



*Dynamic Chiropractic* – July 19, 1991, Vol. 09, Issue 15

## **The Art of the Chiropractic Adjustment, Part VII**

By Richard C. Schafer, DC, FICC

This series has strived to define certain general principles that underlie almost all chiropractic adjustive technics. Parts I and II reviewed depth of drive, the articular snap, segmental distraction, timing, the advantages of placing the patient's spine in an oval posture, correct table height, and patient positioning objectives. Part III summarized the factor of time in the clinical approach and its underlying biomechanical principles of tissue viscoelasticity, fatigue, creep, and relaxation. Part IV and V reviewed the need to visualize the loading effects on articular cartilage, joint lubrication, action of the intra-articular synovial tabs, the articular planes, the fundamental types of contact, contact points and their options, securing the contact hand, and the direction of drive. Part VI offered a rationale on adjustive velocity, and this concluding column on this subject describes various types of adjustive thrusts.

### **Types of Adjustive Thrusts**

#### **Test Thrusts**

Test thrusts are mild preliminary thrusts applied before an actual corrective thrust is delivered. They have a twofold purpose: first, to acquaint the adjuster with the structural resistance present and patient response to the pressure applied; second, to acquaint the patient with what to expect. Surprise lowers a patient's pain threshold.

#### **Leverage Thrusts**

The term leverage move refers to the use of counter pressure or contralateral stabilization. It is applied to prevent the loss of applied force, secure the most work with the least amount of energy expenditure, and concentrate the movement or force at the directed point of contact. Visualize! Only enough counter pressure is used to balance the force of the adjustive thrust. Leverage thrusts are the most commonly applied technic used in chiropractic.

## **Impulse Thrusts**

An impulse thrust is the application of a short, sharp force without recoil. The hands adopt a preset tension in the line of drive, and the impulse is characterized by a high-velocity low-depth thrust.

## **Recoil Thrusts**

The classic recoil thrust is applied against a spinous process or lamina with a pisiform contact. After the contact has been accurately taken and secured, the correct stance must be assured and the elbows must be completely relaxed. At the instant of almost maximum patient exhalation, the adjuster's extensor muscles of the arms and pectorals are suddenly and simultaneously contracted. As the elbows are in line with each other and in the same plane, this spasmodic-like contraction adducts the elbows and produces the thrust. So the force of the adjustment will not go in the opposite direction (i.e., toward the ceiling), the adjuster must contract his abdominal, thoracic, and neck muscles at the same time the force is delivered. This maintains a rigid trunk, and the adjuster's body weight will concentrate the force on the spinous process being adjusted. Visualize!

The force of a recoil adjustment should be applied equally with both arms, at the same instant after the adjuster positions the trunk so that the force of the adjustment will be applied in a straight line from the episternal notch to the point of contact. The proper position, therefore, is to have the episternal notch directly over the point of contact. Another factor of importance is for the adjuster to position the elbows at right angles to the line of drive and bent only to the extent that allows the entire force of the adjustment to be delivered in a short, swift manner. Immediately after the adjustment is delivered, the adjuster's hands should "recoil" away from the patient's spine.

A thoracolumbar recoil adjustment delivered to a patient in the prone position should not be applied on a hard surface table. Injury to the patient's chest or abdomen may result because of the velocity and force associated with this type of thrust. The table should have a spring support in which the tension is relaxed, yet there must be resistance under the patient's thighs and upper thorax.

## **Body Drop Thrusts**

A body drop thrust is usually associated with Willard Carver's technic. The adjuster centers trunk weight over the contact hand(s) and raises his body between the shoulders using straight arms. The adjuster's trunk is then allowed to drop to apply a short, sharp impulse. The force is delivered through the straight arms

(elbows locked). This method is not to be confused with that of dropping the body by bending the knees as is occasionally used in lumbar side posture adjusting. The Carver body drop must be used cautiously with children, the elderly, osteoporotics, etc. Less forceful technics are usually more applicable in these cases.

### **Rotary Thrusts and Rotary Breaks**

A rotary thrust, with accompanying joint distraction, is administered to correct either local or area rotary fixations. The direction of drive is clockwise or counterclockwise and parallel to the plane of articulation. Visualize! A rotary break is the addition of a force to open thinned disk space on the contralateral side of rotation fixation. The technic is commonly applied in the cervical area, with the patient supine or prone; or in the lumbar position with the patient in the lateral recumbent position (e.g., million dollar roll).

### **Spear's Multiple-thrust Technic**

The major objective of multiple-depth thrusts is to permit a gradual increase in force, prolong the relief on compressed discs and articular cartilage, allow time to compensate for the applied force, and permit the application of a summing force that can be equal to or greater than that used in a single thrust, thus reducing patient discomfort.

A classic example of a multiple-thrust technic would be the application of Leo Spears' double-transverse contact, which is applied to the spine with thenar contacts in a deep, low-velocity, alternating, rhythmic fashion to obtain patient relaxation and to stretch perispinal and intersegmental adhesions and other taut tissues before more specific spinal therapy. It has been described as a continuous "down light, down medium, down heavy" multiple thrust in which each non-jerky thrust (without relaxing the pressure between the multiple thrusts) applies progressive pressure after tissue adaptation. These progressively increasing forces must be made in a smooth, steady manner so that patient relaxation will not be disturbed to the point of producing perivertebral contraction. Visualize what is occurring and why.

This full-spine technic, applied from T1 to the sacrum, is extremely beneficial in spinal cord diseases (e.g., acute poliomyelitis) and situations where either cerebrospinal or axoplasmic fluid flow has been restricted or requires enhancement. Although this "stretching-milking" technic is not designed to reduce severe subluxations, numerous secondary muscles fixations will be gently removed and frequent articular snaps will be felt and heard after the technic has been applied to the thoracolumbar spine for a minute or two. This is also an excellent initial technic to use in conditioning the spine preparatory to a more forceful technic.

This technic has a direct effect on axoplasmic flow, intervertebral foramen (IVF) contents, the costovertebral articulations, and cerebrospinal fluid (CSF) circulation. It has an indirect effect of massaging (pumping) the lungs, mediastinum, heart, and upper-abdominal viscera. In many instances, it is the only technic applicable to the geriatric patient.

### **Objective-oriented Approaches**

Most chiropractic adjustive technics have the common objectives of freeing restricted mobility and releasing impinged or stretched nerves. Added factors are the expansion or compression of deformed IVFs and IVDs, the elongation of shortened tendons and ligaments, the release of adhesions, and the enhancement of cerebrospinal and axoplasmic fluid circulation.

It can be generally stated that joints and nerves become painful only when nociceptors are stretched, compressed, or chemically irritated. In adjusting acute lesions, proper analysis consists of the localization of fixations as well as the determination that these conditions produce the nociceptive input experienced by the patient in pain.

Editor's Note:

This series of articles has been adapted from Chapter 15 of Dr. Schafer's book on Clinical Chiropractic: The Management of Pain and Disability -- Upper Body Complaints, which is now available. Please see the Preferred Reading and Viewing list on page XX, Part #T-125 to order your copy.



Page printed from:

[http://www.chiroweb.com/mpacms/dc/article.php?id=44454&no\\_paginate=true&p\\_friendly=true&no\\_b=true](http://www.chiroweb.com/mpacms/dc/article.php?id=44454&no_paginate=true&p_friendly=true&no_b=true)