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SELECTED OCCUPATIONAL HISTORY

Chiropractic Physician, Hickory Spine, Hickory, North Carolina, 2009 - Present
Onsite Triage Doctor, Foamex Innovations, Cornelius, North Carolina, 2009 - 2010
Chiropractic Physician, Alliance Injury Treatment Center, Cornelius, North Carolina, 2008 - 2009

EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of North Carolina, License #3898, 2008- Present

BSBA in Information Systems and Marketing, Appalachian State University, Boone, North Carolina, 2001
Doctorate of Chiropractic, Sherman College of Chiropractic, Spartanburg, South Carolina, 2008
Internship, Sherman College Health Center, Spartanburg, South Carolina, 2006 – 2008

National Board of Chiropractic Examiners, Part I, 2006
National Board of Chiropractic Examiners, Part II, 2006
National Board of Chiropractic Examiners, Part III, 2007
National Board of Chiropractic Examiners, Part IV, 2007
National Board of Chiropractic Examiners, Physiotherapy, 2007

SELECTED POST-GRADUATE EDUCATION, CERTIFICATIONS AND DIPLOMATES

2021 Trends in Spinal Healthcare, *Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a clinical excellence level is reflected in a doctors' documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics,* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

MRI Spine Interpretation Advanced Diagnosis, *An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, T1, T2, STIR and Proton-Density weighted evaluation to diagnose spine form MRI accurately.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

Spinal Biomechanical Engineering Analytics and Case Management, *Utilizing spinal mensurating algorithms to conclude a pathobiomechanical vs. normal spine in the absence of anatomical pathology. Clinically correlating a history and physical examination findings to x-ray biomechanical results in creating an accurate diagnosis, prognosis, and treatment plan*. Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

MSK Extremity Radiological Interpretation, *Utilizing both MRI and x-ray to diagnose 1) Arthritis - Inflammatory and Degenerative, 2) Advanced cartilage assessment, 3) Rotator Cuff Tears, 4) Labral tears (shoulder and hip), 5) Tendon injuries and degeneration, 6) Meniscal tears, 7) Ligamentous injuries, 8) Common fractures, 9) Sports-related injury patterns, 10) Plantar fasciitis,* Academy of Chiropractic Post-

Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

Demonstrative Medical-Legal Documentation, *The narrative report. How to effectively create medical-legal documentation and what the courts look for. Making your "4-Corner" (narrative) report demonstrable and build a reputation as an evidence-based provider. The step-by-step minutiae of building a report,* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

Managing Non-Anatomical Spine Pain, *Treatment modalities centered upon "best-outcomes" in an evidence-based model considering chiropractic vs. physical therapy and chiropractic vs. medicine. Considerations of disability, pain reduction, functional improvement, drugs utilized, and side-effects are all considered,* PACE Approved for the Federation of Chiropractic Licensing Boards, Cleveland University Kansas City, 2021

Spinal Biomechanical Engineering, *A brief history of clinical biomechanics with a particular emphasis on the diagnosis and management of spine pain of mechanical/functional origin. Evidence based symptomatic vs asymptomatic parameters review using peer-reviewed medically index literature. Detailed analysis using computerized mensuration programs to analyze spinal biomechanical pathology including demonstration and discussion. Outline of the comparison of demonstrable spinal biomechanical failure on imaging to a clinical evaluation and physical examination. Future implications of clinical biomechanics in the management of the spine pain patient are reviewed.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Documenting an Initial E&M Report, *Review of CPT Coding Guidelines for Initial and Established Patients with particular attention paid to Patient History, Review of Systems, Social and Family History, Physical Examination and Medical Decision making. Specific differences in coding levels and required elements for a 99202-99203-99204-99205 are outlined and demonstrated.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Interprofessional Grand Rounds, *Case management and triage of multiple cases in a clinical setting and in a collaborative setting with Robert Peyster MD, Neuroradiologist, Magdy Shady MD, Neurosurgeon, Neuro-Trauma Fellow, John Edwards MD, Neurosurgeon, Candace Perkins MD, Vascular Neurologist.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Chiropractic evidenced-based model, *An updated basis for Interprofessional care and the foundation for chiropractic care to be delivered in a hospital system inclusive of emergency rooms and appropriate care paths. This protocol is based upon connective tissue disorders and the neurological connection between spine, ligament and the central nervous system based upon the literature and chiropractic and medical academia.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Demonstrative Spinal Biomechanics, *An evidenced-based approach to demonstratively documenting spinal biomechanical engineering and identifying the primary lesions of the spine to be treated vs. treating compensation. Creating treatment plans in a patient-centered approach to case management.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Management and Triage, *What tests to order and when to consider collaborating with medical specialists based upon clinical and test results. An in-depth review of imaging and neurodiagnostic testing as correlates to clinical findings. The following modalities will be discussed: MRI, CAT, X-Ray, EMG/NCV, pf-NCS, SSEP, BAER, V-ENG, VEP, Bone Scan. Application of diagnostic findings in contemporary chiropractic practice.*

Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Evidenced-Based Treatment Protocols, *Utilizing evidenced-based updated literature in the medical-legal environment while maintaining ethical relationships in determining causality, bodily injury and persistent functional loss when clinically applicable as evidenced demonstrably.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

MRI Spine Interpretation, *Updated evidenced-based nomenclature changes in diagnosing and reporting disc bulges from trauma and how that affects spinal diagnosis in traumatically induced pathology. Triage of patients based upon pathology and updating current standards in ordering MRI's as well as the correct triage based on the pathology diagnosed. Age-dating herniated discs based upon the literature and the aberrant biomechanics that occur as sequella.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Chiropractic Trends, *Documentation, professional collaboration and the credentials/knowledge-based required to ensure compliance and be considered a peer in spine care.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Demonstrative Diagnosis and Documenting Spinal Pathology, *Analyzing patient records, x-rays and MRI's in determining etiology of traumatically-induced pathological lesions. Clinically correlating the history, clinical findings, imaging findings and diagnosed bodily injuries to conclude and accurate diagnosis, prognosis, and treatment plan.* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Demonstrative Diagnosis and Documenting Spinal Disc Injuries, *Differentially diagnosing disc vs. posterior longitudinal ligaments vs. Thecal Sac vs. spinal cord vs. Ligamentum Flava pathology and insult. Identifying the borders of lesions and discerning between anatomic structures pathologically effected demonstrably,* Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing Boards, 2021

Trends in Spinal Healthcare, *Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a level of clinical excellence is reflected in a doctors' documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020

MRI Spine Interpretation, *An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, Considering the signal intensity of discs in age-dating pathology and acquisition protocols for advanced spinal imaging.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020

Spinal Biomechanics; *A Literature Perspective, An evidenced-based model for spinal biomechanical engineering and pathobiomechanics considering the pathophysiological limits in translations, angular deviation, and rotational planes. Utilizing the Cartesian system in plotting vertebral points to demonstratively conclude an accurate diagnosis, prognosis and biomechanical treatment plan with the consideration of long-term care in the non-specific mechanical spine pain patient when necessary.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020

Case Management of Mechanical Spine Pathology, Clinical Grand Rounds of herniated, protruded, extruded, sequestered, and bulging discs. *Differentially diagnosing vascular vs. mechanical spinal lesions and the necessity for urgent vascular, neurological intervention, Collaborating in a team environment utilizing a*

neuroradiologist, electrophysiologist, and neurosurgeon with the chiropractor as the primary spine care provider. Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2020

Pathobiomechanics and Documentation, *CPT Coding Guidelines for Initial and Established Patients with particular attention paid to Patient History, Review of Systems, Social and Family History, Physical Examination, and Medical Decision making. Specific differences in coding levels and required elements for a 99202-99203-99204-99205.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020

Using Documentation and Ethical Relationships, Pathways to improve coordination of care, and interprofessional communication with collaborating physicians. *Maintaining ethical relationships in the medical-legal community through documentation and communication of demonstrable diagnosis, prognosis and treatment plans.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020

Spinal Biomechanical Engineering Clinical Application, History of clinical biomechanics with an emphasis on the diagnosis and management of spine pain of mechanical/functional origin. *Evidence-based symptomatic vs. asymptomatic parameters using peer-reviewed medical index literature. Computerized mensuration analysis of spinal biomechanical pathology. Comparison of demonstrable spinal biomechanical failure on imaging to clinical evaluation and physical examination.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020

Spinal Biomechanical Engineering Clinical Grand Rounds, *Case reviews utilizing E/M, MRI, and x-ray mensuration report to conclude an accurate diagnosis, prognosis, and treatment plan. Common diagnosis requiring interprofessional collaboration with a discussion of diagnostic dilemmas and proper communication methods.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, Long Island, NY, 2020

Certification in Spinal Biomechanical Engineering, Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

Spinal Biomechanical Engineering: Cartesian System, *The Cartesian Coordinate System from the history to the application in the human body. Explanation of the x, y and z axes in both translation and rotations (thetas) and how they are applicable to human biomechanics.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering: Cervical Pathobiomechanics, *Spinal biomechanical engineering of the cervical and upper thoracic spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering: Lumbar Pathobiomechanics, *Spinal biomechanical engineering of the lumbar spine. This includes the normal and pathobiomechanical movement of both the anterior and posterior motor units and normal function and relationship of the intrinsic musculature to those motor units. Nomenclature in reporting normal and pathobiomechanical findings of the spine.* Federation of Chiropractic

Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanics in Trauma, *To utilize whiplash associated disorders in various vectors of impact and whiplash mechanisms in determining pathobiomechanics. To clinically correlate annular tears, disc herniations, fractures, ligament pathology and spinal segmental instability as sequellae to pathobiomechanics from trauma. The utilization of digital motion x-ray in diagnoising normal versus abnormal facet motion along with case studies to understand the clinical application.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering & Organizational Analysis, *Integrating spinal biomechanics and pathobiomechanics through digitized analysis.The comparison of organized versus disorganized compensation with regional and global compensation. Correlation of the vestibular, occular and proprioceptive neurological integration in the righting reflex as evidenced in imaging. Digital and numerical algorithm in analyzing a spine.* Federation of Chiropractic Licensing Board, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering: Cervical Digital Analysis, *Digitizing and analyzing the cervical spine in neutral, flexion and extension views to diagnose pathobiomechanics. This includes alteration of motion segment integrity (AMOSI) in both angular and translational movement. Ligament instability/failure/pathology are identified all using numerical values and models. Review of case studies to analyze pathobiomechanics using a computerized/numerical algorithm.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering: Lumbar Digital Analysis, *Digitalizing and analyzing the lumbar spine images to diagnose pathobiomechanics. This includes anterior and posterior vertebral body elements in rotatioal analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Spinal Biomechanical Engineering: Full Spine Digital Analysis, *Digitalizing and analyzing the full spine images to diagnose pathobiomechanics as sequellae to trauma in relation to ligamentous failure and disc and vertebral pathology as sequellae. This includes anterior and posterior vertebral body elements in rotatioal analysis with neutral, left and right lateral bending in conjunction with gate analysis. Ligament instability/failure/pathology is identified all using numerical values and models. Review of case studies for analysis of pathobiomechanics using a computerized/numerical algorithm along with corrective guidelines.* [Federation of Chiropractic Licensing Boards,, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, NY, 2013

Certification in MRI Interpretation, Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

MRI Protocols Clinical Necessity, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal*

images. Clinical indication for the utilization of MRI and pathologies of disc in both trauma and non-trauma sequellae, including bulge, herniation, protrusion, extrusion and sequestration. Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

MRI Interpretation of Cervical Herniations, *MRI slices, views, T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Spinal cord and canal compromise interpretation with management.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

MRI Interpretation of Lumbar Herniations, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Central canal and cauda equina compromise interpretation with management.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, 2013

MRI Interpretation of Cervical Degeneration/Bulges, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrate, Schmorl's nodes and herniations. Spinal cord and canal compromise interpretation with management.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

MRI Interpretation of Degenerative Spine and Disc Disease with Overlapping Traumatic Insult to Both Spine and Disc, *MRI slices, views, T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of degenerative spondylolesthesis, spinal canal stenosis, Modic type 3 changes, central herniations, extrusions, compressions, nerve root compressions, advanced spurring and thecal sac involvement from an orthopedic, emergency room, chiropractic, neurological, neurosurgical, physical medicine perspective.* Federation of Chiropractic Licensing Boards, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Buffalo, New York, 2013

Diplomate, Diplomate of the American Academy of Medical Legal Professionals, Board of the American Academy of Medical Legal Professionals, Buffalo, New York, 2012

Diagnostic Imaging Interpretation: Evaluation of X-Rays After Trauma, Radiographic Mensuration, *Understanding the utilization of (CRMA) Computerized Radiographic Mensuration Analysis in the triage of injured patients. Reviewing AMA Impairment Guidelines 5th edition, and understanding how CRMA can demonstrate (AOMSI) Alteration of Motion Segment Integrity, a commonly missed injury to spinal ligaments that is ratable under the AMA Impairment guidelines 5th edition between 25% to 28% whole person impairment.* Spinal Kinetics, 2012

Whiplash and Brain Injury Traumatology Graduate: *An in-depth, four module, science-based training program covering the entire spectrum from the physics of motor vehicle crashes to human biomechanics to diagnostics and management.* Spine Research Institute of San Diego, 2012

Whiplash Advanced Topics: The Fundamental Science, *This course covers requisite and comprehensive biomechanics knowledge for forensic experts. Whiplash and brain injuries: the real reasons they are on the rise. The minimal property damage equals minimal injury risk myth exposed with an in-depth analysis of brain, neck, and cervical spine trauma mechanisms. Soft tissue injuries and a comprehensive and cutting edge analysis of clinical syndromes and conditions resulting from whiplash (WAD/CAD). What forensic experts need to know about the various pain syndromes. Risk assessment and the fundamental key to modern forensic practice.* Spine Research Institute of San Diego, Atlanta, Georgia, 2012

Documenting Clinically Correlated Bodily Injury to Causality, *Understanding the necessity for accurate documentation, diagnosis and clinical correlation to the injury when reporting injuries in the medical-legal community. Documenting the kinesiopathology, myopathology, neuropathology, and pathophysiology in both a functional and structural paradigm.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, New York, 2011

Documentation and Reporting for the Trauma Victim, *Understanding the necessity for accurate documentation and diagnosis utilizing the ICD-9 and the CPT to accurately describe the injury through diagnosis. Understanding and utilizing state regulations on reimbursement issues pertaining to healthcare.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, New York, 2011

Neurodiagnostic Testing Protocols, Physiology and Indications for the Trauma Patient, *Electromyography (EMG), Nerve Conduction Velocity (NCV), Somato Sensory Evoked Potential (SSEP), Visual Evoked Potential (VEP), Brain Stem Auditory Evoked Potential (BAER) and Visual-Electronystagmosgraphy (V-ENG) interpretation, protocols and clinical indications for the trauma patient.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, New York, 2011

MRI, Bone Scan and X-Ray Protocols, Physiology and Indications for the Trauma Patient, *MRI interpretation, physiology, history and clinical indications, bone scan interpretation, physiology and clinical indications, x-ray clinical indications for the trauma patient.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department Board for Chiropractic, Long Island, New York, 2011

Crash Dynamics and Its Relationship to Causality, *An extensive understanding of the physics involved in the transference of energy from the bullet car to the target car. This includes G's of force, newtons, gravity, energy, skid marks, crumple zones, spring factors, event data recorder and the graphing of the movement of the vehicle before, during and after the crash. Determining the clinical correlation of forces and bodily injury.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department Board for Chiropractic, Long Island, New York, 2011

Diagnostics, Risk Factors, Clinical Presentation and Triaging the Trauma Patient, *An extensive understanding of the injured with clinically coordinating the history, physical findings and when to integrate neurodiagnostics. An understanding on how to utilize emergency room records in creating an accurate diagnosis and the significance of "risk factors" in spinal injury.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, New York, 2011

Neurodiagnostics, Imaging Protocols and Pathology of the Trauma Patient, *An in-depth understanding of the protocols in triaging and reporting the clinical findings of the trauma patient. Maintaining ethical relationships with the medical-legal community.* An in-depth understanding of the protocols in triaging and reporting the

clinical findings of the trauma patient. Maintaining ethical relationships with the medical-legal community. Long Island, New York, 2011

MRI Clinical Application, *The clinical application of the results of space occupying lesions. Disc and tumor pathologies and the clinical indications of manual and adjustive therapies in the patient with spinal nerve root and spinal cord insult as sequelae.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

MRI Methodology of Analysis, *MRI interpretation sequencing of the cervical, thoracic and lumbar spine inclusive of T1, T2, STIR and 3D gradient studies to ensure the accurate diagnosis of the region visualized.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

MRI Spinal Pathology, *MRI interpretation of bone, intradural, extradural, cord and neural sleeve lesions. Tuberculosis, drop lesions, metastasis, ependymoma, schwanoma and numerous other spinal related tumors and lesions.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

MRI Disc Pathology and Spinal Stenosis, *MRI interpretation of bulged, herniated, protruded, extruded, sequestered and fragmented disc pathologies in etiology and neurological sequelae in relationship to the spinal cord and spinal nerve roots* . New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

MRI Spinal Anatomy and Protocols, *Normal anatomy of axial and sagittal views utilizing T1, T2, 3D gradient and STIR sequences of imaging. Standardized and desired protocols in views and sequencing of MRI examination to create an accurate diagnosis in MRI.* . New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

MRI History and Physics, *Magnetic fields, T1 and T2 relaxations, nuclear spins, phase encoding, spin echo, T1 and T2 contrast, magnetic properties of metals and the historical perspective of the creation of NMR and MRI.* New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, AACME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and CMCS Post Doctoral Division, Buffalo, New York, 2011

Credentials and Clinically Correlating Causality, *The significance documentation and credentials in the personal injury field with a focus on clinically correlating causality, bodily injury and persistent functional loss as a sequele.* Academy of Chiropractic Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Accident Reconstruction: Terms, Concepts and Definitions, *The forces in physics that prevail in accidents to cause bodily injury. Quantifying the force coefficients of vehicle mass and force vectors that can be translated to the occupant and subsequently cause serious injury.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Accident Reconstruction: Causality, Bodily Injury, Negative Acceleration Forces, Crumple Zones and Critical Documentation, *Factors that cause negative acceleration to zero and the subsequent forces created for the vehicle that get translated to the occupant. Understanding critical documentation of hospitals, ambulance reports, doctors and the legal profession in reconstructing an accident.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Accident Reconstruction: Skid Marks, Time, Distance, Velocity, Speed Formulas and Road Surfaces, *The mathematical calculations necessary utilizing time, distance, speed, coefficients of friction and acceleration in reconstructing an accident. The application of the critical documentation acquired from an accident site.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Accident Reconstruction: Research, Causality and Bodily Injury, *Delta V issues correlated to injury and mortality, side impact crashes and severity of injuries, event data recorder reports correlated to injury, frontal impact kinematics, crash injury metrics with many variables and inquiries related to head restraints.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Head Trauma, Brain Injury and Concussion, *Brain and head physiology, brain mapping and pathology as a sequella to trauma. Traumatic brain injury, mild traumatic brain injury, axonal shearing, diffuse axonal injury and concussion are detailed in etiology and clinically. Clinical presentation advanced diagnostic imaging and electrodiagnostics are detailed in analysis to create a differential diagnosis. Balance disorders that often occur as a result of trauma are also explored from clinical presentation to advanced imaging and differential diagnosis.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Long Island, New York, 2011

Impairment Rating Certification, *The understanding and utilization of the protocols and parameters of the AMA Guide to the Evaluation of Permanent Impairment 6th Edition. Spine, neurological sequelae, migraine, sexual dysfunction, sleep and arousal disorders, station and gait disorders and consciousness are detailed for impairment rating. Herniated discs, radiculopathy, fracture, dislocation and functional loss are also detailed in relation to impairment ratings.* CMCS Post Doctoral Education Division, New York Chiropractic Council, New York State Education Department, Long Island, New York, 2011

Utilization of Research in the Clinical Setting, *Utilizing peer reviewed scientific literature in creating a diagnosis, prognosis and treatment plan for the chronic and acute patient. How to implement and stay current on techniques and technology in healthcare.* Academy of Chiropractic Post Doctoral Education Division, New York Chiropractic Council, New York State Education Department, Board for Chiropractic, Long Island, New York, 2011

Medicolegal Fundamentals for Practitioners and Forensic Experts, *This course provides information on the use of medical photography; when and how to use it and incorporate it. Discusses depositions, arbitrations, and testifying and how to prepare for cross-examination. A discussion of the use of evidence such as models, charts, diagrams, photos, and movies. Daubert and Frye rules and how they affect your testimony, and a review of treatises, reliable authorities and other federal rules of evidence.* Spine Research Institute of San Diego, Atlanta, Georgia, 2011

Workers' Compensation Insurance; Managed Care; OSHA and Regulatory Agencies, *Understanding insurance and regulatory agencies involved in Workers' Compensation.* Northwestern Health Sciences University, Bloomington, Minnesota, 2010

Returning the Injured Worker to the Workplace, *Using treatments, goals and attitude to safely return the injured worker back to the workplace.* Northwestern Health Sciences University, Bloomington, Minnesota, 2010

Management Principles in Personal Injury and Forensic Documentation, *In-depth training on all aspects of management of trauma, from beginning to end; a comprehensive primer on crash reconstruction including comprehensive physical examination of whiplash and traumatic brain injury with emphasis on special laboratory methods. Topics covered included: The latest radiographic examination and analysis techniques, including CT and MRI examination of brain and soft tissue injuries. Special diagnostic imaging modalities (SPECT, PET, fMRI, MRA, VF, etc.); how and when to use Electrodiagnostics (EMG, sEMG, SSEP, VEP, etc…). Rendering a diagnosis/impression in the personal injury or forensic setting; pearls and pitfalls. Soft tissue healing times and implications for successful case management. The state of the injury and implications for case management. Designing a treatment plan and living with guidelines. Important applications of activities of daily living; optimizing outcomes. Chiropractic manipulation, deep tissue massage, and PT Modalities for best outcomes.* Spine Research Institute of San Diego, Chicago, Illinois, 2009

Chiropractic Services within the Corporate Setting, *Covering the role of chiropractic care in occupational health.* Northwestern Health Sciences University, Bloomington, Minnesota, 2009

Principals of Impairment Rating and Forensic Reporting, *Critical documentation from day 1; What every personal injury and forensic expert needs to know. The fundamental of expository, scientific writing you were never taught; common dos and don'ts The essential craft of narrative report preparation from A-Z; style, strategy, methods, organization, and common pitfalls Incorporating outcomes assessment and disability instruments into your reports (SCL-90-R, Oswestry, Roland-Morris, Rivermead PCS, and more) The application of AMA guidelines in personal injury and forensic practice Modern guidelines and best practices (Presley Reed, Mercy, QTF, ACOEM, Croft); How they are commonly abused and how and when to use them correctly Critical rebuttal methods and strategies in today's modern forensic practice Special software applications: managing data, information, graphics; saving time.* Spine Research Institute of San Diego, Charlotte, North Carolina, 2008

NCCA Seminar - Personal Injury, *Best practice guidelines for working with personal injury patients in North Carolina.* North Carolina Chiropractic Association, Raleigh, North Carolina, 2008

Spinal Rehabilitation, *Rehabilitation of the injured spine, with emphasis on improving functional outcomes and activities of daily living.* Advanced Healthcare Solutions, Charlotte, North Carolina, 2008

Clinical Biomechanics of Posture (CBP) - Neurology, Posture, & Systemic Health, *This course provides a current education in Posture related to Systemic Health and types of Mechanoreceptors and Proprioceptors. Relates abnormal posture with visceral dysfunction (Type O Disorders). Hypothesizes and supports a Nerve Interference Theory based upon deformation of proprioceptors and mechanical receptors from abnormal tissue loading in abnormal posture. A literature review on Posture and Systemic Health, mechanoreceptors and proprioceptors in spinal tissues: Facet capsular ligaments, spinal ligaments, intervertebral discs and Muscles. Review of visceral dysfunction from abnormal posture.* CBP Seminars, Inc., Dallas, Texas, 2008

Cox Flexion Distraction - Part I, *The Part I course is introductory to Cox Technic flexion distraction and decompression protocols. Cox Technic treatment protocol, biomechanics of the human spine (cervical and lumbar), case presentations, diagnosis and treatment of discogenic and non-discogenic back pain, Facet Syndrome, Spondylolisthesis, Tropism, Short Leg, Transitional Segment were covered.* Cox Technic. F/D Enterprise LLC, Atlanta, Georgia, 2007

Cox Flexion Distraction - Part II, *Topics covered included: Intervertebral Disc Herniation Induced Stenosis, Cox Technic adjusting procedures for the intervertebral disc, a review Of Non-Discogenic Causes Of Low Back Pain, examination of the patient, and Cervical Spine: Biomechanics, Diagnosis, Treatment with Cox Protocol.* Cox Technic. F/D Enterprise LLC, Lombard, Illinois, 2007

Clinical Biomechanics of Posture (CBP) - Cervical Spine Structural Rehabilitation , *This course provides an integrated education for the Doctor of Chiropractic in the science and art of cervical spine disorders. Detailed literature reviews covering the crisis of cervical disorders in patient populations, the role of spinal manipulative therapy and structural correction of sagittal cervical lordosis. Normal average and ideal values for the cervical lordosis. Detailed categories of head to thorax postures, spine kinematics and abnormalities of the sagittal cervical lordosis. Application and timing of postural and functional exercises for the cervical spine designed to correct spinal subluxation and strengthen the cervical and upper thoracic spine tissues. Introduction to 16 categories of sagittal cervical traction and 3 methods of coronal cervical traction with demonstrations for structural rehabilitation of the cervical spine, and indications and contraindications to these new structural rehabilitation procedures. Case management using structural rehabilitation methods covering a variety of case studies for a comprehensive picture of clinical application of CBP for cervical spine rehabilitation. A survey of research material supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods across a population of patients.* CBP Seminars, Inc., Charlotte, North Carolina, 2007

Clinical Biomechanics of Posture (CBP) - Pediatric Adjusting, *This course provides an integrated education for the Doctor of Chiropractic in the science and art of pediatric disorders and adjusting. Normal developmental anatomy of the infant through childhood. Examination methods and findings for proper assessment of vertebral subluxation and abnormal development for the pediatric patient. Normal and abnormal evolution of the pediatric sagittal plane spinal curvatures and subluxation conditions. Postural and spinal evaluation of the newborn. Details of case management using CBP instrument, drop table and other structural rehabilitation methods. A survey of research material supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods.* CBP Seminars, Inc., Chicago, Illinois, 2007

Spinal Decompression - A non-surgical approach for conditions of the disc, *The management and treatment of low back pain utilizing non-surgical spinal decompression therapy. Topics include: proprioceptive/neurological re-training, stabilization exercises, active care treatments, neurophysiological explanations of pain control, spinal canal stenosis, spondylolisthesis, degenerative disc disease, disc bulge/protrusion/extrusion/sequestration, neurological testing, neuropathic projected pain vs. nociceptive referred pain.* Advanced Healthcare Solutions, Asheville, North Carolina, 2007

Clinical Biomechanics of Posture (CBP) - Instrument Adjusting, *This course provides an integrated education in the science and art of upper cervical spinal disorders with application to instrument adjusting for full spine postural subluxations and joint fixations. Learn how posture displacement influences the upper cervical spine as well as normal joint kinematics and instability analysis of the upper cervical spine. The biomechanics and neurophysiological mechanisms of instrument adjusting techniques with indications for different techniques of segmental versus postural adjusting. Corrective global postural subluxation set-ups for the head, thoracic cage, and pelvis with a hand-held instrument used to adjust the upper cervical area and segmental adjusting*

techniques for upper cervical subluxation/displacements. A comparative review of upper cervical methods of adjusting and a literature review on upper cervical anomalies. The details of case management using these instrument adjusting methods with a variety of case studies for a comprehensive picture of clinical application. CBP Seminars, Inc., Charlotte, North Carolina, 2006

Clinical Biomechanics of Posture (CBP) - X-Ray and Posture Analysis, *This course provides an integrated education reviewing the literature on frequency and duration topics for establishing a logical treatment plan for Chiropractic patients. This course will define a normal static equilibrium spinal model from the literature and define two types of subluxation as not normal: abnormal posture and segmental spinal coupling patterns as rotations and translations in 3-D. X-ray Validity, reliability, projection geometry, and CBP analysis methods. Literature review supporting a normal spinal model of upright posture along with basic definitions and theorems from mechanical engineering to posture and spinal coupling.* CBP Seminars, Inc., Charlotte, North Carolina, 2006

Clinical Biomechanics of Posture (CBP) - Lumbar Spine/Scoliosis Rehabilitation, *This course provides an integrated education for the Doctor of Chiropractic in the science and art of lumbo-pelvic disorders. Detailed literature reviews covering the crisis of lumbar disorders in patient populations, the role of spinal manipulative therapy and structural correction of sagittal lumbar lordosis. Normal average and ideal values for the lumbar lordosis. Detailed categories of lumbo-pelvic postures, spine kinematics and abnormalities of the sagittal lumbar lordosis. Appropriate application and timing of postural and functional exercises for the lumbar spine designed to correct spinal subluxation and strengthen the lower back tissues. An introduction to 17 categories of sagittal lumbar traction and 5 methods of coronal lumbar traction with demonstrations for structural rehabilitation of the lumbar spine. Details of case management using these structural rehabilitation methods covering a variety of case studies for a comprehensive picture of clinical application. A survey of research material supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods across a population of patients with chronic pain conditions.*

CBP Seminars, Inc., Charlotte, North Carolina, 2005 , Clinical Biomechanics of Posture (CBP) - Drop Table Adjusting, Leg Length Inequality & Orthotic Intervention, *This course provides an integrated education for in the science and art of spine, posture, and lower extremity disorders. The total permutations of abnormal posture using formulas from probability theory are delineated and a literature review on postural displacements as they correlate to patient conditions. Corrective global postural subluxation set-ups for the head, thoracic cage, & pelvis on a drop table. Diagnosis, analysis and course of care for short leg syndrome and lower extremity disorders as well as upper cervical subluxations/fixations. A survey of research material supporting the utilization and efficacy of Chiropractic Biophysics drop table technique treatment methods across a population of patients with chronic pain conditions.* CBP Seminars, Inc., Montreal, Canada, 2005

SELECTED TEACHING/INSTRUCTING/LECTURING/CONSULTING

Lecturer, Treating Fibromyalgia, Catawba Valley Medical Center Health First, Hickory, North Carolina, 2010 - 2014

Lecturer, Causes, Treatment and Prevention of Osteoarthritis, West Hickory Senior Center, Hickory, North Carolina, 2010

Injury Prevention Consultant, Injury Prevention and Triage, Foamex Innovations, Cornelius, North Carolina, 2009 - 2010

Injury Prevention Consultant, A Doctor of Chiropractic on Your Team, Foamex Innovations, Cornelius, North Carolina, 2009 - 2010

Injury Prevention Consultant, Back Safety - Lifting, Foamex Innovations, Cornelius, North Carolina, 2009 - 2010

Injury Prevention Consultant, Spray Booth Ergonomic Evaluation and Proposal, Foamex Innovations, Cornelius, North Carolina, 2009 - 2010

SELECTED PUBLICATIONS

Hozjan, J., Shook, B., Slusher, R. (2010, March). The Reliability of Visual X-ray Analysis of the Cervical Spine and Pelvis: A Preliminary Study. *Journal of Vertebral Subluxation Research,* 1 - 7.

SELECTED MEMBERSHIPS

American Academy of Medical Legal Professional, Member, 2011 - 2014

Academy of Chiropractic, Member, 2011 - 2014

American Chiropractic Association, Member, 2009 - 2013

North Carolina Chiropractic Association, Member, 2008 - 2016

American Red Cross, Injury Prevention Instructor, 2008 - 2012

National Strength and Conditioning Association, Member, 1998 - 2006

SELECTED COMMUNITY SERVICE

Habitat for Humanity, Construction Volunteer, Mooresville, North Carolina, 2010

American Red Cross, Injury Prevention Instructor, Cornelius, North Carolina, 2009 - 2011