Dynamic Chiropractic

DIAGNOSIS & DIAGNOSTIC EQUIP

Stricter Criteria for Adjusting Sacroiliac Joints

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Most doctors of chiropractic distinguish between two directions of ilium movement in relation to the sacrum at the sacroiliac joint. The movements are PI (posterior inferior) and AS (anterior superior). The PSIS is used as the point of reference for ilium motion. The Gonstead and other technique systems also identify and adjust for internal and external ilium rotation. In this article, I will refer only to the adjustment of the AS-fixated ilium. The background of reference to what I present is based on my practice experiences and information presented in previous articles.

The AS ilium fixation is divided into three categories:

1. bilateral AS fixations;
2. left AS ilium fixations; and
3. right AS ilium fixations.

By definition, an AS-fixated ilium does not rotate (move) downward with hip flexion or a knee-raise, and does not rotate downward in the posterior inferior direction; it does, however, rotate and move further in the AS direction.

Bilateral AS fixations are the most commonly found AS ilium fixations; left and right solitary AS fixations occur less frequently.

It is my belief, observation and hypothesis that the vast majority of AS ilium fixations are intelligent adaptive mechanisms designed to decompress the posterior elements of the three-joint complex of the lower lumbar spine. The three-joint complex is comprised of the intervertebral disc and the two posterior facet joints. The decompression process increases the load on the central and anterior portions of the disc, and the process is achieved through the action of sacral counternutation - the sacral base moves posteriorly while the ilium, as monitored at the PSIS, moves in the anterior superior direction.

I have found that the majority of bilateral AS fixations release without treating or touching the ilia, sacrum or SI joints. Bilateral AS fixations can occur as a result of lumbar, thoracolumbar, thoracic and cervical fixations. Spinal fixations may be functional or pathological (disc, DJD, etc.) The release of the AS fixations can be achieved through some combination of correction for extension, rotation, lateral bending, and compression functional restrictions at the spinal levels just mentioned. Extension correction involving a loss of P to A glide (posteriorly) appears to be the major problem. The cause is often a thoracolumbar fixation, and the correction frequently involves multiple corrections. In particular, one expects AS fixations to result from hyperlordotic lumbar curves and hyperkyphotic thoracic curves, facet syndromes, and disc disruptions at the lower lumbar levels. Lumbar disc lesions or spinal joint sprain will cause reactive fixations by splinting muscular contraction. AS fixations also may occur that stabilize or decompress L-4 and L-5 levels when DJD and hypermobility are present.

Left-sided AS fixations usually reflect a lower lumbar rotational fixation, coupled with some degree of extension and lateral flexion restriction. They also may derive from upper lumbar fixation patterns and some thoracic and upper cervical patterns. Hyperlordotic lumbar spines do result in lumbosacral compressive disorders, most often leading to bilateral compensatory AS fixes. Hyperlordotic lumbar spines with restricted extension and rotation patterns in the thoracolumbar region (T-10 through L-2) may produce left, right or bilateral patterns of AS fixation.

Hyperlordotic lumbar curves often accompany hyperkyphotic thoracic curves; however, they also may accompany flattened thoracic curves. The more kyphotic the thoracic curve, the more likely it will lead to AS ilium fixation patterns; the flatter the thoracic curve in combination with lumbar hyperlordosis, the less likely it will lead to AS ilium fixes. However, any thoracic fixation process may affect the lumbar and SI regions functionally, at least to some degree. With hyperlordotic lumbar spines, there is more likelihood that the AS ilium compensatory fixation will progress to a deeper articular joint AS fixation lock, requiring an ilium adjustment. This is particularly true on the right side. More caution should be exercised in adjusting an AS fix on the left side, which can destabilize the lower lumbar region, leading to radicular symptoms in some cases.

A right-sided AS fixation most commonly reflects a thoracolumbar or thoracic disorder. It also may reflect a loss of cervical extension in some cases, such as at the C-2/C-3 level, with these right-sided AS fixations. A lower lumbar adjustment does not usually change the situation. As soon as the thoracic (and possibly the cervical) restrictions are corrected, the right AS fixation releases. If the leg-raise test on the right side does not result in the right PSIS lowering one inch or more, the right ilium may require a direct contact and adjustment.

In cases of trauma, there are exceptions to what I have discussed. Trauma refers to falling onto the buttocks or pelvis, jamming the ilia or ilium upward. With long-term AS ilium fixations, which are muscular adaptive mechanisms, there can be a progression to an articular locking phase. In both trauma and long-term adaptive AS fixations with articular progression locking, spinal corrections may not release the AS ilium locking; direct ilium adjusting may be required. Adjusting AS fixations in the presence of lumbar hyperlordosis is a big topic and requires a follow-up discussion. In general, be cautious. The right side usually has the greatest tendency to fixate articularly in the AS mode. With bilateral AS fixations in the presence of lumbar hyperlordosis, adjusting the right AS often causes both ilia to release. If the left side does not release after the right AS adjustment and spinal corrections, you may have to adjust the left AS ilium fixation. Because the spine tends to seek rotation with the spinous seeking the right, the right L-5 and other facets seeking the anterior, the left side of L-5 seeking the posterior, adjusting the ilium on the left for an AS fixation can exacerbate the condition and create lumbar radiculitis on the left side. The left AS ilium is best adjusted with a simultaneous left-sided L-5 contact. This contact on L-5 prevents posterior rotation of L-5, due to the pulling of the ilio-lumbar ligament as the iliac crest moves backward during the adjustment.

To summarize the procedures, the following itemizes each step in determining whether to adjust an AS ilium fixation:

1. Motion palpate the ilia, thumbs under the PSISs, raising each knee.
2. Identify the sacroiliac fixation pattern:
    1. bilateral
    2. left-sided
    3. right-sided
3. Identify the spinal fixation patterns.
4. Adjust the major spinal fixations, re-palpating and examining the SI joints after each adjustment of the spine.

5. If the ilia are both moving well and equally with the knee-raise after the spinal adjustments, you do not have to adjust the ilia, if symptoms also have resolved. (Note: one inch or more of PSIS downward motion is ideal.)
6. If the result of spinal adjusting does not fully release the ilia or an ilium, proceed with an ilium adjustment. Observe cautions:
    1. lumbar disc disease with back pain and/or radiculitis. An AS ilium adjustment can severely exacerbate the condition.
    2. left AS ilium fixation. Observe the earlier caution I noted regarding simultaneous ilium/lumbar contact.

There is another aspect of diagnosis or inspection to consider - the subjective description of complaints. Let me use an appropriate example:

A patient complained of intense right lumbosacral pain, with pain occasionally into the right buttocks and groin. Examination revealed bilateral AS fixations and a hyperlordotic lumbar spine, but no motor-sensory deficits. Adjustment of thoracolumbar and thoracic fixations caused a release of both ilia, with motion bilaterally on knee-raise testing. However, some right lumbosacral discomfort remained. There was about 2 to p inches of downward PSIS motion with the knee raise. (Excellent motion can reach one inch or more of PSIS motion.)

In this case, the pain and complaints were initiated after an auto accident several weeks prior. There was no numbness, and deep tendon reflexes were not diminished. An adjustment of the right ilium was administered and resulted in an increase in bilateral ilium motion. Each PSIS increased its downward motion with the knee raise, and the motion was equal bilaterally. After two such adjustments, the right lumbosacral and associated pain vanished.

The right ilium was not initially adjusted, due to the trauma involved and the acuteness of the regional trauma. Spinal adjusting did mobilize both ilia, but there was still a partial articular fixation remaining on the right side. I relied on the strong patient complaint as a criterion for adjusting. Objectively, the ilia had "good" but not excellent motion, and I resisted intervening with an AS ilium adjustment. In retrospect, the patient's continuing complaints and the absence of excellent motion of the ilium (greater than one inch downward PSIS motion) were the motives for the adjustment. I also had some reluctance due to the groin and buttock radiation, as I was concerned about disc fiber disruption.

In general, I advise that the doctor proceed with respect for inherent structural mechanisms of adaptation and caution for interfering with adaptive processes. However, interference may be required, and a professional chiropractic adjustment can be the solution. On the other hand, with another very similar right-sided lumbosacral pain case involving buttock radiation, results were not as positive. In this case, the condition was intermittent and long-standing. There was radiation below the knee and pain on the bottom of the foot. Working around the problem with thoracic adjusting was ineffective. Lumbar adjusting was also ineffective. There was a similar partial bilateral AS fixation present. I explained to the patient that I could adjust the right ilium and bring great relief, but in the presence of a lower lumbar disc disruption, the condition could worsen. In fact, it did worsen with an AS ilium adjustment, and I recommended she get an MRI of her lumbar spine.

As this example illustrates, it is necessary to discriminate and be attentive to the potential of good or bad results with spinal and SI adjusting.

I hope this discussion of the AS ilium fixation helps readers understand that keen assessment skills, coupled with good judgment, are the key requirements for achieving excellent treatment results.

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Editor's note: Dr. Kurnik has discussed ilium fixation on several occasions in DC, including: "Let's Get Something Straight!" (www.chiroweb.com/archives/21/10/10.html); "Right-Sided Sacroiliac Patterning" (www.chiroweb.com/archives/19/07/08.html); "Lumbar Lordosis vs. the AS Ilium Fixation" (www.chiroweb.com/archives/18/05/04.html); and "The AS Ilium Fixation and Its Production of Groin, Buttock and Extremity Dis-orders" (www.chiroweb.com/archives/14/24/20.html).

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