ATSU | National Center for Osteopathic Principles and Practice Education

Introduction to OMM for MDs and DOs

- May 19 – 22, 2025, Kirksville, MO
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Counterstrain: Posterior Pelvis

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– Presentation Preparation

Scott Moore, DO

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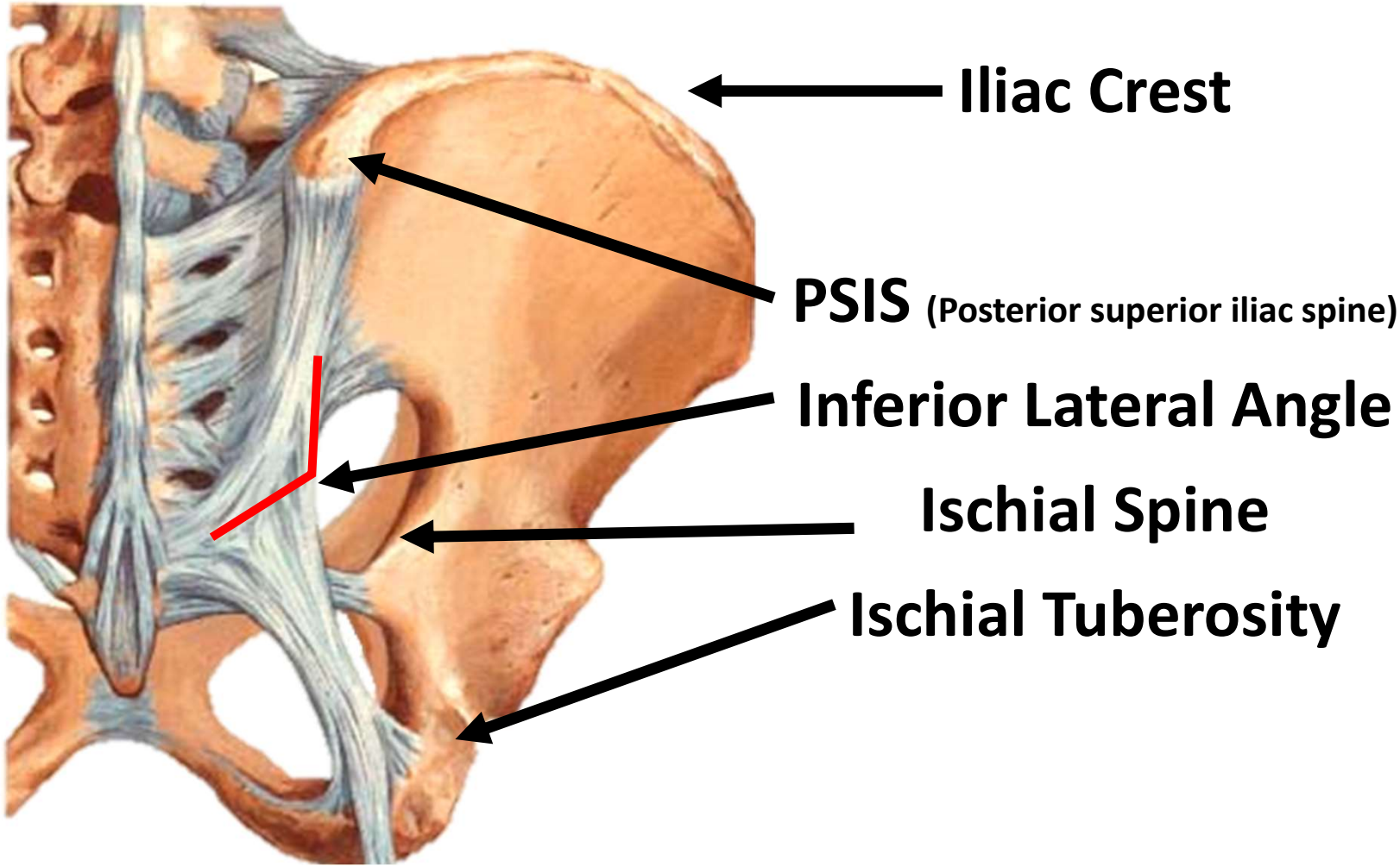
Goals

- to understand posterior pelvic anatomy and its relation to counterstrain tenderpoints

- to identify and treat dysfunction on the posterior pelvis with counterstrain

Posterior Pelvic Landmarks

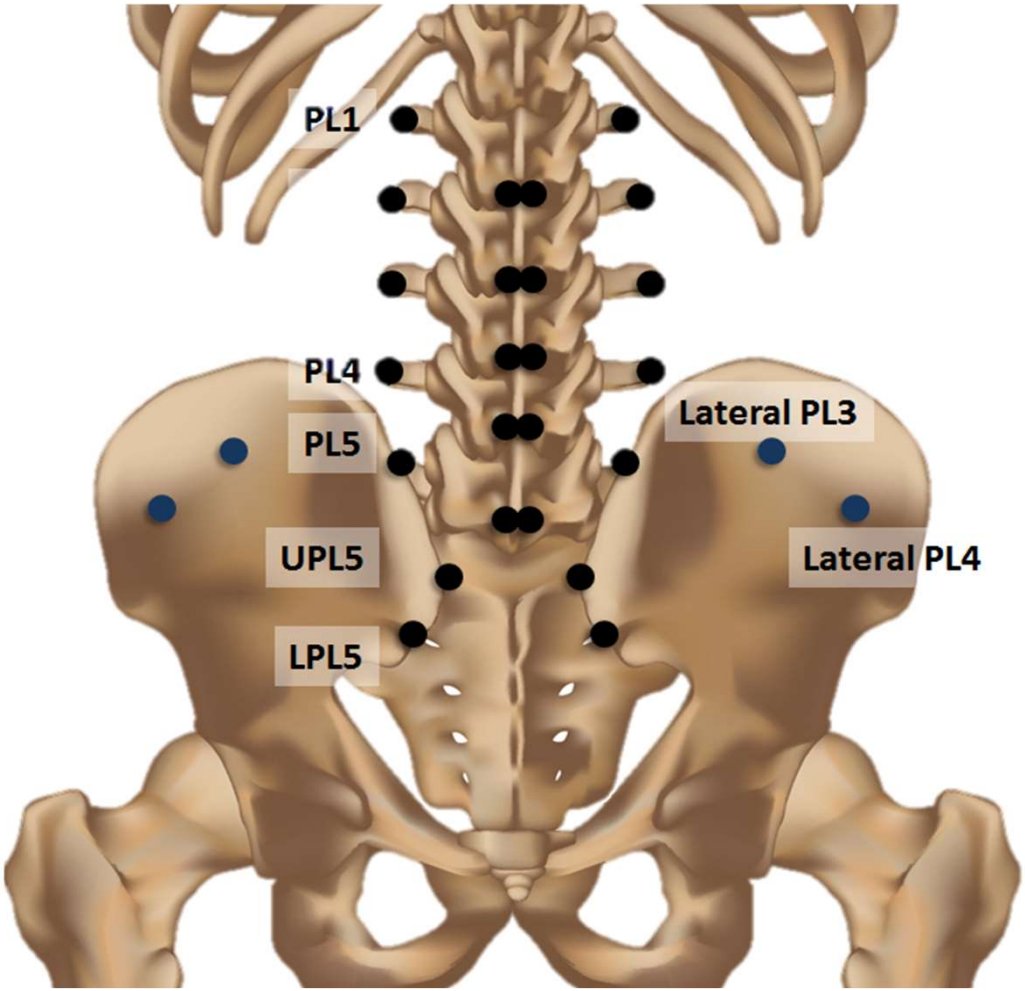


Counterstrain

Counterstrain,

1. **A system of** diagnosis and treatment that considers the dysfunction to be a continuing, inappropriate strain reflex, which is inhibited by applying a position of mild strain in the direction exactly opposite to that of the reflex; this is accomplished by specific directed positioning about the point of tenderness to achieve the desired therapeutic response.
2. Australian and French use: Jones technique, (correction spontaneous by position), spontaneous release by position.
3. Developed by Lawrence Jones, DO.

Posterior Pelvic Tenderpoints



- **PL1-5**
  - **Spinous Process**
  - **Transverse process**
- **Lateral PL3**
- **Lateral PL4**
- **Upper Pole L5**
- **Lower Pole L5**

Counterstrain Treatment Steps

1. **Find the tender point**
2. **Establish a pain scale –**
   - Ex. “This is a 10/10 pain”
   - Position in standard treatment position – Usually wrap the body around the point or approximate the origin and insertion of the affected structure
3. **Recheck TP – “If you had a 10/10 pain before, how much is left now”**
   - Goal is Zero - **minimum is 30%** of original pain (3)
   - Fine tune position for maximum effect
4. **Hold treatment position for 90 seconds – patient must be relaxed**
5. **Slowly & passively return to neutral**
6. **Recheck point – Goal is Zero on pain scale; minimum is 30% of original pain**

Posterior Lumbar Tenderpoints

PL1-5

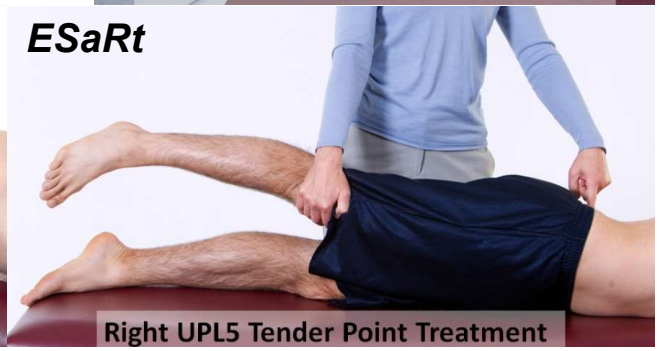
Midline Spinous Process = **pure extension**

Inferolateral Spinous Process/Transverse Process = **ESaRt**

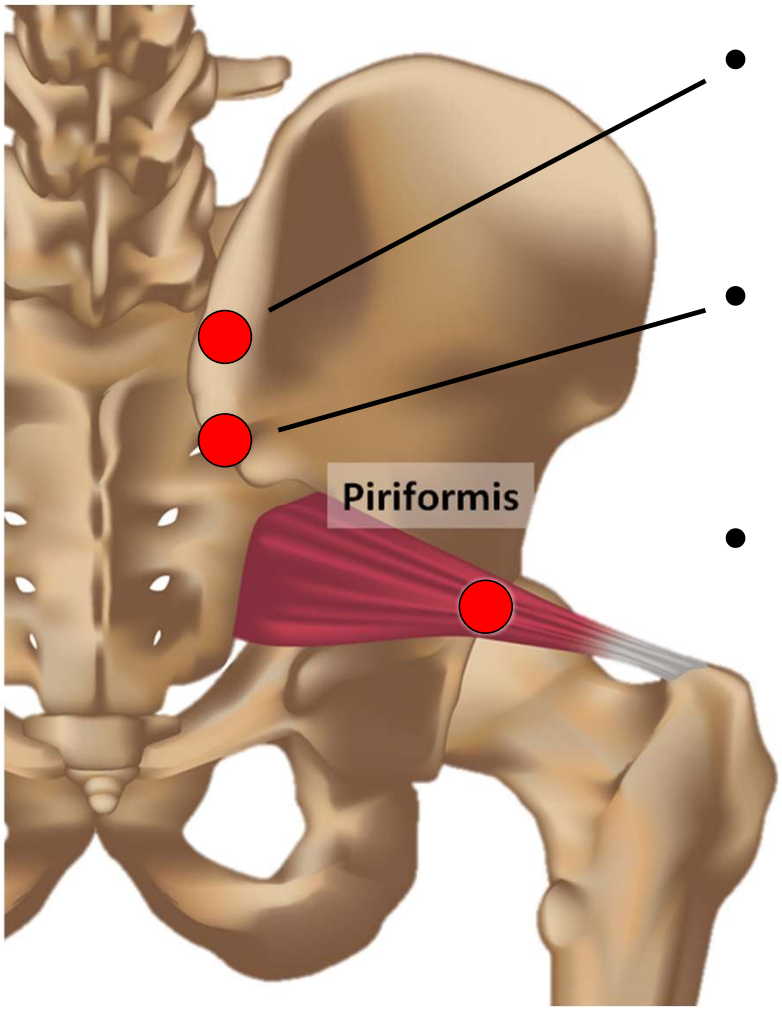
Stand on **opposite** side, lift thigh and roll posteriorly towards

OR

Stand on **same** side, slide knee under thigh and roll down thigh



Lab Exercise 1



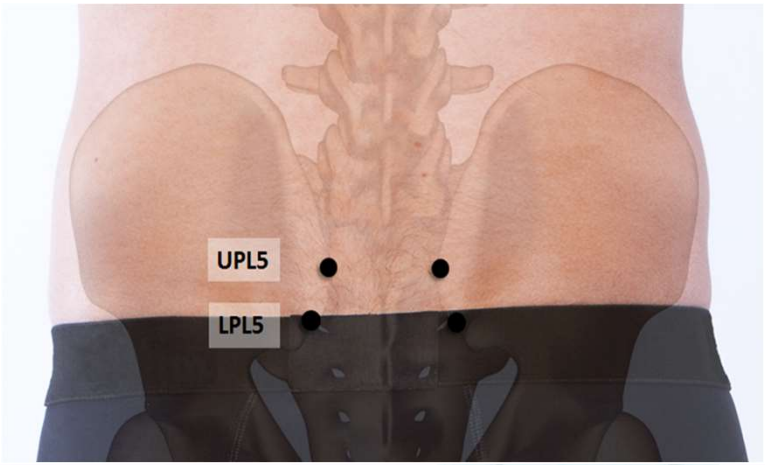
- **Upper Pole L5 (UPL5), SI**
  - **Superomedial aspect of PSIS**
- **Lower Pole L5 (LPL5), SI**
  - **Inferior aspect of PSIS**
- **Piriformis**
  - **About halfway between ILA and greater trochanter**

Upper Pole L5 (UPL5) Location

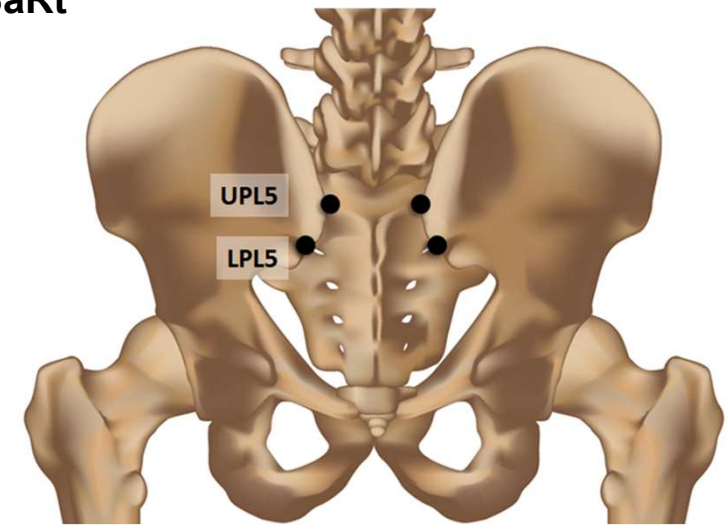
Found on superomedial aspect of PSIS

Treatment

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



ESaRt



LPL5 Locations

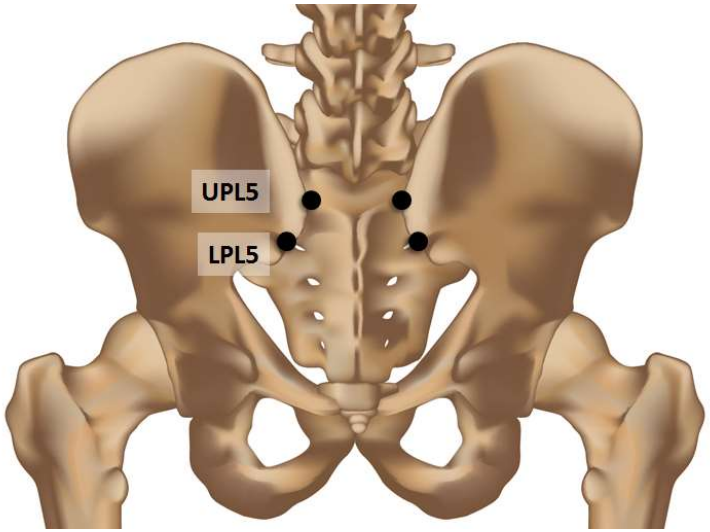
(Lower pole L5)

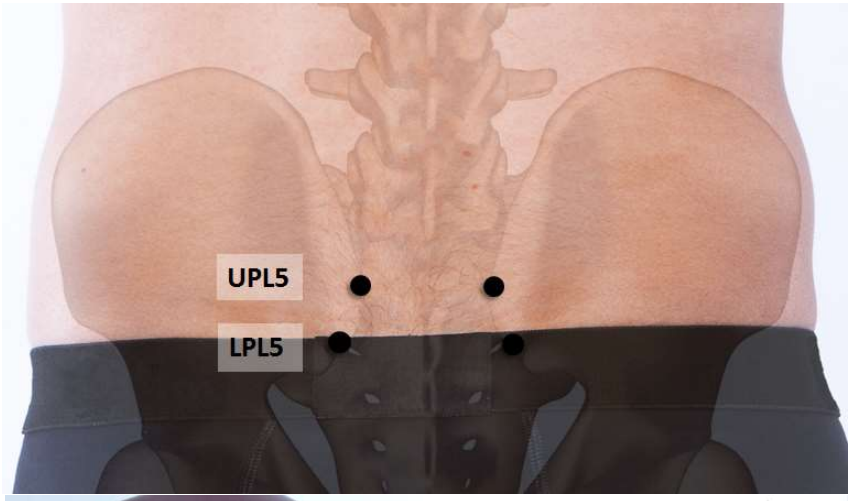
Inferior aspect of PSIS

Treatment

1. Prone
2. Ipsilateral hip flexion (90°) with internal rotation and slight adduction

F IR Add





UPL5 & LPL5 Strain Mechanisms

- UPL5
  - Strain occurs during rapid posterior rotation of the innominate
    - Rapid tension along iliolumbar ligament
  - Counterstrain positioning is to anteriorly rotate the pelvis

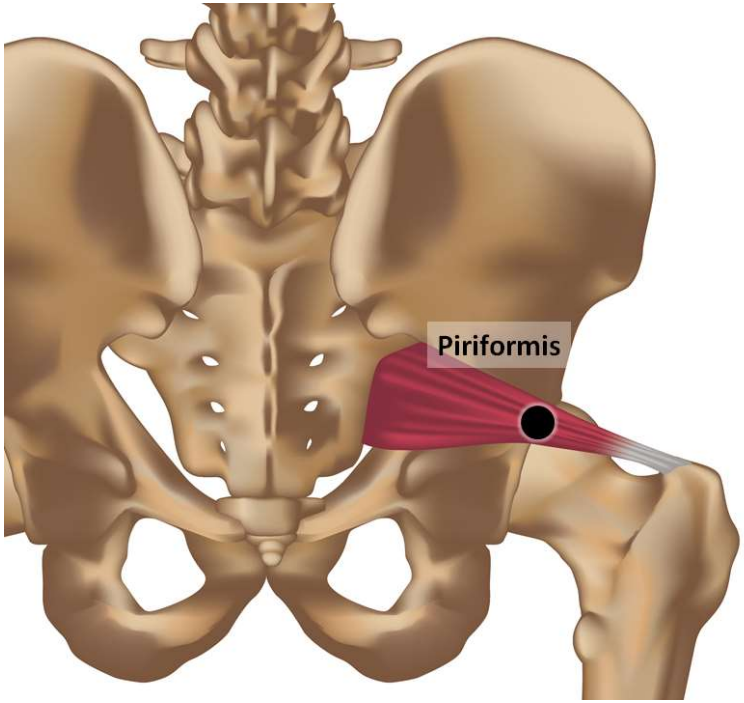
- LPL5
  - Strain occurs during rapid anterior rotation of the innominate
    - Rapid tension along long posterior sacroiliac ligament
  - Counterstrain positioning is to posteriorly rotate the pelvis

Piriformis (PIR) Location

Found in the belly of the piriformis muscle midway between ILA and greater trochanter

Treatment

1. Prone; seated on side of dysfunction
2. Ipsilateral hip flexion to about 120° with some abduction and external rotation



Lab Practice 1

UPL5 – **ESaRt**

Extend ipsilateral trunk by rotating pelvis towards point OR by extending ipsilateral hip with slight adduction, creating slight **extension and sidebending away from point**.

LPL5 – **F IR ADD**

Ipsilateral hip flexion **90°** with internal rotation and slight adduction

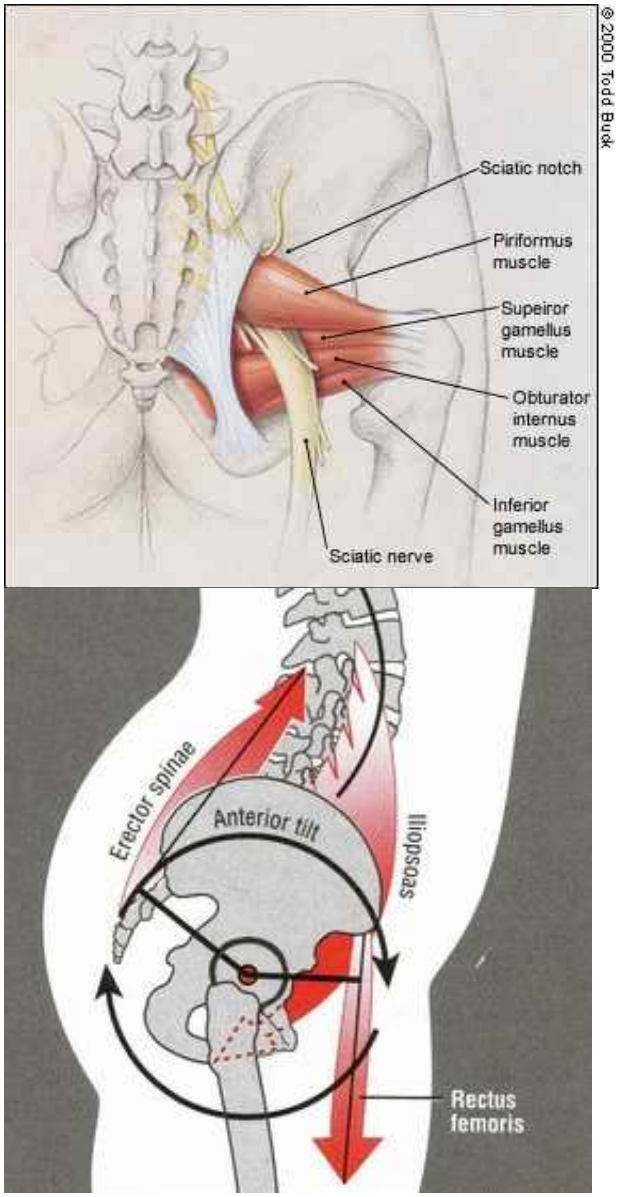
Piriformis **F ER ABD**

Ipsilateral hip flexion to about **120°** with some abduction and external rotation

Clinical Correlations

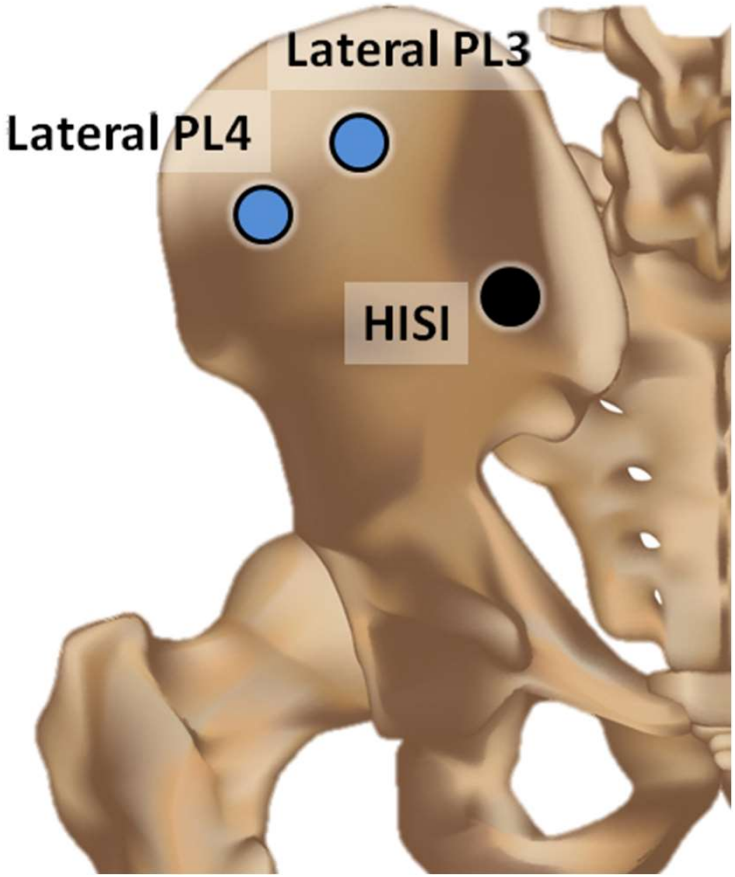
- **Piriformis Syndrome**
  - **irritation of the sciatic nerve due to hypertonicity of the piriformis muscle**

- **LPL5, UPL5**
  - **Postural Dysfunction**
    - ***Lower Cross (again)***



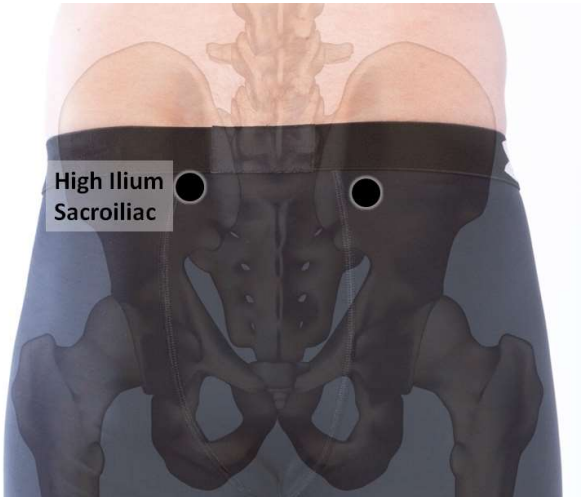
Lab Exercise 2

- **High Ilium SI**
  - **2-3 cm lateral to PSIS**
- **Lateral PL3**
  - **Halfway between PSIS & posterior TFL, just below iliac crest**
- **Lateral PL4**
  - **Just below iliac crest, just behind posterior TFL**



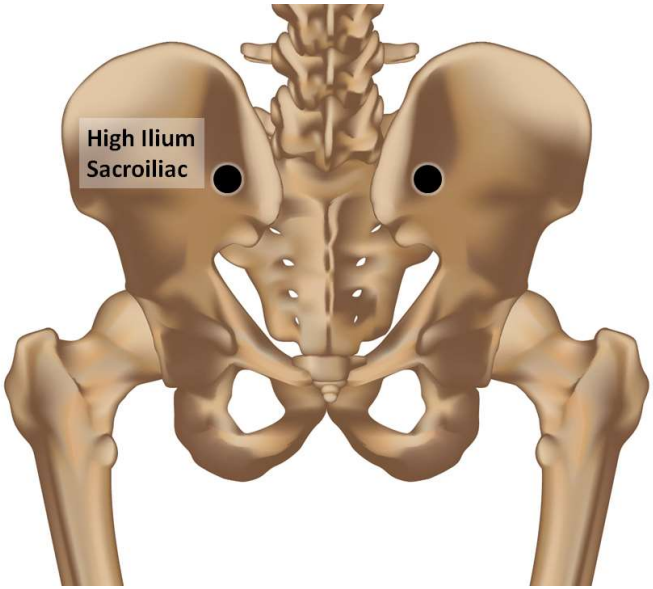
High Ilium Sacroiliac (HISI) Location

Found 2-3 cm lateral to PSIS at attachment of gluteus maximus - *push lateral to medial*



Treatment

1. Prone; standing on side of dysfunction
2. Ipsilateral hip extension with slight abduction



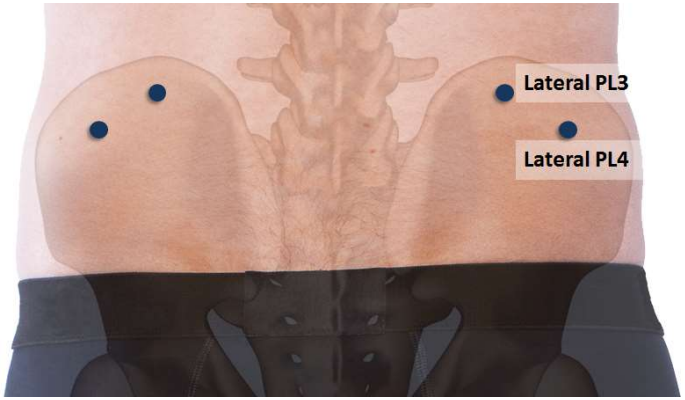
Right High Ilium Sacroiliac Tender Point Treatment

Lateral PL3 and PL4 Locations

(Gluteus medius)

Lat PL3: On the iliac crest in superomedial gluteus medius muscle about halfway between PSIS and posterior edge of tensor fascia lata at the level of the PSIS

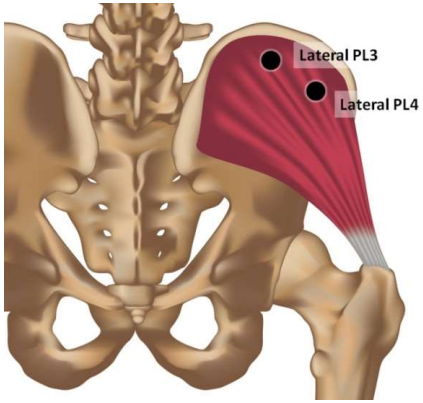
Lat PL4: - On the iliac crest in superolateral gluteus medius at the posterior border of the tensor fascia lata



Treatment

1. Prone
2. Extend ipsilateral hip with abduction and external rotation

E ER Abd



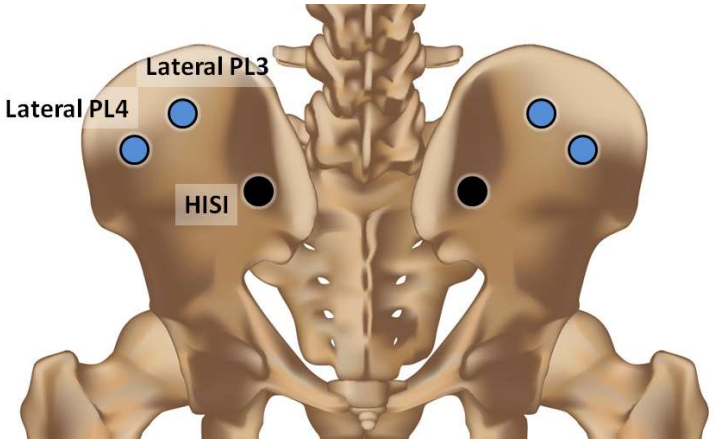
Lab Practice 2

High Ilium

Ipsilateral hip extension with slight abduction

Lateral PL3 and PL4

Extend ipsilateral hip with abduction and external rotation




Right Lateral PL3 Tender Point Treatment


High Ilium Sacroiliac Tender Point Treatment

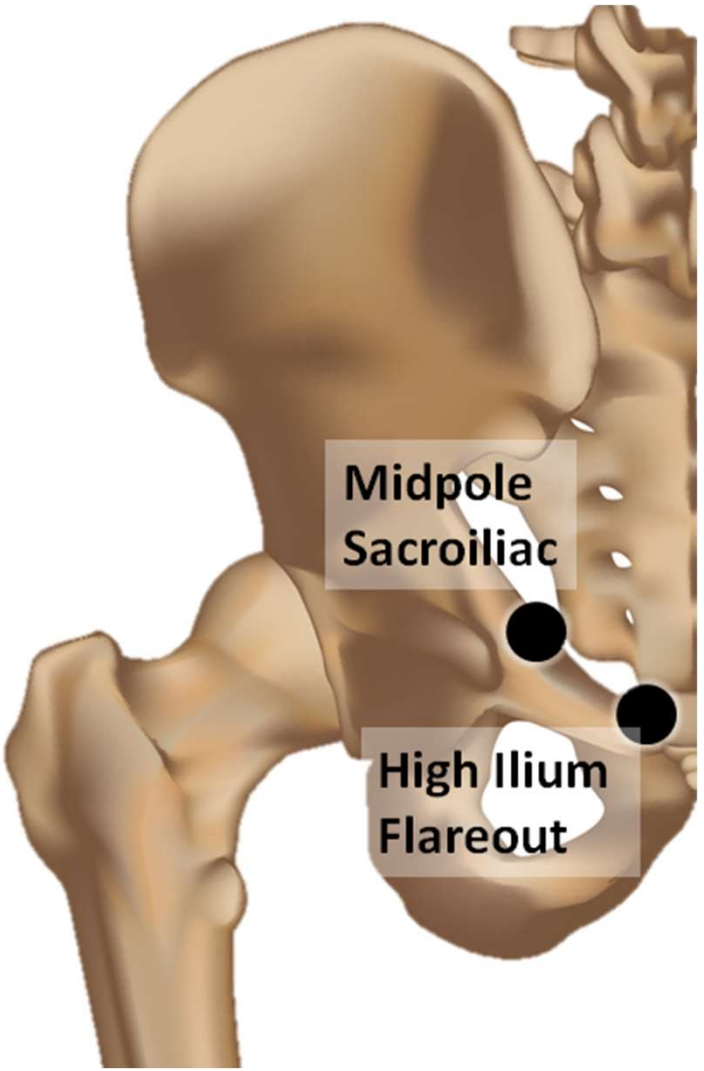
Clinical Correlations

- **High Ilium**
  - **Superior Innominate shear – Postural short leg**
  - **Gluteus Maximus**

- **Posterior Lat L3 & L4**
  - **Gluteus medius**
  - **Postural Dysfunction**

Lab Exercise 3

- **Midpole SI**
  - **Lateral to ILA, push anteromedial**
- **High Ilium Flareout**
  - **Lateral aspect of coccyx, push anteromedial**



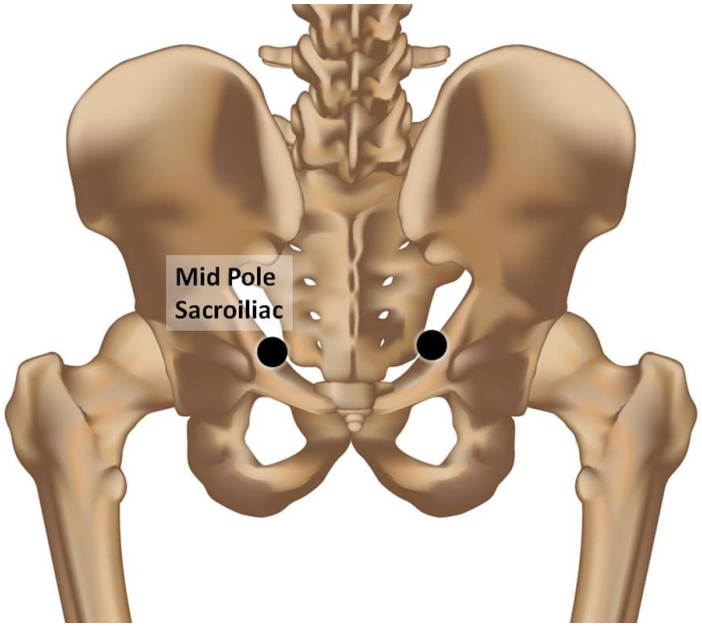
Mid Pole Sacroiliac (MPSI) Location

(Flareout Sacroiliac [FOSI])

Found 10 cm inferior and slightly lateral to PSIS at the level of the ILA – *push anteromedial toward ILA*

Treatment

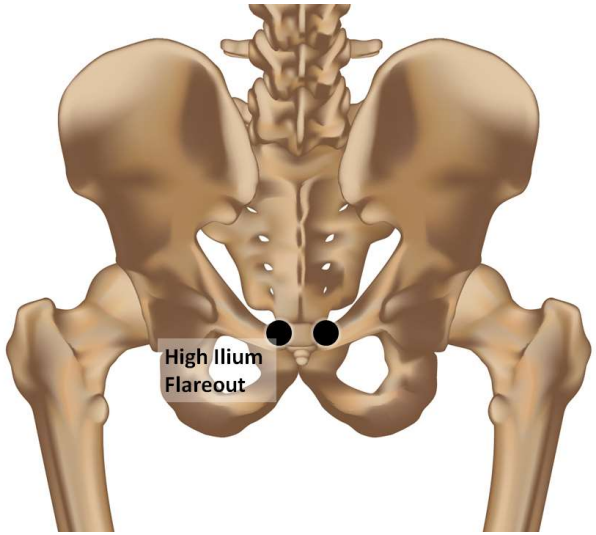
1. Prone; standing on side of dysfunction
2. Ipsilateral hip abduction with slight flexion or extension as needed

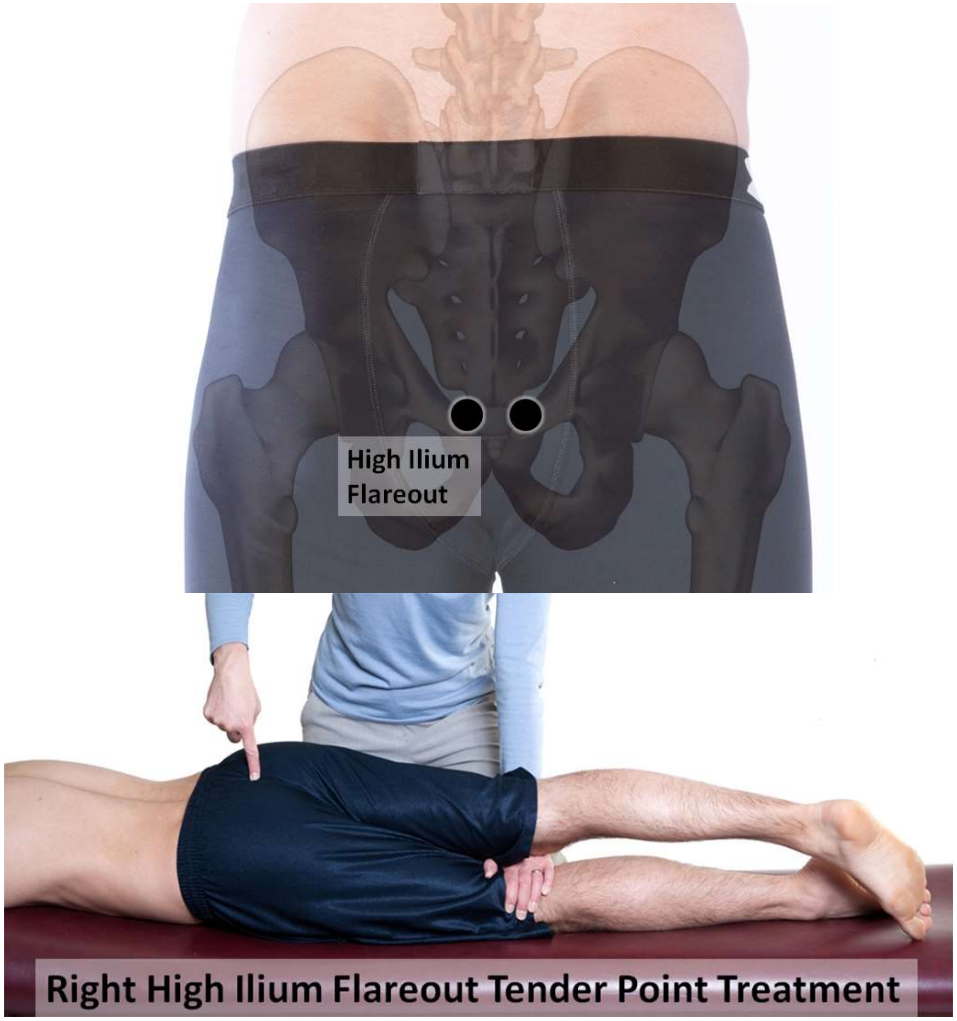


High Ilium Flareout (HIFO) Location
(*Coccygeus*)

Found on lateral aspect of coccyx at attachment of coccygeus muscle – *push posterolateral to anteromedial at 45°*

Treatment
1. Prone; standing on side of dysfunction
2. Ipsilateral hip extension and adduction, may need slight external rotation

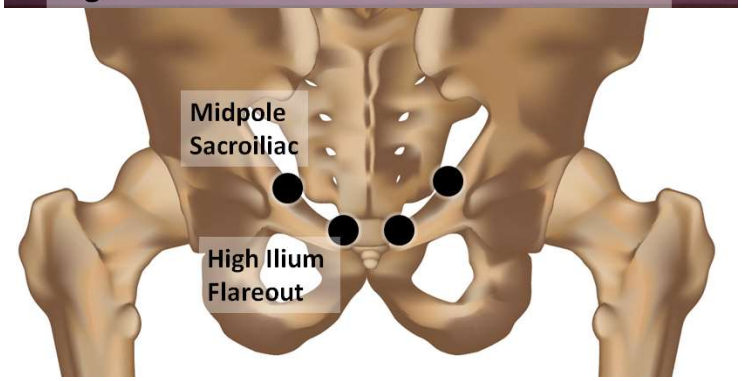




Lab Practice 3

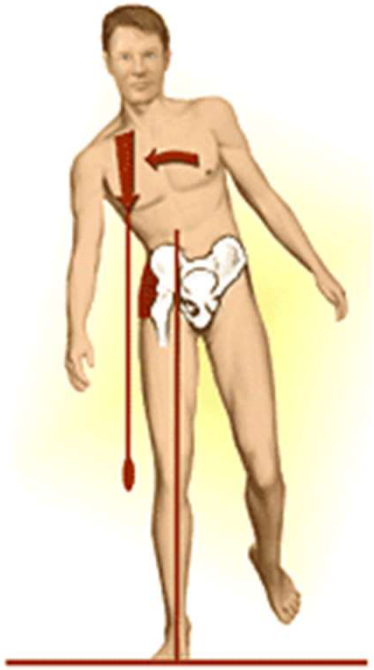
- **MPSI**
  - **Ipsilateral hip abduction with slight flexion or extension as needed**

- **HIFO**
  - **Ipsilateral hip extension and adduction, may need slight external rotation**

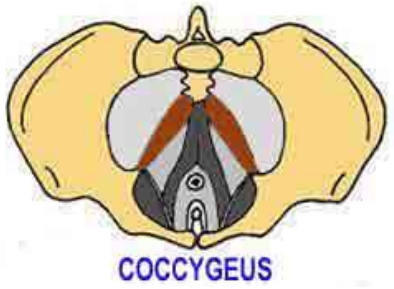


Clinical Correlations

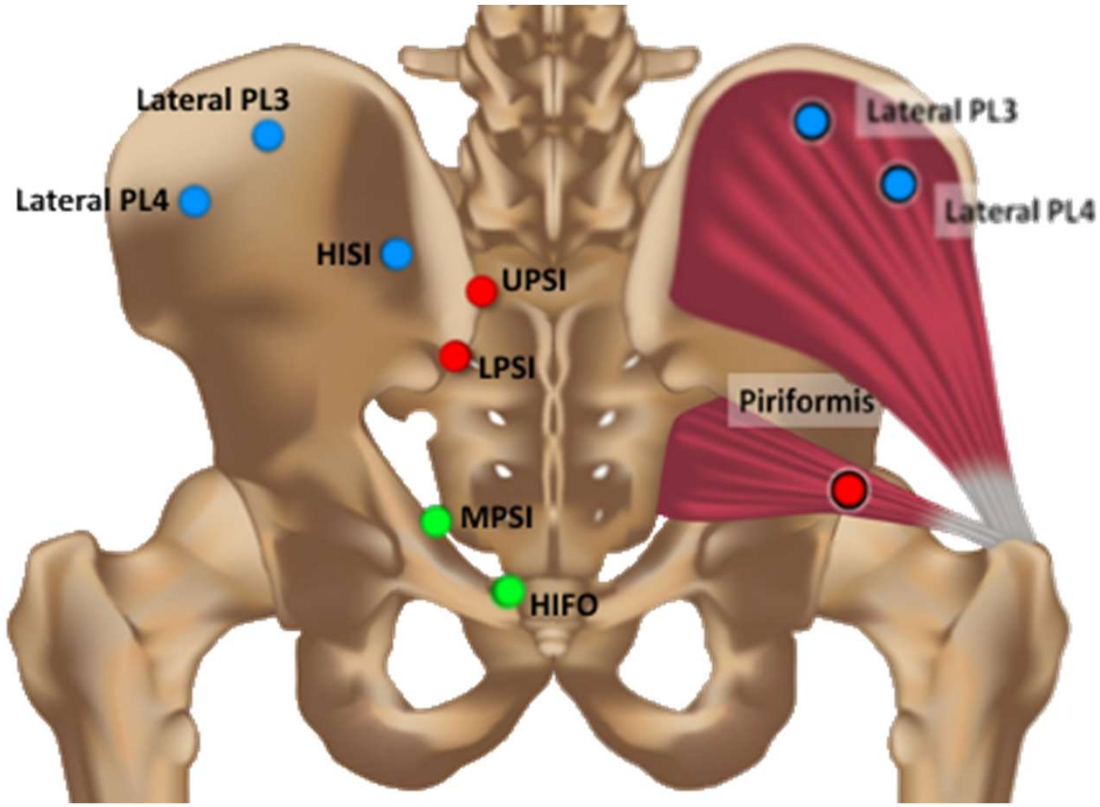
- **MPSI/Gluteus maximus**
  - **Common with sacral shears**
  - **Innominate Outflare**
  - **USF and USE**



- **HIFO/Coccygeus**
  - **Common with coccydynia (pain in the coccyx)**
  - **Pelvic floor dysfunction**
  - **Superior innominate shear with innominate outflare**



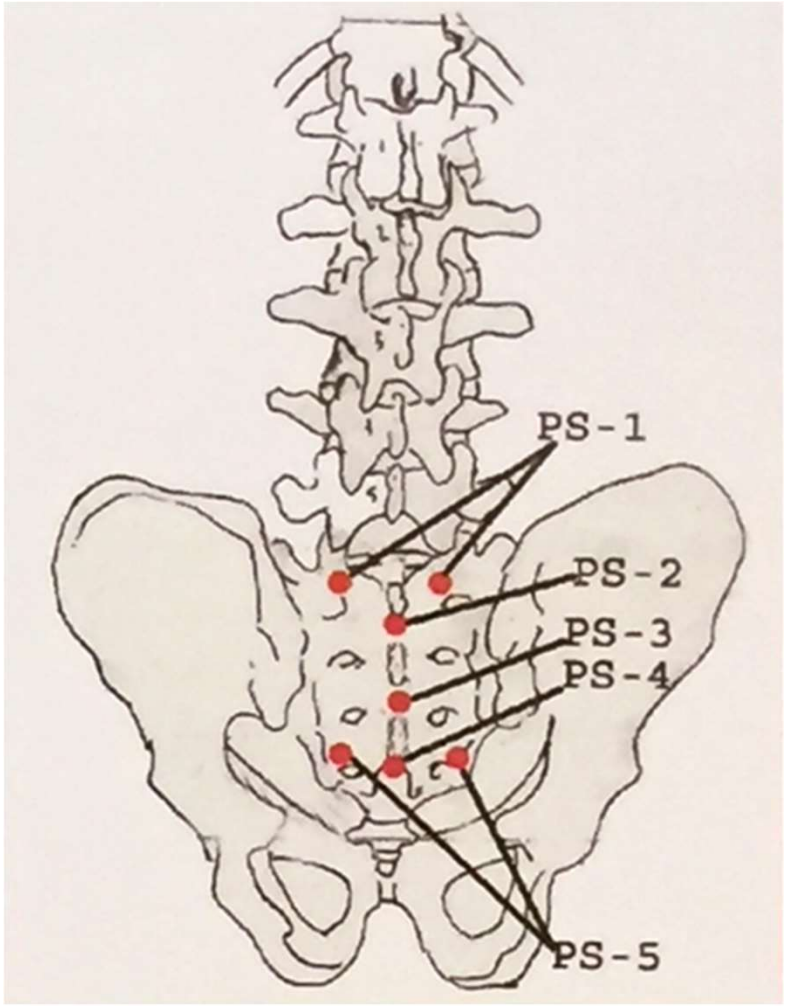
Posterior Pelvic Tenderpoints



Lab Exercise 4

- PS1 – Left & Right
- PS2
- PS3
- PS4
- PS5 - Left & Right

- Ramirez, Haman, Worth. "Low Back Pain: Diagnosis by Six Newly Discovered Sacral Tenderpoints and Treatment with Counterstrain Technique." JAOA, July, 1989, Vol. 89, No. 7, 905+.

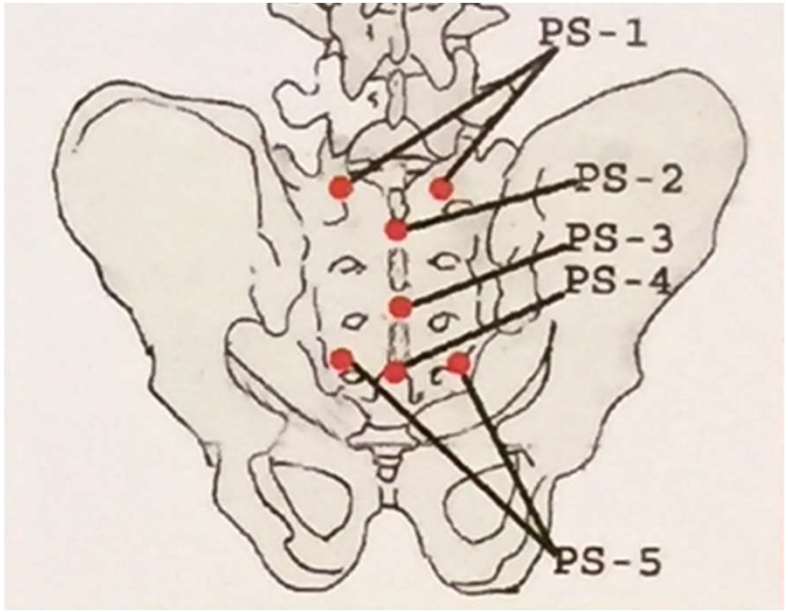


Posterior Sacrum 1 (PS1) – Left & Right

Found approximately 1 cm medial to left or right PSIS on S1

Treatment

1. Patient Prone; standing on same side of tenderpoint
2. Place palm of hand at opposite ILA and apply lateral, caudal traction with slight anterior pressure until softening is appreciated at S1 and tenderness improves

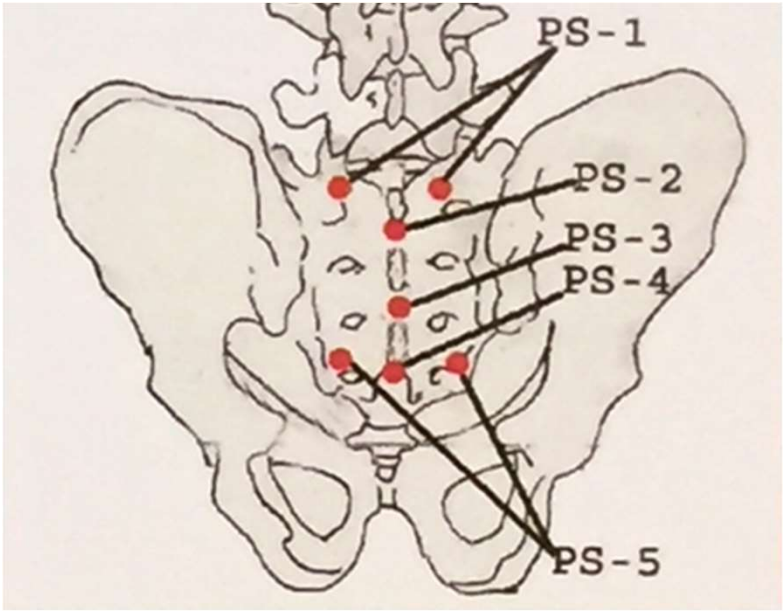


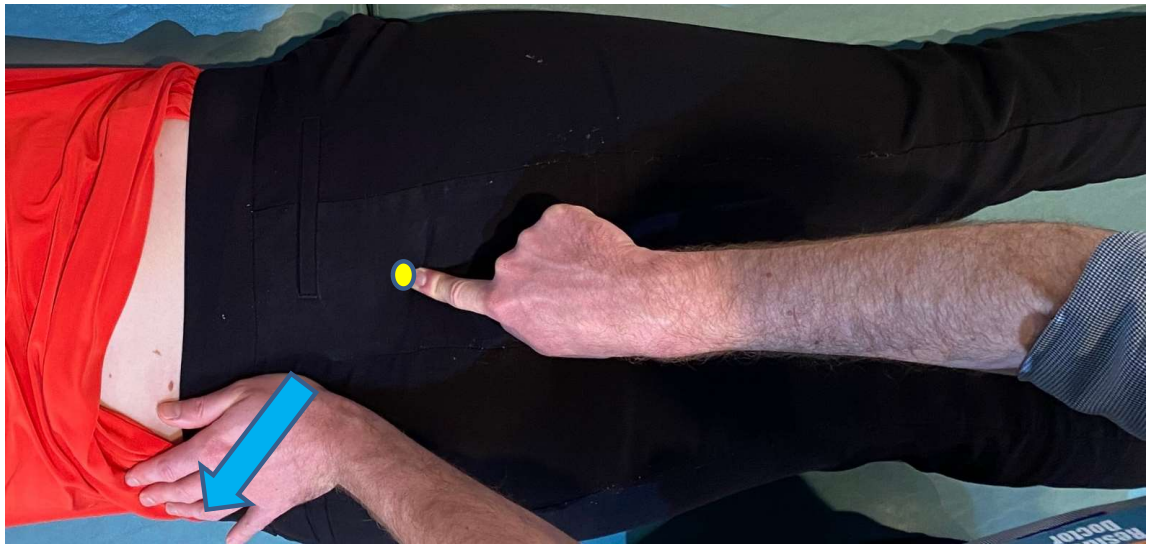
Posterior Sacrum 5 (PS5) – Left & Right

Found approximately 0.5 cm medial and 0.5 cm superior to left or right ILA

Treatment

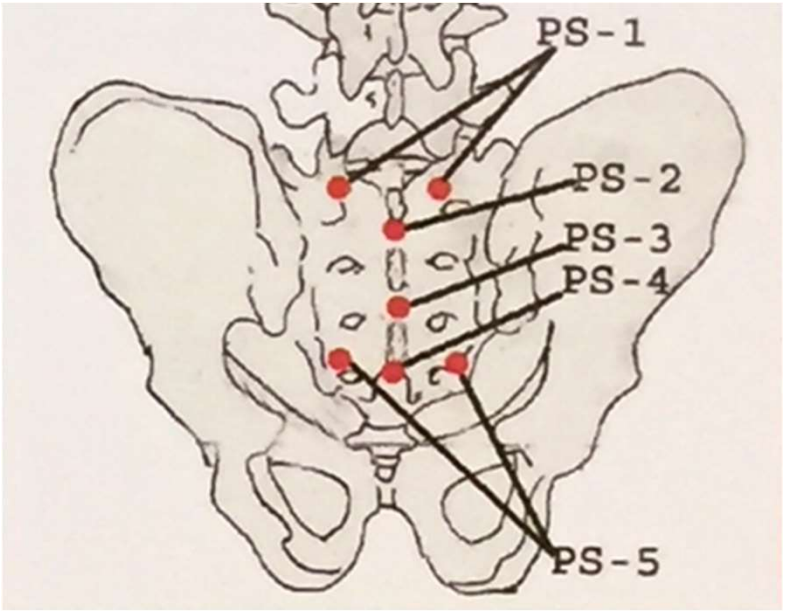
1. Patient Prone; standing on same side of tenderpoint
2. Place palm of hand at opposite sacral base and apply lateral, cephalad traction with slight anterior pressure until softening is appreciated at S5 and tenderness improves

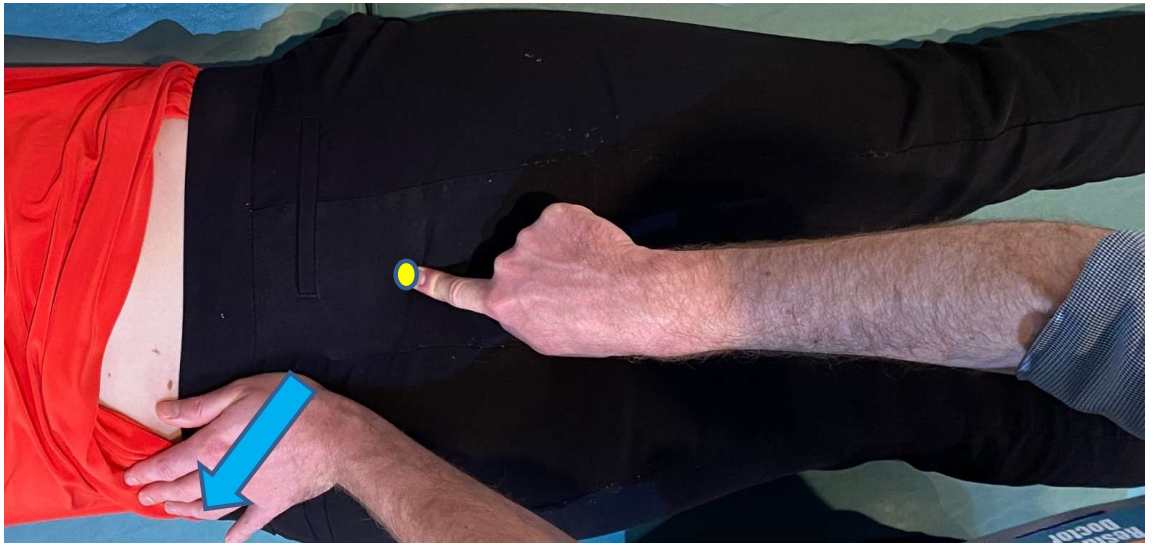




Lab Practice 4A

- PS1 – Left & Right
- PS5 - Left & Right



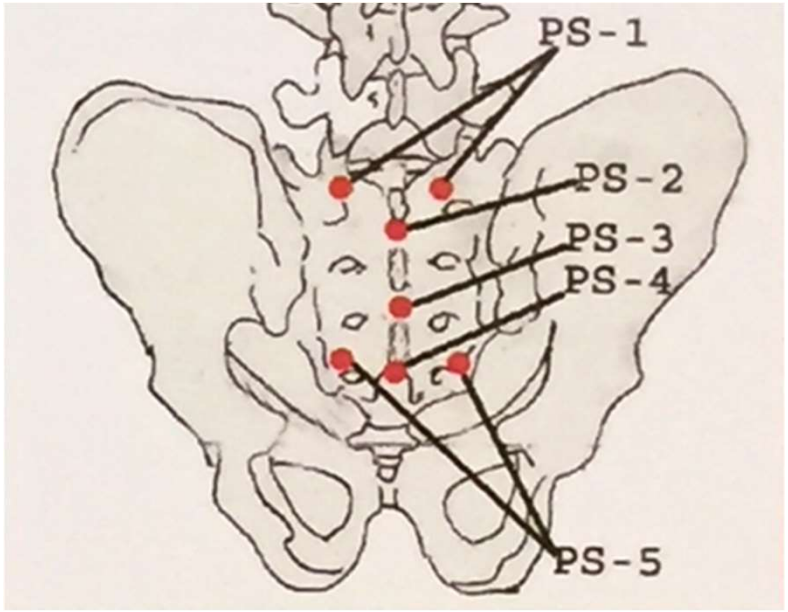


Posterior Sacrum 2 and 3 (PS2 & PS3)

Found midline on sacrum between 1st & 2nd sacral spines and between 2nd & 3rd sacral spines

Treatment

1. Patient Prone
2. Place palm of hand at apex of sacrum, superior to coccyx. Apply caudal traction with slight anterior pressure until softening is appreciated at S2/3 and tenderness improves

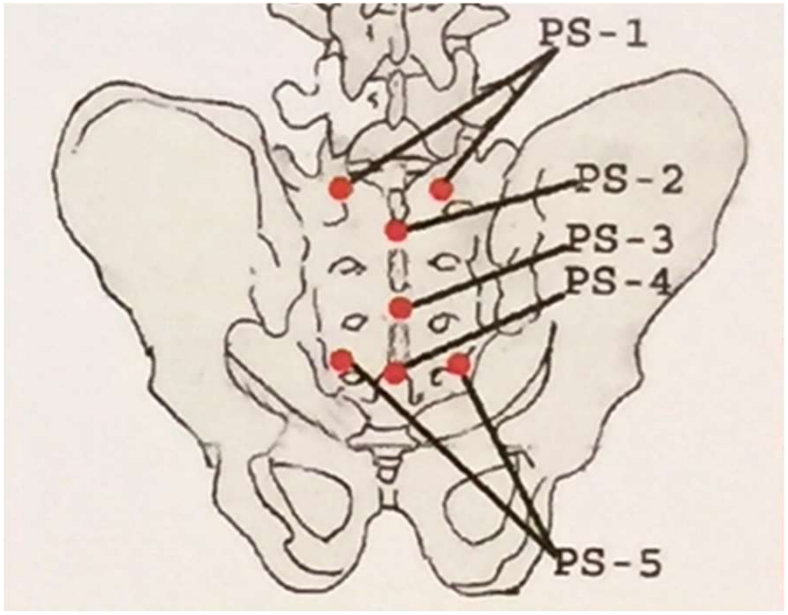


Posterior Sacrum 4 (PS4)

Found midline on sacrum below 3rd sacral spine, just above sacral hiatus

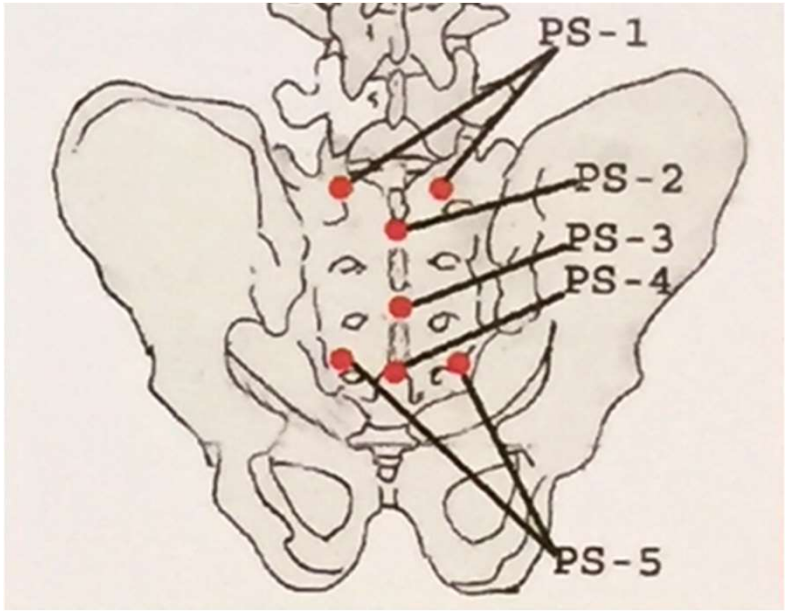
Treatment

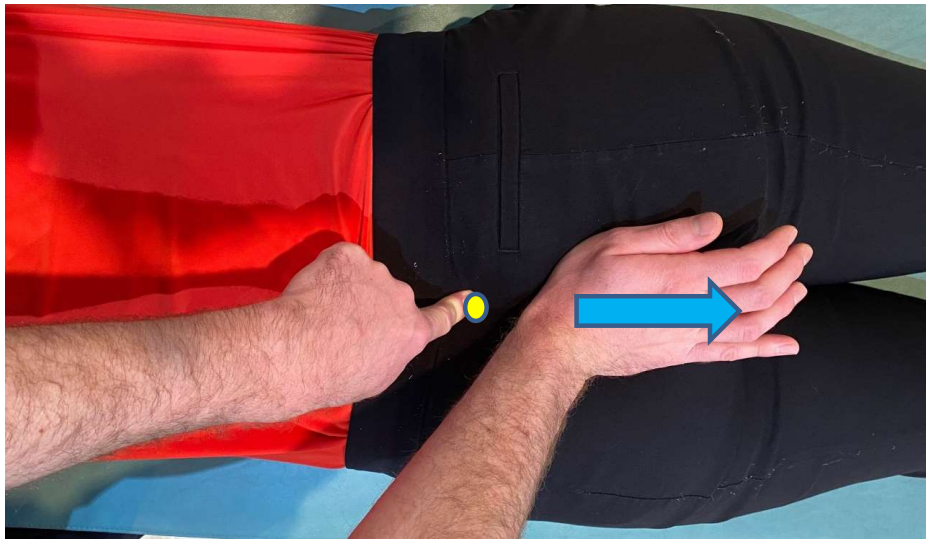
1. Patient Prone
2. Apply cephalad traction of skin just superior to sacral base until softening is appreciated at S4 and tenderness improves



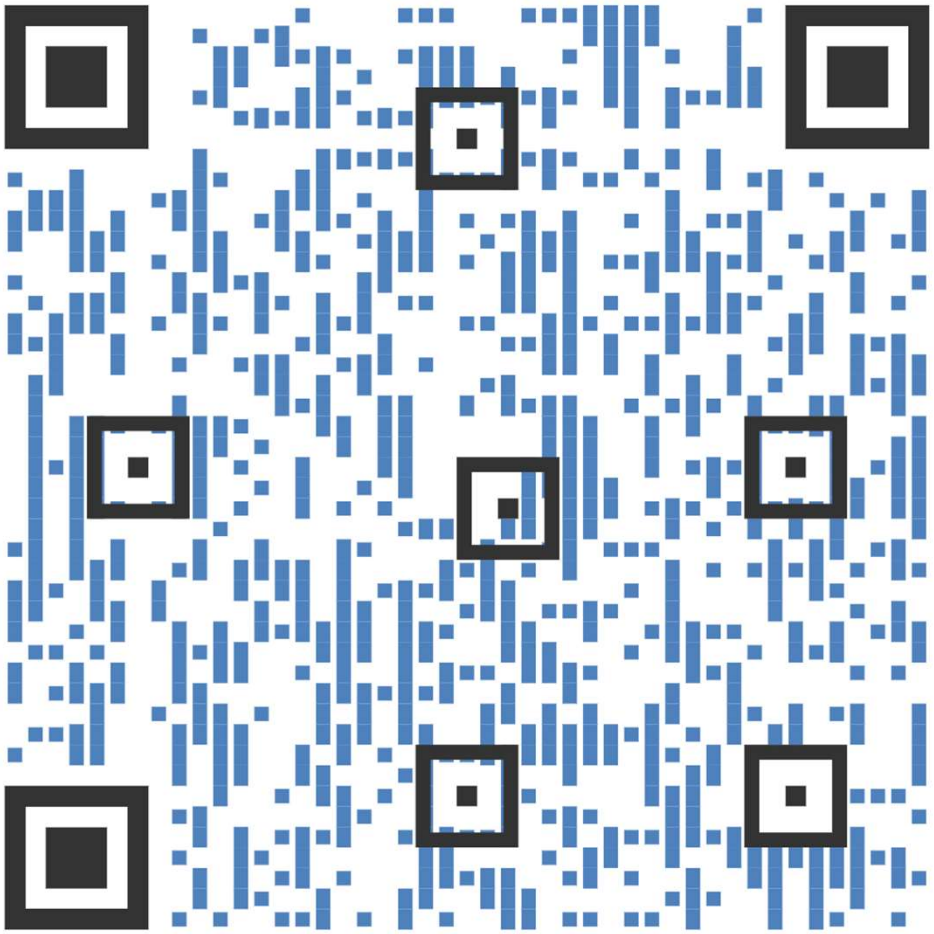
Lab Practice 4B

- PS2/3
- PS4





Session Evaluation



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All grievances should be in writing and should specify the nature of the grievance. Initially, all grievances should be directed to MAOPS Executive Director, who will then forward said grievance to the Education & Convention Committee. All grievances will receive an initial response in writing within 30 days of receipt. If the participant does not receive a satisfactory response, then they can submit a complaint in writing to the Bureau of Osteopathic Education of the AOA at 142 East Ontario Street, Chicago, IL 60611.

References

- Snider KT, Glover JC. *Atlas of Common Counterstrain Tender Points.* ATSU. © 2014. Print edition. 1.0 ISBN 978-0-9882627-7-5
- Glover JC, Rennie PR. Ch 37, Strain Counterstrain. Foundations of Osteopathic Medicine, 4th ed., Wolters Kluwer, 2018.