ATSU | National Center for Osteopathic Principles and Practice Education

Introduction to OMM for MDs and DOs

Summary of Day 3

- May 20, 2024 – May 23, 2024 Kirksville, MO
- NCOPPE & KCOM

ATSU | A.T. Still University

FIRST IN WHOLE PERSON HEALTHCARE

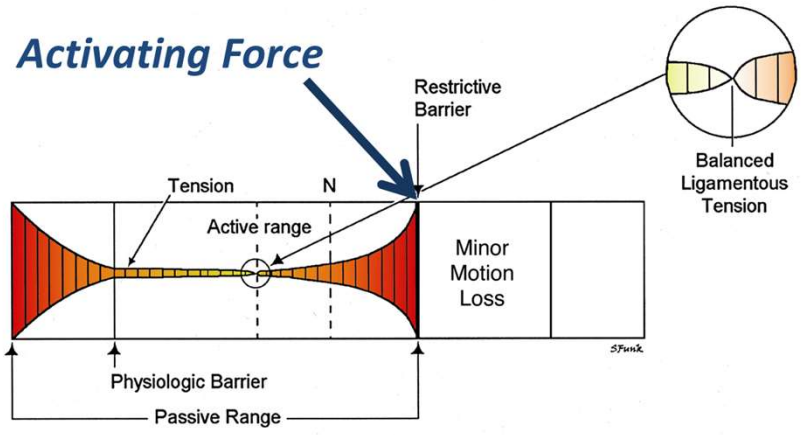
- Somatic Dysfunction

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



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)**

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

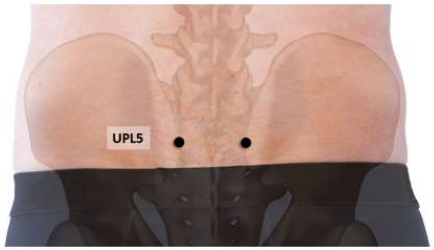
Lumbar Counterstrain

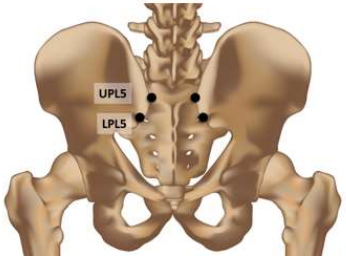
Upper Pole L5 (UPL5) Location
Found on superomedial aspect of PSIS

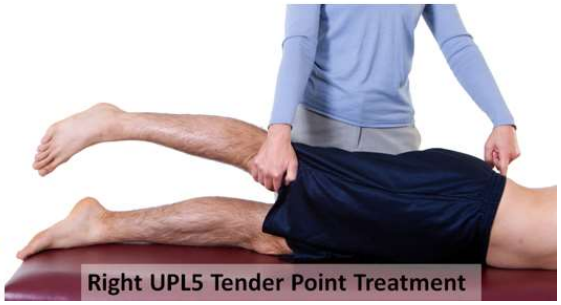
Treatment
1. Prone
2. Extend ipsilateral trunk by rotating pelvis towards (**trunk away**) point or by extending ipsilateral hip with slight adduction, creating slight extension and sidebending away from point

ESaRt

Anatomical Considerations





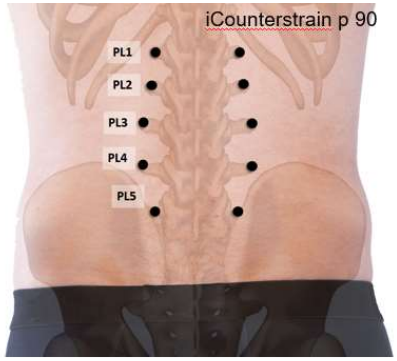


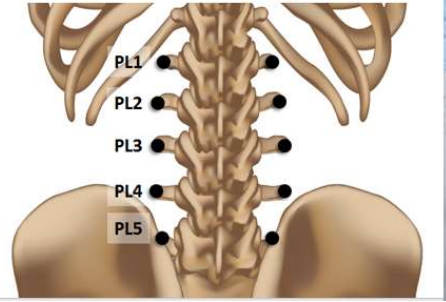
PL1-5 Transverse Process Location
Found on corresponding transverse processes

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

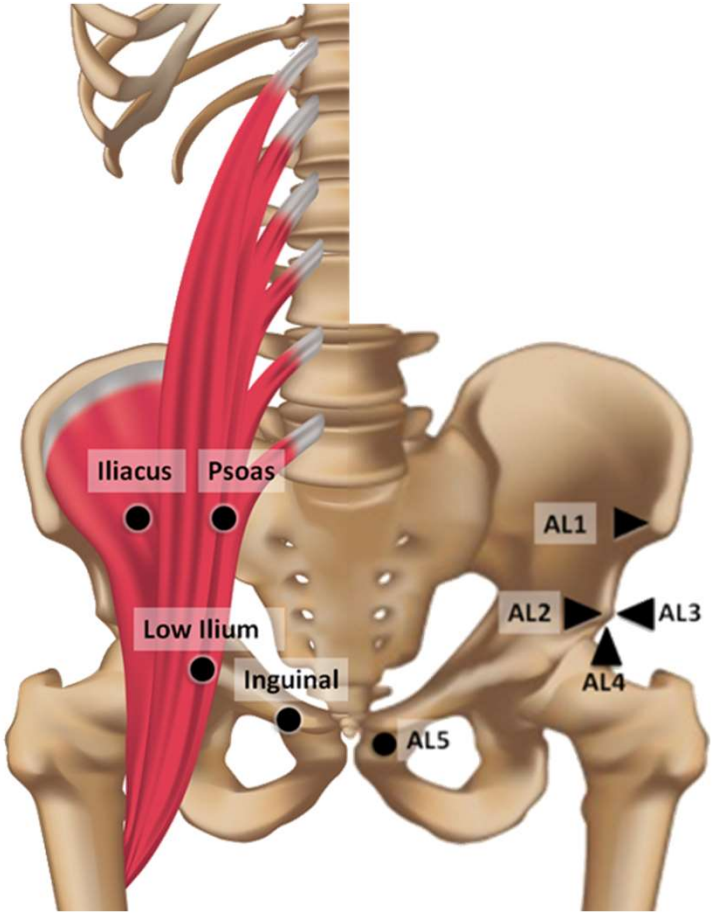




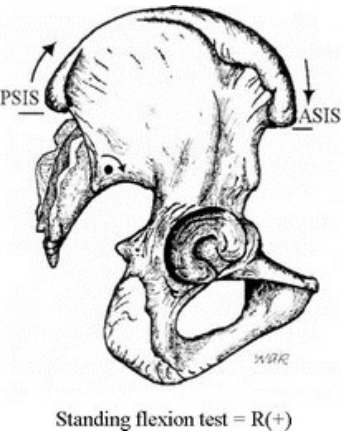
Alternate Treatment
1. Prone; stand on side opposite dysfunction
2. Extend ipsilateral trunk by rotating pelvis towards (**trunk away**) point or by extending ipsilateral hip, creating slight extension and sidebending away from point

Anterior Pelvis Tenderpoints

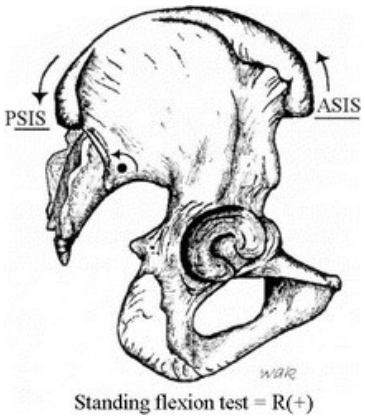
- Anterior Lumbar Tenderpoints
  - Consider using to treat Type 2 Flexed Lumbar Somatic Dysfunction (Indirect Positioning)
- Anterior Pelvis TPs Common with Low Back Pain
- Trochanter & Hip Adductor TPs commonly occur together
- Rectus Femoris TP common with anterior knee pain



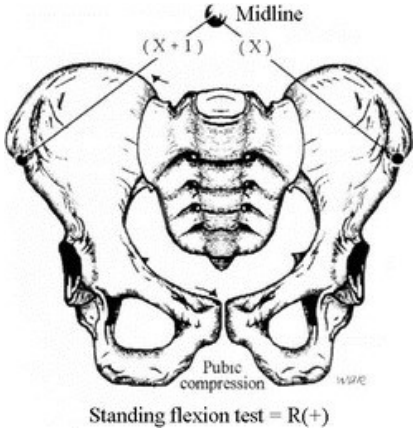
Common Innominate (Iliosacral) Findings



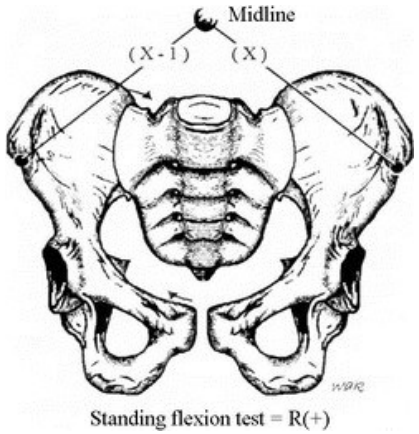
Anterior Rotation



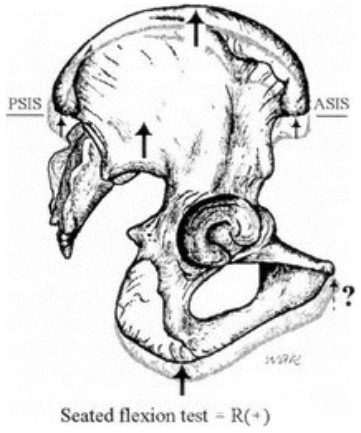
Posterior Rotation



Outflare



Inflare



Superior Shear (Upslipped)

From: **Glossary of Osteopathic Terminology**

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.