



# Off-Set Or Lateralization Of Traction Treatment

by Dr. Jay Kennedy

itself 6" left or right of center. This appears to be a more specific design to allow off-set pull vectors as opposed to a pivot arm. Either way the notion of lateralizing the pull more left or right of center does offer some benefits initially and a slightly variant way to approach a recalcitrant or less responsive patient condition after less successful treatments have been done purely axial.

In the early 1980s, Saunders discussed the effectiveness and uses of off-set traction pulls. Both Farfan and Cyriax talked of lateralization based on the type of disc herniation. There are three relatively stable conditions in which to begin traction/decompression sessions with an off-set or lateralized pull vector. The first would be a decided antalgia on the side of leg referral pain, i.e. a medial displacement syndrome (as opposed to lateral displacement). The second would be far-lateral herniations and the third scoliosis (the non-pathologic variant found in a large population of back pain adult patients).

Both lateral and medial disc-to-nerve displacements can be recognized via antalgic lean. A lateral displacement will find the patient leaning away from the side of symptoms and a medial displacement toward the side of symptoms. As to the difficulty factor, it is debatable as to which may be more severe; however medial displacements seem to appear in that group of patients eventually requiring surgery. If you imagine the disc encroaching the nerve at its top or shoulder region you will understand that the patient will inevitably want to bend away from it to diminish the insult, thus they bend to the contralateral side of the leg pain. Conversely the medial displacement pressures into the axial-

la or underside of the nerve and we find the patient bending into the side of pain to diminish the insult. Either way, antalgia ensues.

With axial traction therapy the vector of distraction is the 'Y' axis and thus everything is in effect pulled caudally. So in the case of a medial displacement, axial pull can increase the insult of disc to nerve and severely increase the leg pain. Axial traction is negating the exact protection nature is trying to impart with the antalgia. So that is not a good idea. Off-setting the pull vector (or laying the patient on their side) stands as a possible way to get the potentially beneficial distraction to the spine safely and comfortably, the two main considerations in any treatment program.

There have been no serious inquiries as to the ideal patient selection/classification for lateral pulls, however we attempt to position the medial patient (if prone) with the hips pushed to the side of comfort. Much of the pain associated with "reversing" antalgia is lost once a patient is out of the effect of gravity, however with nerve encroachment (and certain adhesion conditions) that is not always the case. So we begin with the patient displaced in their lessened or pain free configuration. Next we apply the harness and move the ring-loop to the side of convexity of the antalgia, i.e. the side opposite of the pain. The traction motor is then off-set 6" to that side. We preliminarily pull the belt handle taut to register in the patient's mind how the pull will feel. If decided pain is reported, we may need to reposition or rethink axial traction for that treatment session. By displacing the pull to that side we can maintain the antalgia and still create a fair amount of distraction. Most patients

report comfort but individual results will vary, so each case requires its own diligence.

The far lateral and lateral displacements are a bit less complex and more straight forward. In effect, if the patient bends away from the leg pain, it is fairly convenient and comforting to pull on that side as well.

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Added lateralization in these cases is generally tolerated. In fact, in many prone treatments for lateral hernias and antalgia we simply add off-set from the initial treatment.

Saunders went to great lengths in the discussion of lateral pull as did Gregory Grieves PT. Both were

focusing on antalgia and scoliosis. The typical adult patient exhibiting a lateral curve in the lumbar spine has had that deformity for years in many cases. Whether it can be ascribed to their present pain syndrome becomes dubious and fully speculative at best. However that does not diminish the likelihood of palpable pain regions and restric-

tions, and certainly associated spondylosis and degenerative changes. Several studies have traced patients with scoliosis and other "normal" skeletal variants and concluded that over the course of a lifetime the prevalence of pain or disability is not any higher in this population. Your findings and my find-

ings may appear to tell a different story. Either way, the mild to moderate scoliosis deformity might logically be best treated with the axial pull vector off-set to the side of convexity (outer curve). If you plan on flattening the curve a pull on the higher side only makes sense. In the supine position the same rules apply, however not as pleasing a lateralization can be accomplished due to the bent thighs and the belt rubbing on them.

In the final analysis an axial distraction (and decompression of a still-hydrostatic disc and associated encroached nerve) is the appreciable result of traction. Off-setting or lateralizing the pull to match a specific patient's anatomical or comfort consideration only makes clinical sense.

*About The Author — Dr. Kennedy has developed, tested and taught a highly effective, easy-to-learn chiropractic decompression therapy technique.*

Some traction/decompression systems offer an off-set of the motor in order to achieve a more dominant left or right side-biased distraction effect. Many older style traction tables marketing themselves as decompression systems have a swing-arm that the pulling motor mounts on. This can be positioned around a 20 or so degree circle. The motor in this set-up typically needs to be turned so that the rope or cable pulls out straight. Interestingly these swing-arms were created, not to facilitate an off-set distraction per se but as a way to reduce the length of the table so it could be more easily moved about in a hospital or clinic setting.

Other more recent designs afford the ability to lateralize the motor

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