adjusting Procedures

Rotary Malposition

Thumb Move T1-T3: Patient prone, head piece level, abdominal piece unlocked, foot piece up. There must be room for your hand between the face piece and the patient shoulder. Doctor can stand on either side or at the head of the table. Non-adjusting hand cups the patient ear, adjusting hand distal thumb against the spinous process. Laterally flex and rotate the patient's head toward the side of spinous listing. **Note:** From the head of the table dorsum of the adjusting hand is placed against the patient's trapezius with distal thumb directed medially. LOD medial - thrust is a shoulder lunge with the forearm parallel to the floor.

Superior Transverse T1-T3: Patient and table position same as above. Doctor stands at the head of the table, non-adjusting hand cups the patient's ear, with index and chiropractic index on the mastoid process. Traction superior and laterally rotate with non-adjusting hand. Adjusting hand is a flat thumb on the high transverse process. LOD anterior and slightly inferior - thrust is shoulder lunge, and hold. Keep adjusting arm elbow tucked in close to your body.

Spinous Recoil T1-T12: Patient prone, head turned toward the side of spinous listing, head piece level, abdominal piece unlocked, pelvic piece at greater trochanter. Doctor stands on the side of spinous listing facing the patient at 90°. Adjusting hand pisiform against the spinous process, non-adjusting hand supports the adjusting hand at the wrist.

- ** T1-T6 adjusting hand is the inferior hand.
- ** T7-T12 adjusting hand is the superior hand.

LOD is anterior- medial, recoil thrust and off.

Single Transverse T1-T12: Patient prone, head turned toward the side of high transverse process. Table position same as above. Doctor stands on side of high transverse process facing superior at 45°. Inferior hand pisiform on the high transverse process, superior hand supports adjusting hand at the wrist. LOD is anterior in the plane of the thoracic curve. Take to resistance - thrust is a straight arm lunge.

Pisiform Crossover T1-T4: Patient prone, head piece level or slightly down , abdominal piece unlocked, foot piece up. Doctor at head of patient facing inferior. Non-adjusting hand traction patient head superior from mastoid process and away from the high transverse process to lock out the cervical spine. Adjusting hand pisiform on high transverse process. Place adjusting hand contact first, then traction head. LOD anterior-inferior, impulse thrust and hold.

Thoracic Adjusting Procedures Continued

Counter Rotation

Double Pollicus AKA - Double Transverse

Patient prone, head piece level, abdominal piece unlocked, pelvic piece at the greater trochanter, foot piece up. Doctor stands on either side of the table, with bilateral pollicus contact on the high transverse processes.

LOD is anterior-superior-lateral in the plane of the thoracic curve. Thrust is to counter rotate - lunge and hold.

Double Pisiform AKA - Double Transverse

Patient and table position same as above. Doctor stands on the side of high transverse process of the inferior vertebra facing superior at 45°. Inferior hand pisiform on high transverse process of the inferior vertebra, superior hand crosses over to the high transverse process of the superior vertebra.

LOD is anterior-superior-lateral, thrust is lunge and hold.

Note: Place inferior hand contact first as in single transverse.

Disc Moves

Pisiform Traction T1/T2 and T2/T3

Patient prone with face turned toward the side of lesion, head piece level or down to patient comfort, abdominal piece unlocked, foot piece up. Doctor stands at head of the patient facing inferior. Non-adjusting hand palmar surface against patient suboccipital region, with pisiform against the EOP. Adjusting hand pisiform into the IVD space of the level to be adjusted. Doctor applies superior traction and flexion with non-adjusting hand. Doctor shifts to side of lesion to deliver the thrust. **Note:** Ice before adjustment.

LOD with adjusting hand anterior-medial, shoulder drop thrust and hold.

Thumb Pollicus (Thenar) Typical T1-T3

Patient prone, head piece level, abdominal piece unlocked, foot piece up. Doctor stands on the side of spinous listing and disc bulge facing superior at 45°.

Superior hand flat thumb into the IVD, LOD anterior-medial.

Inferior hand pollicus (thenar) on high transverse process of the superior vertebra, LOD anterior-superior. Thrust is delivered with arms extended, weight shifts from back leg to front leg. **Note:** For better results have the patient drop hands to the floor.

Thoracic Adjusting Procedures Continued

Disc Moves Continued

Thumb Pollicus Atypical T1-T3

Patient and table position same as above. Doctor opposite side of spinous listing, same side as disc bulge, facing superior at 45°. Superior hand flat thumb into the IVD space, LOD anterior-medial.

Inferior hand pollicus against the spinous process to rotate spinous process to midline. LOD medial with a superior torque, thrust is delivered with elbows flexed.

Pollicus Pisiform Typical T3 and Down

Patient and table position same as above. Doctor stands on the side of spinous listing, facing superior at 45°. Superior hand pollicus into the disc, LOD anterior-medial. Inferior hand pisiform on the high transverse process of the superior vertebra, LOD anterior-superior. Thrust is with arms straight, lunge and hold.

Note: Always place pollicus contact first.

Pollicus Pisiform Atypical T3 and Down

Patient and table position same as above. Doctor stands on the side of disc bulge facing superior at 45°. Superior hand pollicus into the disc, LOD anterior-medial. Inferior hand pisiform against the superior spinous process, LOD medial-superior. Thrust is quick impulse with both hands.

Pisiform Pollicus Typical

Patient and table position same as above. Doctor stands on the side of open wedge facing superior at 45°. Superior hand pisiform into the open wedge, LOD anterior-medial. Inferior hand pollicus against high transverse process of the superior vertebra, LOD anterior-superior. Thrust is with straight arms, body lunge and hold. **Note:** Always place the pollicus contact first.

Pisiform Pollicus Atypical

Patient, table and doctor position same as above. Superior hand pisiform into the open wedge, LOD anterior-medial. Inferior hand pollicus against the spinous process of the superior vertebra, LOD medial-superior.

Thumb Pisiform Typical T4 and Down

Patient, table and doctor position same as above. Superior hand flat thumb into the open wedge, LOD anterior-medial. Inferior hand pisiform against superior high transverse process. LOD anterior-superior, "Lift and torque".

Thoracic Adjusting Procedures Continued - Disc moves

Thumb Pisiform Atypical T4 and Down

Patient, table and doctor position same as above. Superior hand flat thumb into the open wedge, LOD anterior-medial. Inferior hand pisiform against spinous process of superior vertebra.

LOD medial-superior, lunge thrust and hold.

Double Pollicus - Bilateral Posterior Disc

Patient and table position same as above. Doctor stands on either side facing superior at 45°. Bilateral pollicus contact on the spinal-laminar junction, traction skin inferior.

LOD anterior through the disc plane with wrists extended, lunge and hold.

Note: AKA flexion malposition.

Retrolisthesis

Double Pollicus

Patient prone, head piece level, abdominal piece unlocked, pelvic piece at the greater trochanter, foot piece up. Doctor stands on either side facing superior at 45°. Bilateral pollicus contact on the spinal-laminar junction, traction skin superior. **Note:** AKA extension malposition.

LOD anterior-superior, lunge thrust and hold.

Rib Moves

Single Pisiform J-Move: Rib body is superior-lateral, rib head is posterior-inferior. Patient prone, head piece down, abdominal piece unlocked, foot piece up. Doctor stands on the side of lesion facing superior at 45°. Inferior hand pisiform on the angle of the rib, apply inferior traction using soft tissue. Shift traction to medial with a "J" motion, continue superior-medial to the rib tubercle. LOD anterior-superior, light pressure thrust directed toward the rib head.

Note: Superior hand supports wrist of the adjusting hand.

Double Pollicus

Patient and table position same as above. Doctor can stand on either side of the table. Adjusting hand pollicus contact on the angle of the rib. Set-up same as above for traction and thrust. Non-adjusting hand pollicus contact on the spinous process of the same vertebral level as the rib to be adjusted. This is a blocking contact only with no thrust applied.

Cervical Adjusting Procedures

Lower Cervicals C3 - C7

Terms Used: Luschka Trauma - Direct Break, Lateral Malposition.
Capsular Trauma - Rotary Break, Rotation Malposition.

Prone moves

Luschka Trauma: Luschka joint AKA uncovertebral joint. Patient prone, head piece level or down to patient comfort, abdominal piece unlocked, foot piece up. Doctor can stand on the side of lesion facing superior at 45°, on the opposite side of lesion, or at the head of the table facing inferior. Adjusting hand lateral index contact on the lateral aspect of the neck at the level of the lesion. Contact is not on the luschka joint to be adjusted. Non-adjusting hand cups the ear applying superior traction and lateral flexion toward the side of lesion to stabilize the upper cervicals.

LOD medial with adjusting hand - forearm parallel to the floor, quick impulse thrust.

Note: Doctor same side as lesion superior hand is the adjusting hand.

Doctor opposite side as lesion inferior hand is the adjusting hand.

Capsular Trauma: Patient, table and doctor position same as above. Adjusting hand is lateral index or flat thumb at the point of lesion. Non-adjusting hand thenar on the opposite side mastoid process with hand cupping patient ear, superior-lateral traction to lock out the cervical spine.

LOD anterior-inferior through the disc plane, quick impulse thrust from the shoulder. **Note:** From the head of the table adjusting hand contact is a flat thumb at the site of lesion.

Retrolisthesis - 2 Choices

Choice 1: Patient prone with head piece slightly elevated. Doctor stands on either side with shoulders squared over the patient's shoulders. Superior hand cups the patient forehead and applies slight extension. Inferior hand thumb-index contact, start inferior to the site of lesion take tissue slack from inferior to superior ending with a thumb index contact on the articular pillars/lamina of the lesioned segment.

LOD anterior- superior, lunge thrust from the shoulder.

Choice 2 - Patient prone with head piece elevated to place neck into extension, doctor position same as above. Adjusting contact bilateral lateral index. Start inferior to lesion take tissue slack from inferior to superior ending with a lateral index contact on each side of the lesion.

LOD anterior-superior, quick recoil.

Lower Cervical Adjusting Procedures Continued

Supine Moves

Luschka Trauma

Patient supine, head piece elevated to patient comfort, abdominal piece locked, foot piece down. Doctor stands at the head of the table toward the side of lesion facing inferior. Non-adjusting hand side opposite lesion applies slight superior traction and laterally flex toward side of lesion. Adjusting hand lateral index at the level of lesion.

LOD medial with forearm parallel to the floor, quick impulse thrust from the shoulder and hold.

Capsular Trauma

Patient, table and doctor position same as above. Non-adjusting hand contact occiput on the side opposite lesion to stabilize and supply slight superior traction with lateral flexion toward the side of lesion. Rotate the chin away from the side of lesion. Adjusting hand lateral index, Take tissue slack from medial to lateral ending at the site of lesion.

LOD anterior-inferior, impulse thrust through the disc plane.

Note: Thrust is not a true P-A move, keep in mind the rotational element of the set-up and the angulation of the facets in the cervical spine.

Seated Moves

Luschka Trauma

Patient seated, doctor stands on the side opposite of lesion, facing the patient at 90°. Adjusting hand reaches around in front of the patient using chiropractic index take tissue slack from posterior to anterior. Contact lateral aspect of the neck at the level of the lesion, the rest of the hand supports the patient's head. Non-adjusting hand cups the patient ear with a hand heel contact on the mastoid process applying superior traction.

LOD is medial with adjusting hand - pull from the shoulder.

Capsular Trauma

Patient seated, doctor straddles patient leg opposite the side of lesion facing patient at 45°. Adjusting hand reach around in front of the patient use chiropractic index take tissue slack from medial to lateral. Contact capsule with finger pad of chiropractic index. Non-adjusting hand contact side of patient head cupping the ear while applying superior and posterior traction. Laterally flex patient head toward the side of lesion and rotate chin away.

LOD anterior-inferior with adjusting hand through the disc plane, pull from the shoulder.

Upper Cervical Adjusting Procedures

Upper Cervical - Occiput

Axis Moves (hold occiput - Move C2)

Prone: Patient prone, head piece level, abdominal piece unlocked, foot piece up. Doctor on either side, usually on the side of C2 spinous laterality. Superior hand flat thumb against occiput with fingers directed superior to stabilize cervical spine. Inferior hand (adjusting hand) lateral index contact on C2 lamina on the opposite side of spinous listing. Rotate head away from side of lesion and laterally flex toward side of lesion.

LOD anterior-slightly superior with adjusting hand.

Note: Doctor on the same side as lesion reverse hand contacts.

Supine: Patient supine, head piece elevated to patient comfort, abdominal piece locked, foot piece down. Doctor stands at the head of the table toward the side of lesion facing inferior. Non-adjusting hand lateral index on the occiput, rotate chin away from the side of lesion, laterally flex toward side of lesion. Adjusting hand lateral index on the lamina of C2 hooking the end of the index around the spinous process. **Do not lift the head off the head rest.**

LOD anterior-slightly superior, with adjusting hand.

Seated: Patient seated, doctor stands on the side of spinous listing, facing the patient at 45° straddling the patient leg opposite the side of lesion. Non-adjusting hand contact on the mastoid process with a pisiform or hand heel, fingers directed superior cupping the patient ear. Adjusting hand reach around in front of the patient using chiropractic index take tissue slack from medial to lateral ending with finger pad contact on the lamina of C2. Slight superior traction with both hands.

LOD anterior-slightly superior, with adjusting hand.

Axis Moves (hold C1 - Move C2)

Prone: Move same as prone move above except superior hand flat thumb on the transverse process of C1

Supine: Move same as supine move above except lateral index of the non-adjusting hand on the transverse process of C1.

Seated: Can not do this move.

Upper Cervical Adjusting Procedures Continued

Atlas-Axis (hold C2 - move C1)

Prone: Can not do this move.

Supine: Patient supine, head piece elevated to patient comfort, abdominal piece locked, foot piece down. Doctor stands at the head of the table toward the side of lesion facing inferior. Non-adjusting hand lateral index contact on C2 lamina opposite the side of spinous rotation. Adjusting hand take tissue slack inferior from occiput to transverse process of C1, rotate chin away from lesion, laterally flex toward side of lesion.

LOD anterior-slightly superior with adjusting hand, impulse thrust.

Seated: Can not do this move.

Atlas Occiput - C1 Posterior (Hold occiput - move C1)

Prone: Patient prone, head piece level, abdominal piece locked, foot piece up. Doctor stands on either side facing superior at 45°. Non-adjusting hand flat thumb on the occiput opposite side of lesion with fingers directed superior, slight superior traction with rotation to lock out cervical spine. Adjusting hand lateral index on the transverse process of C1.

LOD anterior-superior, impulse thrust and hold.

Supine: Patient supine, head piece elevated to patient comfort, abdominal piece locked, foot piece down. Doctor stands at the head of the table toward the side of lesion facing inferior. Non-adjusting hand lateral index on the occiput. Adjusting hand lateral index take tissue slack inferior from the occiput contact transverse process of C1, rotate chin away from side of lesion, laterally flex toward side of lesion.

LOD anterior- superior, impulse thrust and hold.

Seated: Patient seated, doctor stands on side opposite of C1 posteriority, facing the patient at 45° straddling the patient leg opposite the side of lesion. Non-adjusting hand contact on the mastoid process with a hand heel, fingers directed superior cupping the patient ear. Adjusting hand reach around in front of the patient using chiropractic index contact take tissue slack inferior from the occiput ending with finger pad contact on the transverse process of C1. Patient drops weight of head into adjusting hand, slight superior traction with both hands.

LOD anterior- slightly superior, impulse thrust and hold.

Upper Cervical Adjusting Procedures Continued

Dish Move - Anterior Atlas

Patient supine, head piece slightly elevated, abdominal piece locked, foot piece down. Doctor stands at the head of the table toward the side of lesion facing inferior. Non-adjusting hand lateral index on the occiput opposite the side of lesion. Adjusting hand lateral index on the anterior aspect of C1 transverse process on the side of anteriority. Head can be rotated with anterior C1 up or down.

LOD posterior with the adjusting hand; impulse thrust and hold.

Occiput Procedures

Anterior Occiput

Prone: Patient prone, head piece level, abdominal piece locked, foot piece elevated. Doctor stands at the head of the table facing inferior. Patient has head turned toward the side of lesion, anterior occiput up. Non-adjusting hand palm placed on the patient trapezius, same side as lesion with inferior traction.

Adjusting hand cups the patient chin on the same side as the anterior occiput with forearm across the occiput applying posterior traction. Do not apply force to the patient chin.

LOD posterior with forearm. Thrust is a quick pull posterior.

Seated: Patient seated, doctor facing patient at 45° straddling patient leg on the side of lesion. Non-adjusting hand reaches around in front of the patient with lateral index contact on the occiput. Head is flexed away from anteriority resting in the doctor's hand. Adjusting hand contact, Pollicus, is placed behind the patient's ear above the mastoid process on the side of lesion.

LOD posterior with adjusting hand, thrust is delivered while applying gentle medial pressure and superior traction with both hands.

Inferior Occiput

Prone: Move is the same as anterior occiput except adjusting hand traction and LOD are superior.

Supine: Patient supine, head piece slightly elevated, abdominal piece locked, foot piece down. Doctor stands at the head of the table facing inferior. Adjusting hand on the inferior occiput side use index and chiropractic index to traction along SCM superior contacting the mastoid process. Turn patient head so the inferior occiput is down. Non-adjusting hand contact is a hand heel on the zygomatic arch with fingers directed inferior, traction inferior.

occiput is down. Non-adjusting hand contact is a hand heel on the zygomatic arch with fingers directed inferior, traction inferior.

LOD superior pull on the mastoid process.

Upper Cervical Adjusting Procedures Continued

Inferior Occiput Continued

Seated: Patient seated, doctor stands on the side of inferiority facing patient at 90°. Non-adjusting hand reach around in front of the patient using index or chiropractic index on occiput opposite the side of lesion, rest patient head into your hand with lateral flexion. Adjusting hand cups patient ear on the side of lesion using hand heel or pisiform on the inferior aspect of the mastoid process, with fingers directed superior cupping the patient ear.

LOD superior with adjusting hand. Thrust is delivered applying slight medial pressure and superior traction with both hands.

Posterior Occiput

Supine: Patient supine, head piece slightly elevated, abdominal piece locked, foot piece down. Doctor stands at the head of the table facing inferior. Non-adjusting hand on the side opposite of lesion tractioning superior along the SCM to the mastoid process using index and chiropractic index. Turn patient head so the side of lesion is up. Adjusting hand contact is a hand heel on the zygomatic arch with fingers directed anterior.

LOD anterior on the zygomatic arch, impulse thrust.

Seated: Patient seated, doctor stands on side opposite posteriority, facing patient at 45°. Non-adjusting hand cups over the patient ear using hand heel contact on the mastoid process with superior traction. Adjusting hand reach around in front of the patient using index or chiropractic index on the occiput same side as lesion with superior traction. Apply slight medial pressure with both hands while tractioning superior. Rotate head toward doctor.

LOD anterior, pull from shoulder with adjusting hand.

Upper Extremity Adjusting Procedures

Phalanxes: Three joints to be checked: Distal metacarpal/proximal phalanx, proximal phalanx/middle phalanx, middle phalanx/distal phalanx. Doctor starts with non-adjusting hand blocking distal metacarpals with thumb/web/index contact, thumb on the palm of the hand and index/chiropractic index on the dorsal side. Adjusting hand flat thumb-lateral index contact on the proximal phalanx. Check for restrictions, impulse thrust from the test position. For middle and distal phalanx non-adjusting hand blocks phalanx proximal with thumb/index contact. Seven joint play movements to be checked.

LAE - Long Axis Extension.

AP/PA Glide - Not checked with flexion/extension.

Internal/External Rotation - Rotation checked with anatomic position in mind.

Medial/Lateral Glide - Not checked with lateral bending.

Distal Intermetacarpals - AP/PA Glide: Patient seated with elbow flexed and hand supinated. Doctor standing facing patient with bilateral flat thumbs onto the palmar side of the hand, and index/chiropractic index dorsal side. Block adjacent distal inter-metacarpals and stress AP/PA. Check for restrictions, impulse thrust from the test position.

Carpal Metacarpal

First Metacarpal trapezium Double Hypothenar Contact: Check motion with dorsum of patient's hand against doctor's chest, thumb index on the proximal end of the first metatarsal and thumb index on the trapezium. Check motion from P-A impulse thrust from test position, approximate the joint.

Can also adjust with the patient seated, elbow slightly flexed and hand in neutral position. Doctor standing facing patient with medial hand place pollicus contact on the palmar side of the joint and index on the dorsal aspect. Lateral hand reinforce index contact with pollicus on the dorsal side and wrap index around medial hand contact. Doctor's elbows should be up to form a straight line from elbow to elbow through the hands. Apply pressure with both hands, impulse thrust from the shoulders with both hands. **Note:** AKA Saddle Joint.

AP/PA Carpal Metacarpal: Patient seated with hand pronated and arm extended. Doctor standing facing the lateral side of the patient wrist at 90°. Doctor places bilateral thumb/web/index contact on the distal row of carpals and the proximal ends of the metacarpals. Motion AP/PA checking for restrictions, impulse thrust from the test position.

Rotation of the Carpal Metacarpals: Patient seated with hand pronated. Doctor places bilateral thumb/web/index over distal carpals and distal metacarpals. Hand contacting the distal metacarpals check for restrictions with a sideways figure eight motion. Impulse thrust into restriction with flat thumb on dorsal aspect of the wrist.

Upper Extremity Adjusting Procedures Continued

Wrist: LAE of the Carpals: Three joints to be checked, proximal metacarpal/distal carpal, distal carpal/proximal carpal, and proximal carpal/ulna-radius. Patient seated with hand pronated. Doctor standing facing the patient with lateral hand thumb/web/index into flexed elbow or distal forearm blocking inferior motion. Medial hand over all five metacarpals, if possible, traction inferior checking for motion/distraction of the joints.

Flexion-Proximal carpals on the radius/ulna: Patient seated with hand supinated and elbow flexed. Doctor standing facing patient with bilateral index/chiropractic index on the anterior wrist palpating the proximal carpals. Bilateral flat thumbs on the dorsal side of the wrist, doctor takes into flexion checking for restrictions. LOD anterior, use thumbs as levers-impulse thrust PA.

Extension-Distal carpals on the proximal carpals: Patient seated with hand pronated. Doctor standing facing patient with bilateral flat thumbs on the palmar side of the hand. Bilateral index/chiropractic index onto the dorsal side of the wrist force hand into extension checking for end feel. LOD anterior, impulse thrust.

AP/PA Glide of the Carpals: Three joints to be checked-proximal metacarpal/distal carpal, distal carpal/proximal carpal, and proximal carpal/radius-ulna. Patient seated with hand pronated. Doctor standing on the lateral side of the wrist, bilateral thumb/web/index contact with distal hand on the proximal metacarpals and the proximal hand on the distal carpals. Check for restrictions AP/and PA, impulse thrust from test position. Repeat procedure by placing the hand contacts over the joints to be checked.

Medial Lateral Tilt of the Wrist: Patient seated with hand pronated. Doctor standing facing the patient with bilateral lateral index on the medial and lateral side of the wrist. Check for restrictions, impulse thrust into restrictions.

Note: This move will also adjust the UMT joint.

UMT - UlnaMeniscoTriquetral Joint (modified handshake): Patient seated with hand in the neutral position. Doctor standing facing the patient with medial hand lateral index contact on the distal end of the ulna(styloid process). Non-adjusting hand contact halfway up the radius to stabilize the forearm. Let adjusting hand contact slide distally off the styloid process into the groove. With adjusting hand traction inferior(creates LAE) and laterally deviate, impulse thrust with adjusting hand.

AP/PA Triquetral: Patient seated with forearm flexed and hand supinated. Doctor standing facing the patient blocking radial side of the wrist with flat thumb on the dorsal side and index/chiropractic index on the anterior side. Adjusting hand flat thumb dorsal and index/chiropractic index anterior on the ulnar styloid process, slide off inferior to pisiform then medial to triquetral. Check for restrictions AP and PA, impulse thrust from the test position.

Upper Extremity Adjusting Procedures Continued

Distal Radial Ulnar Joint

AP/PA Glide: Patient seated with elbow flexed and hand supinated. Doctor standing facing the patient with a bilateral pollicus on the dorsal side of the wrist and bilateral index/chiropractic index on the anterior distal ends of the ulna and radius respectively. Check for restrictions, adjustment can be done from a supinated or pronated position:

Supination: From test position above shift hand contacts so doctor has bilateral flat thumbs on the dorsal/distal ulna and bilateral index on the anterior distal radius. Stress ulna away and radius toward doctor, lock out at end range of motion and impulse thrust away on the ulna.

Pronation: Patient seated with elbow flexed and hand pronated. Move same as above with thumbs on the anterior ulna and index on the dorsal radius. Stress ulna away and radius toward doctor, lock out at the end range of motion and impulse thrust away on the ulna.

Elbow: Three joints to be considered - humerus/radius, humerus/ulna, and proximal radius/ulna.

LAE - Ulnar Humeral Joint: AKA downward glide of the radius. Patient seated with hand pronated and elbow slightly flexed. Doctor standing with lateral hand thumb/web/index distal end of humerus, fingertip of chiropractic index on the olecranon process. Medial hand thumb/web/index on the distal forearm apply inferior traction. Doctor checks for olecranon process to move inferior, this motion can be checked with thumb on the medial or lateral side of the elbow.

Lateral/Medial Tilt of the Ulnar Humeral Joint: Patient standing with hand supinated. Doctor standing facing the patient trapping the patient wrist against lateral chest, with medial side of the brachium. Bilateral thumb/web/index around the patient elbow with fingers interlaced posteriorly. Check lateral and medial deviation with elbow slightly flexed(5-10°), check motion again with elbow extended. Check for restrictions, impulse thrust from the test position.

Extension of the Ulnar Humeral Joint: Patient standing with hand supinated. Doctor standing facing the patient supporting distal radius/ulna with a thumb/web/index on the anterior aspect. Proximal contact is a thumb/index cradling the olecranon. Stress PA checking for restrictions or decreased extension. LOD anterior, lock out joint from test position-impulse thrust.

Rotation of the Radial Humeral Joint(Radial Head-Capitulum): Patient standing with hand pronated. Doctor facing the patient at 45° toward the side of lesion. Palpate with flat thumb the proximal head of the radius, with distal hand flex the patient's wrist, internally rotate the arm and stress the joint into extension checking for restrictions. LOD anterior, impulse thrust from the test position.

Upper Extremity Adjusting Procedures - Elbow Continued

Superior Glide of the Radial Humeral Joint: Patient supine with elbow flexed to 90°, hand in a neutral position. Doctor standing at the side of the table facing superior. Interlace thumb of inferior hand with the patient's thumb, thenar pads should be together, doctor and patient radius should be in a straight line. Superior hand palpates proximal head of the radius. Apply pressure toward the floor checking for superior motion of the radial head. LOD superior(toward the floor), if radius does not move impulse thrust from the test position.

Shoulder -Seated

Palpation of the Acromial Clavicular Joint: Patient seated with arm at side in a neutral position. Doctor standing behind patient toward the side of involvement. With medial hand palpate the distal end of the clavicle with chiropractic index and the acromion process with index. Lateral hand apply inferior traction to the distal end of the humerus checking for acromion to drop inferior. Follow with abduction of the arm to 90°, apply posterior traction to feel joint separate. End by checking motion with circumduction of the arm.

LAE of the Acromial Clavicular Joint: Patient seated with arm flexed to 90°, elbow flexed and palm of hand on ipsilateral trapezius. Doctor stands behind patient, adjusting hand (same side as shoulder being adjusted) palmar contact on the olecranon process. Overlap adjusting hand contact with non-adjusting hand. LOD posterior, traction posterior while bracing spine with sternum-impulse thrust.

Posterior Glide of the Glenohumeral Joint: Move same as above but doctor braces scapula with sternum.

Internal Rotation with Inferior Traction of the Glenohumeral Joint: Patient seated with arm at side in a neutral position. Doctor standing on the side of involvement facing the patient at 90°, with bilateral thumb/web/index contact on the distal humerus. Apply internal rotation and inferior traction to the humerus checking for restrictions. LOD inferior, impulse thrust from the test position.
Note: Good move for impingement syndrome (superior humeral head).

Shoulder Supine

Acromioclavicular Joint: Patient supine with arms at side. Doctor on the same side as lesion facing superior at 45°. Inferior hand pisiform off distal end of the clavicle. LOD posterior, impulse thrust - with larger patients lunge thrust. Contralateral clavicle can be stabilized with superior hand. Doctor can also stand on opposite side, adjusting hand becomes superior hand. Can adjust both at the same time. **Note:** Can do same combinations with the Sternoclavicular joint.

Upper Extremity Adjusting Procedures - Shoulder Continued

Anterior Glide of the Glenohumeral Joint: Patient supine with shoulder at the edge of table. Doctor standing on the side of involvement facing superior at 45°. Inferior hand thumb/web/index into the axilla with palm against the proximal humerus, superior hand blocks distal humerus against the patient's side. Apply anterior traction to the proximal humerus checking for restrictions. LOD anterior, impulse thrust from the test position. **Note:** Can also do move by blocking distal humerus with inferior thigh and superior hand on the clavicle.

Lateral Glide of the Glenohumeral Joint: Move same as above except doctor applies lateral traction to humerus. LOD lateral, impulse thrust from test position.

Lateral Deviation/Posterior Glide of the Glenohumeral Joint: Patient supine with shoulder at the edge of the table, elbow flexed and arm at 90° to the table. Doctor on one knee facing the patient at 90° on the side of involvement. Bilateral thumb/web/index contact with fingers interlaced around the proximal humerus into the axilla. With **superior shoulder** blocking the elbow apply lateral and posterior traction, checking for restrictions. LOD posterior, impulse thrust from the test position.

Lateral Deviation/Inferior Glide of the Glenohumeral Joint: Patient supine with shoulder at the edge of the table, elbow flexed and arm at 90° to the table. Doctor on one knee facing the patient at 90° on the side of involvement. Bilateral thumb/web/index contact with fingers interlaced around the proximal humerus into the axilla. With **inferior shoulder** blocking the elbow apply lateral and inferior traction, checking for restrictions. LOD inferior, impulse thrust from the test position.

Superior Glide (10° superior shear): Patient supine, elbow flexed and hand on opposite clavicle. Doctor stands on side of involvement facing superior at 45°. Superior hand palpates groove between the acromion and greater tuberosity, inferior hand palmar contact on the distal end of the humerus with superior pressure at 10°. Check for superior motion of the humerus. LOD superior, impulse thrust from the test position.

Posterior Glide (90° posterior shear): Move same as above except patient arm is 90° to the table. LOD posterior (toward the floor), impulse thrust.

External Rotation of the Glenohumeral Joint: Patient supine, arm abducted to 90° and externally rotated, elbow flexed to 90°. Doctor facing the table at 90° with patient forearm across thigh, bilateral thumb/web/index contact into axilla with fingers interlaced. Doctor superior forearm across patient distal forearm, using as a lever, stress into external rotation. Using bimanual contact and forearm traction arm into external rotation checking for restrictions. Impulse thrust from the test position.

Upper Extremity Adjusting Procedures - Supine Shoulder Continued

Internal Rotation of the Glenohumeral Joint: Move same as above except patient's arm is placed into internal rotation. Impulse thrust from test position.

Shoulder Prone

Circumduction with Distraction of the Glenohumeral Joint: Patient prone or supine with arm abducted to 90°. Doctor facing the table at 90° on the side of lesion with patient forearm between knees. Bilateral thumb/web/index contact around proximal humerus interlacing fingers. LAE is created by doctor distracting arm with legs, circumduct proximal end of the humerus.

Sternoclavicular Joint

Seated: Patient seated with arms at side. Doctor stands behind patient abducts affected arm to 90°. With opposite hand reach around in front of patient to palpate the proximal clavicle. While circumducting arm check proximal end of the clavicle to rotate with the sternum. To adjust doctor stands behind patient, reach around with both hands pisiform contact sternoclavicular joint bilateral, lace fingers together. Can block with one and adjust with the other, or adjust bilateral. LOD posterior, impulse thrust.

Supine: Patient supine with hand behind head. Doctor on the same side as lesion facing superior at 45°. Inferior hand pisiform on proximal end of the clavicle. LOD posterior, impulse thrust - with larger patients lunge thrust. Contralateral clavicle can be stabilized with superior hand. Doctor can also stand on opposite side, adjusting hand becomes superior hand. Can adjust both at the same time.
Note: Can do same combinations with the acromioclavicular joint.

Scapula: Patient prone with hand on back, head piece level, abdominal piece unlocked, foot piece up. Doctor stands on either side facing superior at 45°. Doctor places one hand on the patient shoulder to brace/wing scapula, the other hand "gouges" fingertips under medial sub-scapular region and scapula is mobilized to break up muscular fixations. Adjusting hand can also be a thumb/index contact on the inferior angle of the scapula. Stress inferior angle lateral and medial checking for restrictions, impulse thrust from the test position.

Temporomandibular Joint (TMJ)

Palpation: Patient seated. Doctor stands behind patient, with finger pads of little fingers into the ear canal or index and chiropractic index over TMJ. Instruct patient to slowly open and close their mouth. Feel for the side that opens least or last, adjust that side.

Adjustment: Patient supine with head rotated so the side of involvement is up, chin relaxed. Doctor standing at the head of the table facing inferior. Adjusting hand (same side as lesion) pisiform contact on the angle of the jaw with fingers directed toward the chin. Non-adjusting hand braces patient forehead with fingers directed posterior. LOD anterior-slightly inferior with adjusting hand, impulse thrust. **Note:** Be sure patient has teeth slightly separated before thrusting.

Upper Extremity Adjusting Procedures Continued

First Rib Moves: To check motion have patient seated with arms at side. Doctor stands behind patient, palpate root of the neck posterior to clavicle and anterior to the trapezius. Traction tissue slack posterior with index and chiropractic index to locate first rib. With opposite hand passively rotate face away, extend and laterally flex head toward the side of involvement. First rib should drop away from fingertips. Can be adjusted prone, supine and seated.

Prone: Patient prone, head piece down, abdominal piece unlocked, foot piece up. Doctor stands at head of the table facing inferior. Adjusting hand lateral index against anterior portion of the trapezius, drag tissue slack posterior, hook lateral index against first rib. Non-adjusting hand cup patient forehead to stabilize cervical spine, turn face away from the side of lesion, bring head into extension and laterally flex into side of lesion.

LOD inferior-medial, thrust is a lunge type move.

Supine: Patient supine with body position shifted to table edge on the side of lesion, head piece down, abdominal piece locked, foot piece down. Doctor stands at head of the table facing inferior. Adjusting hand lateral index against anterior portion of the trapezius drag tissue slack posterior, hook lateral index against first rib. Non-adjusting hand supports the patient head, rotate patient head away from the side of lesion, extend and laterally flex into side of lesion.

LOD inferior-medial, thrust is a lunge type move.

Seated: Patient seated, doctor stands behind patient. Adjusting hand lateral index against trapezius, drag tissue slack from anterior to posterior hook lateral index against first rib. Non-adjusting hand turns head away from the side of lesion, extend and laterally flex into side of lesion.

LOD inferior- medial, thrust is an impulse type move.

Lower Extremity Adjusting Procedures

Phalanges: Three joints to be checked: Distal metatarsal/proximal phalanx, proximal phalanx/middle phalanx, middle phalanx/distal phalanx. Doctor starts with non-adjusting hand blocking distal metatarsals with thumb/web/index contact, thumb on the sole of the foot and index/chiropractic index on the dorsal side. Adjusting hand flat thumb-lateral index contact on the proximal phalanx. Check for restrictions, impulse thrust from the test position. For middle and distal phalanx non-adjusting hand blocks phalanx proximal with thumb/index contact. Seven joint play movements to be checked.

LAE - Long Axis Extension.

AP/PA Glide - Not checked with flexion/extension.

Internal/External Rotation - Rotation checked with anatomic position in mind.

Medial/Lateral Glide - Not checked with lateral bending.

Foot: (Metatarsals, Cuneiforms, Navicular, Cuboid)

AP/PA Glide of the Distal Metatarsals: (Inter-metatarsal Joints, not true joints) Patient supine, doctor facing superior at the foot of the table. Doctor places bilateral flat thumbs on plantar surface of the foot and index/chiropractic index on the dorsal aspect of the foot bracing the distal aspect of the metatarsals. Doctor assesses joint motion by blocking the adjacent metatarsal and applying AP and PA motion on the segment to be checked . Motion will increase from medial to lateral.

Rotation of the Tarsal/Proximal Metatarsal Joint: (Side lying figure eight) Patient supine, doctor facing superior at the foot of the table. Doctor stabilizes patient foot by cupping the calcaneus with the non-adjusting hand on the lateral side of the foot. Adjusting hand contact is a thumb/web/index with the thumb across the sole of the foot and the lateral index across the dorsal aspect of the foot over the distal ends of the metatarsals. Motion is a sideways figure eight to check for restrictions. Impulse thrust into restriction from the test position.

AP/PA Glide of the First, Second and Third Cuneiform: Patient supine, doctor facing superior at the foot of the table. Non-adjusting hand contacts the lateral aspect of the foot with a thumb/web/index contact to stabilize the proximal head of the first metatarsal. Adjusting hand contacts the medial aspect of the foot with a thumb index contact on the first cuneiform, thumb on the sole of the foot and index on the dorsal side. Doctor applies AP and PA motion to assess restriction. Repeat for the second and third cuneiform

Lower extremity Adjusting Procedures - Foot Continued

Adjustment of the Cuneiform: Dorsal to Plantar - Doctor at the foot of the table facing superior takes a thumb(plantar) index(dorsal) over the involved segment with the medial hand and reinforces the contact with the lateral hand from the lateral side of the foot. Doctor dorsiflexes the foot with eversion. LOD inferior, quick impulse thrust. Patient braces with hands against the pelvic piece.

Adjustment of the Cuneiform: Plantar to dorsal - Locke's Maneuver. Patient standing with hand against the wall or being braced, knee flexed with ankle next to the opposite knee. Doctor places bilateral flat thumb onto plantar side of the foot at the cuneiform to be adjusted, rotate patient foot in a circle to relax musculature.

LOD is directed toward the floor, quick impulse thrust. Do not add plantar flexion while applying thrust.

AP/PA Glide of the Cuboid: Patient supine, doctor at the foot of the table facing superior. Medial hand block the proximal ends of the fourth and fifth metatarsals, dorsally with index and chiropractic index, plantar with a flat thumb contact. Lateral hand thumb(plantar) index(dorsal) on the cuboid. Apply firm pressure to the cuboid and check motion AP and PA. Impulse thrust from the test position. Cuboid can also be adjusted with a counterrotation or shearing action. To adjust plantar to dorsal move lateral hand contact to a flat thumb hooking the plantar side of the cuboid. Thrust is a bilateral counterrotation with both hands. To adjust dorsal to plantar switch contact hands.

Ankle (navicular, talus, calcaneus, tibia, fibula)

AP/PA Glide of the Ankle: Patient supine with leg at a right angle to the thigh and the foot at right angle to the leg, heel resting on the table. Doctor facing patient at 90° on the medial side of the ankle. Impulse thrust from test position.

Tarsal Metatarsal Joint: Inferior hand blocks metatarsals with lateral index contact. Superior hand lateral index on the cuneiforms and cuboid. Bilateral thumb web contact onto the medial side of the foot. With arms extended doctor checks AP/PA glide with a rocking type action.

Navicular Cuneiform Joint: Inferior hand contact moves to block the cuneiforms and the superior hand over the navicular. Repeat AP/PA motion. This motion is hard to feel in this joint.

Navicular Talus Joint: Inferior hand contact moves to block the navicular and the superior hand over the anterior portion of the talus. Repeat AP/PA motion.

Mortise Joint: Inferior hand moves to block the talus and the superior hand blocks the distal tib/fib. Repeat AP/PA motion.

Lower Extremity Adjusting Procedures - Ankle Continued

Medial/Lateral tilt of the Sub-Talar Joint: (Calcaneus Talus Joint)

Medial tilt: Patient supine, doctor at the foot of the table facing superior. Medial hand blocks medial side of the foot with a thumb/web/index contact. Lateral hand contact is a pollicus contact on the lateral side of the calcaneus and ring finger over the medial side of the calcaneus. Stress with pollicus contact medially checking for restrictions. To adjust impulse thrust from the test position.

Lateral tilt: Lateral hand blocks lateral side of the foot and the medial hand the calcaneus with a pollicus contact. This move is the same as above but with a reverse of the hand contacts.

LAE of the Mortise Joint: Patient prone with knee flexed to 90°, doctor faces patient at 90°. Superior hand contact thumb/web/index on the posterior aspect of the talus. Inferior hand contact thumb/web/index on the anterior aspect of the talus. Doctor's superior knee braces the back of the patient thigh, do not apply any pressure to pin the leg against the table. Doctor applies inferior traction (toward ceiling) with both hands.

Inferior Glide of the Sub-Talar Joint (Shear): Patient prone with knee flexed to 90° doctor faces patient at 90°. Superior hand thumb/web/index contact on the posterior aspect of the calcaneus. Inferior hand thumb/web/index contact on the anterior aspect of the talus. Squeeze hands together, action shears calcaneus out from under the talus.

LAE / Inferior Glide of the Sub-Talar Joint: Patient supine with knee flexed and thigh externally rotated, uninvolved leg dropped off the table. Doctor sits between the patient legs with back against the posterior aspect of the patient thigh. Patient ankle/foot is brought around in front of the doctor. Bilateral thumb/web/index contact on the anterior and posterior aspects of the talus, doctor pushes hands away to create LAE. To test for inferior glide move the posterior hand contact distal to the posterior aspect of the calcaneus and squeeze both hands together.

LAE Supine of the Sub-Talar Joint: Patient supine bracing pelvic piece with hands. Doctor stands at the foot of the table facing superior. Lateral index contacts placed on the anterior and posterior talus, doctor lifts leg off the table 5-10° while applying inferior traction checking for restrictions. Impulse thrust from the test position.

Lower extremity adjusting procedures - ankle continued

AP/PA Glide of the Distal Tib/Fib Joint: Patient side posture with up leg slightly flexed.

AP: Doctor facing patient from anterior with a bilateral flat thumb contact on the distal anterior aspect of the fibula. Reinforce tibia posteriorly with index and chiropractic index, stress from anterior to posterior. Impulse thrust if restricted.

PA: Doctor facing patient from posterior with a bilateral flat thumb contact on the distal posterior aspect of the fibula. Reinforce tibia anteriorly with index and chiropractic index, stress from posterior to anterior. Impulse thrust if restricted.

Knee (Femur, Patella, Proximal Tibia, Proximal Fibula) Three joints: patella/femur, femur/tibia, and proximal tibia/fibula.

Patella: Patient supine with knee locked in full extension, doctor facing patient at 90°. Bimanual contact thumb index superior and inferior patellar poles. Directions of motion include superior traction, inferior traction, medial traction, lateral traction, and circumduction, clockwise and counterclockwise, checked last. Check for restrictions, impulse thrust from the test position.

AP/PA Glide of the Femoral Tibial Joint: Patient supine with hip flexed to 90° and knee flexed to 90°, with patient calf supported by the doctor's thigh. Doctor facing patient at 90°, superior hand palpates the tibial condyles ("Eyes of the Knee") with index and distal thumb.

AP: Inferior hand on the tibial tuberosity apply posterior pressure, doctor should feel tibial condyles drop away from superior hand contact. LOD posterior, adjust with a single reinforced pisiform from the test position.

PA: Inferior hand reach around to posterior side of patient leg opposite the tibial condyle and apply PA pressure, doctor should feel tibial condyles translate anterior.

Lower Extremity Adjusting Procedures - Knee Continued

Int/Ext Rotation of the Femoral Tibial Joint: Patient and doctor position same as above. Superior hand placement same as above.

Int Rotation: Inferior hand around distal end of the tib/fib articulation. Doctor applies internal rotation, lateral condyle should become more prominent and the medial condyle should drop away.

Ext Rotation: Inferior hand around distal end of the tib/fib articulation. Doctor applies external rotation, medial condyle should become more prominent and the lateral condyle should drop away. Adjust using bilateral thumb/web/index contact just inferior to the knee, apply rotational stress into the restriction, impulse thrust.

Med/Lat Tilt of the Knee: Patient supine with leg to be checked off the edge of the table, doctor supports patient leg with the ankle between knees. Doctor contacts the patient knee with a bilateral pollicus and stresses the knee medial and lateral in the extended position. Check for motion again with the knee flexed 10°. Adjustment is similar to McMurrays orthopedic test position.

Medial: Doctor stands on the lateral side of the knee, inferior hand supports patient leg at the ankle, superior hand pollicus at the lateral aspect of the knee. Flex patient leg a couple of times to help relax, take leg from flexion into extension. Before leg locks into extension apply medial impulse thrust with superior hand.

Lateral: Doctor stands between patient's legs with the leg off the edge of the table. Adjustment similar to above except thrust applied to the medial side of the knee, with the force directed laterally.

Note: This move can also be performed with the patient's ankle supported between the elbow and side of the doctor.

AP/PA Glide of the Proximal Tib/Fib: Patient supine with the knee flexed to 45°. Doctor at the foot of the table facing superior. Medial hand braces the tibia proximally, lateral hand thumb index on the head of the fibula. Doctor stresses fibula AP and PA checking for restrictions.

Adjustment: Patient prone, doctor stands on the opposite side needing to be adjusted facing the patient at 90°. Superior hand lateral index contact on the posterior aspect of the fibular head taking tissue slack from medial to lateral. Inferior hand supports anterior distal tib/fib flexing leg on the thigh. Impulse thrust with superior hand posterior to anterior.

Lower Extremity Adjusting Procedures - Knee Continued

Superior Glide of the Proximal Tib/Fib: Patient supine with knee extended, doctor at the foot of the table facing superior. Doctor palpates the proximal end of the fibula with the superior hand, inferior hand dorsiflex patient foot, should feel head of the fibula slide superior. To adjust reinforce inferior hand contact with thigh and impulse thrust superior.

Femoral Tibial Joint: Patient prone knee flexed to 90°, doctor stands on the side to be adjusted facing the patient at 90°. Superior hand lateral index into popliteal fossa behind tibia. Inferior hand around distal anterior tib/fib. Using superior hand contact as a fulcrum flex leg to thigh and impulse thrust with inferior hand to open up the joint, creates PA glide and some LAE.

Hip: LAE (Only true joint play movement) Patient supine bracing foot piece with the opposite leg. Doctor lifts leg to be checked 5-10° supporting the leg at the distal tib/fib. Inferior traction applied with both hands, should feel gradual inferior motion of the hip. There will also be some LAE of the knee joint, can also perform move with hands above the knee. Motion can also be checked with a modified Thomas test, straight leg raise, or FABERE-Patrick test. Compare bilaterally.
Adjust patient side posture up leg flexed. Doctor stands facing the table at 90° with superior hand supporting the up shoulder, inferior knee supports patient bent knee. Inferior hand thenar or hand heel contact at the greater trochanter taking tissue slack inferior. Thrust is a body lunge inferior, taking femur head away from the acetabulum.

Int/Ext Rotation: Patient prone, with knee flexed to 90°. Doctor faces the table at 90°, superior hand stabilizes the SI joint. Inferior hand around patient ankle apply medial stress to check external rotation and lateral stress to check internal rotation.

Extension: Patient prone with knee flexed to 90°. Doctor faces the table at 90°. Superior hand pisiform or hand heel on the posterior aspect of the greater trochanter. Inferior hand supports leg above the patient knee, using leg as a lever check PA for restrictions. To adjust stress into restriction and apply impulse thrust with superior hand.