Dynamic Chiropractic

CHIROPRACTIC TECHNIQUES

The Art of Chiropractic Adjustment: Part II

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The two most important instruments for chiropractors are their hands and a well-designed adjusting table. Some graduates in recent years have not been taught the optimal applications of either. The following suggested procedures, regarding the art of articular correction, are based on established biomechanical principles. They are not new. They are the teachings of pioneer chiropractic.

Background

Seven cardinal rules are suggested for the application of any adjustive technic. They concern: (1) preadjustment tissue relaxation; (2) preadjustment patient positioning; (3) directing the impulse drive carefully in line with the facets' plane of articulation; (4) applying the active contact on the strongest logical point of the segment; (5) using the mechanical advantage of leverage; (6) applying segmental distraction before the thrust; and (7) timing the thrust.

The well-designed adjusting tables available today contain a multitude of potential adjustments to help achieve these goals. It is unfortunate that many DCs practice for years with little knowledge of why these many position and tension variables are available or when they should be used. This column will attempt to solve this apparently widespread mystery.

The Oval Posture

Adequate adjusting tables are primarily designed to position the patient's spine in an "oval posture" (mild flexion). This is because it is difficult to open thoracolumbar foramina and facets if the table does not have an abdominal support that can be arched. It also avoids postural compression of the discs, permits free movement at the posterior articular processes, reduces muscle tension, and enhances the corrective forces of a properly applied adjustment. Without an abdominal support that can be lowered and released of tension, it would be contraindicated to adjust a pregnant woman in the prone position. Today, a large number of other optional mechanical adjustments and automatic mobilization devices have been incorporated that enhance the application of chiropractic technics. Some distract from this goal, however, and these will be described later.

Table Height

It has often been taught that the ideal adjusting table height is 18 inches for an adjuster of average stature. Of course, other variables would be the size of the patient and the type of adjustment to be given. If the table is too high, a mechanical disadvantage occurs. If too low, overstress on the adjuster's spine results when several patients must be treated. Possibly this is why so many DCs complain of a chronic lumbosacral disorder.

To be more accurate, table height should be adjusted so that when the patient is in a prone position the doctor's fists just touch the patient's thoracic apex when the doctor's arms are relaxed. This means that the patient's recumbent height would be a few inches below the doctor's flexed wrists. This space difference is essential to allow for full extension of the elbows when the adjustive impulse is applied. The patient must be positioned low enough that the doctor can position his

shoulders, if necessary, parallel to the patient's shoulders and that a line of drive can be achieved in line with the apophyseal planes.

Unfortunately, many modern adjusting tables have so much machinery at their base that the minimal surface height is far higher than the ideal. If the patient is positioned too high, it is impossible to deliver an efficient painless adjustment -- even if the DC stands on his toes. Toe standing is soon disregarded after the fourth or fifth patient because of the fatigue. The solution to a high table is to have a platform of necessary height on each side of the adjusting table. This is rarely used, however, and is one reason we hear people complain of painful chiropractic adjustments.

A word to the wise: never buy an adjusting table that you have not been adjusted on by someone whose height and build are similar to yours.

Patient Positioning Objectives

The ideal patient positioning on an adjusting table is that position which best encourages spontaneous release of the segment being treated if such were possible. This often requires the use of padded, wedge-shaped cushions and/or various alterations in treatment table adjustment. The objective is to enlist the forces of gravity and reduce compressive forces on the involved facets.

If it is found that segmental lateral bending to the left is blocked, for example, it takes far less effort to make a correction if the patient can be placed in a position of lateral bending to the left before applying the corrective thrust. The same is true for flexion, extension, and rotational fixations. This is easily achieved by (1) table positioning (e.g. raising or lowering the abdominal piece; (2) increasing or releasing the spring tension); (3) patient position (prone, supine, lateral-recumbent); (4) positioning the patient with your stabilizing hand; and/or (5) using wedged-shaped pillows in various positions under a patient's shoulders, hips, or both.

Some modern adjusting tables provide for horizontal shifting positions. In such a manner, proper positioning can conduct a large portion of the correction because it encourages motion (through both extrinsic and intrinsic mechanisms) toward the direction desired. Proper preadjustment positioning inducing motion up to the point of "block" can therefore add leverage and the benefits of soft-tissue tensile forces. For this reason, a rotary technic delivered at the end of passive rotation is far less traumatizing to the patient than a recoil adjustment with the patient in the neutral position.

With proper patient positioning, half the adjustment is accomplished and only a minimal additional applied force by the physician is necessary to complete the release. Here are four common examples:

1. A thoracic vertebra is fixed in flexion. The patient is placed prone, the headpiece of the table is raised, tension is released from the thoracic-abdominal support, and the front aspect of the pelvic-thigh support is lowered -- all which adds gravitational force, encouraging thoracic extension (flattening). Special care must be taken, however, not to induce a degree of extension that would produce jamming of the facets to be released. Thus, specific positioning will be a matter of compromise and clinical judgement of the situation (primarily, the degree of habitual thoracic kyphosis).

2. A thoracic vertebra is fixed in extension. The patient is placed prone, the headpiece of the table is lowered, the thoracic-abdominal support is raised and tension is increased, and the front end of the pelvic-thigh flexion support is raised -- all which adds gravitational force,

encouraging thoracic flexion (hyperkyphosis).

3. A thoracic vertebra is fixed in posterior rotation on the right. The patient is placed prone with a wedge-shaped cushion inserted under the patient's left shoulder girdle and upper thorax to encourage thoracic rotation toward the posterior on the left. If the patient's thoracic spine as a whole has a distinct kyphosis, the thoracic-abdominal support is made level with moderate tension. If the patient's thoracic spine as a whole is unusually flat, the thoracic-abdominal support and pelvic-thigh supports are adjusted to induce a moderate kyphosis, and spring tension is increased. Various other positioning modifications and a hip wedge may be helpful, depending on the individual design of the patient's thoracic scoliosis, if one exists.

4. A thoracic vertebra is fixed in lateral flexion to the right. The patient is carefully placed in the right lateral recumbent position, with the contralateral side of the involvement upward. The headpiece of the table is raised, the thoracic-abdominal support is lowered and its tension is reduced, and the front aspect of the pelvic-thigh support is raised -- all of which adds gravitational force, encouraging the area involved to laterally flex to the left (to curve towards the floor).

The author knows practitioners who use the same table position on every patient adjusted despite the type of subluxation present. All mechanical table adjustments have been locked in the same position for years. This limits the doctor's potential. By using various positions and spring tensions available to place the patient in a comfortable position of relief and one that best affords spontaneous release, the adjustment will be more efficient and almost painless. It seems strange that a doctor would spend $5,000 on a fine piece of equipment and use only $1,000 worth of its capabilities.

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Editor's Note:

You can take advantage of the special pre-publication price of Dr. Schafer's latest textbook, Clinical Chiropractic: The Management of Pain and Disability Upper Body Complaints. Please see the Preferred Reading and Viewing list on page xx to order your copy in advance.