ASSESSMENT & TREATMENT OF MECHANICAL SACROILIAC DYSFUNCTION

WEBINAR OUTLINE

1. A brief review of challenges of assessing and treating the SIJ.
2. A visual guide to hypothetical SIJ motion.
3. A visual guide to assessing and treating the SIJ.
4. Non mechanical causes of SIJ dysfunction and suggested treatment approaches.
INTRO

- First introduction to sacroiliac dysfunction.
- Research proves SIJ motion and that it can contribute to low back pain.
- Clinical utility testing inconclusive (palp vs pain).
- I don’t find pain provocation tests that helpful.

INTRO

- Innominate dysfunction can create painful hypermobility in the SIJ.
- Palpation for anomalies also is unreliable and can yield false positives.
- Clustering of tests most helpful.
HYPOTHETICAL SIJ MOTION

Figure 1. Transverse sacral axis. From (1)

Figure 2. Nutation and Counternutation from (1)

Figure 3. Flexion from (2)

Figure 4. Extension from (2)
HYPOTHETICAL SIJ MOTION

Figure 5. Left Quadrant or Sidebending. From [2]

Figure 6. Sacral Axis

Figure 7. Weight distribution from [3]
**ILIOSACRAL MOTION**

The iliosacral joints move from a position of anterior rotation and inflare at heelstrike to a position of posterior rotation and outflare at heel off.

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**SACROILIAC MOTION**

During the walking cycle the sacrum moves from a position of left rotation to a left torsion on a left oblique axis as the right leg heelstrikes. By push off of the right foot, the sacrum has moved to a right torsion on a right oblique axis.
KEY CONCEPTS

- Structural positional dysfunction
- Adaptive positional dysfunction
- Traumatic positional dysfunction

Imagine a line drawn through both ears. Are they parallel with lines drawn through the tips both a/c joints and both iliac crests?

INDIRECT METHOD LLD
Visually compare the heights of the iliac crests. The lower side may represent a short leg.

The indirect method using lifts had superior validity, interobserver reliability, and specificity over the direct supine method using tape measure. Both clinical methods underestimated LLD compared with radiograph.¹
KEY CONCEPTS

LEG LENGTH INEQUALITY (LLI)

Anatomic LLI common (90%) with average 5.2mm and 15% with 10mm or more. Right leg shorter 50-75%.

KEY CONCEPTS

FUNCTIONAL LLD

A: 60% have a C-type scoliosis, a posterior innominate rotation on the side of the elevated innominate and an atlas elevated on the side opposite to the elevated innominate.

B: 40% have a S-type scoliosis with an anterior innominate rotation on the side of the elevated innominate and an atlas elevated on the same side as the elevated innominate.
1° - Iliosacral Test

Pelvic Spring Test

The patient lies supine and lifts their pelvis off the bed before repositioning the pelvis in neutral.

The operator stands to the side and places the palm of each hand over the lateral pelvic rim and ASIS.

The operator introduces a gentle glide of the ilium on the sacrum at a 45° angle.

The positive side is the side that feels most restricted.

+/− Standing FWD Flexion or Gillet Test
**2° - ILIOSACRAL TEST**

**PELVIC LANDMARKS**

The patient lies supine and the operator lightly palpates both ASIS for alignment in the superior/inferior & medial/lateral directions.

The side of dysfunction is the side with the most restricted pelvic spring test.

1. Superior ASIS = posterior rotated innominate
2. Inferior ASIS = anterior rotated innominate
3. Lateral ASIS = outflared innominate
4. Medial ASIS = inflared innominate

Images from 1

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**1° - SACROILIAC TEST**

**SACRAL SPRING TEST**

The patient lies prone while the operator places the heels of their hands over the sacral base. The operator applies a gentle ventral force to the sacral base feeling for ease of sacral nutation. Lack of motion is considered a positive test.

The operator can also reverse the hand positions to apply force at the sacral apex and test for ease of counternutation.

+/- Recoil
2° - SACROILIAC TEST

SACRAL POSITION

1. Depth of the sacral sulcii
The operator places their thumbs on the patients PSIS bilaterally and curls their thumbs medially and caudally to compare the depth of the sacral sulcus bilaterally. Check also for sulcus tenderness.

2. Level of the inferior lateral angles
The operator places the pads of both thumbs 15-20mm lateral to the sacral hiatus and compares the level bilaterally on the coronal plane. The operator then rolls their thumbs under the sacral ILA's to compare the level bilaterally on the horizontal plane.

SACRAL JCS POINTS
JCS TECHNIQUE

1. Locate the tender point.
2. Find position of comfort or mobile point.
3. Monitor point response but take pressure off.
4. Hold 90 seconds.
5. Return to neutral slowly.
6. Recheck tender point – 70% improved.

SACROILIAC JOINT

L PS1 POSTERIOR SACROILIAC 1

DX: SS deeper on R and ILA more posterior on left. +ve Spring Test

PD = LST/ROA

Tender point: 1.5cm medial to PSIS

RX: Patient Prone.
Apply a ventral pressure with the heel of the hand on the opposite corner of the sacrum (right sacral apex). Produces a left backward sacral torsion on an oblique axis.
SACROILIAC JOINT

L PS5 POSTERIOR SACROILIAC 5

DX: SS deeper on R and ILA more posterior on left. –ve Spring test

PD = LST/LOA

Tender point: 1cm medial and 1cm superior from left ILA.

RX: Patient Prone. Apply a ventral pressure on the opposite corner of the sacrum (right sacral base) to produce a forward sacral torsion on an oblique axis.

NON MECHANICAL SIJ DYSFUNCTION

Dx - Sphenobasilar dysfunction
Rx – Counterstrain or Craniosacral therapy

Dx – Cecal, Sigmoid or Uterus dysfunction
Rx – Counterstrain or Visceral manipulation

Dx – Sacral epidural vein dysfunction
Rx - Counterstrain
For references, a copy of the slide notes and information about the 2 day Assessment & Treatment Intro course please got to:

manualtherapyinstitute.com/mma

References


