Proceedings of the Sacro Occipital Technique Research Conference

New Orleans, Louisiana - April 29, 2022

Introduction

For Major Bertrand DeJarnette, DO, DC, research was an essential part of being a chiropractor and essential to the future of the chiropractic profession. As early as July 1935 Major Bertrand DeJarnette was a featured speaker at the 40th Anniversary Convention 1895-1935 of the National Chiropractic Association presenting clinical research. Always research was his passion and in an interview in 1982 DeJarnette reiterated, "as far back as chiropractic college, I saw the need for a more scientific basis for chiropractic theory. My own personal physical problems had not been solved by medicine, osteopathy, or chiropractic; so I began experimenting on myself. I'm still at it, and I can see no end of the need for continuous research in chiropractic [1]."

Dr. DeJarnette saw the importance of sharing clinical experience through case report and self-analysis. This started as he first began to find that things he instinctively did for a patient would disappear from his memory if he did not outline them carefully. So before our day and age of computers, he recommended that to begin the first step in research, you would need to buy a notebook, an eraser and long pencil. He emphasized that, "those would be your first three pieces of research equipment. You use your notebook because it is not expensive. You use a pencil because it can be erased, and of course mistakes will be made so you must own an eraser [2]." With those three pieces of equipment he sat down one evening and wrote his first case report of an unusual patient presentation and his treatment rendered. He recollected that he did not sit down to write until perhaps three months after that patient's presentation. Dr. DeJarnette could not believe how much he had forgotten about the details. The lesson he learned was "write the unusual down now [2]".

When Dr. DeJarnette began to study the treatment he had rendered he realized that if any meaningful information were to evolve from his experience, he would have to resolve it himself. Dr. DeJarnette suggested that research has to be a free agency. Basically he saw a need and worked to fulfill that need. He realized that explaining how his discoveries evolved was more difficult than the process of developing new diagnostic and therapeutic interventions [2].

Chiropractic techniques, innovative integrative collaborations, and methods such as sacro occipital technique, temporomandibular disorder co-management, chiropractic manipulative reflex technique, and cranial techniques need an arena to share clinical and other forms of

research. Critical study of techniques and innovative methods are what will help propel healthcare forward in this era of evidence informed practice and best practice research.

The SOT Research Conference looks to offer a venue for research papers; specifically those, which investigate sacro occipital technique, dental chiropractic co-treatment, cranial techniques, viscerosomatic/somatovisceral, reflex techniques, and new ground-breaking creative ways of helping humanity without necessarily the use of drugs or surgical intervention. This year's proceedings, like all prior conferences, will be shared with the chiropractic profession, for review, dissemination, and in-depth study.

> "*Research is a study of what you have, and what you need to make it better, and how to make it better is the final research step. S.O.T. never wants to be just good. It always wants to be better and best and greatest and most dependable* [3]."

> "*Research in Chiropractic must go on forever. Someone must do this type work, for it simply will not take care of itself. A profession cannot stand still. Momentum must constantly be generated. Chiropractic research needs many things it does not now have* [4]."""*Sacro Occipital Technic, like all Chiropractic Technics, needs further study. We certainly do not have all the answers to all of man's problems, and neither does any other group of people* [4]."

As a parting comment for his chiropractic colleagues Dr. DeJarnette said, "We must respect each other's beliefs. We must support our colleges and associations. We must work together and unite as a profession. And we must at all times be proud of chiropractic and proud of our calling as chiropractors [1]."

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1. DeJarnette MB. **Cornerstone**. *The American Chiropractor*. Jul/Aug 1982; 82: 22,23,28,34.

2. DeJarnette MB. **The Sacro Occipital Technique Bulletin**. Mar 1975.

3. DeJarnette MB. **The Sacro Occipital Technique Bulletin**. Mar 1978: 2-3.

4. DeJarnette MB. **The History of Sacro Occipital Technic**. Private Practice: Nebraska City, NB. 1958:27.

Evidence-Based Practice

Evidence-based practice (EBP) refers to a decision-making process which integrates the best available research, clinician expertise, and client characteristics. EBP is an approach to treatment rather than a specific treatment.

Evidence-based practice (EBP) involves complex and conscientious decision-making which is based not only on the available evidence but also on patient characteristics, situations, and preferences. It recognizes that care is individualized and ever changing and involves uncertainties and probabilities [1].

EBP develops individualized guidelines of best practices to inform the improvement of whatever professional task is at hand. Evidence-based practice is a philosophical approach that is in opposition to rules of thumb, folklore, and tradition. Examples of a reliance on "the way it was always done" can be found in almost every profession, even when those practices are contradicted by new and better information [1].

> "*It's about integrating individual clinical expertise and the best external evidence* [2]."

However, in spite of the enthusiasm for EBP evinced over the last decade or two, some authors have redefined EBP in ways that add other factors to the original emphasis on empirical research foundations. For example, EBP may be defined as treatment choices based not only on outcome research but also on practice wisdom (the experience of the clinician) and on family values (the preferences and assumptions of a client and his or her family or subculture) [1].

1. Buysse V, Wesley PW. **Evidence-based practice: How did it emerge and what does it really mean for the early childhood field?** *Zero to Three*. 2006;27(2), 50-55.

2. Sackett DL, Rosenberg WMC, Muir Gray JA, Haynes RB, Richardson WS. **Evidence based medicine: what it is and what it isn't.** *BMJ.* 1996;312:71-72.

Evidence Based Practice: The Hierarchy of Evidence

In biomedical science there is general agreement over an evidence based hierarchy: the higher up a methodology is ranked, the more robust and closer to objective truth it is assumed to be. The orthodox hierarchy looks something like the following table:

Rank:	**Methodology**	**Description**
1	Systematic reviews and meta-analyses	Systematic review: review of a body of data that uses explicit methods to locate primary studies, and explicit criteria to assess their quality. Meta-analysis: A statistical analysis that combines or integrates the results of several independent clinical trials considered by the analyst to be "combinable" usually to the level of re-analyzing the original data, also sometimes called: pooling, quantitative synthesis.
2	Randomized controlled trials	Individuals are randomly allocated to a control group and a group who receive a specific intervention. Otherwise the two groups are identical for any significant variables. They are followed up for specific end points.

3	Cohort studies	Groups of people are selected on the basis of their exposure to a particular agent and followed up for specific outcomes
4	Case-control studies	"Cases" with the condition are matched with "controls" without, and a retrospective analysis used to look for differences between the two groups.
5	Cross sectional surveys	Survey or interview of a sample of the population of interest at one point in time.
6	Case reports	A report based on a single patient or subject; sometimes collected together into a short series.
7	Expert opinion	A consensus of experience from the “good and the great.”
8	Anecdotal	An interesting story.

Evidence Informed Practice

The term evidence based medicine (EBM) has traditionally been used to describe a means of treating patients based on research published in biomedical journals. Even though EBM also incorporated expert opinions and a doctor’s clinical experience, it was common that insurance companies and other agencies - presumably seeking to protect patients or save money - would focus solely on the randomized controlled trial as the backbone of EBM.

When EBM appeared to be too restrictive or just clearly misinterpreted new terms such as Evidence Based Practice and now Evidence Informed Practice (EIP) have appeared. The value of EIP is that it takes research into account when making a clinical decision but also utilizes patient values and preferences, risk benefit ratio of related or chosen therapy, and the doctor’s clinical experience. Because this represents a clearer depiction of an actual clinical experience and at the same time seeks to offer the patient the highest level of care, the belief is that EIP is the best of what EBM has to offer.

It is important that a practitioner is aware of the current research on effectiveness of their care so that they do not inadvertently make false or exaggerated claims regarding the potential benefits

of the treatment rendered. Therefore keeping up to date on the research and literature, while time consuming, is an ethical obligation of doctors in practice.

Ideally doctors practicing EIP would best be able to predict and provide outcome expectations against which progress could be measured. In essence we all, as patients or doctors, should receive or offer treatment based on research and clinical experience. New research can uncover therapeutic interventions or benefits of certain types of care that were never before discovered. Also this research may determine that prior care that was customarily rendered is now inappropriate.

The challenge with chiropractic and its various techniques is that we are functioning from a situation where we have limited funds and limited methods to adequately study our innovative therapeutic applications. This conference attempts to offer a tempered and reasonable voice for practitioners on the forefront of care, such as has been the case with Sacro Occipital Technique (SOT) for years. Incorporating current research performed in the patient's best interest with one's own clinical experience is the hallmark of a responsible and ethical physician. Allied healthcare practitioners, chiropractors, and particularly SOT doctors have a responsibility to lead the way with EIP and focus first and foremost on patient based care.

Major Bertrand DeJarnette DO, DC developed SOT with outcome based assessment protocols and with research accountability as its backbone. The onus is upon us, those who learn and utilize his methods, to be informed of the evidence and evolving research and utilize this in the clinical application of SOT and its related methods.

The Case Report: How the Doctor in Practice Communicates to the Research Community

While low on the evidence-based practice hierarchy of evidence the case report is an extremely valuable manner for doctors in clinical practice or “in the trenches” to communicate what is taking place in their practices. Until the doctors in clinical practice publish their case reports, researchers in a college setting can only attempt to guess what is taking place out there in the field.

There are significant limitations to case reports, such as no control subjects, the doctor and subjects are not blinded to the study, and the doctor’s bias may cloud the study. So while the case report is an important tool for communication, the doctor authoring these studies needs to exercise caution to not over-interpret his or her findings. Dr. Robert Ward of Southern University

of Health Sciences and past editor of *The Journal of Chiropractic Education* answers the question:

"Why it is important to write a case report?"

"Most persons believe that the case report is used to describe unique, or at least highly rare, clinical presentations or diagnostic entities (e.g., "prostatic hypertrophy mimicking as ingrown toenail"). This is the most common use of the case report. However, equally important is the use of the case report to describe novel management approaches to more ordinary conditions.

"Another aspect of why case reports are written involves the audience. Case reports are generally considered as a communication from clinicians to scientists. The pointy-headed ivory tower population doesn't get to see the interesting things that happen in clinical practice. They often rely on case reports from the field in deciding what sorts of pilot studies to run, and those often lead to real full-scale clinical trials (the sort of research that field clinicians generally don't have the time, resource or interest to undertake).

"Case reports are a vital aspect of our literature base, and more of our practitioners need to write them. Until you write up that wonderful method that works in your office, the rest of the world cannot share in its benefits. Without publication, when you die or retire, your discoveries die with you [1]."

1. Ward RW. **Why it is Important to Write a Case Report**. *Dural Connection Internet Edition*. 2006;3(3). [http://soto-usa.com/writing-a-case-report/] Last accessed April 30, 2018.

SOT Research Conference Proceeding Author Biographies

(Listed in alphabetical order)

Thomas Bloink, DC specializes in cranial-dental integration in Silicon Valley at the California Cranial Institute, which was founded in 1992. Dr. Bloink was on the board of advisors to help create SOTO USA and is actively involved in promoting the organization, presenting at research conferences throughout the world, and developing novel treatment approaches for functional neurological conditions. He works closely with many different specialists including dentists, orthodontists, and oral-maxilla surgeons. ENT's and others to ensure the best possible outcome for his patients.

Charles L. Blum, DC is in private practice Santa Monica, California and past president of SOTO – USA, now their research chair. Adjunct research faculty at Cleveland Chiropractic College, associate faculty at Southern California University of Health Sciences and Palmer College of Chiropractic West teaching the SOT Elective. Dr. Blum is a Certified SOT Cranial Practitioner, and on the peer review board of the Journal of Craniomandibular and Sleep Practice (CRANIO), Association of Chiropractic College Conference Peer Review Committee, and Journal of Chiropractic Medicine. He has lectured nationally and internationally, has written various SOT related texts, compiled SOT and cranial related research, and has extensively published in multiple peer reviewed indexed journals and at research

William J. Boro, DC has been in private practice in Annapolis, Maryland for over 30 years. Dr. Boro uses sacro occipital technique, applied kinesiology, and Van Rumpt technique, in addition to using other standard methods of diagnosis, for the evaluation of structural, chemical and mental aspects of health. He is intent on increasing other doctor's knowledge and understanding of how chiropractic is beneficial in cases other than strictly musculoskeletal problems. He has taught and presented papers nationally and internationally and looks forward to presenting more case studies in the future.

Henry Cheng, DC graduated from Palmer Chiropractic College – West in 2019. He is a passionate chiropractor currently practicing at Mount Pleasant Wellness Center in Vancouver, British Columbia, Canada. He utilizes his knowledge of human anatomy and Sacro Occipital Technique to assess and treat patients. Dr. Cheng believes that the balance in the neuromusculoskeletal system can optimize a person's health and well being.

Kenneth Y. Davis, DC earned a doctoral degree in chiropractic from the Columbia Institute of Chiropractic in 1976, and was one of the youngest instructors in Sacro Occipital Technique and Soft Tissue Orthopedics, having been certified by the late Dr. M. B. DeJarnette, and the late Dr. M. L. Rees. Dr. Davis is a Charter Member of the International Craniopathy Society. Considered one of the foremost researchers and developers of Energetic and Bio-Vibrational Therapy, co-founder of Natural Force Healing with his wife Lisa V. Davis.

Lisa V. Davis is a medical intuitive, spiritual teacher, life coach, motivational speaker, author, developer and co-creator of Natural Force Healing, Energetic Nutritional Assessment Technique (ENAT), and Piezo-E Sternal Technique; revolutionary systems of healing that incorporate energetic and vibrational therapies that have been taught around the world to physicians and health care practitioners. Early in her career, Lisa worked closely with and was the protégé of Doctor M.L. Rees and was also the only layperson on the board of directors of the International Systemic Health Organization (ISHO). Among her other accomplishments, Lisa holds two U.S. technology patents, pioneered work with Hackensack University Medical Center and Johns Hopkins resulting in the development of an Emergency Preparedness Manual, as well as is the co-author of "To the Fullest" with actress

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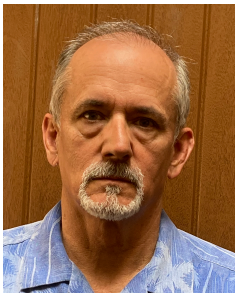
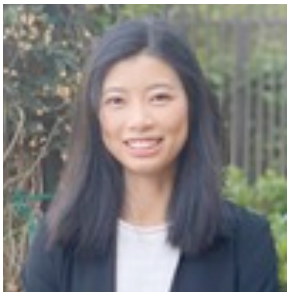
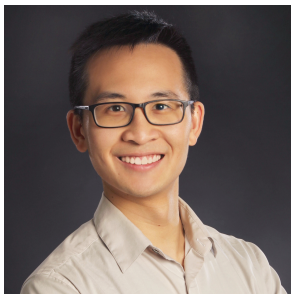


Richard C. Gerardo, DC has been in private practice in Burbank, California, since 1985 and in the past years with a second private practice in Thousand Oaks, California. He is a certified Sacro Occipital Technique Cranial Practitioner and a Cranial TMJ Specialist. He has lectured nationally for 25 years on the interdisciplinary approach to treating TMJ and associated issues. Dr. Gerardo has authored several published case studies as well as a paper on the Cranial Dental Functional Model and has co-treated over 3000 TMJ and orthodontic patients with numerous dentists over the last 25 years.

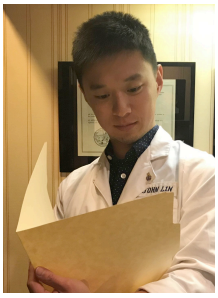
Rachel Hamel, DC has completed advanced training in Applied Kinesiology, Sacro-Occipital technique, SOT Cranial Technique, Craniobiotic Technique, IASTM, Rocktape, Webster Technique, Neuro Emotional Technique; and is working towards her ACN in nutrition, as well as certification in Cranial-Dental diplomat. She is a member of ACA, SOTO-USA, BABI (Bay Area Birth Information) and ICPA (International Chiropractic Pediatric Association). She received her Bachelor's with honors in Health Science from Whitworth University in Washington State, and her doctorate degree where she was valedictorian from Palmer West Chiropractic College.



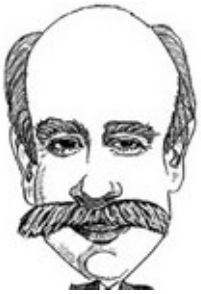
Rebecca Huang, DC became a Certified Sacro Occipital Technique Practitioner in 2020. She is currently practicing in Los Altos, California and graduated from Palmer College of Chiropractic West in 2019. Dr. Huang is a Canadian and hopes to eventually start a practice in Canada sometime in the future. She is becoming active in chiropractic research and recently had a paper accepted for the 2022 Association of Chiropractic College, Research Agenda of Chiropractic Conferences in San Diego, California.



Ethan Lee, DC, originally from Taiwan, moved to Seattle with his family at the age of 18. Immediately following graduation from Palmer Chiropractic College, Dr. Lee worked in an intense clinical environment focusing on nutritional protocols treating complex pain conditions such as Lyme, SIBO, and fibromyalgia. Aside from nutritional health, Dr. Lee utilizes kinesiology muscle testing to help patients maintain neuromuscular integrity. He has certifications in Sacro Occipital Technique (SOT) and Applied Kinesiology (AK) and is currently completing a PhD in Integrative Medicine.

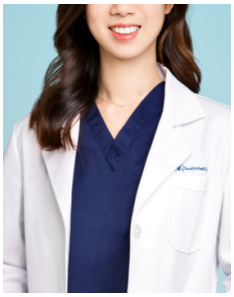


John Lin, DC graduated from Palmer West in 2018 and has been actively working with athletes of various fields in his clinic. After returning to Taiwan, Dr. Lin decided to expand his scope of practice in the healthcare field and is currently enrolled in Medical College. He hopes to bring these two professions closer together both locally in Taiwan as well as internationally.



Robert Monk, DC is one of the founding members of the Sacro Occipital Technique Organization (SOTO) - USA. He is the author of the SOT Manual most of the other texts utilized in the SOTO-USA certification program. He is a graduate of New York Chiropractic College now called Northeast College of Health Sciences. Dr. Monk has been in private practice in Briarcliff, NY since 1987.

Marc G. Pick, DC has internationally lectured since 1979 and has been in private practice in Beverly Hills, California since 1973. He has earned his Diplomat status in neurology through the American Chiropractic Neurology Board, and a Fellowship in Craniopathy through the International Craniopathy Society. Since 1998, Dr. Pick has taught through Marc Pick Creations and the John Burns School of Medicine in Honolulu Hawaii an ongoing postgraduate continuing education course in human dissection, which is offered every year.



Yi Aida Ru, DC graduated from Palmer West Chiropractic College in 2020. In the United States she extensively studied Sacro Occipital Technique (SOT) and Cranial Techniques with Charles Blum, DC, taking both the SOT and cranial certification courses. She also preceptored with Martin Rosen, DC, with an emphasis in pediatric chiropractic care. Dr. Ru also studied Applied Kinesiology and functional neurology and her practice is predominately SOT-based, combining neurological muscle testing and functional neurology. She is a Certified SOT and Cranial Practitioner with the Sacro Occipital Technique Organization – USA and started practicing in China in March 2021 at an international hospital, the SinoUnited Health Hangzhou Kerry Center.

Albert R Salem, DC is a 1980 graduate of the Los Angeles College of Chiropractic with early career years in California, where he became immersed in sacro occipital technique (SOT), the only therapy to stabilize his repeated soccer injuries. Learning from Dr. DeJarnette and his faculty at Craniopathy Instructor's Courses in Omaha solidified SOT and craniopathy as the truest physical medicine. For the last thirty years Dr. Salem is based in Adelaide, Australia, in private clinical practice of wholistic focus on the tenets and therapeutics of SOT and cranial physical medicine and homeopathic constitutional medicine.

Dr. Jason Scoppa practices at his clinic, Northwest Structural Medicine, located in Bellevue, WA, as well as in Lynwood, WA at Balance Epigenetic Orthodontics as part of a Cranial-Dental comanagement team. He is a certified SOT Craniopath (CSCP), certified chiropractic sports practitioner (CCSP), and has a TMD and cranially focused practice.

Rick Serola, DC graduated Summa Cum Laude from Palmer College of Chiropractic in 1983. In 1988, after noticing that muscle strength increased throughout the body after sacroiliac stabilization, he began research into the underlying biomechanics and the kinematic chain. Dr. Serola developed his own theory on biomechanics, the Musculoskeletal Integration Theory, and founded Serola Biomechanics Incorporated, developing various orthopedic products such as the Serola Sacroiliac Belt. He seeks to share information about the sacroiliac joint, which he believes is the most common cause of back, pelvic, and leg pain.

Caroline Vitez, DC graduated from Palmer College of Chiropractic in Davenport, Iowa in 1996 and has been in private practice since. She is a postgraduate, Diplomate in Chiropractic Neurology, having completed all requirements established by the American Chiropractic Neurology Board (DACNB) of which she is an active member. She recently co-authored a 2020 publication in the Journal of Craniomandibular and Sleep Practice (CRANIO) entitled "Craniocervical Misalignment Masquerading as Facial Pain: Options

Gilbert Weiner, DC is a graduate of New York Chiropractic College, now called Northeast College of Health Sciences in 1978 going directly to Puerto Rico to begin his private practice. There he had an interest in scoliosis and noticed various comorbidities, mainly temporomandibular joint disorders (TMD). Since beginning his private practice he has actively been investigating scoliosis, its cause and treatment

A rare case of a patient presenting with acoustic neuroma and a temporomandibular joint disorder treated with chiropractic and dental care: A case report

Thomas Bloink, Charles Blum

Objective: Acoustic neuromas (AN) are rare tumors of the eighth cranial nerve and due to their symptoms are sometimes inappropriately diagnosed as temporomandibular joint disorders (TMD). This case is the first in the literature where a TMD might be a possible contribution to an AN presentation and contributing to confusing differential diagnosis.

Clinical Presentation: A 38-year-old Asian female presented with TMD, right-sided facial numbness, mild hearing loss, and tinnitus. The patient was seen by an ENT who referred her to this office and for a MRI, which demonstrated a 6mm right-sided AN.

Intervention and Outcome: While the AN was monitored by ENT, Chiropractic cranial/TMJ, sacro-occipital technique, and dental occlusal splint therapy was instituted for her severe TMD pain and associated disorders possibly related to coincidental/causal relationship to AN and/or TMD. She was seen for 16-visits over 3-months and her pain and associated disorders gradually diminished. Follow-up MRIs at 6-month (stable 6mm) and 1-year revealed a 50% decrease in tumor size (3mm) and surgery was canceled.

Conclusion: Co-managed care is essential with any AN since most commonly symptoms are associated with the tumor and any TMD related presentations are secondarily associated with mimicry syndromes.

A retrospective pre and post-assessment of cervical spine ranges-of-motion in 32-patients following the cervical stairstep technique intervention

Charles Blum, Sunny Kierstyn

Objective: The cervical stairstep technique (CST) developed by DeJarnette in 1971, is an integral part of the Sacro Occipital Technique assessment and treatment for the cervical spine. CST's presumed function is to treat hypermobile/hypomobile cervical spine segmental dysfunction. It is currently taught in many chiropractic colleges as an alternative for the HVLA diversified cervical adjustment. No studies have assessed whether the CST might demonstrate a change in pre and post-cervical ranges-of-motion.

Methods: Pre and post-assessment of cervical ranges-of-motion were performed with a validated inclinometer (JTECH Dualer Plus) on 32-patients in one-day by a chiropractor trained in sacro occipital technique using the CST as the primary intervention. IRB approval was attained through Cleveland University Kansas City (#90721-1).

Results: Of the 32 patients in this retrospective study 24 patients demonstrated significant improvement in cervical ranges of motion post-CST intervention with 8 patients demonstrating no change or an incremental decrease in ranges-of-motion.

Conclusion: This retrospective study represents the first attempt of validating the CST, which is commonly utilized in the chiropractic profession. Greater studies are needed with controls and sham interventions as a means to more thoroughly assess this novel method of assessing and treating the cervical spine.

Chronic refractory adductor tendinitis treated with pelvic blocks/wedges for a sacroiliac joint sprain, myofascial release to hip joint capsule, and therapeutic exercises: A case report

Charles L. Blum, DC

Objective: To explore chiropractic treatment of a patient with refractory adductor tendonitis.

Clinical Features: A 28-year-old female patient presented with a chronic left-adductor tendinitis unsuccessfully treated over 3-years with 2-tenotomy surgeries. At the first-office-visit she reported for years she was unable to walk over one-block without severe pain yet was visiting the United States with the goal of hiking in Zion National Park. She was assessed with a sacro-occipital technique category-two (sacroiliac joint sprain), reduced left-hip/thigh internal range of motion, posterior left-fibular head, and compensatory inversion left-calcaneal positioning.

Intervention and Outcome: Treatment was over 5-visits for 1-month. Deep tissue release to posterior left-hip joint capsule was performed, left fibular head was adjusted P/A, and left calcaneus was manipulated into a neutral position and supported with athletic tape. She was treated with supine category-two block placement which eliminated her chronic pubic bone adductor tendon insertion sensitivity. A modified Pilates mermaid-pose therapeutic exercise was performed multiple-times-a-day to increase her left-hip internal rotation. Following the 4th-visit she was hiking in Zion 6-8 miles a day without pain.

Conclusion.
Further research is needed study what subsets of patients with adductor tendinitis might respond to this conservative chiropractic care.

Benign joint hypermobility (BJHS) and sensory processing sensitivity syndromes (SPSS): A survey of patients over 5 years
Charles L. Blum, DC

Objective: To review a survey of a specific subset of patients presenting to this clinic for chiropractic care. The subset [n=238] was represented by a group of patients assessed for benign joint hypermobility syndrome (BJHS) by responding in the affirmative to the Hakim et al questionnaire or determined by manual ranges of motion assessment.

Methods: A survey of patients (5-years) seeking care at a chiropractic clinic found that 20-30% of the patients presented with BJHS and of those patients questioned whether they had characteristics of sensory processing sensitivity syndrome (SPSS).

Results: 90% [n=213] of the BJHS patients reported they had SPSS characteristics, with 5% [n=11] not sure, and 5% [n=12] saying they did not. Due to this BJHS/SPSS relationship these

patients were treated with chiropractic care that had a focused on stabilization and given information on SPSS coping exercises.

Conclusion: Based on the finding of this survey an extensive survey of SPSS and BJHS patients is suggested to determine what degree of relationship might exist. Since the chiropractic profession has a tendency to view spinal imbalance as being a fixation, understanding BJHS and its implications (e.g. dysautonomia, SPSS, etc.) can be an important consideration.

Intramedullary spinal cord tumor an unsuspected finding: A case report

Charles L. Blum, DC

Objective: This study presents a very unusual case of a patient referred by her acupuncturist to chiropractic care for a slip and fall injury.

Clinical Features: A 40-year-old female patient was seen for acute left-shoulder pain diagnosed by her orthopedist as a frozen shoulder, secondary to a slip and fall injury weeks prior. Her presentation at this office was considered unusual because while she had limited active ranges-of-motion, she had full passive ranges-of-motion, and had signs of benign joint hypermobility syndrome.

Intervention and Outcome: Due to her hypermobility she was treated with sacro-occipital technique and cervical stairstep treatments. Her pain decreased in the cervical spine and shoulder but her active ranges of motion were still limited. The incongruence in her presentation suggested that an MRI be performed of the cervical spine to rule out anything unusual. Regretfully an intramedullary spinal cord tumor was found. It was challenging since her function and pain had improved but there was concern about the tumor, so ultimately surgery was performed, with a very poor outcome.

Conclusion: When there are incongruences in patient presentations and response to care, more diagnostic studies and referrals to other healthcare providers are important considerations.

Ovarian cyst pain and low back pain, causal, casual, or coincidental: A case report
William J. Boro, DC, Charles L. Blum, DC

Objective: Differentiating viscerosomatic contributions to low-back pain is challenging,

sometimes the treatment outcome can assist with the differential diagnosis.

Clinical Features: A 32-year-old nulliparous female presented to this office with low-back pain believed related to bilateral ovarian cysts detected by ultrasound. She reported bouts of painful cysts a couple-times-a-year, for years. This time she had unremitting pain for 2-weeks in the lower-abdominal and lower-back regions.

Methods and Intervention: Treatment incorporated Van Rumpt cranial and spinal therapies for the patient's low back presentation. Van Rumpt and Chiropractic Manipulative Reflex Techniques (CMRT) to assess/treat uterine, ovarian, and liver viscerosomatic referred pain-patterns. Within 24-hours of the first treatment the patient's (low-back/ovarian) pain subsided, which was unusual since historically it took 4-weeks before she would have any relief. She was treated the following week but was no longer in pain and instructed to return on an as-needed basis.

Conclusion: Chiropractic care of nonmusculoskeletal presentations are always challenging since it is difficult to determine causation. In this case the patient's historical body awareness of low-back pain associated with ovarian cyst pain suggested a relationship so chiropractic care was performed treating both the vertebral and viscerosomatic components of the patient's presentation.

Chiropractic co-management of a patient with a blocked tear duct: A case report

William J. Boro, DC. Charles L. Blum, DC

Objective: To describe chiropractic co-management of a patient presenting with a blocked tear duct.

Clinical Features: A 61-year-old female presented October-2019 complaining of constant left eye tearing since early September-2019 due tear-duct blockage, visualized on CT scan. Prior ENT-allopathic assessments prescribed steroids and antibiotics offering minimal improvement. Subsequent recommendations consisted of surgery for an ethmoidectomy with dacryocystorhinostomy.

Intervention: Chiropractic care (8 treatments) instituted October/December-2019 consisting of craniofacial/TMJ therapies: Van Rumpt and DeJarnette (Sacro Occipital Technique-SOT) cranial procedures, Nimmo TMJ myofascial release, and nasal specific balloon therapy. SOT pelvic block procedures (category one) and Van Rumpt cervical adjusting were performed at some office-visits.

Outcome: After the first office-visit she reported feeling better with less tearing for the first time since early September-2019. At the second-visit patient reported her eye was not tearing and at the third-visit (10-days later) reported some exacerbation of the tearing. From early November-2019 through the last office visit mid-December-2019 she reported no tearing and at a follow-up phone consultation September-2020 noted no return of her prior condition.

Conclusion. This report suggests that a subset of patients with tear duct blockage might benefit from chiropractic/allopathic co-management, and further study is indicated.

As a SOT practitioner in Canada
Henry Cheng, DC

Introduction

As a Canadian myself, it was an obvious decision for me to practice in Canada after I graduated from Palmer College of Chiropractic West in 2019. Unlike most of my classmates, I did not have to spend my time preparing for the American National Board Exams in my first few quarters. Thus, I had the luxury to attend seminars outside of school. By graduation, I had completed 100 hours of Applied Kinesiology, Sacro Occipital Technique (SOT) and SOT cranial course work and attended other seminars on patient care and nutrition.

When I began student clinic in 2018, I was able to utilize basic SOT and saw how quickly my patients improved throughout treatment. While it puzzled my peers, many symptoms that were not directly associated with musculoskeletal discomfort showed resolution under my care. I was amazed at the magic that SOT offered. Thus, during my preceptorship, I worked at an SOT-based practice that emphasized cranial-dental collaborations with dentists and orthodontists. The resources that SOT methods offer open up great opportunities for collaboration in interdisciplinary healthcare arenas and expanding how I practice today.

Practicing in Vancouver, BC…

In 2020, I became a licensed chiropractic physician in Vancouver, B.C., where I joined an SOT practice here. Even though I started working during the pandemic, I was still able to see a decent number of patients every week and quickly built a steady clientele in this office. Not much marketing was required as most new patients came via our clinic website and through a variety of referrals from trainers, physiotherapists, occupational therapists, oral myofunctional therapists, dentists, and osteopaths. The knowledge and skills from SOT put our clinic in a unique position to create collaboration with other healthcare professionals.

The Canadian healthcare system has always been thought to be one of the best in the world. Without doubt, Canada has some of the best physicians and health care professionals. However, the trouble lies with both miscommunication and lack of communication between healthcare practitioners of different scopes. Often times, patients feel confused and unsure due to improvements plateauing with the current treatment they had.

How SOT training has prepared me…

What SOT offers me, as a chiropractor in Canada is more than just an adjustment tool; it is a structured idea of how to approach patients and other healthcare providers in forming an alliance for the patient to improve their condition and quality of life.

From the patient's perspective, we chiropractors are experts of neuromusculoskeletal conditions in Canada. Our focus is to use evidence-informed methods such as palpation and orthopedic exams to diagnose and treat patients. One of the biggest advantages I have as a SOT practitioner is that other than the orthopedic examinations I also rely on the SOT indicator system. It shows the patient how a dysfunction of their proprioceptive system can impact their body, creating a chain of events that cause imbalances which lead to their injuries. Subclinical indicators are used to help assess the patient and educate their body awareness as they go through the treatment; furthermore, it paints an overall picture for me to determine the root cause of the presenting problem.

Inter-profession communication with SOT…

The Canadian healthcare system provides each healthcare profession a clear guideline of their scopes of practice. Each individual healthcare provider is an expert in his or her own field. This is perfect for SOT practitioners, as it encourages a wide referral network. The understanding of SOT gave me the ability to utilize each field's practice and language to build my referral network. I had opportunities to form alliances with occupational therapists, counselors, physiotherapists, trainers, dentists, and osteopaths in collaboration for the patient's best interest. Additionally, it helps me communicate with different healthcare providers. For example, the SOTO-USA symposium presented a lot of information on the use of dental jargon. This made it much easier for me to portray my professionalism amongst dentists. The indicator system is very straight forward, and it has helped me easily explain to other providers what I am looking for and how SOT can make an impact on the patient. Often, we come up with creative and unique approaches to individual cases. The innovation of opportunity for teamwork with this technique is limitless within this country's healthcare system.

Future work in the health care field…

During the past two years of practicing, I was surprised at how much SOT has offered me in terms of skillset, knowledge, and resources. I was able to connect with different scopes of healthcare providers and bring them together. We share our perspective and skillsets to help the

patient. This is something that I think Canada needs with chiropractors now to bridge the gap in communication between various scopes of healthcare providers. I am very glad that I had a head start on SOT during my school years to help me be able to participate in this very integrated healthcare system.

Piezoelectric Resonance Technique for treatment of chronic cervical stenosis: A case report
Kenneth Y. Davis, DC and Lisa V. Davis

Objective: Piezoelectricity exists in the human body when stress or mechanical excitation is applied directly to the crystalline structure of bones. It has also been found recently in collagen, cartilage, tendons, teeth, the trachea, intestines, muscle fibers and blood vessels. Kenneth and Lisa Davis experimented with clinical applications utilizing Quartz Crystal and Gemstones to treat various patient conditions and found that the sternum has reflex points acting as a mirror image of the spine. Clinically these reflex points are believed to relate to organ dysfunction or spinal misalignment upon the sternum and are associated with a piezoelectric effect.

Case History: A 55-year-old man, presented with chronic cervical spinal stenosis at C5-7 levels and associated left sided radiculopathy, diminished deep tendon reflexes of biceps and triceps and loss of left grip strength, was noted. Cervical ranges of motion were all restricted with muscle weakness of anterior neck flexors, left sternocleidomastoid muscle, left upper trapezius, and left anterior scalene muscle. Sacro occipital technique (SOT) cervical compaction/ compression test was positive for cervical involvement and the SOT cervical stair step assessment revealed restricted motion at C4-7 levels. The patient noted that he had received multiple chiropractic spinal manipulative treatments by various doctors without any improvement.

Treatment: The procedure involves assessing any change in strength of the right arm by placing the back of the patient's left hand to the left of the sacrum and this region is called the Piezoelectric Vital Force Indicator. If weakness is noted of right arm upon left hand placement this indicates the need for the Piezoelectric Resonance Technique. With this positive test, the doctor palpates the six sternal piezoelectric reflex point determining the most sensitive of the points and sometimes there may be more than one point that could be extremely sensitive. With this patient palpation of the six sternal piezoelectric points revealed extreme sensitivity of sternal point number 2, which is the indicator for a cervical primary condition.

A specifically calibrated quartz crystal, determined by Lisa Davis utilizing her method of care entitled Etheric Modification Therapy (Harmonics), was tapped with left index and middle finger, six times, and then again, seven taps. It was found clinically that this activated the piezoelectric resonance in the quartz crystal, with which this patient was placed on the cervical sternal point with tip of crystal facing upward towards sternal notch for two minutes.

Results: Following the two minutes of care the patient reported a deep sense of tingling, warmth and relaxation. After approximately another two minutes, the patient was instructed to stand and cervical ranges of motion were again evaluated with an 85-90 % improvement in all ranges of motion. There was a fifty per cent improvement in his grip strength and triceps and biceps deep tendon reflexes were normal. The patient was treated twice a week for six-weeks focusing on the cranial, cervical, and upper thoracic sternal indicators over the six weeks (twelve treatments) using Piezoelectric Resonance Technique. At the six-week mark the patient was asymptomatic with full range of cervical mobility, deep tendon reflexes were within normal limits, grip strength of left hand was within normal limits, prior muscle weakness was not noted, and no apparent radiculopathy was present.

Conclusion: This represents one of the first case reports utilizing the Piezoelectric Resonance Technique in the literature. With novel techniques that involve hands on energetics, reflex stimulations and muscle testing it is very difficult to determine the actual mechanism of physiological action. Low risk interventions that yield significant patient outcomes while difficult to study may still warrant clinical investigation and use in chiropractic practice when other procedures have proved ineffective. Further research is needed into the Piezoelectric Resonance Technique to determine what subset of patients might be best suited for this method of care and if the outcomes are reliable and consistent.

Unremitting trigeminal neuralgia (suicide disease) treated with novel craniofacial procedure for chiropractic dental co-management of a 40-year-old female patient: A case report

Richard C. Gerardo, DC

Introduction: Any dental procedure can offer risk even when properly performed. This case involves a 40-year-old female patient suffering from unremitting trigeminal neuralgia following an extraction of an upper left molar. Following the procedure the patient had a persisting mild achy pain lasting for 8-years, however after her implant surgery reported she noted an intense flare-up of the trigeminal pain causing shooting pains to her face that she described as crippling and was referred by her dentist for care at this office.

Methods/Intervention: The first 10-sessions involved treatment of the patient's category two (sacroiliac joint instability with pelvic torsion) and chiropractic craniofacial intra-oral treatment to the left side focusing to the sphenoid, perpendicular plates, and spheno-palatine fossa. When the intra-oral work caused an exacerbation of her discomfort and on the tenth treatment care shifted to bilaterally treating the tensions in the zygoma bones. Greater tension was noted to the left zygoma than the right with the left mastoid bone palpating as recessed, which is consistent with an ipsilateral external temporal bone lesion.

The correction for a left external temporal lesion was performed and reduced a significant amount of stabbing pain on the left side of her mouth as well as reduced the sensitivity to palpation. Once she began to have a significant reduction in pain the remaining craniofacial treatment could be completed.

Results: The patient reported that after the first office visit that focused on treatment of her pelvic torsion and sacroiliac joint hypermobility syndrome (category two) along with a sacroiliac belt to stabilize the pelvis, that this care reduced the severity of the facial pains and gave her hope to continue treatment at this office. Following the 10th office visit the patient reported a significant reduction in severe stabbing pain and by the 14th office visit she also presented without sacroiliac joint instability and significant reduction of pain at the implantation site and no prior trigeminal neuralgia symptoms. This then allowed the dentist to finish restoring the patient's crown placement and then equilibrate and stabilize her occlusion.

Conclusion: Chiropractors treating temporomandibular joint (TMJ) and adverse related dental interventions can work closely with dentists involved in this field with the goal of supporting patient care. While the molar extraction was properly performed the patient still had sensitivity of the trigeminal nerve that was aggravated with implantation surgery and chiropractic cranial care appeared to offer the patient sufficient relief that the dentist could complete the procedure and help the patient fully recover. Chiropractors trained in sacro occipital and cranial techniques might play an important role in the treatment of patients with trigeminal neuralgia also known as suicidal disease, due to the severity of the pain associated with this condition.

SOT cranial therapy for the treatment of intracranial hypertension: A case report
Rachel Hamel, DC

Objective: A 53-year-old female patient presented to this office with intracranial hypertension and subsequent headaches/dizziness.

Clinical Features: The patient reported a 10-year history of abnormal headaches/dizziness with unknown etiology. After air-travel, increased neck/ear/behind eyes pressure, and hypotension on right-cervical rotation. She had TMJ parafunction, hot flashes, and restless sleep.
History included two-optic nerve fenestration surgeries (97% recovery), two-back (L3/4-L5/S1) surgeries, and cholecystectomy.

Intervention/Outcome: Examination revealed forward head posture, narrow dental arches, multiple amalgam fillings, right-anterior-premature contact, tongue-tie, and TMJ parafunction. Pain to palpation was noted to the muscles of mastication with hypertonicity of the right scalene, and right-deltoid myotome weakness. Liver/gallbladder referred pain regions were sensitive to palpation. Left-psoas/quadrates lumborum muscles were hypertonic, left SI-joint swelling and

left-sided foot-arch pronation. Cranial assessment revealed left-temporal bone and sphenobasilar imbalance. Treatment consisted of eight-chiropractic treatments (8-weeks) incorporating sacro-occipital technique and craniofacial adjustments. Additionally, she had the dental amalgams removed by dentist. Following care the patient reported significant reduction in all symptoms, no headaches or dizziness with altitude changes. Patient reported no hot flashes and digestion improved with normal blood pressure readings.

Conclusion: Greater study is needed to identify if other patients presenting with chronic intracranial hypertension might benefit from SOT and cranial/craniofacial adjusting interventions.

SOT cranial therapy and nutrition for the treatment of autism: A case report
Rachel Hamel, DC

Objective: A two-year-old male patient presented to this office with moderate-to-severe autism and stimming behaviors.

Clinical Features: Following 12-14 month vaccinations the child's parents reported decreased motor skills, failure to meet milestones, make eye contact and name response, and ceasing of babbling. Stimming behaviors: side eye glancing, spinning in circles, head shaking side to side, only communicating with sign language, not interested in playing with other children/siblings. Open mouth breathing and teeth grinding at night.

Intervention/Outcome: Examination revealed narrow upper-palate with teeth crowding, tongue-tie, right-occipital compression, right-sphenobasilar torsion, poor lip seal, low tongue resting position with nasal congestion, lack of eye tracking and convergence, and hypersensitivity to touch. Hypertonicity in mid-back thoracic spine muscles, with right sacral-base posteriority, and right gluteal hypertonicity. Treatment consisted of twenty-chiropractic treatments (20-weeks) incorporating sacro-occipital technique craniofacial adjustments and nutritional detoxification support. Following care, parent's reported significant reduction in all symptoms, able to make eye contact and laugh, sing, combining words, jumping, reduction in tantrums, able to be social (attend school) and 75%-decrease in stimming behavior.

Conclusion: Greater study is needed to identify if other children presenting with autism-spectrum type diagnosis might benefit from nutrition, sacro-occipital and cranial/craniofacial adjusting interventions.

The effect of sacro-occipital technique on sensorineural and myogenic tinnitus: A case report

TianYing Rebecca Huang

Objective: To investigate the effect of sacro-occipital and cranial technique chiropractic care on sensorineural and myogenic tinnitus.

Clinical Features: Patient is a 41-year-old female, presented into clinic suffering from high pitch tinnitus in the right ear, and three different sound distortion tinnitus in the left ear. The cause of the tinnitus happened one year ago after an acoustic trauma at her workplace. The tinnitus onset was immediate after the acoustic trauma, causing her to have sleep deprivation and an increase in intensity of her hyperacusis. She was diagnosed with hyperactivity of the stapedius muscle on the left by multiple EENTs as the cause of her different sound distortion tinnitus.

Intervention and Outcome: Over the course of six-weeks, the patient went through a series of treatments 12 treatments, using sacro-occipital and cranial techniques with chiropractic manipulation, which helped to resolve her right ear tinnitus and two of her sound distortions in the left ear.

Conclusion: The patient's condition was unresponsive to other interventions and her quality of life was suffering greatly before initiating care at this office. Further study into care of patients with hyperacusis/tinnitus utilizing conservative chiropractic sacro-occipital and cranial techniques is indicated.

Sacro Occipital Technique changed my life, literally
Ethan Lee, DC

Twelve years ago, I was a pre-med student at the University of Washington. Getting into a traditional medicine school was my only goal in my life. I didn't know about SOT, or even the existence of chiropractic since that is not an official healthcare option in the country where I'm from originally. I was suffering from intense migraine episodes which attacked me weekly, with debilitating headaches, severe nausea, and temporary vision loss for up to 24 hours. I was not able to sleep, not able to focus, and would have constant whole-body pressure that made it impossible to relax. My life was a mess. As a pre-med student, I was concerned.

I went to a total of 18 different medical doctors and specialists trying to get some relief for my problem, but none of the medications worked. After realizing medication was not the answer to my problem, I started to explore the sea of alternative medicine. I've seen many acupuncturists, naturopathic doctors, physical therapists, massage therapists, and chiropractors. I feel like all of them helped a little bit, but the treatment was never sustainable. As I was about to accept that I was born this way and there was nothing I could do about my pain and tension, I met a SOT

doctor who finally identified the root cause of my issue. Turns out, my cranial structure was compromised due to a failed dental surgery I had when I was a kid. The asymmetric occipital condyle position created a huge torsion at my upper cervical spine and my entire body. I can still remember the relief I got from the first SOT treatment in my life. Today, I have been living a migraine-free life for eight years. Everyday my body feels balanced and my mind feels relaxed. SOT has changed my life.

Utilizing SOT, I'm able to offer an entirely different treatment perspective for my patients. Instead of viewing pain and tension as the result of a local subluxations, I am able to evaluate the spine as a whole system that is connected with one of the most important physical structures in our body— the dura mater. SOT offers a systematic evaluation and treatment solutions which, in my opinion, cannot be replaced by any other chiropractic technique. I am glad to have SOT in my toolbox so I can offer help to people who are in a similar position to that I once was.

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An Out of the Ordinary Chiropractic Career
John Lin, DC

When I graduated from Palmer West 2018, I never thought my life would make such a turn away from being an ordinary chiropractor, like most of my peers. Instead, here I am working my way through medical college in a country where chiropractic is not yet a legalized profession.
I believed I would be a regular practicing chiropractor in the United States when I graduated – find my future wife, buy a house, and live the rest of my life somewhere my future wife wants. With these hopes, I sped through my national board exams and worked to obtain my license as soon as possible to start practicing. I became a California-licensed chiropractic physician in May of 2018.

Around the same time, I've also completed my Applied Kinesiology certification as well as my CSP (Certified SOT Practitioner). I was excited to get my hands on people and change their lives.

Practicing in Southern California

I started out as a clinician working in a sports medicine facility. Being in a brand-new sports clinic, business was rather quiet to begin with, but I quickly found patients that needed

chiropractic work. Although most of the patients preferred soft tissue work or aggressive manual adjusting, I incorporated a lot of sacro occipital technique (SOT) techniques alongside their standard care to improve stability for their workouts.

During the same time, I'd also gotten in contact with dentists and orthodontists in the area to talk about collaboration. Most dentists either ignored me or thought I was trying to sell them something. Despite this, there were two dentists who ended up sending referrals back and forth with me. In particular, dentists concerned with airway and posture were the ones that were interested in my work.

At the end of one year, my work visa expired, and I was faced with a new challenge. Either find a local woman to marry and become a permanent resident of the US, or dump all my patients and return to my home country, Taiwan. I had a hard time perfecting the prior, so I took the latter option. It was an uncomfortable decision to make, as I spent the whole year building up my doctor-patient relationships, and just as I felt comfortable with my practice, I had no choice but to leave it behind.

Current status of Chiropractic in Taiwan

Because of its current unregulated status, "chiropractic" is an unclaimed territory. Those of us who have a degree in chiropractic are no different than those that go to a weekend seminar, as both are not able to claim effectiveness of our treatments. Currently, there are approximately 30 chiropractors with a proper chiropractic education practicing in Taiwan, some of which hold a physical therapy license, while others practice by health coaching or consultation.

Most people I know told me it was absurd to return to Taiwan, where chiropractic isn't a regulated profession. "It is as if a programmer moved to an island with no electricity. What's to do there?" Odds do not seem in favor of practicing in Taiwan, as many in the past have been accused of practicing medicine without license.

Despite all the opposing reasoning, however, I did notice people in Taiwan had a large interest in chiropractic.

Manual Therapy education in Taiwan

Musculoskeletal pain is perhaps one of the most common injuries in modern society. While many healthcare professions can treat musculoskeletal conditions, chiropractic is one of the main types of treatments people seek in the US when it comes to low back pain or neck pain.

Since about a decade or so ago, people in Taiwan have been very cautious of taking prescribed medications for pain. People have been seeking alternative methods to treat their musculoskeletal pain, and many times they would look for "Tui-na" (Traditional Chinese Massage) or Thai

massage, etc. However, spinal manipulation and massage are two musculoskeletal pain-relieving methods that are not properly regulated in Taiwan.

This also creates a lot of confusion when I try to introduce myself to people around me, as they do not understand the concept of chiropractic education or philosophy. In fact, most think “back cracking” does not require proper education.

Of the formal educational programs that practice “manual therapy”, none seems to put much emphasis on their curriculum. Examples include Traditional Chinese Medical Doctor and Physical Therapy. One of the most well-known Traditional Chinese Medical Colleges [1] offers a 3-credit course in Chinese Medical Orthopedics and Traumatology and another 8-credit practicum course alongside as their basis for manual therapy.

Another 4-year Bachelor of Physical Therapy program [2] offers a total of 2 credits of manual therapy course and another 2-credit of Chinese Medical Traumatology elective. These curriculums do not offer extensive manual therapy training like Chiropractic colleges do, with well over 30 credits on Chiropractic techniques [3]. Of the three health care professions above, Traditional Chinese Medical Doctors and Physical Therapists are regarded as the “most suitable” professions to perform manual therapy on patients in Taiwan. Legislators don’t seem to find a need to legalize a profession like chiropractic with extensive training and experience with manual therapy.

En route to become a Medical Doctor

I am currently in the third year of medical college (out of six years total), and I greatly appreciate the knowledge and perspective from a medical point of view. Medical colleges teach quite extensively on histology and pathology, which is significantly less emphasized in chiropractic college. Not surprisingly, I excelled in musculoskeletal anatomy and cadaver lab exams. Similarities also exist in both colleges. Basic sciences are covered in great detail in both, and there are numerous waves of exams that never seem to stop.

Healthcare in Taiwan

To my knowledge, Taiwan probably has one of the cheapest, yet most efficient, medical care systems in the world. Global Healthcare enables anyone to pay a very small fee and receive a high-standard medical consultation as well as prescribed drugs. To put numbers in perspective, a visit to the ENT for a common cold would cost approximately 200NTD (7 USD) with the mandatory health insurance. A three-day medication is often included along with it. A chest X-ray would cost under 400NTD (14 USD).

However, the quality and diversity are up for discussion in this country. Typical appointments are about 5 minutes in length, and often give little room for inter-profession referrals. In addition, there seems to be little incentive for preventative health actions. I often spend extensive amounts

of time explaining to patients the importance of staying healthy and maintaining a symptomless health status. I would imagine it being nearly impossible to perform all the necessary history taking and physical exams as well as give health advice all under 5 minutes of time.

What I hope to achieve

With the assumption that I will most likely graduate from medical college, I do hope to bring the two professions closer together. What I have noticed is that there is not a lot of communication between medical and chiropractic fields, and I believe having dual licensure will enable me to form the bridge between the gaps. The local medical profession needs to acknowledge there are unique and valuable assets that chiropractic provides; the chiropractic profession must understand what chiropractic is capable and incapable of, and offer necessary referrals to the medical community whenever conditions are out of our hands. No profession has 100% success; it is only when we all work together can we take a step closer to 100%.

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Sacro occipital technique scoliosis treatment for a 39-year-old female runner: A case report

Robert Monk, DC

Introduction: Low risk conservative care for scoliosis is an important consideration in our healthcare environment, since scoliosis is a frequent cause of back pain and disability. A 39-year-old female runner presented to this office complaining of moderate-severe lower back pain after practicing to run a marathon. She reported a long history of back pain, but the present episode was significant in that she was no longer able to continue her training.

Methods/Intervention: Examination revealed a lumbar dextroscoliosis/thoracic levoscoliosis with associated muscle spasm. Generalized movements were globally guarded. She had marked pain and restriction when attempting to roll over from a supine to prone position and back again. In preparation for treatment using SOT® technique, she tested positive for category two (sacroiliac joint hypermobility with pelvic torsion) which revealed that she was experiencing a

contraction of her right psoas muscle and left short leg.

There was also significant pain on palpation of the origin and insertion of her right quadratus lumborum, suggestive of Maignes Syndrome. Her left leg persisted to appear short even when her legs were laterally shifted right or left. Soft tissue mobilization was administered to her right psoas as well as the quadratus lumborum insertions along the inferior border of the right tenth rib and upper border of the iliac crest. She was blocked supine in the category two position to reduce pelvic torsion and sacroiliac joint hypermobility with the following scoliosis-related modification: her legs were laterally shifted to the right to neutralize stress caused by her lumbar dextroscoliosis. Treatment lasted approximately two minutes.

Results: Upon removal of the blocks the patient was able to roll from the supine to prone position and back again without pain. The patient indicated that following treatment she was able to gradually return to her training and would return for any flareups or for maintenance care.

Conclusion: This represents care of a patient with low back pain apparently related to sacroiliac joint hypermobility possibly caused by asymmetrical kinematic chain loading due to scoliosis. Her recovery was promising and greater research is needed to determine if other patients could receive similar benefit from this type of chiropractic care.

Cranial optokinetic reflex and cervical dystonia: A case report
Marc Pick, DC

Introduction: Cervical dystonia is a focal dystonia characterized by neck muscles contracting involuntarily causing abnormal movements and awkward posture of the head and neck. Complications of cervical dystonia need to be taken into consideration when weighting risks and calculating costs of the disease and its treatment. A 45-year-old female presented with acute cervical dystonic myotonic spasms and pain of two-day duration, unresponsive to acupuncture and physical therapeutic interventions.

Methods/Intervention: An optokinetic strip stimulus was applied with the patient having a favorable response to care reducing the acute dystonia by 75% and was given home exercises using her iPhone with instructions to direct the optokinetic Stimulus diagonally down and away from the side of cervical tension. She was instructed to apply the stimulation for approximately 10-12 cycles and then recheck her neck tension. This procedure was to be reapplied 4-5 times per day.

Results: The patient was treated with cranial optokinetic reflex procedure and had 75% improvement within 2-minutes. She was given the procedure to perform at home and within two-days her cervical dystonia had completely resolved and has not returned in the past 12-months, as determined at follow-up assessment.

Conclusion: It is hoped that future study will find specific subsets of cervical dystonia patients who present with spastic conditions caused by diminished or aberrant pathway connectivity that can be helped with optokinetic therapy. [Pick M. Cranial optokinetic reflex and cervical dystonia [Case Report]. Asia-Pac Chiropr J. 2021;1.3:Online only. www.apcj.net/pick-cervical-dystonia-optokinetic-reflex/]

Starting a Chiropractic Practice in China

Yi Aida Ru, DC

Dr. Ru has found that more and more people are learning about chiropractic in China. Of significance, she noticed that her patients started to better understand that chiropractic could be more than just "adjusting spine" by experiencing her SOT assessment and treatment. Through her understanding of SOT principles that included dural meningeal tension, cranial movements, and neurological developmental patterns, she was able to explain to patients about their conditions and help a variety of patients of all ages. With her SOT background she has a very unique practice in China, treating conditions such as headaches, reading disorders, sensory disorders, tinnitus, nursing issues, and an assortment of other conditions not traditionally considered spinal-related.

SOT represents the foundation of her examination and treatment methodologies. The understanding of how the body is interrelated with ascending and descending kinematic and postural influences has given her a multitude of approaches to help her patients achieve optimal outcomes.

Dr. Ru's experience with SOT cranial care has helped her pain management for patients with resistance to other interventions. She also noticed that treatment of sacroiliac joint sprains or hypermobility disorder respond more reliably and faster with her cranial interventions. Of importance, awareness of temporomandibular disorders (TMD) is virtually unknown in China's healthcare system. With the SOT model of TMD assessment and treatment, she has been able to help many patients with jaw pain who never thought they would have relief.

She emphasizes that, "My simple words are not enough to express how great SOT is for my chiropractic practice. I recommend all students learn and use SOT. Please let everyone know how important SOT can be for treating patients here in China and likely the whole world!"

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Enhancement of pelvic stability care by visceral reflex therapy: A case report
Albert R Salem DC

Introduction: The sacroiliac joint relies on its interosseous ligaments, which rely on innervation and biochemistry homeostasis for functional integrity. Chemical and surgical factors in a patient's history warrant consideration toward designing their pelvic stability therapy. Chemical factors can be from dietary habits, medicinal and supplement regimes, smoking, glandular pathologies or surgeries, or from a stressed lifestyle. Neurochemicals of menstrual phases and pregnancy can affect ligaments. The incidence of surgical endocrine disorders climbs.

Case Report: An 84 year old retired female nurse presented with scoliosis, low back to lateral thigh pain, restless legs, full dentures and history of hysterectomy at 66 years of age.

Intervention: Treatment by Sacro Occipital Technique (SOT) was initiated for care of the patient's category two (sacroiliac joint sprain with pelvic torsion). Years after the hysterectomy, uterine visceral reflex indicators arose and persisted and were attended by Chiropractic Manipulative Reflex Technique (CMRT).

Results: Initial care was based in category two blocking and adjunctive therapies. As uterine care progressed visit to visit, it was found that its CMRT often cleared category two indicators as well as the presenting symptoms. As a prelude to blocking, CMRT-Uterus provided enhanced stability to allow longer visit intervals.

Discussion: The category two complex is vulnerable to changes occurring at organs and along the endocrine axis. Surgical excision of an organ or gland brings a disruption between somatovisceral and viscerosomatic reflex arcs. CMRT aims to re-establish those links; though, in surgical cases, likely temporarily. Thus, need for CMRT may recur through the remaining life. The sacroiliac joint is innervated by branches from L4 to S2 spinal nerves. Spinal access to reflex arcs of CMRT-Uterus is via the L5 level. This target access may account for CMRT-Uterus clarifying interosseous ligaments to enhance category two pelvic stability.

Conclusion: Noxious intervention to a gland can leave the patient desirous of normal daily living. CMRT could be the preferred therapy to keep the brain-gland reflexively connected, and thereby gain systemic reaching benefits. Influences to stability maintenance of the category two pelvis, whether by neuropathic or biochemical means, need evolving research.

A 22 year-old female professional sprinter with right hamstring pain treated with Sacro Occipital Technique (SOT) and other procedures: A case report
Jason Scoppa, DC

Introduction: A 22 year-old female professional sprinter presented with right hamstring pain that was insidious in onset; pain was felt at the upper insertion point of the hamstring, centrally located. Patient had seen a initially seen a Rolfer without any change in her symptoms.

Methods/Intervention: Patient was found to have a weak right gluteus maximus and weak right hip flexor complex (anterior straight leg raise with resistance) after muscle testing of her low extremity musculature. Other relevant findings include pelvic torsion and leg length discrepancy in the supine and prone positions, a positive arm fossa test, and spinal rotation and lateral tipping in her lumbar spine. The patient was treated with sacro occipital technique category two protocols alongside Vector Point category two protocols, and neuro-lymphatic points associated with the right gluteus maximus.

Results: Following treatment the patient's right gluteus maximus and right hip flexor complex were strong, and no pain was noted in her right hamstring. After following up with the patient one week later she was practicing and training without restriction or any pain.

Conclusion: Professional athletes are stressing their musculoskeletal systems at extreme levels which can complicate their ability to train and function when compromised. Conservative low risk options such as chiropractic are valuable considerations for patients wanting to recover and teams wanting to be successful in competitions.

A 26 year-old male professional football player with left quadriceps pain treated with Sacro Occipital Technique (SOT) and other procedures: A case report

Jason Scoppa, DC

Introduction: A 26 year-old male professional football player presented with pain in his left quadricep muscle. The pain had started around three weeks prior to his visit, insidiously, while training. He felt extreme pain in his upper quadriceps muscle/hip flexor and had difficulty walking for days after the onset. He was seen by a Rolfer and felt around 50% improvement, and then he did some self-care directed by one of his coaches which resulted in him being around 90% pain free. They decided he could start training again, and shortly afterwards he felt pain in his left quadriceps again, but this time in his middle quadriceps (opposed to the upper). At the time of his appointment, it was three weeks from the initial onset.

Methods/Intervention: Patient was found to have weakness in his left gluteus maximus muscle, with all other lower extremity muscles tested being within normal limits. Other relevant findings include a positive arm fossa test, no leg length discrepancy prone or supine, but some spinal rotation and lateral tipping to the vertebra in his lumbar spine. The patient was treated with sacro occipital technique category two protocols alongside Vector Point category two protocols, and neuro-lymphatic points associated with the left gluteus maximus.

Results: Following treatment the patient's left gluteus maximus tested strong and he had no pain in his left quadriceps muscle. After following up with the patient a few days later he was training without restriction or any pain.

Conclusion: Professional athletes are stressing their musculoskeletal systems at extreme levels which can complicate their ability to train and function when compromised. Conservative low risk options such as chiropractic are valuable considerations for patients wanting to recover and teams wanting to be successful in competitions.

Is the sacrum a keystone or is it suspended?
Rick Serola, DC

Introduction: Whether the sacrum functions as keystone or is suspended from the ilia has been debated for well over one hundred years. In the early 1990s Vleeming and Stoeckart[1] and, separately, Snijders[2], published their findings that the sacrum fits into a receptacle like a keystone in a Roman Arch. Vleeming stated "the bone (sacrum) is wider cranially than caudally and wider anteriorly than posteriorly. Such a configuration permits the sacrum to become 'wedged' cranially and dorsally into the ilia within the pelvic ring."

DeJarnette[3] stated "The sacrum is wedge-shape from above downward, its base articulating with the fifth lumbar vertebra; it is also wedge-shaped from backward, a fact that makes clear the statement that the sacrum is held suspended between the innominates by strong ligaments instead of completing the bony girdle as the keystone caps the arch."

The question that arises is how can both authors give the same description of the sacrum and its relationship to the ilia and come to opposite conclusions of their function? Is the sacrum a keystone or is it suspended?

Methods: Review of published articles explaining Vleeming's Stockert's and Snijders' view of the Keystone Form & Force Closure and DeJarnette's view of the suspended sacrum, with support from other authors.

Discussion: Vleeming, et al.[1] proposed that at the end of range of motion, the sacral and iliac articular surfaces would be compressed together, and load transmission would occur directly between the sacrum and ilia by "bone contact force" at the articular regions.

Snijders[2] also asserts that weight transfer is through the articular facets of the SIJ. Claiming that the SIJ articular surfaces are flat, he drew force vectors that supposedly intersected at the SIJ to provide a "self-bracing effect" on a flat SIJ. Although he briefly mentioned that the SIJ surfaces were propeller shaped, he attributes that to counteracting flexion and then ignores the actual shape of the facets, and continues as if they were flat.

Vleeming et al.[4] referenced Solonen[5] in stating that the sacrum is shaped like a keystone, but omitted his statement that the sacrum hangs down from the ilia by its dorsal ligaments. Further, other researchers who said that the sacrum is suspended by ligaments include DonTigny [6], Kapandji[7], and Levin[8] who makes an excellent description of the suspension of the sacrum within three-dimensional space by comparing it to the hub of a wheel suspended by spokes, "in contrast to the keystone and similar models."

The main difference between the two concepts of a keystone and suspension is how force transfers between the sacrum and ilia. The keystone principle is that force transfers from bone to bone (with intervening cartilage) through the articular facets. Conversely, a suspended sacrum transfers force through the syndesmosis by the ligaments, more like a hammock or a hub of a wheel. Instead of force pushing one bone into the other, placing the weight of the entire upper body at two relatively small points, the force pulls one bone towards the other; in this manner, force transfers from ligament to bone to ligament to bone etc., where stability is shared by the entire kinematic chain.

Vleeming, et al. and Snijders considered weight bearing to go through the articular facets, but have no study to support their concept. Conversely, Cusi [9] stated that "The utility of SPECT/CT for the diagnosis of SIJ dysfunction and more specifically the failure of load transmission across the joint is confirmed in the current study...the vertical loads mainly go through the posterior and interosseous ligaments."

To further support ligamentous suspension, Vukicevic et al. [10], using holographic analysis, applied a wide range of loads to 12 cadaveric pelvises with preserved lumbar spines, hip joints, and ligaments. They found that "tight contact between the articular surfaces is never reached in a wide range of the applied loads, secured by strong sacroiliac interosseous ligaments."

Vleeming states that the configuration of the sacrum and ilia permits the sacrum to become 'wedged' cranially and dorsally into the ilia (counternutation), and notes that this 'keystone-like boney architecture of the sacrum further contributes to its stability within the pelvic ring." Apparently, the vertical position of the sacrum positions the facets to slide inferiorly into the receptacle formed by the ilia, as in a keystone.

In other words, he described counternutation, in which the sacrum is more vertical, as being the position of stability during force transfer but he also recognizes that "in self-bracing of the pelvis, nutation of the sacrum is crucial" in which the sacrum is more horizontal. The contradiction is evident, but not immediately recognized. What is missing in the keystone concept is the mechanism that provides stability for weight transfer during nutation.

In accordance with DeJarnette, it should be noted that, during nutation, the anterior-posterior shape of the sacral base demonstrates a requirement for the sacrum to drop anteriorly and inferiorly away from the ilia during weight bearing into a more horizontal position. In this situation, the anatomical function of the large mass of ligaments suspending the sacrum from the

ilia becomes evident; the only structure holding the sacrum and ilia together are the strong sacroiliac ligaments.

Conclusion: Keystone proponent's claim that both counternutation and nutation are necessary positions of stability for force transfer through the sacroiliac joint are contradictory statements.

While the weight of the upper body drives the sacrum into nutation, no mechanism has been explained that drives the sacrum into counternutation. Since forces occurring during load transfer force the sacrum anteriorly and inferiorly into nutation, there is no practical need for the sacrum to be 'wedged' dorsally. To speak of wedging the sacrum dorsally is misleading and only serves as a distraction from considering true anatomical form and function.

DeJarnette's description of sacral suspension is consistent and makes biomechanical sense. Stability is needed during nutation when the weight of the entire upper body is transferred to the sacrum, where force is absorbed, and range of motion is limited by the ligaments.

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Postural orthostatic tachycardia syndrome (pots) in a patient as a consequence of a concussion along with occipital headaches, dizziness and nausea: A case report

Caroline Vitez, Charles Blum

Objective: To investigate the synergetic benefits of combined noninvasive chiropractic protocols for treatment of post-traumatic POTS.

Clinical Features: A 36-year-old female sought chiropractic care for POTS induced nausea/dizziness/palpitations, constant bilateral occipital headaches, neck and sacroiliac/sciatic pain, exercise intolerance and bloating. Patient history, physical examination, and active 10-minute stand test established that she met the criteria for POTS. Prior to her presentation at this office her symptoms had persisted for a year and were unresponsive to other interventions (medical care/over-the-counter-analgesics).

Intervention and Outcome: Craniocervical and spinal misalignments, believed possibly leading to cerebral vasculature and connective tissue deformation, were balanced according to the Sacro-Occipital Technique and Atlas Orthogonal upper cervical evaluation protocols. Specific POTS related therapeutic exercises, diet modifications, as well as ocular fixation exercises were also implemented. Orthostatic vital sign testing was regularly recorded to assess POTS patient's response to care. Following combined treatment and adjunct therapy, the patient no longer met the criteria for POTS, did not exhibit pain or orthostatic intolerance symptoms to postural change except for mild brief bouts of nausea.

Conclusion: Further research is needed to determine what subsets of patients with POTS might also respond to this conservative chiropractic care approach.

Genetic etiology of adolescent idiopathic scoliosis (AIS): Chiropractic's role

Gilbert Weiner, DC

Introduction: Recent studies have demonstrated there are genetic and epigenetic underlying causes for adolescent idiopathic scoliosis (AIS). Apparently a genetic defect causing ciliary pathology in the neural canal can affect CSF flow and can result in scoliosis. A review of this emerging evidence demonstrates the need to reevaluate the scoliosis-cerebral spinal fluid (CSF) relationship. Compelling studies have illustrated, as well, the dominant role played by epigenetic modifiers over the expression of genetic code. One fascinating study, in particular, has demonstrated definitively that scoliosis in zebra fish can be corrected through epigenetics.

Methods: The goal of this study was to revisit the current and newly published studies concerning scoliosis, epigenetics, as well as evaluating the currently available therapeutic alternatives for scoliosis treatment. The intent was to shed light on breakthrough studies and apply these finding to the Chiropractic clinical practice.

Results: The position of Chiropractic in this new arena of scoliosis and epigenetics is unfolding. These studies that were reviewed have demonstrated that Chiropractic care can affect epigenetic mechanisms through five different avenues: environmental influences, methylation processes, elongating DNA telomeres, emotional stress reduction, and reducing chromosomal oxidative stress. Chiropractic management of scoliosis can be an effective tool for care, with minimal negative secondary effects. Recent studies are finding ineffectiveness of scoliosis bracing along with poor outcomes and serious secondary effects from surgical interventions for scoliosis treatment.

Conclusion: Therefore from a conservative, effective, low risk perspective Chiropractic care appears to be an important consideration for scoliosis patients. Further study into this novel emerging field of care for scoliosis patients is indicated.

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SOTO-USA is an organization dedicated to the advancement of SOT and the work of Major Bertrand DeJarnette, DO, DC. One of the many ways in which we at SOTO-USA contribute to the chiropractic profession is through the publishing of articles, newsletters, compendiums, and

manuals relating to the art, science and philosophy of SOT (please visit our website for a complete listing of publications; www.SOTO-USA.org).

Due to the Worldwide Covid 19 Pandemic there has been a lull in the SOT Research Conferences so sharing of SOT Research Information will focus on all the research that has been shared at research conferences and published in peer review literature since the last October 2019 SOT Research Conference

Association of Chiropractic Colleges – Research Agenda for Chiropractic (ACC RAC) Conferences - Papers Accepted for the 2020, 2021 and the 2022 Conferences

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Charles Blum. Benign joint hypermobility (BJHS) and sensory processing sensitivity syndromes (SPSS): A survey of patients over 5 years. J Chiropr Educ 2022;36(1):59.

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Marc Pick. Immediate changes to lumbosacral dural regions upon simultaneous bilateral

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Charles Blum. A survey of chiropractic students or recent graduates on their experiences in chiropractic college adjusting lab or class. September 23-25, 2021 WFC Biennial Congress. Parker University, Dallas, Texas, United States of America.

Papers Accepted for the 2021 Virtual World Congress on Brain Injury

Marilyn Holbeck. Chiropractic treatment of a post-concussion syndrome secondary to volleyball injury in a 14-year-old female: A case report. 2021 Virtual World Congress on Brain Injury.

Thomas Bloink, Charles Blum. Chiropractic Care of Professional Ice Hockey Player Suffering from Multiple Concussions: A Case Report. 2021 Virtual World Congress on Brain Injury.

Thomas Bloink, Charles Blum. Post Concussion Syndrome, Temporomandibular Joint Disorders, and Chiropractic Dental Co-treatment: A Case Report. 2021 Virtual World Congress on Brain Injury.

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Ryan Pollard, Charles Blum. Chiropractic care and its effects on a patient with a moderate traumatic brain injury. Asia-Pac Chiropr J. 2021;2.2.

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Charles L. Blum. Chiropractic treatment of mild head trauma: A case history. Asia-Pac Chiropr J. 2021;2.2.

Papers from the two 2019 SOT Research Conference Proceedings

Paradise Island, Bahamas - February 27-March 1, 2019

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Blum CL. A chiropractic and dental perspective the three faces of forward head posture: Differential diagnosis is the key for optimal outcomes. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 19-25.

Boro WJ. Intervention in gall bladder dysfunction through chiropractic adjustment and nutritional therapy: A case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 26-30.

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Hamel R, Blum CL. SOT cranial therapy for the treatment of pediatric torticollis: A chiropractic case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 35-41.

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Pick MG. Immediate changes to lumbosacral dural regions upon bilateral alternating pressure to the parietooccipital (asterion) cranial region: A dissection study. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 50-56.

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Tovar A, Blum CL. Conservative chiropractic management of 13-month old patient with facial palsy: A case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 64-68.

San Jose, California - October 26-27, 2019

Thomas Bloink, DC, Charles Blum, DC. Sacro occipital technique (SOT) and dental co-treatment of two patients (11 and 52 year old) with increased eye pressures and related dysfunction: Two case reports.

Charles L. Blum, DC. Sacro occipital technique (SOT) care of a patient with acute low back pain utilizing R+C factor analysis and orthopedic pelvic block placements: A case report.

Charles L. Blum, DC. Sacro Occipital Technique (SOT) assessment and treatment of two patients pre and post bilateral total hip replacement (THR) surgery: Two case reports.

Charles L. Blum, DC. Sacro occipital technique (SOT) and cranial treatment for hemicrania continua: A case report.

Charles Blum, DC. Whiplash and temporomandibular joint disorders: A review of the literature.

Charles Blum, DC, Gary Globe, DC, MBA, PhD. Assessing The Need for Dental/Chiropractic TMJ Co-Management:
The Development of a Prediction Instrument.

Burno Bordoni, Bruno Morabito, Marta Simonelli. Cranial Osteopathy: Obscurantism and Enlightenment.

Bruno Bordoni, Emiliano Zanier. The Continuity of the Body: Hypothesis of Treatment of the Five Diaphragms.

Bruno Bordoni, Bruno Morabito, Marta Simonelli, Luigi Nicoletti, Riccardo Rinaldi, Filippo Tobbi, and Philippe Caiazzo. Osteopathic approach with a patient undergoing cardiac transplantation: the five diaphragms.

Robert Cooperstein, DC. Forward head syndrome and upper dorsal hyperkyphosis: A multifactorial approach.

John Edwards, DC, Jeanne Ohm, DC, Charles Blum, DC, Allison Union. Identifying the frequency of perinatal sacroiliac hypermobility indicators in a chiropractic clinic.

Harvey Getzoff, DC. The management and care of three older patients with neck pain: A case series.

Harvey Getzoff, DC. The SOT Indicator System with Additions: Pre and Post Adjustment Analysis.

Rachel Hamel, DC, Charles Blum, DC. SOT cranial therapy with light therapy for the treatment of trochlear nerve palsy and right eye concomitant deviation.

Jason Scoppa, DC, David Buck, DDS. Sacro occipital technique (SOT) and dental treatment of sleep disordered breathing (SDB) in a child: A case report.

The SOT Research Conference Proceedings (Now indexed and searchable!)

Many of the SOT Research Conferences have now been or will be published in the Annals of Vertebral Subluxation Research as well as in the Asia Pacific Chiropractic Journal and are available for searching through chiroindex.org (a major chiropractic search engine).

1st Annual Sacro Occipital Technique Research Conference Proceedings. Las Vegas, Nevada October 22, 2009. Annals of Vertebral Subluxation Research ~ Sept 29, 2011 ~ Pages 104-132.

2nd Annual Sacro Occipital Technique Research Conference Proceedings. New Orleans, Louisiana 2010. Annals of Vertebral Subluxation Research ~ October 17, 2011 ~ Pages 133-164.

3rd Annual Sacro Occipital Technique Research Conference Proceedings. Nashville, Tennessee May 19, 2011. Annals of Vertebral Subluxation Research ~ Nov 10, 2011 ~ Pages 165-182.

4th Annual Sacro Occipital Technique Research Conference Proceedings. Atlanta, GA May 3, 2012. Annals of Vertebral Subluxation Research ~ May 24, 2012 ~ Pages 41-59.

5th Annual Sacro Occipital Technique Research Conference Proceedings. Atlanta, GA May 2, 2013. Annals of Vertebral Subluxation Research ~ March 27, 2014~ Pages 22-48.

6th Annual Sacro Occipital Technique Research Conference Proceedings. Redondo Beach, CA May 15, 2014. Annals of Vertebral Subluxation Research ~ July 14, 2014 ~ Pages 129-144.

7th Annual Sacro Occipital Technique Research Conference, New Orleans, LA May 7, 2015. Annals of Vertebral Subluxation Research ~ June 8, 2015 ~ Pages 135-145

8th Annual Sacro Occipital Technique Research Conference, New Orleans, LA May 13-14, 2016.
9th Annual Sacro Occipital Technique Research Conference, Marina Del Rey, California. May 12-13, 2017.

10th Annual Sacro Occipital Technique Research Conference Proceedings: Kauai, Hawaii. February 28 – March 2, 2018 . Ann Vert Sublux Res: Mar 2019(2019:): 29-33

11th Annual Sacro Occipital Technique Research Conference, Nassau, Bahamas, February 27 – March 1, 2019 Ann Vert Sublux Res: Jan 2020(2020:): 1-10

Many thanks go to the editors of the Annals of Vertebral Subluxation Research, Drs. Pamela Stone and Matthew McCoy. Their continued support of chiropractic clinical research and of SOT is greatly appreciated.

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At the inaugural 2009 Sacro Occipital Research Conference, Las Vegas, Nevada we had 28 abstracts accepted. At subsequent Sacro Occipital Research Conferences many of the submissions have led to paper submissions to various other research conferences and peer review journals. All SOT practitioners and allied healthcare partners are encouraged to be a part of our future research conferences. Check the SOTO-USA website [www.SOTO-USA.org] or be aware for the call for papers.

Our ongoing commitment continues into the future with papers submitted to chiropractic and allied healthcare conferences and journals. One of the easiest ways research can be facilitated by a doctor in clinical practice is through the publishing of individual research papers and case histories. These lay the groundwork for future research directions and projects. If the need arises, we will be happy to assist the doctor in writing the paper or case history in order to get it submitted for publishing.

Please take a moment to review our landmark SOT and cranial research texts, which will eternally preserve SOT related published research. These can all be purchased online at www.soto-usa.org or by calling (336) 793-6524.

1st Sacro Occipital Technique Research Conference Proceedings: 2009.

2nd Sacro Occipital Technique Research Conference Proceedings: 2010.

3rd Sacro Occipital Technique Research Conference Proceedings: 2011.

4th Sacro Occipital Technique Research Conference Proceedings: 2012.

5th Sacro Occipital Technique Research Conference Proceedings: 2013.

6th Sacro Occipital Technique Research Conference Proceedings: 2014.

7th Sacro Occipital Technique Research Conference Proceedings: 2015.

8th Sacro Occipital Technique Research Conference Proceedings: 2016.

9th Sacro Occipital Technique Research Conference Proceedings: 2017.

10th Sacro Occipital Technique Research Conference Proceedings: 2018.

11th Sacro Occipital Technique Research Conference Proceedings: 2019.

12th Sacro Occipital Technique Research Conference Proceedings: 2019.

13th Sacro Occipital Technique Research Conference Proceedings: 2022.

In Print:

The Compendium of Sacro Occipital Technique**: *Peer-Reviewed Literature 2000-2005.***

The Compendium of Sacro Occipital Technique**: *Peer-Reviewed Literature 1984-2000.***

The SOT Collection: *To the Year 2000.*

The SOT Collection: Supplement: *To the Year 2000.*

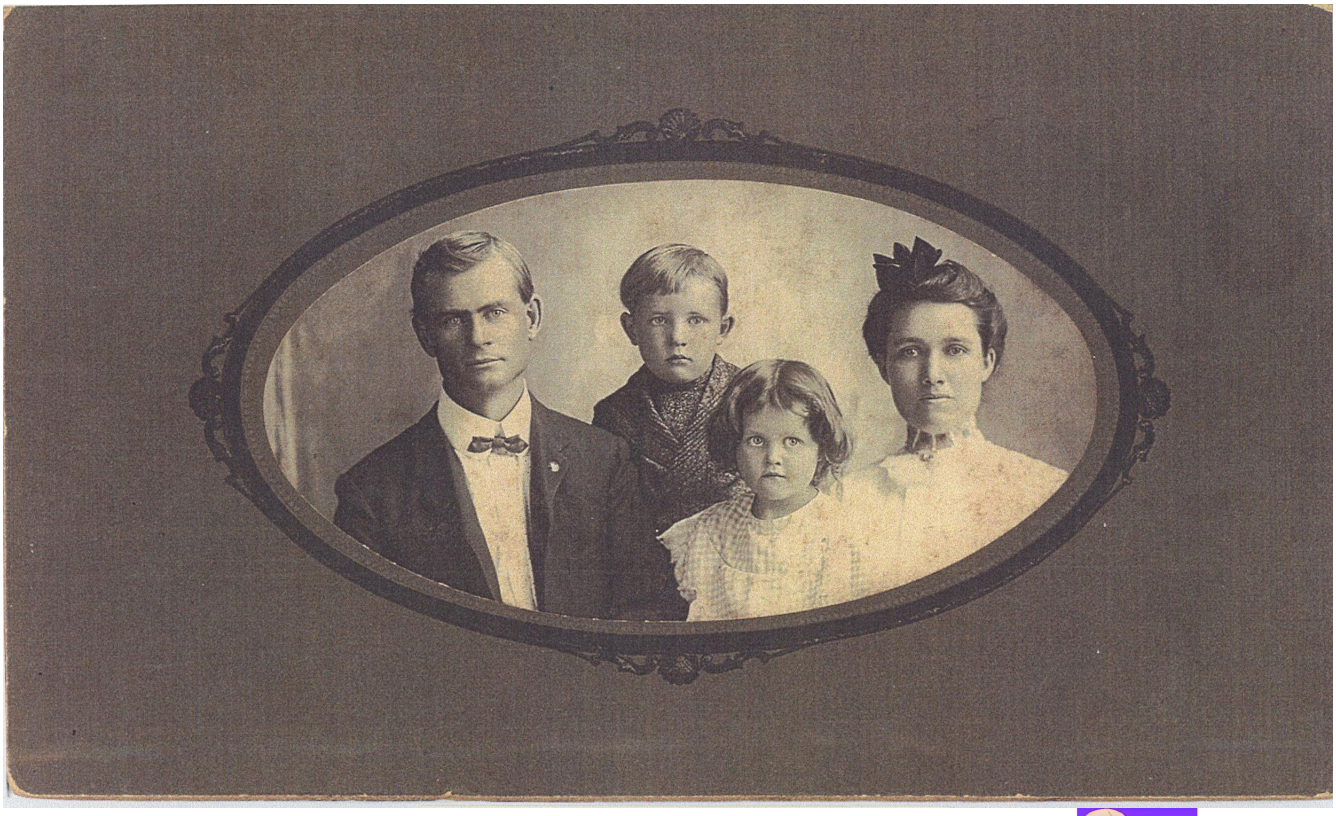
Coming Soon

More than fifty years ago, Major Bertrand DeJarnette encouraged Nebraska City newspaperman Ivan Beaumont to write a biography of his life. The doctor shared stories and documents with his hometown friend, and a rough draft was written. Each of the busy men added a few notes, but as time and interest slipped away, the stalled project was shelved.

Although information from the unfinished manuscript found its way into articles and time-lines over the decades, this fascinating investigation of Dr. DeJarnette's formative years and early influences has been gathering dust until now.

The title of the biography was and will remain “The Making of a Chiropractor,” because its focus is on the people, places and events that put “the Major” onto the road to his destiny. For those elements of the book that were sketched out too vaguely, our editor's thousands of hours of sleuthing has uncovered details that clarify many misunderstandings and fill in details that have been missing in the history of Dr. DeJarnette.

We're sure you'll find “The Making of a Chiropractor” fascinating to read, and that it will provide you with an intimate look at a man whose research and guidance continues to help ease the suffering of millions.



Willis, Major, Fay and Maud DeJarnette in 1904

Complete with sign, Dr. DeJarnette's office at 722 Central Avenue in 1936

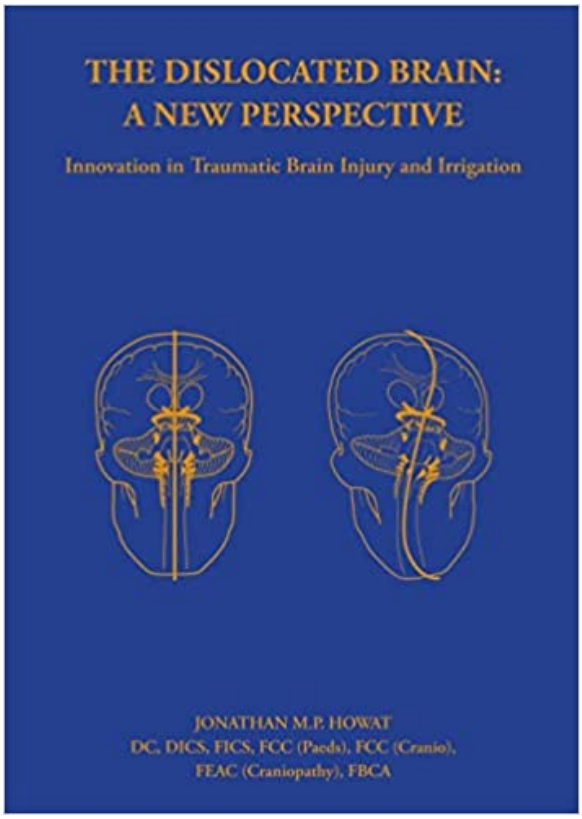
Orpheum Theatre Building – 1924 Home of Nebraska Chiropractic College

The Dislocated Brain: A New Perspective

by Jonathan Howat

Once again Dr. Howat has gone to great lengths to create a book important for any chiropractor, osteopath, or healthcare practitioner treating cranial bone and whole body dysfunction. His book, over 400 pages, is elegantly illustrated and written in an easy to read manner, taking complex information and breaking it down for delightful assimilation. It is available through Amazon for easy online purchasing.

The book is described on Amazon as follows: "The Dislocated Brain presents the innovative protocols of cranio fascial dynamics (CFD). CFD addresses traumatic brain injury and physically attempts to reverse traumatic distortion and the subsequent failure of brain drainage, thereby reinstating normal physiological function. CFD deals with the 'central brain core components' that make up the intricate neurological pathways that service all aspects of brain function. It includes: the understanding of early (from day 16 to day 23) embryological development of the 'primitive streak' (brain and spinal cord); the development of 'mesenchyme', which is the future fascial covering that encapsulates every part and component of the body; the ventricular system (producing cerebrospinal fluid), supported by the retrieving and processing components as listed above. CFD shows the hierarchical importance of these structures in human development. These areas are fundamental to normal brain function, namely, the retrieval, processing and dissemination of neurological information.



"Traumatic brain injury torques the spinal cord and the brainstem (the 'central brain core component'), and therefore disturbs the homeostasis of normal retrieval, processing and distribution of neurological information through the now distorted and corrupt neurological pathway system. This is the first primary deficit to neurological imbalance, which I call 'the dislocated brain'. The effect of torque on the neurological pathways is not unlike the buildup of scale in water pipes, gradually depositing 'fur' and reducing the flow of water. Similarly, in the brain this torque will inhibit the normal retrieval, processing and dissemination of neurological information. The purpose of this book is to give the reader the physiology and the understanding

of the reinstatement of the 'central brain core component' by the removal of the central brain core component torque, which is the deep-seated ultimate 'subluxation'. The body and brain are now in a position to accept the numerous techniques that aid in the recovery of the neurological deficits, visceral changes and extremity distortions with far more effective outcomes."

Be a Champion for Chiropractic Education and Research

"I extend a large thank you to the NCMIC Foundation for its support. I am both humbled and excited to continue to work hard within my role and am so grateful for these wonderful opportunities."

— Wren Burton, DC and Research Fellow, Osher Center for Integrative Medicine, Brigham and Women's Hospital and Harvard Medical School

The NCMIC Foundation's mission hasn't changed since its inception in 2003. We continue to invest in the advanced education of chiropractic research experts and fund ongoing research projects that demonstrate the effectiveness, safety and cost efficiency of chiropractic and alternative health care.

Life-changing fellowships like Dr. Burton's are only possible because of the generosity of donors like you.

Learn how you can make a direct impact on the future of chiropractic education and research at ncmicfoundation.org.

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