

## Correcting Pelvic Obliquity

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When patients present with low back pain (LBP), symptoms typically involve fixation or dysfunction of one sacroiliac joint. A typical presentation involves a positive Derifield finding with a positive SI fluid motion test indicating fixation on the side of the short leg in the prone, extended position.

Occasionally, but not rarely, a patient may present with a complaint of pain or stiffness in both sacroiliac joint (SIJ) regions. The patient will often localize pain by pointing to the posterior, superior iliac spines (PSIS) on both sides. A band of pain across the low back at or about the level of the belt line may also accompany the complaint. The patient may also observe that it is difficult to roll over in bed.

In such a presentation, it is wise to test for bilateral SIJ fixation and to look for additional complications of sacral misalignment and lumbosacral dysfunction.

### Assessing Bilateral SIJ Fixation

To assess a patient with bilateral SIJ fixation, start routinely with a Derifield test of leg-length inequality. Additional observations must then be made.

A positive Derifield test involves lengthening of the "short leg" as the knees are flexed.<sup>1</sup> If the short leg in the prone extended position lengthens in the knee flexed position, the finding suggests positive Derifield (+D).

The sacroiliac joints are tested for fixation using the SI fluid motion test. If the leg on the side of the short in the prone extended position shows fixation, we assume a PI ilium misalignment on that side. Before adjusting for PI ilium misalignment, pressure test to confirm. If the SI fluid motion test indicates fixation on the long leg side in the prone position, we assume an AS ilium misalignment on that side. Before adjusting for AS ilium misalignment, pressure test to confirm.

Recall that the principal finding indicating SIJ fixation is that both legs lengthen with a sacroiliac joint fluid motion test.<sup>2</sup> If both legs lengthen - even a little - when the test is performed on the patient's left and right sides, bilateral fixation is present. Consequently, both sacroiliac joints, probably the sacrum and possibly the lumbosacral articulations, need to be adjusted to restore function and mobility, and release the soft-tissue barrier of the pelvis.

A finding of bilateral SIJ fixation frequently involves sacral apex deviation (SAR/SAL.) The SIJ misalignments are typically anterior- superior (AS) on the long-leg side, and posterior-inferior on the side of the short leg in the prone, extended position. Consequently, the sacrum tends to show apex deviation toward the long-leg side. The soft-tissue barrier suggested by the tensegrity biomechanics will also tend to contribute to sacral apex deviation with the bilateral SIJ fixation and torsion of the pelvis.

Clinical experience and observation suggest additional involvement at the thoracolumbar junction and/or the occiput, especially when findings do not confirm PI or AS ilium misalignment. This may

be the result of dural tension at the thoracolumbar or atlanto-occipital junctions. For this discussion, however, we will restrict findings and corrections to the pelvic region, specifically the sacroiliac articulations and the sacrum.

### Correction of the SIJs and Sacrum

We suggest a three-step series of adjustments to correct pelvic obliquity and sacral misalignment: AS ilium on the long-leg side; PI ilium on the short-leg side and sacral apex deviation. Sacral apex deviation, recall, is typically on the side of the long leg.

*To adjust an AS ilium:*<sup>2</sup> Take a straightaway stance at level of the sacrum. With the inferior hand, take a thenar contact on the ala of the sacrum at the level of S1/S2. With the superior hand, take a heel-of-the-hand contact over the ischial tuberosity. Thrust posterior to anterior (P-A) with both hands simultaneously.

*To adjust a PI ilium:*<sup>2</sup> Take a scissors stance on the side opposite involvement. With the inferior hand, contact the medial-inferior aspect of the PSIS. Take a tissue pull from inferior to superior (I-S) with the fingers pointing superior and slightly lateral. Stabilize by cupping the fingers of the superior hand under the ASIS on the near side. Apply a thrust inferior to superior (I-S) and posterior to anterior (P-A.)

*To adjust a sacral apex deviation:*<sup>2</sup> Take a scissors stance on the side of the PI ilium. With the inferior hand, take a fleshy pisiform contact on the sacral notch on the side of AS ilium. With the superior hand, take a fleshy pisiform contact on the medial aspect of the PSIS on the side of AS ilium. Simultaneously thrust medial to lateral on the PSIS, and lateral to medial on the sacral notch.

Following these adjustments, use the sacroiliac fluid motion test to confirm restored mobility of the sacroiliac joints. The three-step correction sequence should also level the pelvis, free the soft-tissue barrier contributing to sacral misalignment, and abate the patient's symptoms.

### References

1. *The Thompson Technique Reference Manual*. Elgin, IL: Thompson Educational Workshops, 1984.
2. Burns JR, et al. *Palmer College of Chiropractic Adjusting Technique Manual*. Davenport, IA: Palmer College of Chiropractic, 1981.

FEBRUARY 2018