OMT Without An OMT Table

Ann L. Habenicht DO, FAAO, FACOFP, CS
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BASIC STUFF WE HAVE TO WADE THROUGH TO MAKE SURE WE'RE ALL ON THE SAME PAGE
A.T. Still

“To find health should be the object of the doctor. Anyone can find disease.”
Barrier Model

Anatomic barrier

Physiologic barrier

neutral

Normal Motion
Direct techniques engage the restrictive barrier.

Indirect techniques go away from the restrictive barrier.
Combined Technique

1st Indirect

then

Direct 2nd

(ND) Normal Motion
Direct Activating Force vs. Indirect Activating Force

- Physician induced
- Patient Induced
- Inherent Force

- Inherent Force
Direct vs Indirect

- Soft tissue (ST)
- Articulatory Treatment (ART)
- Myofascial Release- Direct (D-MFR)
- Osteopathy in the Cranial Field (OCF) - Direct
- Muscle energy (ME or MET)
- High-velocity, low amplitude (HVLA)

- OCF-Indirect
- Balanced Ligamentous Tension (BLT) or Ligamentous Articular Strain (LAS)
- Counterstrain (CS)
- Facilitated Positional Release (FPR)
- Myofascial Release- Indirect (I-MFR)
- Still Technique*
Fryette’s Principles

- H.H. Fryette proposed these 2 principles of spinal motion
  - Principle I - neutral spinal mechanics
  - Principle II - non-neutral spinal mechanics
- A third principle is also noted but wasn’t an absolute Fryette
  - Principle III - combined motions
Fryette's Principles

- Principle I - neutral mechanics also known as group or Type 1 mechanics
  - “when in the neutral position, when sidebending is introduced, rotation occurs to the opposite side or into the produced convexity.”
Fryette’s Principles

- Principle II - non neutral mechanics also known as single segment or Type 2 mechanics
  - “when the segment is in flexion or extension, when sidebending is introduced, rotation occurs to the same side or to the produced concavity.”
Fryette's Principles

- Principle III - combined motion
  - "when one motion is introduced, it modifies the other motions."
  
  This means that when flexion or extension is introduced, the amount of sidebending and/or rotation is changed.

- These mechanics are ONLY for T1-L5

- C2-C7 follow principle II and III only
Fryette’s Principles

- Atypical vertebrae
  - Occiput
  - Atlas
  - Sacrum
Vertebral Anatomy

- Important to understand the “plane of the facets” in each vertebral area as direct action technique allows for the motion of the joint.

- To move the joint, you must thrust along the plane of the facets.
Vertebral Anatomy

- **Cervicals**
  - “shingle-like” - superiorly anteriorly, and inferiorly posteriorly.

- **Thoracics**
  - Facet plane - coronal posteriorly

- **Lumbars**
  - Sagittal

- **Sacroiliac**
  - L-shaped with a coronal component
Vertebral Anatomy

- Atypicals
  - **OA - occiput on atlas**
    - “bowl-like” - introduces combined sidebending and rotation to opposite sides.
  - **AA - atlas on axis**
    - Movement about the dens - rotational
  - **SI - sacroiliac**
    - Coronal component - sidebending/rotation to opposite sides
    - No two joints are the same
Cervicals - “shingle-like”
Thoracics - coronal

Thoracic Vertebrae [T7-T9] - Assembled
Posterior View
Lumbar Vertebrae [L3-L4] - Assembled
Posterior View
Sacroiliac- L-shaped

Sacrum and Coccyx
Dorsal Surface
Internal Craniocervical Ligaments [Continued]

Atlas (C 1): superior view
Upper cervical vertebrae, assembled: posterosuperior view

- Articular facet for occipital condyle
- Articular facet for transverse ligament
- Dens
- Atlas (C1)
- Axis (C2)
- C3
- C4
Relative location of a sacroiliac joint.

I have used the right sacral facet in relation with a left innominate facet to illustrate a sacroiliac joint but the relationship is the same. Note where the poles of the sacroiliac joints are located and notice that the apex of the sacroiliac joint points anteriorly.
Diagnosis

- **Thoracic**
  - Seated
  - Check for rotation, sidebending, flexion/extension - “Kappler’s Corollary”

- **Lumbar**
  - Seated or prone
  - Check for rotation, sidebending, flexion/extension

- **Cervical**
  - Prone
  - Check for rotation, sidebending, flexion/extension
Techniques - Thoracic

- FPR - patient seated
- Epigastric Thrust - patient seated
- Walk Around - patient seated
STILL TECHNIQUE FOR THORACIC DYSFUNCTIONS

- **Dysfunction:** Example: T5 on T6, rotated right and sidebent right, extended. This technique is useful for thoracic somatic dysfunctions.
- **Objective:** Improve rotation and sidebending left and flexion of T5 on T6.
- **Discussion:** This technique is a gentle thoracic technique that requires precise localization. It may be done with the patient seated on a table or on a chair.
- **Patient Position:** Seated.
- **Physician Position:** Standing behind the patient to the left.
Procedure:

- Place your left arm across the patient’s anterior chest such that your left arm is draped over the patient’s left shoulder and your left hand contacts the patient’s right shoulder.
- Place your right sensing finger over the right transverse process of T5.
- Gently introduce extension, right rotation and right sidebending until all three forces localize at T5 and the pathologic neutral is engaged (absence of tissue tension).
- A vector force in the shape of a “V” is now introduced through pressure through the patient’s shoulders with your left arm until the vector is localized at T5 right.
- Now, while maintaining the vector force, quickly flex, sidebend left and rotate left the T5 segment. As the segment T5 on T6 is about to reach the restrictive barrier, the barrier will have “melted away.”
- Return the segment back to neutral.
- Reassess.
EPIGASTRIC THRUST (HVLA)

- **Dysfunction:** $T_6$ flexed, rotated right, sidebent right. This technique may be used on mid-thoracic dysfunctions.

- **Objective:** To restore motion in extension, left sidebending and left rotation.

- **Discussion:** The barrier is primarily engaged with lateral translation.

- **Patient Position:** Seated.

- **Physician Position:** Standing behind the patient
Procedure:

- Instruct the patient to sit comfortably on the table and clasp both hands behind their neck.
- Fold a small pillow in half, place it in direct contact with T₇ in a horizontal position and hold it there firmly with your epigastrium.
- Pass your left hand under the patient’s left axilla and grasp the back of the patient’s left forearm. Pass your right hand under the patient’s right axilla and grasp the back of the patient’s right forearm.
- Extend the patient’s upper thoracic area down to and including T₆. Keep the patient’s upper torso centered over their pelvis during this procedure.
- Translate the patient’s trunk to the right above T₇ to introduce sidebending to the left of T₆ upon T₇.
- Rotate the upper thoracic area to the left making sure you localize forces down to T₆ upon T₇.
- The final corrective force is through the pillow/abdomen against the engaged barrier. It is an accentuation of the accumulated motions. Rotation is not a significant component.
- Reassess
• **Consideration:** For extended dysfunctions follow the previous procedure, however, flex the patient forward by having them “slump” while bringing their shoulders posterior in a transatory movement. The final corrective force is a quick thrust with short forward and lateral motion of the pillow/epigastrium coordinated with an increase in the amount of traction through the patient’s axillae.
HVLA - THORACIC "WALK AROUND" TECHNIQUE

- **Dysfunction:** Example: T5 on T6, rotated right and sidebent right, extended. This technique is useful for thoracic somatic dysfunctions.

- **Objective:** Improve rotation and sidebending left and flexion of T5 on T6.

- **Discussion:** This technique is especially useful for extended dysfunctions in the thoracic area. Localize the barrier through lateral translation. When performing this technique, it is important to keep the patient’s ischial tuberosities in contact with the table and when introducing the final corrective force, you must thrust through the barrier and then return the chest cage back to its original position to prevent “locking up” the ribs. Instructing the patient to turn their head to the side opposite to the dysfunction may enhance results by adding more rotation from above. This technique may also be used to treat Flexed dysfunctions by introducing extension.

- **Physician Position:** Standing behind the seated patient.

- **Patient Position:** Patient sitting on the side of the table, at the right end, with their back towards the physician. An assistant will stand to the side of the patient’s opposite leg to act as a counterforce for the patient. Keep their pelvis close to the edge.
Procedure:

- Instruct the patient to clasp their hands behind their neck.
- With your left arm, reach beneath the patient's left axillae just below the shoulder, crossing the chest anteriorly. Place your left hand over the patient's right arm, grasping the area of the right humeral head.
- Instruct the patient to slump forward until gaping (flexion) is palpated between the spinous processes of T5 and T6.
- Place the heel of your right hand over the right transverse process of T5. Translate the thoracic area across the midline to the right, by applying pressure with your body against the patient's left axillae. This right translation engages the barrier and localizes the left sidebending force to T5 on T6.
- Keep the patient's shoulders level and ischial tuberosities on the table.
- Now, rotate the patient to the left, this is accomplished by walking around the end of the table to the right while combining a pull with your left arm. Maintain localization by pressure through your right hand until the barrier is engaged. After the barrier is engaged by lateral translation, rotate T5 left by pushing with your right hand, maintaining the lateral translation right.
- Your left arm keeps the patient's torso flexed. Do not allow the T5 somatic dysfunction to extend (lose the flexed position) during the corrective force, as this will probably render the technique ineffective. The dominant corrective force in this technique is with the right hand on the posterior transverse process, with a secondary force from above.
- The final corrective force is a quick increase in left rotation of T5 with an anterolaterally-directed force through the heel of your right hand by shifting your body around to the restrictive barrier.
- Once you go through the restrictive barrier with your hand, immediately return the thoracic area to the neutral position.
- Reassess motion.
• **FOR MUSCLE ENERGY MODIFICATION:** Follow steps 1-7, then have the patient turn back into your right hand while you maintain the barrier. Have the patient contract for 3-5 seconds, rest and then you “take up the slack” and reengage the new barrier. Repeat several times.
Techniques- Ribs

- FPR
  - patient prone

- Still
  - patient seated
  - First Rib- patient supine
FACILITATED POSITIONAL RELEASE FOR RIBS-PATIENT PRONE.

- **Dysfunction:** Posterior rib (prominent rib angle)  
  Example: PR3L.

- **Objective:** To restore motion to the rib

- **Discussion:** This technique is useful in treating dysfunctional ribs with prominent posterior rib angles (anterior rib head). These are structural rib dysfunctions.

- **Patient position:** prone, with a pillow under the chest cage to flatten the thoracic AP curve.

- **Physician position:** standing on the opposite side of the rib dysfunction.
Procedure:

- The physician places his sensing hand (right) on the rib angle of PR3L.
- The physician’s left hand contacts the patient’s left shoulder, midclavicular area in such a manner as to curl the fingers under the shoulder contacting the anterior clavicular area.
- A vector force is introduced through the patient’s left shoulder with the physician’s left hand until localized to the rib.
- While maintaining the vector force, the physician lifts the shoulder posteriorly until the motion is localized to the rib. The combined motions of compression, extension, sidebending and rotation are introduced with this position.
- This position is held for 3-5 seconds or until a release is felt.
- Reassess.
STILL TECHNIQUE FOR RIBS- PATIENT SEATED

- **Dysfunction:** Posterior rib 3 left (PR3L)
- **Objective:** To restore motion of the third rib.
- **Discussion:** This technique may be used for a structural “posterior” rib or a solitary exhaled rib. The technique can also be used for the anterior or inhaled rib with slight modifications.
- **Patient Position:** seated
- **Physician Position:** standing behind the patient on the side of the affected rib.
**Procedure:**

- The physician places the fingers or thumb of his right hand on the posterior rib angle. This will be the sensing hand.
- The physician gently cradles the patient’s left arm by holding the elbow in the palm of his left hand.
- The patient’s left arm is then abducted and extended until motion is localized at the R3L rib angle.
- A compressive force is then applied through the elbow laterally toward the trunk to the rib angle.
- While maintaining the compression (the steering rod), the physician takes the left shoulder through a smooth arc of motion through abduction, partial flexion and ending in adduction.
- The vector force is released.
- Reassess
- This technique can be modified for the anterior rib. The start position is the same EXCEPT the arm is started in adduction and the shoulder is articulated through partial flexion/abduction and into extension.
**Still Technique- First Rib- Patient Supine**

- **Dysfunction:** First rib posterior (elevated or superior) on the right
- **Objective:** Improve motion of the first rib.
- **Discussion:** The most common error in this technique is the loss of the vector force throughout the technique. Localization is extremely important. This technique is avoided in the patient with “frozen shoulder”.
- **Physician Position:** Standing beside the table, facing the patient, and on the side of the dysfunction.
- **Patient Position:** Lying supine.
Procedure:

- The physician places his right hand over the patient’s rib with the fingers on the posterior aspect of the first rib where it articulates at T1.
- The physician bends the patient’s elbow and places his left hand on the patient’s flexed elbow.
- The patient places his right arm across his chest such that the palm of the right hand is in contact with the left shoulder.
- The physician introduces a compression vector force from the patient’s elbow directly into the physician’s monitoring fingers.
- Maintaining this compression, the physician localizes motion to the rib articulation by introducing a slight abduction and internal rotation of the humerus. The patient’s right arm should remain under the physician’s right forearm.
- The physician brings the elbow in a backward arc until the patient’s arm passes his ear and carries the shoulder outward towards the shoulder and down.
- The release is typically felt shortly after the arc starts outward.
- The position is released and the dysfunction reevaluated.
Techniques-Cervical/Suboccipital

- Cervicals
  - FPR- patient supine
  - Still- patient seated

- Suboccipital
  - OA
FACILITATED POSITIONAL RELEASE: CERVICAL DYSFUNCTION

- **Dysfunction:** Example: C₃ on C₄ flexed (forward bent), rotated right, sidebent right (tissue texture change, motion restriction, and tenderness on the right) - posterior C₃ right.

- **Objective:** Improve left rotation, sidebending and extension at C3-4.

- **Discussion:** The most common error in this technique is failure to start with the AP curve flattened and failure to maintain compression or distraction to the involved segment. This technique requires localization of motion to the affected segment.

- **Physician Position:** Seated at the head of the table.

- **Patient Position:** Lying supine.
Procedure:

- The physician places his/her index finger on the posterior component of the dysfunction with the thumb on the other side.
- The cervical spine is placed in a neutral position such that the cervical lordosis is normalized.
- Gentle compression is placed into the cervical spine to the dysfunction through the head.
- The C-spine is then flexed or extended (taken in the direction of free motion) down to the dysfunctioned segment.
- The physician then introduces sidebending/rotation at the segment by gently translating the segment away from the free motion (translation away causes sidebending in the opposite direction).
- The release will be felt in 3-5 seconds.
STILL TECHNIQUE: CERVICAL DYSFUNCTION

- **Dysfunction:** Example: C₃ FRS right.
- **Objective:** Improve left rotation, sidebending and extension at C3-4.
- **Discussion:** The most common error in this technique is failure to maintain the force vector while restoring the normal range of motion. This technique requires precise localization of motion in the involved tissue.
- **Physician Position:** Seated at the head of the table or standing facing the patient.
- **Patient Position:** Lying supine or seated, facing the physician.
Procedure:

- The physician’s right hand is the sensing hand while the left hand is the operating hand.
- The physician gently cradles the patient’s head and neck in the palm of both hands. Using the pads of the fingers of the sensing hand, the physician contacts the right articular pillar of C3.
- The physician then uses the left hand to introduce right sidebending/rotation and flexion to C3 until the sensing hand notes the localization.
- The physician now introduces a vector force of either distraction of the head and neck with both hands or compression of the head and neck to localize to C3 right.
- While sensing and maintaining the localization, the head and neck is sidebent/rotated left and extended with a low to moderate velocity. IT IS IMPORTANT TO MAINTAIN THE VECTOR LOCALIZATION THROUGH THE TECHNIQUE.
- The release will be felt as the segment is returned to normal motion.
STILL - HEAD - POSTERIOR OCCIPUT (OA FLEXED) - PATIENT SEATED

- **Dysfunction:** Posterior right occiput. (The occiput is rotated right, sidebent to the left with slight flexion. Tissue texture change will be noted on the right.)

- **Objective:** Improve left rotation and right sidebending motion of the OA.

- **Discussion:** Occiput on atlas (OA) has a combined, opposite motion- rotates and sidebends opposite. When there is dysfunction, freedom of flexion (with tissue change on the rotational side) or extension (tissue change on the sidebending side) will also be noted.

- **Patient Position:** Seated.

- **Physician Position:** Standing, facing the patient
Procedure:

- The physician places the pad of his left middle finger on the right posterolateral aspect of the occiput (rotational component). The other fingers wrap around the neck and support the head. This is the sensing hand.

- The pad of his right middle finger is placed on the left posterolateral aspect of the occiput (sidebending component), with the fingers contouring and supporting head and neck.

- The right hand now rotates the patient’s head to the right and maintains left sidebending until localization is felt and a “position of ease” is noted. A slight amount of flexion will further improve the “position of ease.”

- Using the both hands, the physician places a gentle distraction through the patient’s head until localization is noted at the right posterior component.

- While maintaining the distraction vector force, the head is now gently moved to the left, through neutral and into the restrictive barrier.

- A release is noted and the head and neck are returned to the neutral position.

- Reassess.
Techniques-Lumbar/SI

- Lumbar-FPR- patient prone
- SI- FPR- patient prone
FACILITATED POSITIONAL RELEASE-LUMBAR

- **Dysfunction**: L1 FRS<sub>R</sub>
- **Objective**: To improve motion at L1
- **Discussion**: This technique requires the physician to localize the motion to the pathologic neutral position.
- **Patient position**: prone
- **Physician position**: standing on the opposite side of the dysfunction.
Procedure:

- The physician contacts the transverse processes of L1 with his thumbs.
- Rotation is introduced by rotating the transverse processes to the right with the thumbs until the pathological neutral or balanced point is met.
- The segment is then gently translated to the left until the balance point is met.
- Since the segment is flexed, flexion is introduced by rolling the thumbs cephalad and anteriorly on the transverse processes of L1 until the balance point is met.
- The segment is held at the balance point until the release is felt. The segment is then returned to the midline.
- Reassess.
FPR FOR SACROILIAC DYSFUNCTION

• **Dysfunction:** Tenderness at the upper pole of the sacrum. The area of upper pole L5 (UPL5). This technique can also be modified to treat the lower pole L5 tender point (LPL5).

• **Objective:** To relieve pain at the UPL5 tender point (LPL5), thus restoring function.

• **Discussion:** This technique can treat the UPL5, LPL5 and piriformis tender points all from the same start position with a few modifications. It is important to remember that the sacral base will move posteriorly when the sacrum is fully backward bent and when the pelvis is fully forward bent. Because of this finding, we are able to treat these posterior tender points by placing the hip and subsequent SI joint into flexion to allow the sacrum to extend.

• **Patient position:** prone

• **Physician position:** seated at the side of the table on the same side as the dysfunction or standing on the same side of the dysfunction.
Procedure:

- Place your cephalad hand on the UPL5 tender point to monitor.
- Have the prone patient move to the edge of the table such that you will be able to drop their leg off the table.
- If you are seated, flex the patient’s hip and knee to 90°. Support the leg with your knees.
- With your caudad hand on the patient’s dropped leg, flex the hip further and then externally rotate the hip until the tender point softens and localization takes place. The tender point should be at 0-3 on the tenderness scale.
- Now, using your caudad hand, introduce a gentle vector force up the long axis of the femur as the facilitating force. The point should release in 3-5 seconds.
- Passively return the patient’s leg to neutral on the table while still monitoring the tender point.
- Reassess.
- For the LPL5 point, internal rotation is often needed. The piriformis tender point often does not require as much hip flexion BUT does require INTERNAL rotation (the piriformis is a major external rotator of the hip, but there are some internal rotator fibers seen.)
CODING

- The following is a list of the CPT procedure codes to be used with OMT. These codes may be used *in addition to* E&M codes. When the OMT procedure codes are used with an E&M code a -25 modifier must be attached to the E&M code.

  - 1-2 regions 98925
  - 3-4 regions 98926
  - 5-6 regions 98927
  - 7-8 regions 98928
  - 9-10 regions 98929

- The diagnostic codes to be used with the OMT procedure are the 739 series.