

TORQUE RELEASE TECHNIQUE™ (TRT)

A Technique Model for Chiropractic's Second Century

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Torque Release Technique (TRT), a chiropractic model and technique of health care, was founded and developed by Dr. Jay M. Holder and Dr. Marvin A. Talsky. It embraces a vitalistic paradigm, specifically relating to tone, the premise on which D.D. Palmer originally founded chiropractic¹. In 1910, D.D. Palmer wrote, "Life is an expression of tone ... the cause of disease is any variation in tone."² However, as fundamental as it may be, it seems that for the first 100 years of chiropractic many within the profession have not applied nor properly understood this basic premise. At the other end of the spectrum, few have clinically applied their systems with the hypothesis of tone being their basic premise. TRT is unique in that it is a model, addressing this component of the subluxation, withstanding scientific clinical trial based evidence at the very core of its inception. It attempts to define the parameters of tone and to clinically apply its principles^{4,5,6}.

LIFE EXPRESSED IN PHYSICAL MATTER

Tone was defined by D.D. Palmer as the normal degree of nerve tension, expressed in function by normal elasticity, strength, excitability, and renitency. He also referred to tone as life being expressed in physical matter through vibration or oscillation at varying ranges of frequency. He established that this underlying theme is common to music and

acoustics, color and light; basically all phenomena and forms of life depend upon tone^{2,3}. In this context, a change in the range of frequencies and tension would result in a change in tone. As such, the vertebral subluxation involves a deviation from normal frequency ranges and neural tension; the adjustment involves a correction towards normal frequency ranges and neural tension⁷. Tone is therefore quantifiable and can adhere accordingly to clinical applications⁸.

Cord tension has been described early in chiropractic literature as being a major and distinct component of subluxation, as opposed to nerve pressure or compression¹¹. In more recent literature, excessive cord tension has been described as a source of motor, sensory, and autonomic dysfunction¹². Research suggests that the usual picture of the limbic system, the seat of emotion in the brain, should be extended to include the spinal cord, due to the dorsal horn's rich concentration of neuropeptide receptors¹⁵ and to the cord's direct neuronal projection to the amygdala and orbital cortex, enabling somatosensory information, including pain, to effect autonomic, endocrine and behavioral functions^{16,17,18}.

CONTINUOUS BALANCING OF TENSILE FORCES

It has been demonstrated that consciousness or perception of the environment, a derivative of neurological function, is responsible for

regulating cell behavior⁹. The architecture of a living cell has been found to exhibit the transmission of continuous balancing of tensile forces as a response to external stresses, profoundly affecting biochemical reactions as a result of this process¹⁰. Some have referred to the neuropeptide network as molecules of emotion, functioning intrinsically throughout and at every level of the human organism^{13,14}. As a communication network based also on *awareness* and interpretation, rather than being limited to linear processes of chemical reactions, it has further been suggested that living cells and their components and tissues exhibit characteristic resonant frequencies of vibration, sending their signals to various parts of the organism as part of an informational flow^{9,10,14,15,19}. These recent findings and perspectives support D.D. Palmer's idea of tone, its characteristics, and their relevance to the vertebral subluxation.

GET THE MOST FROM ON-GOING CARE

The name, *Torque Release*, reflects upon torsion or distortion associated with nerve and cord tension. It also refers to the torque component used in the analysis and chiropractic adjustment, as will be highlighted later. Although by virtue of its name, *Torque Release Technique* implies *technique*, it is first and foremost a *model* based on the principles and protocol that focus on the indicators of *dis-ease* and spinal subluxation. TRT attempts to teach how to get the most from on-going care. Its protocol incorporates observational, palpatory, and intuitive skills, as well as other objective means of clinical assessment. This dynamic learning process of subluxation analysis is essential due to the dynamics existing between health and disease and their relation to the subluxation.

Any current technique that one may still want to use may be integrated into this larger application model, like a software upgrade for an already existing system (technique). Therefore, it is not necessary to discontinue a previous technique when applying this model.

TRT does however include a technique system as well, focusing on testing and adjusting priorities. It is an umbrella technique, combining outstanding aspects of many other chiropractic techniques, some of which are the works of Palmer (Upper Cervical), Van Rump (Directional Non-Force Technique), DeJarnette (Sacro Occipital Technique), Toftness,

Thompson, Gonstead, Logan, Pierce, and Epstein (Network Spinal Analysis)^{4,8}.

HISTORICAL OVERVIEW

TRTTM, was developed out of a human population research study, involving subluxation based chiropractic treatment in a residential addiction treatment setting. This investigation was conducted in a randomized clinical trial setting, double blinded and with placebo control, by Robert Duncan, Ph.D., biostatistician at the University of Miami School of Medicine, in conjunction with the Holder Research Institute, funded in part by the Florida Chiropractic Society. The results were striking when compared to placebo and conventional care. Chiropractic produced a 100% retention rate within the 30 day residential model.

It also showed a statistically significant improvement in anxiety²⁰ and depression²¹ scores (Fig. 1). Further, it showed a significant reduction of nursing station visits²².

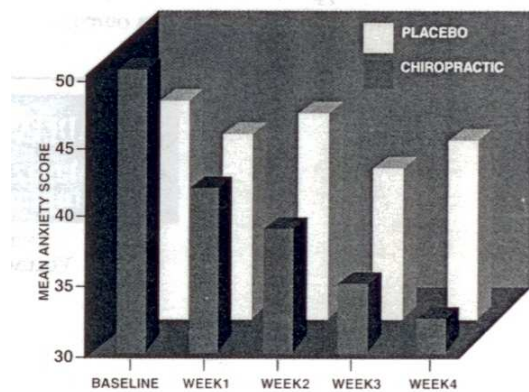


Figure 1: Spielberger State Anxiety research results

THE INTEGRATORTM

The IntegratorTM, an FDA approved hand held instrument, was designed for delivering the chiropractic adjustment in this research study. Years of development, testing and design went into creating an instrument that would institute unique dynamic dimensions. Some of its main features include torque and recoil (Fig. 2), components that were present in the original chiropractic technique of Toggle Recoil^{26,27}. The thrust of the adjusting shaft maintains the speed (1/10,000 sec.) appropriate for subluxation reduction, as expressed in Hertz frequencies^{28,29}. A pre-cocking, pressure sensitive tip with an automatic release mechanism was incorporated into this instrument for the purpose of true inter-professional reproducibility, as is pertinent in scientific research.

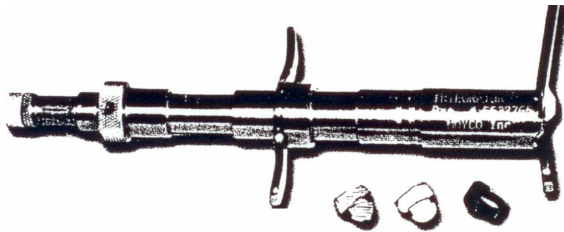


Figure 2: The Integrator™ pictured above, reproduces what the hands are intended to do, incorporating torque (right/left) and recoil, with automatic release, firing at 1/10,000 second.

It should be emphasized that the Integrator and the TRT model and technique were originally developed for the purpose of conducting this study, making it the first chiropractic technique to be born out of research investigation. It was intended to represent chiropractic as a whole, not for promoting a new instrument or technique for field practitioners in the chiropractic profession. Although the instrument was developed along with the technique model, TRT is not instrument dependent and can be practiced by hand, without the use of the Integrator.

GREATER PERSPECTIVE OF CHIROPRACTIC'S POTENTIAL

The purpose of this research was out of respect for non-mechanistic, non-linear adjusting priorities and to the psychoneuroimmunological role of chiropractic, not limited to chiropractic's role in neuromusculoskeletal disorders. Its intention was to establish the vertebral subluxation complex as a primary issue in the multi-factorial expression of addictions and compulsive disorders as well as an entity existing in many other disorders stemming from a lack of state of well-being, now established and recognized as Reward Deficiency Syndrome (RDS)²³. The similarities between a lack of state of well-being, the addictive process and compulsive disorders, and subluxation are striking. These involve components of physical, chemical, emotional and spiritual realms of human existence^{24,25}. RDS, a biogenic model for explaining addiction and compulsive disorders, associated with the Brain Reward Cascade theory²³, may serve as a model to project yet another, and possibly a greater perspective of chiropractic's potential, and that is the ability in overcoming barriers of genetic predispositions²⁵.

A TONAL MODEL

An attempt to give a complete and detailed description of TRT's protocol within these confines would do injustice to its model and

technique. As much as can be anticipated from an article of this nature, an attempt will be made to introduce the reader to some of its basic concepts and procedures.

The central nervous system in this model is viewed as one integrated functional unit. The brain, spinal cord, multi-layered meningeal sheath, the bones of the cranium, vertebral column, and pelvis, all constitute what is referred to by Holder and Talsky as the Crania-Spinal Meningeal Functional Unit (CSMFU)⁵. The dura mater, the membrane which envelopes the brain and spinal cord, adheres to bone throughout the cranium and around the circumference of the foramen magnum at the base of the occiput, and peculiarly adheres to spinal segments of the axis and C3³⁰ and C5³¹, at the cephalic end, and to the sacrum and coccyx, at the caudal end, with some anomalies, with no other adherence to osseous structures³⁰ throughout the spine!

The significance of these attachments with regard to the subluxation is that these are suggested to have a more profound effect on neural tension, and by that, on the total wellness of the individual. The analogy, first described by Holder³², that is used for explaining this relationship is a guitar, with its strings attached at its extreme ends and their sound resonating throughout. TRT therefore focuses its priorities for subluxation correction at these levels³³, although any segment may be appropriate for adjustment.

NON-MECHANISTIC, NON-LINEAR APPROACH

This model views the subluxation as a separation from wholeness, and uses 13 objective indicators of *dis-ease* and subluxation from that perspective (Fig. 3). It embraces the paradigm of quantum physics, viewing the living body and mind as one entity^{9,13,14,34,35}, which is holographic in nature³⁶ and constantly in process between healing and *dis-ease*. The testing and adjusting procedures are therefore, neurological, non-mechanistic, non-linear and non-sequential. Low force thrusts and a minimal number of adjustments per visit are recommended, rather than bombarding the system with information from which to choose for its correction. The sacrum in TRT protocol, due to its dural attachments, is divided into four neurological segments¹¹, and is not considered a single segment, as would be obvious from a mechanical perspective.

Figure 3: TRT INDICATORS OF DIS-EASE AND SPINAL SUBLUXATION

1. Observation

- a. Postural Faults. i.e. standing, sitting, prone.
- b. Abnormal breathing patterns.
- c. Congestive tissue tone.
- d. Inappropriate sustained patterns of muscle contractions.
- e. Functional leg length inequality, indicating lateral or posterior rotation.
- f. Abduction tendency / adduction resistance, indicating C2 subluxation, usually on side of greater resistance.
- g. Foot flare, indicating anterior rotation of spinal segments with Dural attachment (Sphenoid, Occiput, C2, C5, S2,3,4, Coccyx), or C1.
- h. Foot pronation/supination, indicating Trochanter.

2. Palpation (evaluating the CSMFU as a whole):

- a. Scanning for abnormal heat, cold, or energy imbalance.
- b. Tissue tone. i.e. texture and/or congestion.
- c. Static and motion inter-segmental assessment for anterior, posterior and rotational restrictions.
- d. Heel tension (Achilles tendon), indicating primarily C2, C5, Sacrum, or Coccyx, but may be any other segment as well.

3. Cervical Syndrome Test: Indicates C1 or C5 posterior rotation with or without laterality.

4. Bilateral Cervical Syndrome Test (not Thompson's): Indicates Coccyx, Occiput, C5, C1, or T6 – tested in that order.

5. Derifield Test: Positive Derifield Test indicates pelvic subluxation.

TRT suggests that at any given moment there is only one subluxation to address. One should test for the appropriate segment and vector, with or without right or left torque. Although one may find an indication of subluxation at a specific level, it may not necessarily be the most appropriate one at this moment in time. The chiropractor's objective is to find this *window* in, making *almost* not enough. The practitioner should always give the body time to integrate each adjustment. It is essential to reassess before a subsequent adjustment, even in one session, and to locate the most appropriate adjustment at that moment in time. Because the nervous system is suggested to have the capacity to record and memorize each input or event, a non-sequential adjusting procedure from one session to the next is suggested in order to promote change rather than induce pattern via repetition.

INDICATIVE OF SPECIFIC LEVELS

Some of the listed indicators are indicative of specific levels, while others are indicative of direction of subluxation. For example, abduction tendency is indicative of a C2 subluxation, and foot flare may be indicative of subluxation of Sphenoid, Occiput, C1, C2, C5, Sacrum (S2, 3, or 4), or Coccyx. Examples of directional indications of subluxation include: leg length inequality, for lateral or posterior rotated subluxation; foot flare, for torsion in the spinal cord and meninges, associated with anterior rotation; and heel tension, for posteriority, superiority, or inferiority.

When testing, an improvement in leg length is not sufficient, and actual leg length balancing (evening) is necessary for confirmation. In other words, improvement in leg length is meaningless; only complete leg length evening is acceptable. Many other chiropractic techniques that use leg length analysis do not embrace this criteria. Further, some techniques rely on leg length analysis only. TRT relies on 13 indicators of subluxation, as previously mentioned.

Non-Linear Testing Priorities

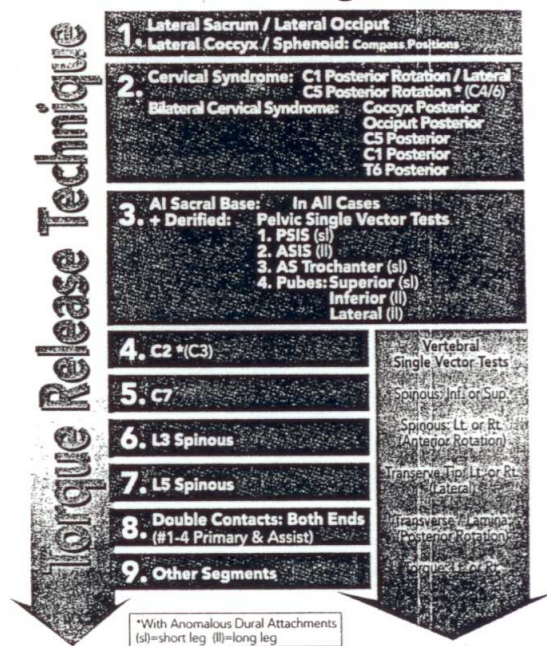


Figure 4: Non-Linear Testing Priorities flow chart, designed for the Holder Research Institute by DR. Robin Hyman, author of *Thompson Technique and AK and Subluxation Analysis*³⁹.

The following includes explanations of the Non-Linear Testing Priorities flow chart (Fig. 4):

- 1. Coccyx is adjusted externally³⁷ by removing skin slack superiorly, adjusting at the superior aspect of the coccyx (1st segment of coccyx).

The line of drive is directed cephalad with a 15° angle to the body surface (Fig. 5).

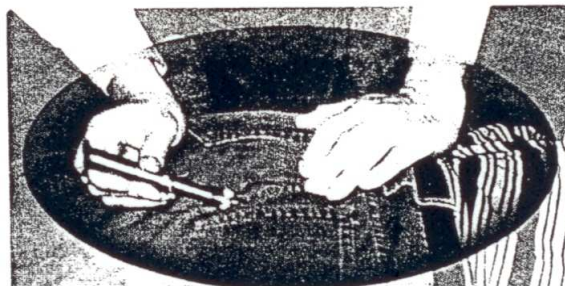


Figure 5: Demonstration of posterior coccygeal contact.

2. Due to unique anatomical observations, the sphenoid plays an important role and is regarded as an uppermost vertebra in TRT protocol. Coccyx and sphenoid share a common Lovett brother relationship, as elaborated on at the seminar lectures.

3. The sphenoid compass positions refer to anterior/posterior, superior/inferior, and half way positions. The sphenoid is to be contacted at the exterior aspects of its greater wings, which are located approximately 2 cm. posterior to the lateral canthus of the eye. Sphenoid adjustments should never be directed medially, perpendicular to the body surface. The adjustment should be made at a 15° angle to the body surface (Fig. 6).



Figure 6: Demonstration of sphenoidal contact with anterior line of drive.

4. Cervical Syndrome test is positive when legs become and remain even on the side of posterior rotation with head turning from side to side. *Almost* is not enough!

5. Bilateral Cervical Syndrome is positive when the short leg alternates with head turning. Head turning should be repeated three times to confirm that the legs actually switch back and forth.

6. Derifield test is modified in TRT in that only if the short leg gets longer, not even, with 90° flexion of the legs is it considered a positive test, indicating a pelvic subluxation.

7. Double contacts involve a primary contact with an upper or lower secondary assist. Most common possibilities are: C2-Sacral base, Coccyx-C1, C5-Coccyx, Coccyx-Sphenoid.

VITALISTIC MODEL OF WELLNESS

Many conditions have been suggested by Holder and Talsky through their clinical experience, as being related to the neural tension component of subluxation. These include: migraine, amenorrhea, dysmenorrhea, morning sickness, dyslexia, impotence, infertility, compulsive disorders, Attention Deficit/Hyperactivity Disorders (ADHD), and many, many others³⁸. It may be suggested that the more prevalent type of subluxation afflicting our health, preventing a state of well-being, is associated with neural tension rather than with pressure generated manifestations. Because life is never static, the nervous system is always in process, adapting and reorganizing itself from every new demand to higher complex levels of functioning. However, this can occur as long as it can adapt dynamically and not be stuck in inappropriate patterns of function. Thus, a model focusing on a process of initiating and supporting ongoing subluxation correction and healing related to neural tone would clearly be clinically relevant to today's day and age. The transition from a strictly mechanistic model of disease versus health, in which we have been stuck for so many years, to a vitalistic model of wellness can be the hallmark of the coming millennium.

Seminars to teach, demonstrate, and experience this new analysis and adjusting procedure are being offered. For more information, contact the Holder Research Institute at: (305)-535-8803. ♦

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Asher Nadler, Chiropractic: Intern at CMCC, is an ordained Rabbi, having received his degree from Yeshiva Bais Yisroel in Jerusalem, Israel. Fellow of the Holder Research Institute, he is founder and current president of the TRT Club, a recent addition to the various technique clubs at CMCC. His unique principle-oriented, wholistic, and analytic qualities reflect upon his keen understanding and appreciation of the TRT model, presented in his current article.

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Dr. Holder is the first American physician to receive the Albert Schweitzer Prize in Medicine from the Albert Schweitzer-Gesellschaft, Austria, 1992 Florida Chiropractic Association Chiropractor of the Year and Florida Chiropractic Society Chiropractic Researcher of the Year in 1995. Dr. Holder is Adjunct Professor at St. Martins College, Milwaukee, and held appointment to the faculty at the University of Miami, Center for Addiction Studies and Education.

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A 1963 graduate of Palmer College of Chiropractic, Dr. Talsky is in his 34th year of clinical practice experience in chiropractic, experienced in many separate chiropractic techniques, including Upper Cervical, DNFT, SOT, Toftness, Activator, NSA, Gonstead and Pierce; and has always been practicing non-condition, performance-oriented, subluxation based chiropractic. He is board certified in addictionology and held postgraduate faculty appointment at Life University, Marietta, Georgia.