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Sacroiliac Joint Fixation, Causes and Remedies

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The sacroiliac (S1) joints may serve as protective mechanism for the lumbosacral region. With excessive stress on the posterior discs L-4 or L-5, and the facet joints at L-4/L-5 and L-5/S-1, the SI joints can cope by creating unilateral or bilateral anterior-to-superior (AS) fixations. Simultaneously, the sacral base counternutates, or moves posteriorly, and superiorly in relation to the ilia.

Various factors can be involved in the creation of posterior spinal joint stress at the lower levels. The medical profession identifies pathological influences and a lack of muscular/ligamentous conditioning. These reasons for posterior spinal joint stress are valid. Chiropractors may also consider these same reasons as being valid in relation to posterior spinal joint stress at the lower lumbar and lumbosacral levels, and joint dysfunction and subluxation as valid contributors of lower lumbar and lumbosacral posterior joint stress.

The purpose of this article is to relate my own observations as a practicing chiropractor regarding SI functioning and spinal joint dysfunction. My methods of functional analysis are motion palpation; static palpation; and visual analysis and observation. Methods of correction of spinal dysfunction are adjusting manually and with instruments.

The following represents my own observed relationships with regard to SI joint functioning before and after spinal adjusting. (Note: Good PSIS motion is one inch or more.)

AS ilium fixations fall into three obvious categories: left-sided, right-sided and bilateral. The methods of functional SI analysis used in my practice are standing hip flexion, with the doctor's thumbs and eyes monitoring PSIS downward motion. The screening is performed before and after spinal adjusting. Areas to be adjusted in the spine are determined to be hypomobile in one or more directions. The objective is to create increasing motion and function in the lumbar, thoracic and cervical spinal levels, which are restricted. Motion restriction is primarily identified as:

- **cervical spine** - rotation, lateral flexion and extension. Adjusting these levels usually involves coupled-motion adjusting.
- **thoracic spine** - extension and rotation
- **lumbar spine** - extension and rotation

The results of adjusting specific spinal levels in relation to hypomobile segmental dysfunction, and the results of spinal segmental dysfunction on SI functioning during hip flexion, are:

1. **Adjusting fixed lower lumbar levels (L-5, L-4, and L-3). Adjusting is done according to motion assessment.**
    1. If a left-sided unilateral fixation of the SI joint is present, a lower lumbar adjustment usually increases the amount of left SI motion. Other spinal levels upon adjusting could add to the amount of motion induced in the left SI joint. Other levels could be the upper lumbars; lower thoracics; left rib fixes at R-4, R-5, and R-6 levels; and lower and upper cervical fixes.(Note: Other fixated spinal levels upon being adjusted properly also could increase bilateral SI joint motion. A lower lumbar adjustment may have no effect upon SI joint motion if the left SI block was due to another fixated level.)
    2. If bilateral SI fixations are present, a lower lumbar adjustment would tend to increase bilateral motion, but it tends to favor left SI joint release the most.
2. **Adjusting fixed upper lumbar levels (L-1, L-2).**
    1. Adjusting these levels can often result in increased bilateral SI joint motion.These levels usually are adjusted for extension loss.
    2. Adjusting these levels may increase motion with a unilateral left-sided SI joint fixation. Adjusting at L-1 or L-2 also may result in increased right-sided SI joint motion in cases of solitary right SI joint fixation. The tendency as one ascends the spine with adjusting is to have a greater effect of increasing motion on the **right SI joint**.
3. **Adjusting lower thoracics (T-9 to T-12) can affect bilaterally fixed, left fixed or right-fixated SI joints.** Again, the tendency is to increase SI motion after adjusting fixations more on the right side as you ascend the spine to the cervical region. Lower thoracic adjusting tends to increase bilateral and right-sided SI motion most predominantly, although occasionally it may also increase left SI joint

motion more than the right side.

4. **Adjusting mid and upper thoracics follows the same principles.** When releasing fixations in the mid and upper thoracics, there is usually an increase in bilateral SI joint motion or right-sided SI joint motion.
5. **Rib adjusting, where fixation is present, may also increase SI joint motion.** A common area to test is the left side around the R-4, R-5, R-6 region. When prone, most individuals will display a degree of "hump" or increased posterior elevation of the rib cage in this region. I refer to it as the heart elevation, reflecting the space required for the heart. Ribs in these regions often are sore with posterior-to-anterior and interior-to-superior applied force, also exhibiting fixated areas. Upon adjusting, bilateral or left-sided SI joint releases may be seen with increased SI joint motion.
6. **Lower cervical fixations in rotation and extension can result in bilateral or left SI joint fixations.** The greater tendency has been to reduce left SI joint motion more than right. There have been cases where SI joint fixations have not cleared with any attempts of adjusting, until lower cervical adjusting (C-6, C-7) was administered. These cases are fewer in number than previous cases discussed in their effects upon SI joints.
7. **Upper cervical and occiput/C-1 adjusting:**
    1. C-1/C-2 and C-2/C-3 fixations have appeared to inhibit left or right SI joint motion. Coupled left-sided rotation and lateral flexion restriction at C-1/C-2 or C-2/C-3 appears to affect the left SI joint most significantly, but it can also affect bilateral SI joint motions. Correcting right-sided occiput/C-1 and C-2/C-3 coupled rotation and extension restrictions has resulted in more influence on right SI joint motion. The C-2/C-3 coupled extension/rotation adjustment can profoundly increase right SI joint motion and increase right hamstring flexibility when everything else has failed.

In summary, I am trying to paint a picture of some profound concepts. These are not intellectually based, but are based upon observations before and after spinal and rib adjusting, and the effects of such adjusting on SI joint motion. The main concept to extract from such observation is that the SI joints can be compensating or reacting to other spinal and extra-spinal joint dysfunctions. They also can adapt or change their mechanics as spinal curvature changes. The methods of SI joint motion adaptation are nutation and counternutation. In previous articles, I have related the soft tissue associations to SI joint hypomobile dysfunctions and complaints, such as in the hamstring; ischium; posterior knee; hip; groin; buttock; anterior thigh; and anterior knee.

If one can keep these relationships in mind and thoroughly and specifically examine and treat the SI joint/spinal/extra-spinal dysfunctions, one may come to accept that the upper cervical spine may be involved in your chronic lower extremity problems.

Test my recommendations and see for yourself how the SI joints, low back, and lower extremities can react to spinal and rib dysfunctions. Test the SI joints before and after each adjustment to determine the effects of each dysfunction/subluxation upon SI joint functioning. If you do not feel competent in SI joint palpation, learn the procedure and use it routinely.

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