Frank D. Cohen, DC, FASBE

Glen Cove Chiropractic & Physical Therapy
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SELECTED OCCUPATIONAL HISTORY

Clinic Director, Chiropractor, Glen Head Chiropractic & Physical Therapy, PLLC dba: Glen Cove Chiropractic & Physical Therapy, 2012-present

Clinic Director, Chiropractor, Administrator Village Square Health & Medical, PC, dba: Village Square Health & Wellness, Glen Cove, NY, 2004-2012

Clinic Director, Chiropractor, Administrator Complete Care Health & Medical, PC, dba: Complete Care Health & Wellness, Glen Cove, NY, 1999-2004

Clinical Director, Chiropractor, Village Square Chiropractic, PC Glen Cove, NY, 1984-1999

EDUCATION and LICENSURE

Doctor of Chiropractic, Licensed in the State of New York, License # X 003702-1, 1983-present

Doctor of Chiropractic, Licensed in the State of Colorado, License # 3317, 1996-present

National Board of Chiropractic Examiners, Part I, 1984

National Board of Chiropractic Examiners Part II, 1984

Doctorate of Chiropractic, Life Chiropractic College, Marietta, GA, 1983

Internship, Life Chiropractic College, Marietta Campus Clinic, Marietta, GA, 1983

Masters Research in Exercise Physiology/Motor Integration, University of Massachusetts, Amherst, MA, 1979-1980

Bachelor of Science in Exercise Physiology, University of Massachusetts, Amherst, MA, 1979

POST GRADUATE EDUCATION QUALIFICATIONS

Trauma Qualified, Cleveland University Kansas City, Chiropractic Health Sciences, Academy of Chiropractic – Post-Doctoral Division, 2018

Hospital Based Spine Care Qualified, Credentialed in hospital protocols, emergency room protocols, acute and chronic patient triage inclusive of MRI spine interpretation, spinal biomechanical engineering, head trauma, concussion, mild traumatic and traumatic brain injuries. Co-credentialed

through the ACCME (Accreditation Council for Continuing Medical Education), Cleveland University – Kansas City and the Academy of Chiropractic, Long Island, New York, 2023

MRI Interpretation Review Qualified, Recognized by Cleveland University-Kansas City, Chiropractic and Health Sciences with courses recognized by the ACCGME in conjunction with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences. Qualification language approved by the American Chiropractic College of Radiology (ACCR) and the American Chiropractic Board of Radiology (ACBR)

Primary Spine Care Qualified, This qualification includes graduate chiropractic education in healthy and traumatically altered spinal morphology inclusive of osseous, connective tissue and neurological structure, function and pathology. This certifies you are qualified in assessing predictive models in spinal biomechanics and devising engineering paradigms for treatment plans to maximize spinal homeostasis in an evidenced based conclusion. In addition, this qualification acknowledges your expertise in triaging the injured and coordinating collaborative care from the trauma through conclusion of rehabilitation, Academy of Chiropractic Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island NY, 2023

SELECTED POST GRADUATE EDUCATION, CERTIFICATIONS and DIPLOMATES

Concussion and Traumatic Brain Injury
Traumatic Brain Injury and Concussion Overview: *This section is an in-depth overview of traumatic brain injury in concussion. It discusses that all brain injuries are traumatic and dispels the myth of a "mild traumatic brain injury." Also, this covers triage protocols and the potential sequela of patients with traumatic brain injuries.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, January 24, 2025

Head Trauma and Traumatic Brain Injury Part 1: *This section discusses gross traumatic brain injuries from trauma and significant bleeding with both epidural and subdural hematomas. There are numerous case studies reviewed inclusive of neurosurgical intervention and postsurgical outcomes*. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, January 24, 2025

Head Trauma and Traumatic Brain Injury Part 2: *This section continues with multiple case studies of gross traumatic brain injuries from trauma requiring neurosurgical intervention and also discusses recovery sequela based upon the significance of brain trauma. This module also concludes with concussion protocols in traumatic brain injury short of demonstrable bleeding on advanced imaging.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, January 24, 2025

Concussion And Electroencephalogram Testing: *This this section covers concussion etiology and cognitive sequela where gross bleeding has not been identified on advanced imaging. It discusses the significance of electroencephalogram testing in determining brain function and pathology (if present). This module also covers the understanding of waveforms in electroencephalogram testing in both normal and abnormal scenarios*. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, January 24, 2025

Concussion And Electroencephalogram Testing Pathological Results: *This module covers amplitude, conduction and conduction delays as sequela to traumatic brain injury to diagnose*

concussion and traumatic brain injury in the absence of gross bleeding and advanced imaging. This section covers electroencephalograms and event-related potentials which measures the brain response that is a direct result of specific sensory or motor events. It is a stereotype electrophysiological response to a stimulus and provides a noninvasive means of evaluating brain function. In this module multiple case studies are discussed with ensuing triage protocols pending the results. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, January 24, 2025

Primary Spine Care 16, Trends in Triage and Diagnosing Spinal Pathology, *Diagnosing and demonstrative reporting of the spinal cord, nerve root, thecal sac, disc recurrent meningeal nerve, myelomalacia, myelopathy, fracture, chemical radiculitis, and connective tissue pathologies, and osseous compression of nociceptors. Collaborative care with medical specialists on spinal pathology and medical-legal reporting requirements.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 16, MRI Spine Interpretation, *Identifying and diagnosing spinal disc pathologies: bulged, herniated, protruded, extruded-comminuted, extruded-sequestered. MRI sequence protocols: T1, T1 fat saturation, T2, T2 fat saturation, STIR, proton density, fast spin echo, echo gradient, coronal, sagittal and axial. Triage of disc pathologies and collaborative care.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 16, Spinal Biomechanical Pathology, I*dentifying and diagnosing spinal segmental lesions in the facet, joint capsule involving ligamentous mechanoreceptors, and spinal proprioceptors. The central segmental motor control mechanism with upper motor neuron involvement with disparate efferent effects and demonstrative diagnostic tools to differentially diagnose the primary lesion. The statistical outcome of treating biomechanical spinal lesions.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 16, Differentially Diagnosing Arthridities on X-ray and MRI, I*dentifying and diagnosing Osteoarthritis in hand, wrist, elbow, shoulder, foot, ankle, knees, hips on X-ray. Identifying and diagnosis erosive arthritis and Rheumatoid Arthritis on X-ray, MRI imaging, and ultrasound MRI in the hand, elbow, knee, and spine, Psoriatic and Lupus/Jaccoud Arthritis in the hand. Crystallin Arthropathy of the hand, Gout in the feet and spine, and Calcium Pyrophosphate Dihydrate Deposition Disease (CPPD) of the hand.Diagnosing of ankylosing spondylitis of the spine was also identified.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025
Primary Spine Care 16, Incidental Tumors and Pathology Visualized on MRI Spine Images, I*dentifying and diagnosing Schwannoma's, Adenoma's, Fibroid Leiomyomas and Uterine Sarcoma's, Renel Cell Tumors, Renal Cysts, and Aortic Aneurysms. The physics of T1, T1 fat saturation, T2, T2 fat saturation, STIR, proton density, fast spin echo, echo gradient, coronal, sagittal, and axial. CT hounsfield units and diagnosing tumors.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School

of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 16, Documentation, Diagnosis and Reporting on Medical-Legal Trauma Cases, *Determining and documenting the history of proximate cause, how to demonstratively document pain, weakness, and numbness using evidence-based protocols. The demonstrative documentation of MRI spine pathology and being able to differentially diagnose previous vs current pathology in prognosing permanencies. The clinical correlation of causality, demonstrative bodily injury, and persistent functional losses using emotional intelligence.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 16, Spinal Disc Morphology, and Chronicity of Disc Pathology, *Spinal disc morphology of lamellar tracts and fiber orientation, the non-uniformity of discal zones with the chemical content of each. How Proteoglycans and Aggrecans are integral in disc hydration and age-dating pathology. Understanding the vascularization of the osseous end-plate, cartilaginous end-plate, and disc from birth through puberty is essential to accurately diagnosing disc pathology. Being able to relate disc herniations to end-plate fractures with central herniation and clinically correlating it to chronic back pain.* Cleveland University Kansas City, Chiropractic and Health Sciences, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 15: Advanced MRI and X-Ray Documentation in Clinical Practice, *Interpreting and utilizing X-ray and MRI findings in creating demonstrative documentation. Advanced identification of spinal disc lesions, herniations, bulges, protrusion, extrusion, and fragmentations through computer graphics. Identification and demonstrative documentation of vertebral motor unit pathology and reporting demonstratively using computer graphics.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Advanced MRI Interpretation in Clinical Practice, *Utilization of thin slice acquisitions with T2 Fat suppressed, STIR, proton density, T1 and T2 sequencing for advanced identification of spinal disc lesions, herniations, bulges, protrusion, extrusion, and fragmentations. Better visualization of intradural and extradural lesions, neoplasms, and infections.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Ethics in Clinical Practice, *Ethical, collaborative relationships with medical PCPs and specialists using advanced documentation and accurate reporting of imaging and advanced imaging. Creating a collegial relationship when conflicts arise in concluding accurate diagnosis to allow consensus and the evidence to determine final diagnosis.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Spinal CAT Scan Interpretation, *Understanding the utilization of CAT Scan slicing and the reformatting when using bone and soft tissue windows. Correlating MRI to CAT Scan creates an unclear conclusion to render a complete image of the morphology of the indeterminate pathology. Understanding the physics of CAT Scan and the radiation levels with different types of CAT Scan technology.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Connective Tissue/Strain Sprain Pathology, *Understanding the morphology and physiology of connective tissue at the cellular and extra-cellular levels in building a foundation to understanding the function and interaction of ligaments, tendons, muscles, and bones, Identifying connective tissue pathology and the repair process with a foundation of r permanent aberrant sequella.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Advanced Spinal Biomechanical Engineering, *Understanding the concepts of normal vs. pathological movement of vertebral motor units in accurately concluding diagnosis on biomechanical pathology when considering excessive motion. An evidence-based approach to determining translation, angular deviation, and rotations beyond pathobiomechanical limitations in the spine.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Trends in Spinal Care, *An evidence-based approach to concluding accurate diagnosis, prognosis, and treatment plan, Eradicating the non-specific back pain dogma utilizing X-ray digitizing based on literature standards, Creating treatment plans with identifying the primary spinal lesions using evidence-based tools.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

Primary Spine Care 15; Documentation in Clinical Practice, *Understanding and including all historical elements; current history, past history, family history, and social history when documenting a 99201, 99202, 99203, 99204, and 99205. The application of time as the prime element as per Medicode in coding examinations and re-examination with face to face, review of records and the time necessary to document in an electronic health record.* Cleveland University Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2023

MRI Spine Clinical Grand Rounds, Interpretation sequencing of STIR, T1, T2, Axial and Sagittal acquisitions. Landmarks, physics, and literature-based definitions of disc and osseous pathology, visualizing, diagnosing and documenting cervical and lumbar anatomy vs. pathology. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting lumbar spine sequencing, disc herniations, neural canals, cauda equine, conus medullaris, nerve sleeves, canal stenosis, grading and vertebral width vs. height in determining segmental remodeling. Diagnosing thecal sac abutment, central canal root compression and ligamentum flava involvement. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Case study visualizing, diagnosing and documenting cervical spine sequencing, disc herniations, neural canals, cauda equina, conus medullaris and vertebral width vs. height in determining segmental remodeling. Identifying the Pons, Occipital junction and spinal cord to identify Chiari 1 malformations. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting lumbar spine sequences, disc extrusion type herniations, neural canals, cauda equina, conus medullaris, spondylolisthesis, degenerative spondylolisthesis, disc degeneration, neural canal and central root compressions, central canal stenosis. Varices vs. herniations and multiple level disc pathology with biomechanical failures. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting cervical spine sequencing, disc extrusion type herniations, neural canals, disc degeneration, thecal sac compression, central canal stenosis, cord displacement, reversal of cervical curve, Chiari 1 malformation. Identifying spinal biomechanical failure in MRI sequencing with visualizing ligamentous pathology as cause for failure. Differentially diagnosing recent vs. older trauma based upon edematous signal in T1, T2 and STIR images. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting cervical spine sequencing, multiple disc extrusion type herniations, vertebral remodeling, intradural tumor displacing the spinal cord visualized in T1, T2, and STIR sequences, neural canal stenosis, disc degeneration, thecal sac compression, central canal stenosis, cord displacement, reversal of cervical curve, Chiari 1 malformation and identifying of inferior brain structures. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting 1) improper sequence acquisitions invalidating interpretation 2) incomplete study invalidating interpretation 3) visualizing, diagnosing and documenting lumbar spine sequencing, multiple disc extrusion type herniations, vertebral remodeling, multiple thecal sac compressions, neural canal stenosis, disc osteophyte/ridging complex, central canal stenosis, spondylolisthesis. Identifying the spleen, liver, kidneys, inferior vena cava, and psoas musculature on imaging. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting cervical spine sequencing, cervical spondylosis, pathological spinal biomechanics, reversal of lordotic curve, and vertebral width vs. height in determining segmental remodeling, central herniation, thecal sac compression of the cord identifying tongue, epiglottis, hyoid cartilage, pharynx, thyroid. Reviewing fat saturation sequences for osseous metastatic tumors and advanced degeneration. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting lumbar spine sequencing, degenerative disc disease, nerve root sleeve abutment, far lateral herniations vs. bulge, normal vs. dissected inferior vena cava aneurism, epidural far as a space occupying lesion, facet

arthropathy and edema, hypertrophy of ligamentum flava, and pseudo disc at the S1-S2 level. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI Spine Clinical Grand Rounds, Visualizing, diagnosing and documenting cervical spine sequencing utilizing T1 weighted images for pathology, inclusive of advanced degeneration and tumor detection. STIR in a fat saturated image for ligamentous pathology inclusive of the posterior longitudinal, ligamentous flava and interspinal ligaments. Normal clivus and odontoid for cerebellar tonsil location. Cerebral spinal fluid (CSF) flow and utilization of the spinal cord's central canal for CSF transport. Academy of Chiropractic Post-Doctoral Division, Accreditation Council for Continued Medical Education in conjunction with The State University of New York at Buffalo, Jacobs School of Medicine and Biomechanical Sciences, Cleveland University – Kansas City, Long Island, NY February 2023

MRI History and Physics, Magnetic Fields, T1, T2 relaxations, nuclear spins, phase encoding, spine echo, T1 and T2 contrast, magnetic properties of metals and the historical perspective of the creation of NMR and MRI. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spinal Anatomy and Protocols, Normal anatomy of axial and sagittal views utilizing T1, T2, 3D gradient and STIR sequences of imaging. Standardizing and desired protocols in view and sequencing of MRI examination to create an accurate diagnosis in MRI. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spinal Pathology, MRI interpretation of bone, intradural, extradural, cord and neural sleeve lesions. Tuberculosis, drop lesions, metastasis, ependymoma, schwannoma and numerous other spinal related tumors and lesions. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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. Cleveland University – Kansas City, ACCME

Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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 a sequalae including bulge, herniation, protrusion, extrusion and sequestration. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Interpretation of Lumbar 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 vertebrae, Schmorl's nodes and herniations. Central canal and cauda equina compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Interpretation of Lumbar Herniations, MRI slices, views, T1, G2, STIR, axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar herniations. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrae, 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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Interpretation of Cervical Degeneration/Bulges, MRI slices, views, T1, T2, STIR, axial, stacking and sagittal images in the interpretation of cervical degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorl's notes and herniations. Spinal cord and canal compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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 vertebrae, Schmorl's notes 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 canal compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

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 spondylolisthesis, spinal canal stenosis, Modic type 3 changes, central herniations, extrusions, compressions, nerve root compressions, advances spurring and thecal sac involvement from an orthopedic, emergency root, chiropractic, neurological, neurosurgical, physical medicine perspective. Cleveland University – Kansas City, ACCME Joint Providership with the State

University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Interpretation Basics
MRI Spinal Anatomy, Protocols and Disc Pathology, Normal anatomy of axial and sagittal views utilizing T1, T2, gradient and STIR sequences of imaging. Degeneration and annular fissures of discs in both trauma and non-trauma patient and the biochemical properties of joints in age dating pathology. Disc bulges from degeneration and sequela to osseous issues, herniation pathology and protrusion, extrusion, migrated and sequestered variations. Clinical scenarios as sequela to disc and pre-existing pathologies. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2023

MRI Spine Interpretation, Herniated, bulged, extruded, protruded, sequestered and degenerative discs. The morphology of a pathological disc vs. normal morphology and the sequences required including T1, T2 and STIR for all spinal regions. Modic 1-2-3 changes detailed and traumatic relationship. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2023

Spinal Disc and Ligaments; Neurology and Pathology Module #1, Neurology of Ligament Pathology – Normal Morphology and Tissue Damage, Connective tissue morphology and would repair as sequalae to trauma. Full components of strain-sprain models and permanency implications and would repair and osseous aberration with aberrant structural integrity. Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY 2023

Spinal Disc and Ligaments; Neurology and Pathology, Module #2, Neurology of Ligament Pathology – Spinal Biomechanics and Disc Pathology, Disc pathology as sequella to trauma; herniation, extrusion, protrusion, sequestration and how the spinal unit as one system creates homeostasis to balance the pathology. Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY 2023

Spinal Disc and Ligaments; Neurology and Pathology Module #3, Neurology of Ligament Pathology – Neurological Innervation. The peripheral and centra innervation of the disc and spinal ligaments of the dorsal root ganglion, spinal thalamic tracts, periaqueductal gray areas innervating the Thalamus and multiple regions of the brain. The efferent neurological distribution areas of the spine to create homeostasis until tetanus ensues creating osseous changes under the effect of Wolff's Law. Academy of Chiropractic, Post-Doctoral Division, Cleveland University-Kansas City, College of Chiropractic, Long Island, NY 2023

MRI Spine Credentialing Module #1 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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing Module #2 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 and accurate diagnosis in MRI. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing Module #3 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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing Module #4 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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing Module #5 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. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing Module #6 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 on the patient with spinal nerve root and spinal cord insult as sequelae. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #1 Disc Overview & Imaging 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 sequelae, including bulge, herniation, protrusion, extrusion and sequestration. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #2 MRI Interpretation of Lumbar bulges/Degenerative Disc Disease. MRI Interpretation of Lumbar Degeneration/Bulges, MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of lumbar degeneration. With co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorls' nodes and herniations. Central canal and cauda equina compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #3 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-morbidities and complication of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorls' 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 and management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #4 MRI Interpretation of Cervical Degeneration/Bulges, MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of cervical degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebra, Schmorls' nodes and herniations. Spinal cord and canal compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #5 MRI Interpretation of Cervical Herniated Discs, MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of cervical degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebra, Schmorls' nodes and herniations. Spinal cord and canal compromise interpretation with management. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spine Credentialing, Part 2, Module #6 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 spondylolisthesis, spinal canal stenosis, Modic type 3 changes central herniations, extrusions, compressions, nerve root compressions, advances spurring and thecal sac involvement from an orthopedic, emergency room, chiropractic, neurological, neurosurgical, physical medicine perspective. Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs Schools of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2023

MRI Spinal Anatomy*, Protocols and Disc Pathology, Normal anatomy of axial and sagittal views utilizing T1, T2, gradient and STIR sequences of imaging**.** *Degeneration and annular fissures of discs in both trauma and non-trauma patients and the biochemical properties of joints in age dating pathology. Disc bulges from degenerative and sequela to osseous issues, herniation pathology and protrusion, extrusion, migrated and sequestered variations. Clinical scenarios as sequela to disc and pre-existing pathologies.* Cleveland University – Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2023

MRI Spine Interpretation, *Herniated, bulged, extruded, protruded, sequestered and degenerative discs.* *The morphology of a pathological disc vs. normal morphology and the sequences required including T1, T2 and STIR for all spinal regions. Modic 1-2-3 changes detailed and the traumatic relationship*. Cleveland University – Kansas City, ACCME Joint Providership with the State

University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2023

2023 Demonstrative Documentation Requirements, *Analyzing the requirements in anatomical diagnostic imagery to communicate spinal pathology. Integrating technology, clinical findings, and advanced graphic tools to communicate a diagnostic conclusion.* Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

MRI Spine Advanced Clinical Case Grand Rounds, *Clinical case review of MRI including intra and* *extra-dural findings inclusive of the disc and vascular anatomical lesions. Differentially diagnosing central cord lesions, and spinal cord vascular lesions in both acute trauma and degenerative presentations.* Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Non-Specific Spine Pain, Chiropractic and Outcomes, *Analyzing neuro-biomechanical pathological lesions defines primary spinal lesions and removes the dogma of non-specific back pain. Creating evidence-based demonstrative documentation in the creation of treatment plans.* Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Spinal Tumor MRI Interpretation*, Diagnosing and documenting:* Ependymoma, Astrocytoma, Hemangioblastoma, Lipoma, Meningioma, Neurofibroma, Schwannoma, Myxopapillary Ependymoma. Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Demonstrative Narrative and Evaluation and Management Report Writing, Clinical record-keeping, why write clinical notes, the importance of context, what to include in a clinical note, tips for better clinical documentation, basic legal considerations, open clinical notes, how to keep documentation efficient. Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Age-Dating Ligament/Connective Tissue Physiology and Pathology, Utilizing pain patterns, the high signal in the annulus, high signal outside the annulus, Modic changes, disc height, vacuum disc, sclerosis, Phirrman rating, facet edema, and previous MRIs to determine the chronicity of pathology., *Master-Class in ligaments; anatomy, physiology, vascularization, neurological innervation, tissue repair, and how they all relate to clinical practice. Ligament pathology correlating to the mechanisms of patho-neuro-biomechanical lesions (vertebral subluxation complex). Also, how ligaments play a critical role in the chiropractic spinal adjustment and in defining the chiropractic spinal adjustment mechanisms*. Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Clinical Grand Rounds in Biomechanics, Digitizing, and Advanced Imaging: *Case reviews concluding and accurate diagnosis, prognosis, and treatment plan utilizing evidence-based instrumentation and algorithms*. *Using demonstrative reporting of case findings to collaborate with*

co-treating physicians. Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Medical-Legal Documentation: *A documentation discussion on meeting the requirements of the courts, carriers, and licensure boards in complete and accurate reporting. Ensuring the diagnosis, prognosis, and treatment plan are demonstratively documented.* Cleveland University Kansas City, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2022

Documenting Clinical Findings and Diagnosis, Correlating clinical findings with x-ray and advanced imaging to conclude an accurate diagnosis, prognosis and treatment plan. The utilization of demonstrative documentation in diagnostic testing to visualize pathology in the trauma and non-trauma case. Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2022

2022 Trends in Spinal Healthcare, Analyzing evidenced-base spinal healthcare trends in both utilization and necessity and understanding the marketplace. The use of evidenced-based demonstrative documentation in reporting treatment pathways in triaging spinal path biomechanics, Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

MRI Spine Clinical Case Grand Rounds, Clinical case review of MRI's including sagittal, axial, T1, T2, STIR and proton density sequences. Identified will be the vertebrae, spinal cord, discs, nerve roots, thecal sac, posterior longitudinal ligament, epidural veins, and fat saturation pulses. Pathology will include bulges, herniations, protrusions, extrusions, myelomalacia, cord edema and Schmorl's notes. Learn how to collaborate effectively with radiologists, neuroradiologists, and neurosurgeons on the clinical findings. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Chiropractic vs. Physical therapy vs. Medical Case Management and Outcomes, Analyzing Evidence-base outcomes in triaging non-anatomical lesions. The analysis of neuro-biomechanical pathological lesions defines primary spinal lesions and removes the dogma of non-specific back pain. Managing collaborative relationships with medical primary providers and specialists in clinical practice. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

MSK Extremity Radiological Interpretation, Utilizing both MRI and x-ray in identifying via x-ray and advance imaging extremity instabilities from ligamentous, osseous or neoplastic derangement. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Demonstrative Narrative and Evaluation and Management Report Writing, Effectively creating demonstrative medical-legal documentation and meeting the needs of the courts, and making your "4-Corner" (narrative) report to build your reputation as an evidence-based provider. The step-by-step minutiae of building a report, accomplishing report writing timely and effectively but understanding the regulatory and administrative rules. Learn how to education the lawyer on bodily injury through evidence-based demonstrative reporting. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Ligament/Connective Tissue Physiology and Pathology, Master-Class in Ligaments; anatomy, physiology, vascularization, neurological innervation, tissue repair and how they all relate to clinical practice. Ligament pathology correlating to the mechanisms of patho-neuro-biomechanical lesions (vertebral subluxation complex). Also, how ligaments play a critical role in the chiropractic spinal adjustment and in defining the chiropractic spinal adjustment mechanisms. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Stroke Evaluation and Risk Factors in the Chiropractic Practice, Diagnosing, Triaging and Documenting headaches, migraines, and vascular incidents (stroke) in the primary provider's office. Imaging protocols based upon history and clinical presentation will be presented, along with analyzing imaging findings in determining the etiology. There will be an extensive question and answer session following the instructional presentation. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Age-Dating Herniated Discs and Trauma, Age dating herniated discs and trauma is a critical skill for an expert in spine. It combines the clinical skills of interpreting X-ray, MRI and other imaging modalities with a clinician's understanding of joint pathology. This level of expertise is critical when collaborated with other physicians or working in the medical-legal environment as an expert. Age dating pathology is also central to creating a prognosis on your patient's recovery and must be evidence-based in rationale. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 2021

Clinical Grand Rounds in Spinal Biomechanics, 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 2021

Neurosurgical Grand Rounds, A clinical discussion of collaborating with neurosurgeons on spinal cord and spinal nerve root co-morbidities. Triaging cases with herniated, protruded, extruded, fragmented discs and differentially diagnosing tethered cord, syringomyelia, traumatic Schmorl's Nodes, Myelomalacia, spinal cord edema, vacuum disc and other intra, and extra-dural lesions. Academy of Chiropractic Post-Doctoral Division, Cleveland University- Kansas City, Long Island, NY 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, Cleveland University – Kansas City, Long Island, NY, 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, Cleveland University – Kansas City, Long Island, NY, 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, Cleveland University – Kansas City, Long Island, NY, 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, Cleveland University – Kansas City, Long Island, NY, 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, Cleveland University – Kansas City, Long Island, NY, 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.* Academy of Chiropractic Post-Doctoral Division, Cleveland University – Kansas City, Long Island, NY, 2021

Diagnosing and Case Management, *The requirements for diagnosing based upon an initial evaluation and management encounter ranging from a 99202-99205 that includes comorbidities, non-musculoskeletal, and sequalae to injury diagnosis.* Academy of CHIROPRACTIC Post-Doctoral Division, Long Island, NY, 2020

Diagnosing and Case Management, *The requirements for diagnosing imaging inclusive of static x-rays, biomechanical x-rays, and MRI. Documenting the clinical findings of disc bulge, herniation, protrusion, extrusion and fragmentation. Coding, diagnosing, and documenting individual treatment encounters in the clinical setting.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2020

Documentation, MRI Necessity and Trends in Spinal Treatment Protocols, Correlating history and a thorough clinical evaluation in determining the necessity for x-ray and MRI evaluations in the trauma and non-trauma patient. Considering whole spine patho-biomechanics in formulating treatment plans and long-term supportive care. Documentation requirements in transitioning from telemedicine to in-office supportive care. Academy of Chiropractic Post-Doctoral Division, PACE Approved for the Federation of Chiropractic Licensing boards, Cleveland University, Kansas City, Long Island, NY, 2020

Trends in Spinal Treatment, Migration of spinal care for mechanical spine issues from hospitals and medical specialists to trauma qualified chiropractors based upon published outcomes. Utilizing imaging studies in spinal biomechanics, pain models and clinical outcomes to determine a conclusive diagnosis, prognosis and treatment plan for triaging in a collaborative environment. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Neurology of Spinal Biomechanics, Understanding the normal of spinal biomechanics and the neurotransmitters required for homeostasis. The interconnected role of Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioceptors and Mechanoreceptors in maintaining

sagittal and axial alignment in the presence of mechanical pathology. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

MRI Age-Dating of Herniated Discs, The literature, academic and clinical standards to age-date herniated discs. The clinical correlation the pain patters with advanced imaging finings of bone edema, spurs based upon the Piezoelectric effect of remodeling, high signal on T2 weighted images, Vacuum Discs and disc heights in determining the time frames of the etiology of the spinal disc pathology. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Creating Ethical Collaborative and Medical-Legal Relationships, Understanding the timely triage necessities based upon clinical and imaging outcomes and the documentation required for collaborative physicians to continue care. Ensuring that the documentation is complete, reflective of services rendered and clear for third party consideration in an admissible format to considered in a medical-legal environment. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Central Innervation of Spinal Biomecinacal Engineering, Understanding the lateral and ventral horn's innovations of Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioceptors and Mechanoreceptors and the pathways through the spinal thalamic tracts through the periaqueductal region, the Thalamus into the Occipital, pre-frontal, sensory and motor cortexes and the efferently back through the Thalamus to disparate regions in creating spinal homeostasis, Pacinian Corpuscles, Ruffini Corpuscles, Golgi Organ Receptors, Nociceptors, Proprioceptors and Mechanoreceptors. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Identifying Spinal Pathology of MRI, Utilizing T1, T2, STIR and Gradient studies in determining myelomalacia, intra and extra-dural tumors and systemic disease patterns
affecting the spinal cord. When to use contrast post-operatively in identifying discal structures vs. adhesions on postoperative advanced imaging. MRI Interpretation of herniated, circumferential bulges, focal bulges, protruded, extruded, comminuted, sequestered and fragmented discs. When to consider a neurosurgical consultation based upon the correlation of imaging and clinical findings. Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2019

Primary Spine Care 6 Live Seminar
Connective Tissue Pathology, Spinal Biomechanics as Sequella to Trauma, MRI Spine Interpretation, Ordering Protocols & Triaging the Injured, *The latest research on the 6 ways to age-date disc herniations and bulges from trauma inclusive of disc pathology nomenclature. MRI ordering protocols, inclusive of Dixon format and fat-suppressed images. The neurology and pathway of connective tissue and the sequella of trauma at the biomechanical level leading to bio-neuro-mechanical failure. Contemporary evidenced-based building blocks for triaging in a collaborative environment.* Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2018

Spinal Biomechanical Engineering Digitizing, *integrating automated mensuration into creating treatment plans and determining maximum medical improvement.* *A literature-based study of normal vs. abnormal motor unit function. Determining ligamentous laxity, alteration of motion segment integrity and pathological stress units and whole person impairment based upon the literature*

and academic standards, Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2018

Science of the Chiropractic Spinal Adjustment and Vertebral Subluxation, *The literature-based definitions of both the mechanisms of the chiropractic adjustment and how it affects the central nervous system in pain pathways and systemic issues that are the arbiters for normal vs. abnormal function. The physiological mechanisms of how the chiropractic spinal adjustment affects the peripheral and central nervous systems. Subluxation degeneration, Wolff's Law will be detailed from a literature perspective combined with the mechanism of subluxation (bio-neuro-mechanical lesion). A literature perspective why long-term chiropractic care is clinically indicated as usual and customary to effectuate demonstrable biomechanical changes in the spine. An evidenced-based perspective of why physical therapy is a poor choice for spine as a 1st referral option for any provider inclusive of the literature.* Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2018

Documentation, Collaboration, and Primary Spine Care, *An academic basis for documentation that is usual and customary across professions in collaborative care. Maintaining ethical medical-legal relationships based upon Voir Dire and Daubert standards while ensuring an inclusive report. Ensuring Primary Care Status based upon academic standards.* Cleveland University Kansas City, Chiropractic and Health Sciences, Academy of Chiropractic Post-Doctoral Division, Long Island, NY 2018

An Integrative Approach to Chronic Low Back Pain, A didactic discussion on non- allopathic low back pain therapies, their acceptance and success in the literature. How to integrate Chiropractic, Massage and Acupuncture in the care and management of chronic low back pain. Accreditation Council on Continuing Medical Education (ACCME) in cooperation with Medscape, 2017

MRI Spine Interpretation and Spinal Biomechanics, *Bulging, herniated, protruded and extruded disc contemporary nomenclature, analysis and differential diagnosis. Connective tissue physiology and pathology with aberrant biomechanical permanent sequalae,* Texas Chiropractic College, Academy of Chiropractic, Melville NY, 2017

Contemporary Literature in Spinal Biomechanics, *Normal vs. pathological biomechanical spinal motion both in a single motor unit and coupling actions. Interdisciplinary approach to mechanical spine issues and evidenced based care paths*, Texas Chiropractic College, Academy of Chiropractic, Melville NY, 2017

Documentation of Spinal Trauma, *Interdisciplinary approaches in documentation of spinal related injuries inclusive of connective tissue disorders and biomechanical failure. Clinically correlating history, imaging, advanced imaging and clinical findings to conclude an accurate diagnosis, prognosis and treatment plan,* Texas Chiropractic College, Academy of Chiropractic, Melville NY, 2017

Contemporary Literature of the Chiropractic Spinal Adjustment, *The bio-neuro-mechanical scientific foundation of spinal lesion and the neurological pathways, both in the lower and upper motor neuron pathways. The autonomic sequella of the vertebral subluxation and the effects of the correction and maintenance of those lesions,* Texas Chiropractic College, Academy of Chiropractic, Melville NY, 2017

Orthopedic Testing: Principles, Clinical Application and Triage, *Integration of orthopedic testing in the clinical setting to develop a differential diagnosis. Utilizing radiographic and advanced imaging*

inclusive of MRI and CAT scan findings to verify tissue pathology suspected by orthopedic testing conclusions and developing a treatment plan as sequelae. Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Impairment Rating, *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.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Stroke Anatomy and Physiology Part 1

Stroke Anatomy and Physiology: Brain Vascular Anatomy, *The anatomy and physiology of the brain and how blood perfusion effects brain function. A detailed analysis of the blood supply to the brain and the physiology of ischemia.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Module 1 Objective: To understand the anatomy and physiology of brain hemodynamics and stroke types

Stroke Anatomy and Physiology Part 2

Stroke Anatomy and Physiology: Stroke Types and Blood Flow, *Various types of strokes identifying ischemia, hypoperfusion, infarct and penumbra zones and emboli. Cardiac etiologies and clinical features as precursor to stroke with associated paradoxical emboli and thrombotic etiologies. Historical and co-morbidities that have etiology instroke inclusive of diabetes, coagulopathy, acquired and hereditary deficiencies.* Texas Chiropractic College,
ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Module 2 Objective: To understand stroke types and etiologies both historical and historical risk factors

Stroke Principles of Treatment an Overview for the Primary Care Provider Chiropractors

Stroke Principles of Treatment an Overview for the Primary Care Provider, *Stroke type and treatments performed by vascular specialists. The goals of treatment with the physiology of the infarct and penumbra zones and the role of immediate triage in the primary care setting. Detailing the complications of stroke and future care in the chiropractic, primary care or manual medicine clinical setting.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017

Module 3 Objective: To understand stroke treatment and the role of the primary care provider in early detection and triage

Clinical Evaluation & Protocols for Identifying Stroke Risk

Clinical Evaluation and Protocols for Identifying Stroke Risk, The neurological history and examination for identifying stroke risks with a focus on supra and infratentorial regions, upper and

lower motor lesions, cranial nerve signs, spinal cord pathology, motor and sensory pathology and gait abnormalities. Examining genetic and family histories along with dissection risk factors. Stroke orthopedic testing and clinical guidelines pertaining to triage for the primary care provider. Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo Jacobs School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2017
Module 4 Objective: To understand stroke/neurological evaluation and triage clinical guidelines

Hip Surgery Delays and Mortality: Decreasing the Risk – Unites States, 2018
Medscape Education Clinical Briefs, Accreditation Council on Continuing Medical Education (ACCME), Accreditation Council for Pharmacy Education (ACPE) and American Nurses Credentialing Center (ANCC) in cooperation with Medscape, completed October 16, 2018

CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016 *Medscape Education Clinical Briefs,* Accreditation Council on Continuing Medical Education (ACCME), Accreditation Council for Pharmacy Education (ACPE) and American Nurses Credentialing Center (ANCC) in cooperation with Medscape, completed July 18, 2017

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.* Texas Chiropractic College, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

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.* Texas Chiropractic College, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

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.* Texas Chiropractic College, Academy of Chiropractic Post Doctoral Division, Long Island, NY, 2017

Primary Spine Care Symposium 3 – Interprofessional Spine Care, Clinical analysis of anatomic versus biomechanical spine pain and clinical triage protocols. Relating current research trends in the Whole Spine Model of patient including normal versus abnormal sagittal curvature in the adolescent and adult spine, pelvic incidence as a parameter for sagittal balance in the human spine and current methods of assessment.
Patient centered approach to Evidenced Based Spine care with a focus on diagnosis, prognosis and triage of the spine pain patient, Texas Chiropractic College Post-Doctoral Division, Academy of Chiropractic Post-Doctoral Division, Melville NY 2017

Primary Spine Care Symposium 3 – Epidemiology of Spine Pain, Review of the current Centers for Disease Control [CDC} data on the frequency of musculoskeletal pain in the United States population with emphasis on pain of spinal origin. CDC guidelines on opioid medication were discussed and correlated to persistent pain syndromes. Research was reviewed showing the

importance of managing the spine pain patient properly from the entry point of care with a concentration on maintenance of spinal biomechanics, Texas Chiropractic College Post-Doctoral Division, Academy of Chiropractic Post-Doctoral Division, Melville NY 2017

Primary Spine Care Symposium 3 - Connective Tissue and Spinal Disc Pathology, The morphology and pathology of connective tissue, inclusive of spinal disc disorders and prognosticating wound repair with permanency implications. Disc bulge, herniation, protrusion and extrusion classifications based upon contemporary literature and how to age-date disc pathology, Texas Chiropractic College Post-Doctoral Division, Academy of Chiropractic Post-Doctoral Division, Melville NY 2017

Primary Spine Care Symposium 3 – Physiology and Anatomy of Spinal Manual Adjusting, Understanding the role of mechanoreceptors, proprioceptors and nociceptors with facets, ligaments, tendons and muscles in aberrant spinal biomechanics. MRI and imaging studies of decompressing via a chiropractic spinal adjustment of the bio-neuro-mechanical lesion and its effects on the central nervous system both reflexively and supratentorally, Texas Chiropractic College Post-Doctoral Division, Academy of Chiropractic Post-Doctoral Division, Melville NY 2017

Primary Spine Care Symposium 3 – Medical-Legal Documentation, The contemporary documentation required in a medical-legal environment that is evidenced based and meets the standards of the courts and academia. Utilizing the scientific data to support a diagnosis, prognosis and treatment plan while meeting the admissibility standards based upon a professional's credentials. Texas Chiropractic College Post-Doctoral Division, Academy of Chiropractic Post-Doctoral Division, Melville NY 2017

Understanding the Values and Ethics of Interprofessional Collaboration; *Developing ethical Interprofessional relationships in a patient centered paradigm to ensure better outcomes while considering cultural and personal diversity needs of patients,* Accreditation Council on Continuing Medical Education (ACCME) in cooperation with Medscape, 2016

Lower Back Pain: Study Finds 9 Modifiable Triggers: *Medscape Education Clinical Briefs, July 2, 2015* Accreditation Council on Continuing Medical Education (ACCME) in cooperation with Medscape, 2016

Interprofessional Communication: How Can it Improve Healthcare? *The best practices in Interprofessional communication and optimizing the tools in clinical practice to benefit patient outcomes,* Accreditation Council on Continuing Medical Education (ACCME) in cooperation with Medscape, 2016

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*. Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2013

Interprofessional Hospital Based Spine Care, *Trends in hospital and emergent care in the healthcare delivery system inclusive of policies, hospital staffing and current care paths for mechanical spine issues.* Texas Chiropractic College, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2016

Hospital Based Spine Care; Qualified, Credentialed in hospital protocols, emergency room protocols, acute and chronic patient triage inclusive of MRI spine interpretation, spinal biomechanical engineering, head trauma, concussion, mild traumatic and traumatic brain injuries, co-credentialed through the ACCME (Accreditation Council for Continuing Medical Education) Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Texas Chiropractic College and PACE approved by the Federation of Chiropractic Licensure Boards and the Academy of Chiropractic, Long Island, New York 2016

New Blood Biomarkers Useful for Concussion Diagnosis; glial fibrillary acidic protein (GFAP) and ubiquitin C-terminal hydrolase L1 (UCH-L1). GFAP is an astroglial protein found in both white and gray matter, and UCH-L1 is found abundantly in neurons. Both GFAP and UCH-L1 have been demonstrated to accurately differentiate trauma patients with TBI from those without TBI. Both biomarkers have a sensitivity of 94% to 100% in identifying intracranial lesions on computed tomography (CT) scan among adults and children. Medscape, LLC designates this enduring material for a maximum of **0.25** *AMA PRA Category 1 Credit(s)* ™. Medscape, LLC is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. June 15, 2016

Spinal Trauma Pathology, Triage and Connective Tissue Injuries and Wound Repair, *Triaging the injured and differentially diagnosing both the primary and secondary complaints. Connective tissue injuries and wound repair morphology focusing on the aberrant tissue replacement and permanency prognosis potential.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Spinal Trauma Pathology, Ligament Anatomy and Injury Research and Spinal Kinematics, *Spinal ligamentous anatomy and research focusing on wound repair, future negative sequelae of abnormal tissue replacement and the resultant aberrant kinematics and spinal biomechanics of the spine.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Spinal Trauma Pathology, Spinal Biomechanics, Central Nervous System and Spinal Disc Nomenclature, *The application of spinal biomechanical engineering models in trauma and the negative sequelae it has on the central nervous system inclusive of the lateral horn, periaqueductal grey matter, thalamus and cortices involvement.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Spinal Trauma Pathology, Biomechanics of Traumatic Disc Bulge and Age Dating Herniated Disc Pathology, *The biomechanics of traumatic disc bulges as sequelae from trauma and the comorbidity of ligamentous pathology. Age-dating spinal disc pathology in accordance with Wolff's Law.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Spinal Trauma Pathology, Clinical Grand Rounds, *The review of case histories of mechanical spine pathology and biomechanical failures inclusive of case histories, clinical findings and x-ray and advanced imaging studies. Assessing comorbidities in the triage and prognosis of the injured.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Spinal Trauma Pathology, Research Perspectives, *The review of current literature standards in spinal trauma pathology and documentation review of biomechanical failure, ligamentous failure and age-dating disc pathology.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, New York, 2016

Primary Spine Care – Central Nervous System Processing of Pain and Physiology, *Central neural pathways of pain and higher cortical responses to pain and the effect of high amplitude-low velocity forces on mechanoreceptors and proprioceptors. The effects of neuropeptides on the hypothalamus, pituitary and adrenal axis when treating patients.* Texas Chiropractic College, Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Melville NY, 2016

Primary Spine Care – MRI, Bone Edema and Degeneration, *The effects of trauma on spinal vertebral segments and the short and long term sequella to morphology. Identifying and diagnosing bone edema, spurring, types of degeneration in assessing biomechanical stability in conjunction with Modic and Pfeiffer changes* Texas Chiropractic College, Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Melville NY, 2016

Primary Spine Care – Hospital and Emergency Room Care, *Identifying spinal lesions inclusive of cord and root lesion through examination and advanced imaging in creating an accurate diagnosis, prognosis and treatment plan to effectively triage in collaboration and coordination with medical specialists and emergency department physicians. Differentially diagnosing and triaging disc degenerative bulges, traumatic disc bulges, protrusion herniations, extrusion herniations and fragmented herniations along with managing traumatically induced pain as sequella to degenerative disc trauma,* Texas Chiropractic College, Academy of Chiropractic, Academy of Chiropractic, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Melville NY, 2016

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.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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.* Texas Chiropractic College, ACCME
Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

Spinal Biomechanics in Trauma, *How to analyze 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 diagnosing normal versus abnormal facet motion along with case studies to understand the clinical application.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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 analyse pathobiomechanics using a computerized/numerical algorithm.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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 rotational 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.* Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016

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 rotational 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. Texas Chiropractic College, ACCME Joint Providership with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2016
Primary Spine Care, *Neurophysiological central and peripheral nervous systems mechanisms of pain with integrated higher cortical functions of the thalamus, cingulate, amygdala, pre-frontal, motor and sensory cortexes. Trauma and chronic pain care effecting mechanoreceptors, nociceptors and proprioceptors through adjustive therapy based upon evidenced based care and current literature verification,* Texas Chiropractic College, Federation of Chiropractic Licensing Boards, New York State Department of Education Board for Chiropractic, Academy of Chiropractic, Islandia NY June, 2015

Primary Spine Care with Interdisciplinary Collaborative Care, *Triage of patients based upon MRI findings of disc herniation, disc bulge, protrusion, extrusion or sequestrations and spinal cord or nerve root negative sequella, clinical findings of neuro-compressive pathologies and neurodiagnostic findings of EMG-NCV, SSEP, VEP, BAER, VEP and V-ENG findings.* Texas Chiropractic College, Federation of Chiropractic Licensing Boards, New York State Department of Education Board for Chiropractic, Academy of Chiropractic, Islandia NY June, 2015

Evidence Based Practice, Triage and Documentation, New York State Department of Education Board for Chiropractic, Academy of Chiropractic, Elmhurst, NY March 2014

MRI Interpretation, Triage and Documentation, New York State Department of Education Board for Chiropractic, Academy of Chiropractic, Elmhurst, NY March 2014

Spinal Biomechanical Engineering Triage and Documentation, New York State Department of Education Board for Chiropractic, Academy of Chiropractic, Elmhurst, NY March 2014

Foundations of Evidence Informed Practice, Northwestern Health Sciences University. June 25, 2013

Overview of Evidence Informed Practice (EIP). Northwestern Health Sciences University. June 17, 2013

MRI History and Physics, *Magnetic fields, T1 and T2 relaxations, nuclear spins, phase encoding, spin echo, T1 and T2 contrast, magnetic properties of metal and the historical perspective of the creation of NMR and MRI.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, CME and CCE credits

MRI Spinal Anatomy and Protocols, *Normal anatomy of axial and sagittal views utilizing T1, T2, 3D gradient and STIR sequences of imaging, Standardizing and desired protocols in views and sequencing of MRI examination to create and accurate diagnosis in MRI***.** ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015 CME and CCE credits

MRI Spinal Pathology, *MRI interpretation of bone, intradural, extradural, cord and neuronal sleeve lesion, Tuberculosis, drop lesions, metastasis, ependymoma, schwannoma and numerous other spinal related tumors and lesions.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

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, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015 CME and CCE credits

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*. ACCME Joint Sponsorship with the Statue University of New York at Buffalo, School of Medicine and Biomedical Sciences, ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

MRI Protocols Clinical Necessity, *MRI slices, views, T1, T2, STIR axial, stacking FEE, 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.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

MRI Interpretation of Lumbar Degeneration/Bulges, *MRI slices, views, T1, T2, Stir axial, stacking, FFE, FSE, sagittal images in the interpretation of lumbar degeneration. With the co-morbidities, complications of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorl's node and herniations. Central canal cauda equine compromise interpretation with management*. ACCME Joint Sponsorship with State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

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-morbidities and complication of stenosis, pseudo-protrusions, cantilevered vertebrae, 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 equine compromise interpretation with management.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards. Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

MRI Interpretation of Cervical Degeneration/Bulges, *MRI slices, views, T1, T2, STIR axial, stacking, FFE, FSE and sagittal images in the interpretation of cervical degeneration. With the co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorl's nodes and herniations. Spinal cord and canal compromise interpretation with management*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

MRI Interpretation of Cervical Herniations, *MRI slices, views T1, T2, STIR Axial, FFE, FSE and sagittal images in the interpretation of cervical herniations, with co-morbidities and complications of stenosis, pseudo-protrusions, cantilevered vertebrae, Schmorl's notes and herniations. Morphology of cervical 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*. ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards., Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

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 spondylolisthesis, spinal canal stenosis, Modic type 3 changes, central herniations, extrusions, compressions, nerve root compression, advanced spurring and thecal sac involvement from an orthopedic, emergency room, chiropractic, neurological, neurosurgical, physical medicine perspective.* ACCME Joint Sponsorship with the State University of New York at Buffalo, School of Medicine and Biomedical Sciences, Academy of Chiropractic Post Doctoral Division, Recognized by the PACE Program of the Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY 2015, CME and CCE credits

Dynamic Movement Workshop; *A lecture and practical workshop discussing, learning and evaluating normal and abnormal spinal movement patterns. Hands on practical testing, reporting and corrective therapies were also discussed, demonstrated and performed.* Northwestern Health Sciences University, Department of Continuing Education, 2501 W 84th St, Bloomington, MN 55431, November 10, 2011

Personal Injury Workshop; *A didactic discussion of soft tissue injury evaluation, diagnostic testing and treatment.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Brentwood NY, October 2010

MRI Normal Anatomy & Protocols, *Spinal anatomy of all MRI views utilizing T1, T2, 3D Gradient, stacking and STIR sequences of imaging. Advanced protocols of MRI examination with multiple sequences to create concurrent diagnostic findings.* CMCS Post Doctoral Division, New York Chiropractic Council, New York State Department of Education, Board for Chiropractic, Melville NY, 2009

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 relations with the medical-legal community*. Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

Neurodiagnostics, *Risk Factors, Clinical Presentation and Triaging the Trauma Patient, An extensive understanding of the injures with clinically coordinating the history, physical findings and when to integrate neurodiagnostics. An understanding of how to utilize emergency room records in creating an accurate diagnosis and the significance of "risk factors" in spinal injury*. Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

Crash Dynamics and It's 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.* Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

MRI, Bone Scan and X-Ray Protocols, *Physiology and Indication for the Trauma Patient, MRI interpretation, physiology, history and clinical indications, bone scan interpretation, physiology, history and clinical indications, x-ray interpretation, physiology, history and clinical indications for the trauma patient.* Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

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 Electronystagmography (V-ENG) interpretation, protocols and clinical indication for the trauma patient*. Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

Documentation and Reporting for the Trauma Victim, *Understanding the necessity for accurate documentation and diagnosis utilizing the ICD-9 and CPT to accurately describe the injury through diagnosis. Understanding and utilizing state regulations on reimbursement issues pertaining to healthcare.* Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 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. Pace approved for Federation of Chiropractic Licensing Boards, Academy of Chiropractic Post Doctoral Division, Long Island, NY 2012

Cervical Spine Injuries & Rehabilitation in the Athlete, *A review of the current literature and findings on cervical spine Injuries, structural mechanics that effect severity of injuries and chiropractic and therapeutic procedures to prevent or reduce incidence of injuries.* New York Chiropractic Council, Westbury, NY, September, 2009

Patient Evaluation & Management, Chiropractic & Physical Medicine Coding, *How to properly diagnose, treat and code a therapeutic plan while identifying all aspects of a patient's presentation for the care plan.* New York Chiropractic Council, Tarrytown, NY, October, 2008

Documentation of Medical Necessity & Compliant SOAP Note-Taking, Preventing Audits & Medicare, Chiropractic & Physical Medicine Coding, *Coding to identify the nature of a complaint and/or injury to document necessity of the proposed care plan.* New York Chiropractic Council, Tarrytown, NY, October, 2008

Connections of Health, Chiropractic & Physical Medicine Coding, *How to connect complaints, injuries, a care plan and specific therapies to the appropriate diagnostic entity presented.* New York Chiropractic Council, Tarrytown, NY, October, 2008

Pediatric Neurology, *A research based approach to understanding the neurological basis for symptoms, care protocols and prognosis in the pediatric patient.* New York Chiropractic Council, Tarrytown, NY, October, 2008

Sacro Occipital Technique, Part I, Chiropractic & Physical Medicine Coding, *Introduction to the basis of SOT, discussing basic therapeutic protocols for Category I and II presentations.* New York Chiropractic Council, Tarrytown, NY, October, 2007

Sacro Occipital Technique, Part II, Chiropractic & Physical Medicine Coding, *Acute and more challenging patient presentations and SOT treatment protocols for short and long term care plans.* New York Chiropractic Council, Tarrytown, NY, October, 2007

Chiropractic & Physical Medicine Coding, *A review of care plan coding with focus on documenting the nature and extent of a condition or injury and relate specific therapies to specific diagnostic entities.* New York Chiropractic Council, Tarrytown, NY, October, 2007

The Scientific Validation of Chiropractors as Wellness Providers, *How chiropractors are uniquely positioned to provide wellness care as well as act as point of care providers identifying when and where to direct referrals when appropriate.* New York Chiropractic Council, Tarrytown, NY, October, 2007

Understanding the Stark II Laws and the Art of Writing a Diagnosis, *A detailed discussion on business plans, referrals, professional relationships and how to effectively write a complete and descriptive diagnosis.* New York Chiropractic Council, Tarrytown, NY, October, 2007

How to Identify Subluxation Under Medicare & Bulletproof Your Documentation, *A detailed discussion on the PART plan and how to document subluxation and a proper care plan within the Medicare rules.* New York Chiropractic Council, Tarrytown, NY, October, 2007

Orthopedics 101, *Discusses effects of manual therapy in whiplash, the construction of the orientation of the cervical facet joints, the effects of knee proprioception after ACL reconstruction, and identifies aspects of the lateral collateral ligament of the knees.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2006

Orthopedics103, *Discusses effects of manipulation on EMG/ROM, how to recognize lumbar movements during mobilization, and how whiplash invisibility is not evidence of absence of injury. Helps develop an understanding of muscle adaptation through stretching.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2006

Orthopedics105, *An introduction to the clinical biomechanics of stability. Identifies causes of select musculoskeletal injuries. Describes how LBP in golfers alters motor control and spinal stability changes with posture. Distinguishes how stability improves with resistance training.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2006

Orthopedics 107, *Instruction on the associations between musculoskeletal symptoms and headaches. Describes tension-type and cervicogenic headaches and provides information on their epidemiology and mechanisms. Topics also include effects of manual care on neck pain and the relation of the nuchal ligament (ligamentum nuchae) and the spinal dura mater in the craniocervical region.* University of Bridgeport College of Chiropractic, Woodbury, NY, September 2006

Vertebral Artery Issues Update, *A clinical update on findings, issues and procedures related to the vertebral artery and the practice of chiropractic.* New York Chiropractic Council and Life Chiropractic College West, Queens, NY, December 2004

Course Work or Training in Infection Control, *A review of all appropriate applications of infection control and barrier precautions, as mandated by Chapter 786 of the Laws of 1992.* North Shore – LIJ Health System, approved by the New York State Department of Health & and State Education Department, Woodbury, NY, February 2004

Neurology 101, *Discussion of the neurological aspects of manipulation. Reviews the basics of cellular physiology as it relates to manipulation. Describes nociception and effects of manipulation.* University of Bridgeport College of Chiropractic, Woodbury, NY, December 2003

Neurology 102, *Discusses nociceptive input to the spinal cord. Reviews mechanoreceptors and their fibers. Identifies the relationship of mechanoreceptors with endorphin/enkephalin. Analyzes the history of referred pain patterns.* University of Bridgeport College of Chiropractic, Woodbury, NY, December 2003

Neurology 103, *Describe axonal degeneration in inflammatory neuropathy. Construct criteria for diagnosis of multiple sclerosis. Discuss the use of antioxidant therapy in neurologic disease. Review the sensory innervation of the SI joint. Identify mechanoreceptor control of shoulder musculature.* University of Bridgeport College of Chiropractic, Woodbury, NY, December, 2003

Neurology 104, *Evaluate the basics of nerve conduction. Comment on recording action potentials. Review NCV/EMG recording issues. Identify the diagnostic usefulness of H-reflex and F-response. Construct differential diagnosis with nerve conduction.* University of

Bridgeport College of Chiropractic, Woodbury, NY, December, 2003

Neurology 105*, Describes the application of the multifidi muscle to chiropractic. Discusses proprioception in individuals with and without back pain. Identifies the pathophysiological mechanisms underlying muscular tension and pain.* University of Bridgeport College of Chiropractic, Woodbury, NY, December, 2003

Neurology 106*, Defines the use of Co-Enzyme Q as preventive treatment for migraines. Discusses the modular headache theory, the neurovascular aspects of cluster headaches, and the nutritional etiology of headache and ataxia. Reviews the relationship of migraines and menstruation.* University of Bridgeport College of Chiropractic, Woodbury, NY, December, 2003

KinesioTaping 101, *Participants are taught how to apply KinesioTape to support muscles, ligaments, and increase sub-dermal vascularization.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2003

Rehabilitation 101*, Reviews sensory-motor control and rehabilitation. Discusses aerobic exercise for LBP patients, muscle training of the hip, abdominal and paraspinal muscles, how aerobic exercise improves motor performance in the elderly and distinguishing the effects of different training styles on the cross-sectional area of paraspinal muscles.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2003

Rehabilitation 102*, Describes the contribution of hip vs. spinal motion. Distinguishes poor motor patterns of hip and low back movements and what to do about it, the neural adaptations to exercise and application towards rehabilitation. Describes current issues in low back rehabilitation, such as whether low back tissues heal within a few weeks.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2003

Rehabilitation 103*, Describes the long-term course of LBP, neuromuscular impairments following LBP, the effects of pain on the neuromuscular system, the models that explain the nature of motor problems with pain, and the potential sources of LBP.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2003

Rehabilitation 104*, Identifies and describes the major factors influencing muscular strength, the chiropractic influences on this strength, strength training principles, and components of a training session. Applies training principles into a practical strength program.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2003

Electrodiagnosis 101*, Instruction on the physiologic principles involved in nerve depolarization and the propagation of action potentials as they relate to motor and sensory nerve conduction studies. Identifies the physiology and nerve pathology in clinical conditions presenting in chiropractic practice and how they present on electrodiagnostic examination. Classifies the utilization of electrodiagnostic testing in the process of differential diagnosis to assist participants in building a working clinical knowledge of the setup and recording of compound muscle action potentials, sensory nerve action potentials, F-responses in all major peripheral nerves, as well as H-reflex testing.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2002

Physical Therapy 101, *Explains the key to increased utilization of ultrasound lies in chiropractic providers' knowledge and training. Recognizes the ultrasound procedure, its benefits, effects, proper application, and potential outcomes, as well as precautions and contraindications of its use.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2002

Physical Therapy 102, *Describes ideal pad placement for interferential therapy. Discusses increasing muscle strength in the elderly. Relates the evaluation and treatment of whiplash.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2002

Chiropractic Physical Therapy, *A discussion of hands on neuromuscular therapeutic models to address the cervical, thoracic and lumbar spine to create full mobility through a full range of motion with strength and stability.* University of Bridgeport College of Chiropractic, Woodbury, NY, September, 2002

Electrodiagnostic Certificate Course/Clinical Workshop, *A 16 hour live clinical laboratory teaching the administration, performance and interpretation of Needle EMG/NCV. Participants are taught and supervised in the actual delivery of this diagnostic test, test evaluation and interpretation.* University of Bridgeport College of Chiropractic, Queens, NY, September, 2002

New Era in Whiplash & Spinal Trauma, Part I, *A review of the current literature regarding the mechanics and forces of whiplash, as well as current treatment and nutritional protocols, including understanding soft and hard tissue injuries incurred. Victim stature and gender predispositions to specific injury patterns.* Life Chiropractic College West, Queens, NY, February, 2000

Whiplash 1998, *A review of the current literature discussing different ramifications of rear-end, front-end and side whiplash accidents.* Los Angeles College of Chiropractic, Queens, NY, March, 1998

Validating Chiropractic, *A review of the current literature discussing the neurological foundation and effect of spinal adjustments on mechanical, structural and organic function following spinal adjustment.* Life Chiropractic College West, Queens, NY, November, 1996

Diplomate, American Academy of Applied Spinal Biomechanical Engineering, 1991
Applied Spinal Biomechanical Engineering Research Laboratory, *Instruction in lumbosacral spine and pelvis, quantum reconstructive maneuvers and coefficients of structural instability*
American Academy of Applied Spinal Biomechanical Engineering, Manchester, NH, May, 1990

Applied Spinal Biomechanical Engineering Research Laboratory, *Instruction in lateral cervical spine, regional ASBE, diagnostic and therapeutical quantum engineering maneuvers.*
American Academy of Applied Spinal Biomechanical Engineering, Manchester, NH, January, 1990

Board Certified, Applied Spinal Biomechanical Engineering Research Institute, 1990
Applied Spinal Biomechanical Engineering Research Laboratory, *Instruction in efficient clinical procedures, reducing thoracic biomechanical instability, and distortion coefficients of VSS and VSD.*
American Academy of Applied Spinal Biomechanical Engineering, Manchester, NH, March, 1989

Applied Spinal Biomechanical Engineering Research Laboratory, *Postgraduate studies*

in AP cervical spine, regional differential coefficients of biophysics, and therapeutic and diagnostic quantum mechanics. American Academy of Applied Spinal Biomechanical Engineering, Manchester, NH, March, 1989

HONORS and AWARDS
Clinical Excellence in Chiropractic and Primary Spine Care, Academy of Chiropractic, 2016

Listing, Consumers' Research Council of America, Guide to America's Top Chiropractors, 2009 Edition

Listing, Empire Who's Who in Empowering Executive & Professionals, 2006, 2007

Listing, Who's Who in Executives and Professionals, 2001

Listing, Who's Who in Executive and Businesses, 1999, 2000

Listing, Who's Who in Medicine and Healthcare, 1998, 1999, 2000

SELECTED COMMUNITY SERVICE
North Shore University Hospital at Glen Cove, Department of Orthopedic Surgery, Volunteer Staff Chiropractor, Glen Cove, NY, 2004-present

SELECTED MEMBERSHIPS
New York Chiropractic Council, Member, 1990-present
Academy of Chiropractic October, 2009-present
DC Futures, Chiropractic Management Team, President, 1988-present
International Chiropractors Association, Member, 1984-present