

Lower Cervical Spine Dysfunction and Associated Disorders

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Hypomobile dysfunction at C-6 and C-7 often presents with interesting associations. While the neurology-oriented practitioner will look at the neurologic associations of the brachial plexus, the functional clinical practitioner (scientist) will evaluate other associations between C-6 and C-7 hypomobile dysfunctions and other areas of the body.

In referring to C-6 and C-7 hypomobile dysfunctions, I mean spinal fixations at C-6/C-7 and C-7/T-1 levels. Such fixations are located by use of motion palpation, using a supine patient procedure. Fixations are identified by an intersegmental loss of motion in one or more directions, plus a loss of endplay. The most common findings are left-sided fixations at these levels, identified by way of two primary procedures: rotation from left to right, and rotation with coupled lateral bending left to right.

Several associations are often seen between left-sided C-6/C-7 and C-7/T-1 hypomobile dysfunctions in relation to other disorders:

1. Anterior C-1 fixations of the right side. This is nearly a 100 percent relationship, based upon my experiences. If there is significant joint fixation at C-6/C-7 or C-7/T-1 on the left side, in rotation or coupled rotation/lateral bending, then one can locate and predict a right-sided anterior C-1 fixation in relation to C-2. An anterior fixation at C-1 on the right side, however, does not mean there is a left-sided C-6 or C-7 fixation. Right-sided C-1 anterior fixations also may be produced in association with left-sided C-1 or C-2 fixations (hypomobile dysfunctions).

Spin-offs from this are the problems produced by this associated secondary anterior C-1 fixation. Often-seen conditions associated with the right anterior C-1 fixation are:

1. right-sided suboccipital pain;
2. right-sided headaches (right side of head, occasionally into the eye);
3. muscle hypertonicity, swelling, and increased sensitivity in the right SCM for some individuals.
4. TMJ dysfunction, making it more difficult to open the mouth fully.

Note: There is another functional reaction to the right anterior C-1 fixation, with the occiput on the right side developing a posterior tendency, resisting P to A motion. This may lead to right suboccipital muscle tightening and confuse the unsuspecting, inexperienced, or uninitiated doctor. He or she may end up adjusting the C-1 level on the right side, making the problem worse and creating dangerous iatrogenic side-effects.

1. Left-sided anterior superior (AS) ilium fixation at the sacroiliac joint and increased lumbosacral tonus. These are reactive sacroiliac fixations observed during left-standing hip flexion, whereby the left ilium will not rock or rotate backward. (More precisely, it will not move in the posterior inferior motion direction, as monitored at the PSIS). A number of

potential developments are associated with this type of fixation:

1. left lumbosacral and/or sacroiliac discomfort;
2. left gluteal hypertonicity and soreness;
3. left ischial tuberosity bursitis/tendonitis;
4. left groin pain, involving primarily the *rectus femoris* muscles (soreness involving the *sartorius*, *gracilis* and *adductor magnus* muscles also may develop);
5. left anterior thigh hypertonicity and sensitivity, involving the rectus femoris primarily (the *sartorius*, *gracilis* and *adductor magnus* also may be involved);
6. left TFL hypertonicity and soreness;
7. left hip joint eccentric hypomobile motion with crepitus (popping, creaking, grinding sounds).
8. left anterior knee compartment disorders, caused by tightening and shortening of the left rectus femoris muscle, leading to compression and increased wear of the patella against the femur;
9. left hamstring hypertonicity and shortening, with the possibility of hamstring complaints and left posterior anterior knee complaints.

The key in identifying these relationships is reliable motion examination of the spinal and sacroiliac joints. Treatment involves releasing the C-6 or C-7 fixations by hand or instrument adjusting. I adjust by hand, usually in the supine position. I use a multi-thrust instrument for cases in which hand adjusting is inappropriate. After correction of the C-6 or C-7 fixation, there is usually a dramatic correction of the right C-1 anterior fixation. If the left SI joint was AS-fixed, there will be a partial or complete release at the left sacroiliac joint, as monitored by left hip flexion, standing.

Note: Other contributors to the right anterior C-1 fixation and the left AS ilium fixation may exist and require correction.

If the associated soft-tissue complaints have existed for a long time, soft-tissue work is almost always necessary to complete treatment.

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