ATSU | National Center for Osteopathic Principles and Practice Education

Introduction to OMM for MDs and DOs

Summary of Day 3

- May 19, 2025 – May 22, 2025 Kirksville, MO
- NCOPPE & KCOM

ATSU | A.T. Still University

FIRST IN WHOLE PERSON HEALTHCARE

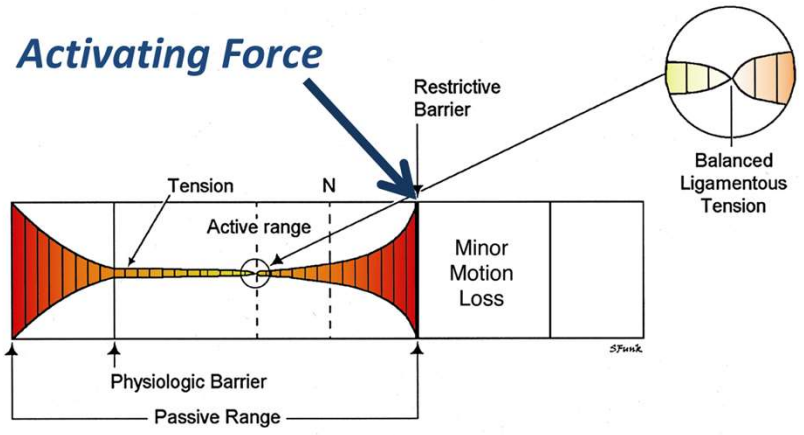
- Somatic Dysfunction

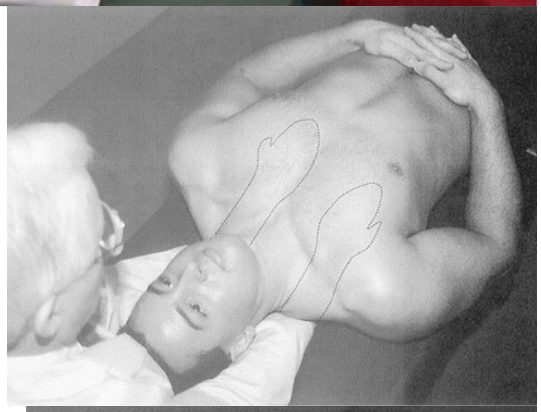
Impaired or altered function of related components of the somatic (body framework) system: skeletal, arthrodial, and myofascial structures, and their related vascular, lymphatic, and neural elements.

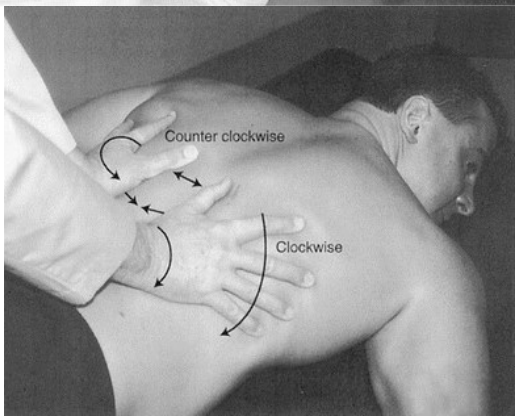
- Diagnostic Criteria for Somatic Dysfunction is T.A.R.T.
  - Tissue texture abnormalities
  - Asymmetry of structure
  - Restriction of motion
  - Tenderness

- Somatic Dysfunction is the indication for OMT
  - OMT is directed specifically at the treatment of somatic dysfunctions
- OMT – Osteopathic Manipulative Treatment

  The therapeutic application of manually guided forces by an osteopathic physician to improve physiologic function and/or support homeostasis that have been altered by somatic dysfunction.
- OMT: Direct or Indirect Techniques





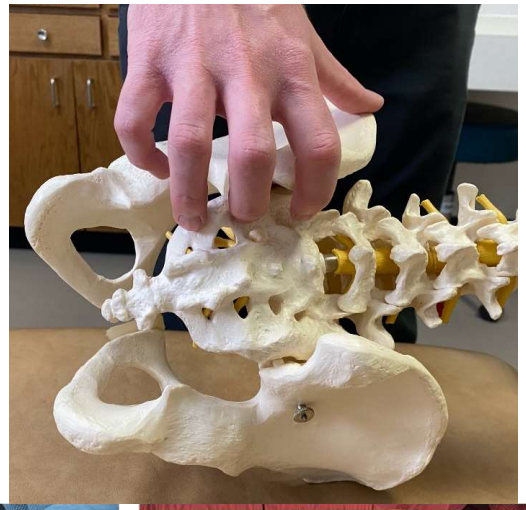


Myofascial Release

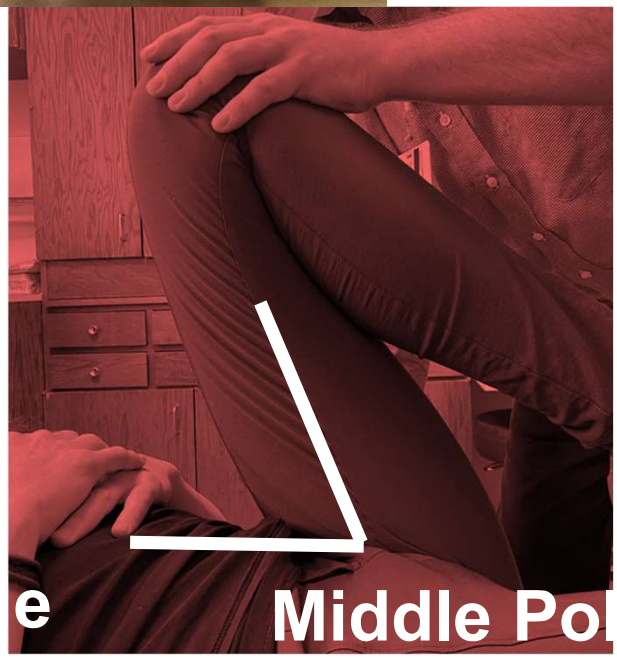
Direct or Indirect Positioning

- Release Enhancing Maneuvers
  - Patient instructed to perform motor actions
    - Move upper extremities (C5-T1)
    - Deep respirations and sniffing (Phrenic N.-C3-5)
    - Coughing (CN-X, Phrenic, Spinal motor n.)
    - Eye movements (CN-III, IV, VI)
    - Jaw movements (CN-V)
    - Smile, frown, close eyes (CN-VII)
    - Move shoulders (trapezius) (CN-XI)
    - Tongue movements (CN-XII)
    - Swallowing (CN IX, X, XII, (V, VII))
- 15-120 seconds, direct or indirect
- recheck

Middle, and Inferior Sacral Poles – long lever



1. Palpate
2. Localize
3. Myofascial Release
4. Muscle Energy Technique



OMT for Pneumonia

1. rib raising
2. diaphragm myofascial release
3. thoracic inlet myofascial release
4. cervical spine soft tissue
5. suboccipital decompression
6. thoracolumbar soft tissue
7. thoracic lymphatic pump
    1. Kimberly Manual 2008 page 61
8. pedal lymphatic pump
    1. Kimberly Manual 2008 page 61

Counterstrain Treatment: An Indirect Technique

1. **Find the tender point**
2. **Establish a pain scale**
3. **Position in standard treatment position**
4. **Recheck TP -Goal is Zero - minimum is 30% of original pain**
5. **Fine tune position for maximum effect**
6. **Monitor point and Hold treatment position for 90 seconds**
7. **SLOWLY return to neutral**
8. **Recheck point**

- Eliciting tenderness pressure
  - Used when
    - Establish pain scale
    - Rechecking
- Monitoring tissue response pressure
  - Lighter
  - Palpating radial pulse
  - Used when
    - Finding tx position
    - Holding for 90 sec
- Therapeutic pulse
  - Improved tissue perfusion

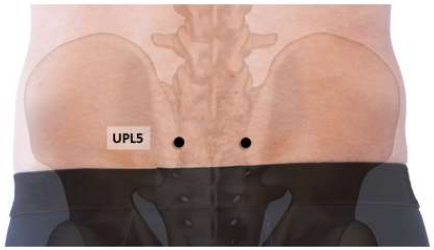
Lumbar Counterstrain

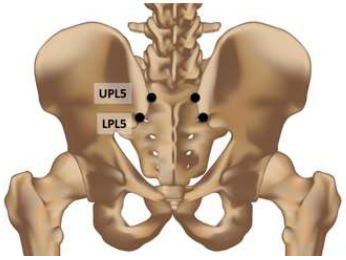
Upper Pole L5 (UPL5) Location
Found on superomedial aspect of PSIS

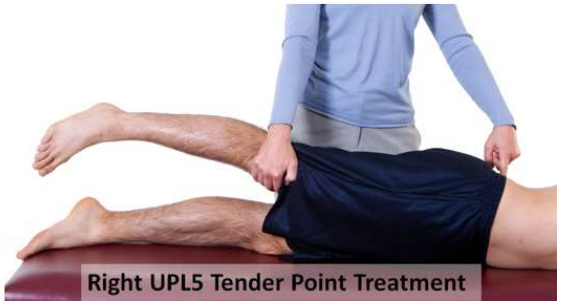
Treatment
1. Prone
2. Extend ipsilateral trunk by rotating pelvis towards (**trunk away**) point or by extending ipsilateral hip with slight adduction, creating slight extension and sidebending away from point

ESaRt

Anatomical Considerations







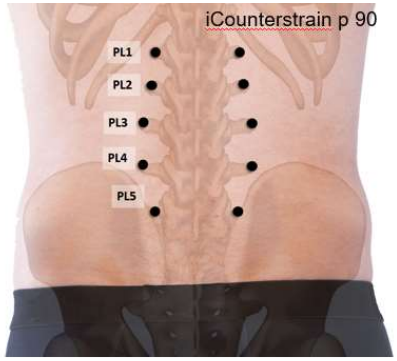
PL1-5 Transverse Process Location
Found on corresponding transverse processes

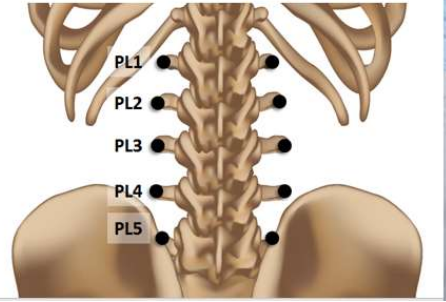
Treatment
1. Prone; standing on side of dysfunction
2. Extend ipsilateral trunk by rotating pelvis towards (**trunk away**) point or by extending ipsilateral hip, creating slight extension and sidebending away from point

ESaRt

Anatomical Considerations

iCounterstrain p 90





Alternate Treatment
1. Prone; stand on side opposite dysfunction
2. Extend ipsilateral trunk by rotating pelvis towards (**trunk away**) point or by extending ipsilateral hip, creating slight extension and sidebending away from point

Muscle Energy of Lumbar Spine

- Typically a Direct Technique
  - patient's muscles are actively used on request
  - in a specific direction
  - from a precisely controlled position
  - against a physician counterforce
- patient is supine or seated (or lateral recumbent)
- Localize
  - Move trunk in each plane until you first feel the tissue tighten
    - use a light monitoring force when positioning
- Activating force
  - Coach patient to lightly contract against your resistance
  - Typically physician provides isometric resistance

Somatic Dysfunction	Restrictive Barrier Direction of Bind
Named for preferred motion	Direct Technique Positioning
ER_LS_L	**FR_RS_R**
ER_RS_R	**FR_LS_L**
FR_LS_L	**ER_RS_R**
FR_RS_R	**ER_LS_L**
NS_LR_R	**NS_RR_L (variable F or E)**
NS_RR_L	**NS_LR_R (variable F or E)**
E	**F (variable R or S)**
F	**E (variable R or S)**

Effect of intrapartum OMT on Duration of Labor (Martingano, et.al. 2019)

- Pilot prospective observational (on-going)
- New York Langone Hospital–Brooklyn, June – September 2017

- 2-armed, n=100, patients, intrapartum inpatient setting
  - Control – standard labor management alone (n=50)
  - Intervention – adjunctive OMT + standard labor management (n=50)

- Outcome variables
  - Total Labor duration
  - Presence of meconium-stained amniotic fluid
  - C-section due to failure to progress or lack of descent

- Martingano D, Ho S, Rogoff S, Chang G, Aglialoro GC. Effect of Osteopathic Obstetrical Management on the Duration of Labor in the Inpatient Setting: A Prospective Study and Literature Review. J Am Osteopath Assoc. 2019 Jun 1;119(6):371-378. doi: 10.7556/jaoa.2019.066. PMID: 31135865.

Effect of intrapartum OMT on Duration of Labor

- OMT Protocol
  - 3 osteopathic obstetricians
  - Once-daily, <20 minutes
  - Suboccipital decompression
  - Thoracic Inlet release
  - Rib raising
  - Paraspinal Inhibition
  - Sacral Inhibition
- Control
  - Allopathic obstetricians
- Inclusion
  - Consent to OMT
  - Trial of labor management with the expectation of vaginal delivery
- Exclusion
  - Acute abdomen
  - BP > 160/110 mm Hg
  - Unexplained visual disturbances
  - Heavy vaginal bleeding preceding delivery
  - < 34 weeks gestational age
  - Magnesium sulfate received for seizure prophylaxis in the setting of preeclampsia
  - Scheduled C-section
  - Treatment Refusal

Table 1.
Effect of Osteopathic Obstetrical Management on the Duration of Labor: Maternal Demographics Among the OMT and Control Groups [a]

Maternal Demographics	OMT (n=50)	Control (n=50)	*P* Value
Maternal Age, y, mean (range)	28 (18-39)	28 (19-38)	.65
Maternal Age >34 y	4 (8)	6 (12)	.51
Latent Labor	31 (62)	37 (74)	.06
Nulliparous	24 (48)	24 (48)	>.99
Gestational Age at Delivery, wk, mean (SD)	39.1 (1.6) (range, 34-41)	39 (1.2) (range, 36-42)	.09
Race			
Asian	6 (12)	10 (20)	.09
Black	8 (16)	4 (8)	.12
Hispanic	16 (32)	20 (40)	.06
Middle Eastern	8 (16)	5 (10)	.45
White	12 (24)	11 (22)	.93

[a] Data are presented as No. (%) unless otherwise indicated.

Table 2.
Effect of Osteopathic Obstetrical Management on the Duration of Labor: Outcomes Among the OMT and Control Groups

Labor Component	OMT (n=50)	Control (n=50)	*P Value*
All Patients			
Total labor time, mean (SD)	11.34 (6.62) (range, 1.1-27.0)	16.57 (4.39) (range, 1.0-58.8)	.03
MSAF	11 (22)	9 (18)	.62
Cesarean delivery	3 (6)	5 (10)	.47
Primiparous Patients			
Total labor time, mean (SD)	11.39 (5.2) (range, 2.33-20.6)	15.05 (12.8) (range, 1.12-54.7)	.41
MSAF	8 (33.3)	5 (20.8)	.34
Cesarean delivery	1 (4.2)	2 (8.3)	.56
Multiparous Patients			
Total labor time, mean (SD)	10.5 (8.07) (range, 1.07-27.0)	18.1 (16.2) (range, 1.0-58.8)	.10
MSAF	3 (12.5)	4 (16.7)	.69
Cesarean delivery	2 (8.3)	3 (12.5)	.65

* Data are presented as No. (%) unless otherwise indicated.