

Andrew Hope DC, CCSP, FPSC, CICE, CIR

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OCCUPATIONAL HISTORY

President/Chiropractor, Hope Health & Wellness Inc., West Palm Beach, Florida, 1987 - Present

PROFESSIONAL SUMMARY

Dr. Andrew Hope, is a Chiropractic Physician licensed in the State of Florida since 1987, specializing in the evaluation, diagnosis, and management of traumatic spine and joint injuries. His clinical and expert work focuses on accident-related musculoskeletal and neurological conditions, including disc pathology, ligamentous injury, spinal biomechanical failure, and traumatic brain injury.

Dr. Hope is Fellowship-trained in Primary Spine Care through the State University of New York at Buffalo Jacobs School of Medicine & Biomedical Sciences and Cleveland University–Kansas City. His postgraduate education includes advanced training in spinal trauma, orthopedics, neurology, traumatic brain injury, spinal biomechanics, accident engineering, and advanced diagnostic imaging. He has completed extensive advanced coursework and mini-fellowships in MRI interpretation, neuroradiology, and musculoskeletal imaging of both the spine and extremities, with emphasis on evidence-based diagnosis and age-dating of pathology.

Dr. Hope is the founder and clinical director of Hope Health & Wellness in 1987. His clinical evaluations routinely incorporate advanced imaging review (MRI, CT, DTI, NeuroQuant, and SWI), neurological testing, and biomechanical analysis to establish accurate diagnoses and guide treatment planning.

In the medical-legal setting, Dr. Hope performs independent medical evaluations and comprehensive medical record reviews and provides expert opinions regarding causation, demonstrable bodily injury, functional impairment, permanency, and future medical necessity. He is certified by the International Academy of Independent Medical Evaluators (IAIME), and The American Board of Independent Medical Examiners (ABIME) in the application of the AMA Guides to the Evaluation of Permanent Impairment, Fifth Edition for the determination of permanent impairment and disability following injury (CIR). His opinions are derived from a systematic and reproducible methodology that includes analysis of the mechanism of injury, patient history, clinical examination findings, diagnostic imaging correlation, and peer-reviewed medical literature. His written reports are prepared in a demonstrative narrative format and are routinely utilized in attorney demand packages, depositions, arbitration, and trial.

Dr. Hope is also actively involved in physician education and mentorship, developing structured postgraduate training programs focused on trauma care, advanced diagnostics, imaging interpretation, and defensible medical-legal documentation. His expert opinions are offered to assist the trier of fact by providing clear, objective, and evidence-based explanations of complex medical issues.

AREAS OF EXPERT OPINION

- Traumatic spine injuries (cervical, thoracic, lumbar)
- Disc pathology: bulge, protrusion, extrusion, sequestration
- Ligamentous injury and spinal instability
- Biomechanics of injury and accident-related causation
- Traumatic brain injury and post-concussive syndromes
- Clinical correlation of MRI, CT, DTI
- Functional impairment, permanency, and future medical care

Dr. Hope's expert opinions are formulated using a systematic methodology that includes review of available medical records, analysis of the reported mechanism of injury, correlation of clinical examination findings with diagnostic imaging, consideration of temporal and biological plausibility, and application of peer-reviewed medical literature and accepted standards of care. Opinions are rendered within a reasonable degree of clinical certainty and are intended to assist the court in understanding the medical issues presented.

Peer-Reviewed Publications

Dr. Hope has contributed to the academic and clinical literature through case-based research focused on complex musculoskeletal and neurological conditions. His submitted works include "*Conservative Management of Ischiofemoral Impingement Syndrome with Secondary Femoral Nerve Irritation*," submitted to **BMJ Case Reports** (2026), which explores non-surgical management strategies for a rare and often underdiagnosed hip pathology.

Additionally, he is the author of "*The Role of Lumbar Magnetic Resonance Imaging in Guiding Management of Multilevel Disc Herniation with Progressive Foot Drop*," also submitted to **BMJ Case Reports** (2026), highlighting the clinical significance of advanced imaging in diagnosing and managing progressive neurological deficits. These works reflect his focus on evidence-based care, diagnostic precision, and integration of imaging findings into clinical decision-making.

EDUCATION AND LICENSURE

Doctor of Chiropractic, Licensed in the State of Florida, License # CH 5577, 1987 – Present

Doctorate of Chiropractic, Life University, Marietta, Georgia, 1986

International Academy of Independent Medical Evaluators (IAIME) - Certified Impairment Rater - 2026

American Board of Independent Medical Examiners (ABIME) - Certified Independent Chiropractic Examiner (CICE) - 2026

American Board of Independent Medical Examiners (ABIME) - Certified Impairment Rater (CIR) - 2026

Fellowship in Primary Spine Care (FPSC), completed through a two-year postgraduate curriculum under the academic oversight of **The State University of New York (SUNY) at Buffalo, Jacobs School of Medicine and Biomedical Sciences**, Office of Continuing Medical Education, and Cleveland University–Kansas City, College of Chiropractic. 2024

Internship, Century Chiropractic, West Palm Beach, Florida, 1986

National Board of Chiropractic Examiners, Physiotherapy, 1986

National Board of Chiropractic Examiners, Part II, 1986

National Board of Chiropractic Examiners, Part I, 1986

Bachelor Degree in Nutrition Sciences, Life University, Marietta, Georgia, 1986

Associate Degree in Biology, Palm Beach Junior College, West Palm Beach, Florida, 1983

CERTIFICATIONS, QUALIFICATIONS AND DIPLOMATES

Certified Impairment Rater (CIR®), AMA Guides to the Evaluation of Permanent Impairment, Fifth Edition

International Academy of Independent Medical Evaluators (IAIME) — March 2026.

Successfully completed the CIR examination demonstrating competency in impairment assessment using the AMA Guides to the Evaluation of Permanent Impairment, Fifth Edition. The CIR credential is issued in collaboration with IAIME.

Certified Independent Chiropractic Examiner (CICE™) - American Board of Independent Medical Examiners (ABIME) — April 2026

Completed the required postgraduate education and successfully passed the ABIME certification examination addressing independent chiropractic examinations, impairment and disability evaluation, medicolegal principles, and application of the AMA Guides to the Evaluation of Permanent Impairment.

Fellow, Primary Spine Care, 2-year program on spinal trauma, spinal management, advanced imaging, electrodiagnostics, accident engineering, spinal biomechanical engineering, triaging the injured, stroke diagnosis, demonstrative documentation, connective tissue pathology, ligament pathology diagnosis and management, and spinal treatment evidence-based outcome studies. The program requires collaboration in advanced imaging for spinal and MSK radiology and being published in case studies. Certified in Joint Providership from the State University of New York at Buffalo, Jacobs School of Medicine, Office of Continuing Medical Education, Cleveland University Kansas City, College of Chiropractic, and the Academy of Chiropractic, Long Island, NY, 2025 - Present

Trauma Qualification - Imaging: *This advanced qualification integrates graduate-level medical and chiropractic education to provide comprehensive expertise in triaging injured patients. Training begins with a strong foundation in patient history-taking, clinical examination, and basic imaging, equipping practitioners with the essential tools to effectively assess and diagnose trauma cases. Advanced imaging modules focus on mastering MRI spine interpretation, enabling practitioners to identify and differentiate conditions such as herniated, bulged, protruded, and extruded discs with precision.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024 - Present

Trauma Qualification - Spinal Biomechanics: *A significant emphasis is placed on spinal biomechanics and the management of non-anatomical pathology, offering an in-depth understanding of complex spinal conditions. This qualification also includes accident engineering principles, which assist in analyzing the mechanisms of injury to improve clinical outcomes. Advanced case management protocols are a central theme, ensuring practitioners can design and implement effective, evidence-based treatment plans.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024 - Present

Trauma Qualification - Comorbidity Triaging: *Specialized topics such as electrodiagnostics, connective tissue pathology, and stroke diagnosis in a primary care setting are covered comprehensively. These advanced diagnostic skills prepare practitioners to manage a wide range of trauma-related conditions. This advanced qualification underscores a detailed understanding of trauma and its complex presentation in clinical practice.* Academy of Chiropractic Post-Doctoral Division, Cleveland University Kansas City, College of Chiropractic, Long Island, NY, 2024 – Present

Pulsed Electromagnetic Field (PEMF) Therapy - Certification, *This program provided me with in-depth knowledge and practical skills in applying Pulsed Electromagnetic Field (PEMF) therapy, a non-invasive treatment that uses electromagnetic fields to promote healing and pain relief. The certification included coursework, hands-on training, and examinations to ensure a*

thorough understanding of PEMF therapy. Through this training, I gained expertise in various PEMF techniques and protocols for treating conditions such as musculoskeletal injuries, chronic pain, and neurological disorders. The program emphasized individualized patient assessments and customized treatment plans. With this certification, I am equipped to integrate PEMF therapy into clinical practice, enhancing patient care with advanced non-invasive treatment options. Certification in PEMF Therapy for the treatment of musculoskeletal conditions, Pulse Certified INC, Pulse Certified, Canterfield, GA, 2024

Whiplash: The Masters Program, 1992-1993 Arthur C. Croft, D.C., DACBO - Intensive post-graduate training course specializing in the field of whiplash and spinal trauma. The course was specific for the biomechanics of a whiplash injury and spinal dysfunction, emphasizing a comprehensive understanding of the forces and mechanisms involved in these injuries. I also developed proficiency in rehabilitation protocols designed explicitly for whiplash patients, ensuring effective recovery and pain management. Additionally, I learned the intricacies of MRI referral protocols to diagnose and assess spinal injuries accurately. Moreover, the course provided valuable insights into the management of whiplash cases from a medical-legal perspective, enabling me to navigate the complex legal aspects of these cases with competence and diligence. Certification in Whiplash and Spinal Biomechanics, The Spine Research Institute of San Diego - Dr Arthur Croft D.C., M.S., D.A., DACBO, The Spine Research Institute of San Diego, Orlando, FL, 1993

Certified Chiropractic Sports Physician, Achieved certification as a Chiropractic Sports Physician, specializing in sports-related injuries and musculoskeletal care for athletes. The CCSP certification involves extensive specialized training in sports chiropractic, encompassing a comprehensive study of sports medicine, including in-depth knowledge of musculoskeletal anatomy, physiology, and biomechanics as they relate to athletic performance and injuries. Emphasis is placed on proficiency in assessing and diagnosing sports-related injuries, with expertise in understanding injury mechanisms and conducting thorough physical examinations. Mastery of a wide range of rehabilitation strategies, including therapeutic exercises, manual therapy, and modalities designed to facilitate the recovery of athletes and enhance their performance. Training in emergency medical procedures and first aid to address potential medical crises during sporting events. Certification in Chiropractic Sports Physician, Logan College of Chiropractic (1992-1993), Logan College of Chiropractic, Florida, 1993

Chiropractic Orthopedics Program, A comprehensive orthopedic program that focuses on advanced diagnostic and treatment techniques for musculoskeletal conditions. This program has provided me with a deep understanding of orthopedic assessments, differential diagnosis, and evidence-based interventions, which are essential in providing the highest quality care to my patients. Certification in Chiropractic Orthopedics, National-Lincoln College, National College, Marietta, GA, 1989

Erhardt Post Graduate X-Ray, Completed an intensive post-graduate education program specializing in X-ray interpretation, diagnosis, and spinal biomechanics. Developed advanced skills and knowledge in radiology, with a particular focus on spinal healthcare. Studied a comprehensive curriculum that included advanced imaging techniques, spinal anatomy,

pathology, radiation safety, and ethical considerations. Certification in X-Ray Interpretation and Biomechanical Analysis, Dr Erhardt D.C. DACBR, Marietta, GA, 1986

Applied Kinesiology, 200 hours of post-graduate education in Applied Kinesiology, An advanced training program in assessing and treating biomechanical dysfunction of musculoskeletal and neuromuscular issues. Applied Kinesiology primarily utilizes manual muscle testing as a diagnostic tool, enabling practitioners to identify imbalances or dysfunctions in the body's musculature. Emphasis is placed on examining posture and alignment to detect structural imbalances that may contribute to pain or discomfort. There is additional emphasis on the evaluation of the nervous system's role in muscle function and overall health, identifying potential neurological issues that may affect a patient's well-being. Certification in Applied Kinesiology, Diplomate, International College of Applied Kinesiology, International College of Applied Kinesiology, International College of Applied Kinesiology, Marietta, GA, 1986

SELECTED POST-GRADUATE EDUCATION

Primary Spine Care 18 - Spinal Biomechanics, Ligamentous Pathology and Treatment Planning. Understanding future trends in chiropractic and clinical record-keeping is essential for maintaining professional excellence and delivering a high-quality patient care. As healthcare evolves with new technologies and reimbursement models, clinical documentation must adapt to remain effective and compliant. This module provides a structured, step-by-step guide to creating accurate clinical notes, covering their purpose, context, key elements, practical tips, and relevant legal considerations. Mastery of these skills supports both regulatory compliance and the highest standards of patient care. 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, 2025

Primary Spine Care 18 - MRI Spine Interpretation, Provided instruction in the interpretation of MRI sequences, including sagittal, axial, T1, T2, STIR, and proton density. Trained students to accurately identify vertebrae, spinal cord, discs, nerve roots, thecal sac, posterior longitudinal ligament, epidural veins, and fat saturation pulses. Emphasized recognition of common pathologies such as bulges, herniations, protrusions, extrusions, myelomalacia, cord edema, and Schmorl's nodes. Developed students' practical skills in applying MRI findings to clinical decision-making. 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, 2025

Primary Spine Care 18 - Connective Tissue and Biomechanical Pathology; Part 1, This module covers the foundational principles of biomechanical lesions, starting with ligamentous pathology and extending to overall biomechanical dysfunction. Students will learn how ligament damage impacts spinal stability and joint function. The course explores the compensatory changes that develop into chronic biomechanical pathology. Emphasis is placed on the clinical relevance of these lesions for accurate diagnosis, effective treatment, and thorough documentation. 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, 2025

Primary Spine Care 18 - Connective Tissue and Biomechanical Pathology; Part 2, *This module examines the neurological impact of connective tissue injuries and biomechanical pathology. It highlights how structural damage can create effector organ dysfunction, leading to abnormal neurological signaling. The course traces the progression from localized tissue pathology to widespread central sensitization. Focus is placed on understanding the mechanisms that connect tissue injury to long-term neurological consequences.* 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, 2025

Primary Spine Care 18 – Evidence-Based Age-Dating Herniated Discs, *This module develops the essential skill of “Evidence-Based” age-dating for herniated discs and spinal trauma. Students will learn to combine imaging interpretation from X-ray, MRI, and other modalities with clinical insights into joint pathology. Emphasis is placed on applying this expertise in collaborative medical and medical-legal contexts. The course also underscores the importance of evidence-based reasoning in establishing accurate patient prognoses.* 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, 2025

Primary Spine Care 18 - Spinal Biomechanics, Ligamentous Pathology and Treatment Planning, *This module covers the diagnosis and management of ligament pathology in acute and chronic patients. It reviews the evidence-based physiology of ligament morphology, trauma mechanisms, and resulting compensatory spinal changes. A master-level analysis addresses ligament anatomy, vascularization, neurological innervation, and tissue repair, emphasizing clinical relevance. The course also explores how ligament pathology drives patho-neuro-biomechanical lesions and informs the mechanisms of chiropractic spinal adjustments.* 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, 2025

Primary Spine Care 18 – Concussion mTBI-TBI and Stroke Triage, *This module focuses on the screening and diagnosis of brain injuries, from concussion and mild traumatic brain injury (mTBI) to severe TBI and stroke. It emphasizes recognizing key clinical signs to support timely and accurate assessment. Participants learn essential triage protocols to ensure patients receive appropriate care. The course also introduces evidence-based strategies for distinguishing between conditions and minimizing the risk of delayed or missed diagnoses.* 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, 2025

Primary Spine Care 18 – Evidence on Making Non-Specific Back Pain Specific, *This course module provides an evidence-based framework for spinal diagnosis, focusing on accurate identification of specific pathologies rather than generalized labels like “non-specific back pain.” Clinicians are trained to integrate clinical assessment and imaging findings to establish definitive diagnoses. The module emphasizes collaborative management with medical specialists to improve patient outcomes. Participants learn to apply evidence-based reasoning to guide treatment decisions and strengthen interdisciplinary care.* 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, 2025

Primary Spine Care 18 – Documentation Requirements that Support Necessary Long-Term Chiropractic Care and Foster Collaborative Relationships, This course module outlines the documentation requirements essential for supporting long-term chiropractic care and fostering collaborative relationships. It provides an evidence-based framework for spinal diagnosis, emphasizing precise identification of specific pathologies over broad labels such as “non-specific back pain.” Clinicians are trained to synthesize clinical assessments with imaging findings to establish accurate and definitive diagnoses. The module highlights strategies for collaborative management with medical specialists to optimize patient outcomes. Participants learn to apply evidence-based reasoning to guide treatment decisions while enhancing interdisciplinary communication and care coordination. 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, 2025

Mini-Fellowship in Musculoskeletal (MSK) Arthritides Imaging in Upper Extremities, *MRI, CAT Scan, and X-ray interpretation of shoulder, elbow, wrist, hand, and fingers. Identifying arthritides in upper extremities.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Mini-Fellowship in Musculoskeletal (MSK) Tumor, Fracture, dislocation, and Infection Imaging in Upper Extremities, *MRI, CAT Scan, and X-ray interpretation of shoulder, elbow, wrist, hand, fingers. Identifying tumors, fractures, dislocations, and infections in joints, including the long bones attached to the joints.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Mini-Fellowship in Musculoskeletal (MSK) Soft Tissue Imaging in Upper Extremities, *MRI, CAT Scan, and X-ray interpretation of shoulder, elbow, wrist, hand, fingers. Identifying soft tissue injuries in joints; labrum, meniscus, and ligament and tendon injuries.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School

of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Mini-Fellowship in Musculoskeletal (MSK) Arthritides Imaging in Lower Extremities, *MRI, CAT Scan, and X-ray interpretation of pelvis, hips, knee, ankle, foot, and toes. Identifying arthritides in upper extremities.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Mini-Fellowship in Musculoskeletal (MSK) Tumor, Fracture, dislocation, and Infection Imaging in Lower Extremities, *MRI, CAT Scan, and X-ray interpretation of pelvis, hips, knee, ankle, foot, and toes. Identifying tumors, fractures, dislocations, and infections in joints, including the long bones attached to the joints.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Mini-Fellowship in Musculoskeletal (MSK) Soft Tissue Imaging in Lower Extremities, *MRI, CAT Scan, and X-ray interpretation of pelvis, hips, knee, ankle, foot, and toes. Identifying soft tissue injuries in joints; labrum, meniscus, and ligament and tendon injuries.* Academy of Chiropractic Post-Doctoral Division, Cleveland University, Kansas City, College of Chiropractic, ACCME in Joint Providership with the State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, Office of Continuing Medical Education, Long Island, NY, 2025

Documentation Mandates, *The review documentation mandates imposed by carriers emphasize the requirements that may initiate or sustain investigations. Participants are trained to maintain compliance while steering clear of common documentation errors. The curriculum includes detailed instruction on the mandatory reporting elements for codes 99202–99205. Focus is placed on producing accurate, comprehensive, and defensible records to safeguard both providers and patients.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Evidence-Based Chiropractic Outcomes, This module explores chiropractic research with a strong emphasis on comparative clinical outcomes. It analyzes the effectiveness of chiropractic care in relation to physical therapy, medical doctors, and osteopathic physicians. The curriculum also assesses patient outcomes when contrasting chiropractic interventions with drug-based treatments. Special attention is given to evidence-based findings that demonstrate chiropractic efficacy across multiple healthcare delivery models. The course equips participants with a research-driven framework for understanding the role of chiropractic in integrative care. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Pathobiomechanics and Documentation, *CPT Coding Guidelines for Initial and Established Patients with particular attention paid to Patient History, Review of Systems, Social and Family History, Physical Examination, and Medical Decision making. Specific differences in coding levels and required elements for a 99202-99203-99204-99205.* 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, 2025

Using Documentation and Ethical Relationships, *Pathways to improve coordination of care, and interprofessional communication with collaborating physicians. Maintaining ethical relationships in the medical-legal community through documentation and communication of demonstrable diagnosis, prognosis and treatment plans.* 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, 2025

Spinal Biomechanical Engineering Clinical Application, *History of clinical biomechanics with an emphasis on the diagnosis and management of spine pain of mechanical/functional origin. Evidence-based symptomatic vs. asymptomatic parameters using peer-reviewed medical index literature. Computerized mensuration analysis of spinal biomechanical pathology. Comparison of demonstrable spinal biomechanical failure on imaging to clinical evaluation and physical examination.* 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, 2025

Spinal Biomechanical Engineering Clinical Grand Rounds, *Case reviews utilizing E/M, MRI, and x-ray mensuration report to conclude an accurate diagnosis, prognosis, and treatment plan. Common diagnosis requires interprofessional collaboration with a discussion of diagnostic dilemmas and proper communication methods.* 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, 2025

Mini-Fellowship in Neuroradiology – MRI Spine – Part 1, *Evidence-based studies in Modic Changes, Disc and Referred Pain, MRI and Cervical Musculature, Kinetic MRI Images, Neurological Innervation, MRI and Injury Mechanisms, Discogenic Pain, Annular Tears and Fissures, Asymptomatic Herniations.* 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, 2025

Mini-Fellowship in Neuroradiology – MRI Spine – Part 2, *Identify and oral examination of 60 MRI sequences (over 2500 images) of disc bulges, circumferential, radial, and transverse fissures, varices, and herniations inclusive of the following types: protrusion, extrusions (sequestered and migrated/comminuted extrusions). MRI sequencing for accurate interpretation with contemporary nomenclature and reporting.* 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, 2025

Mini-Fellowship in Neuroradiology-MRI Spine -Part 3, *Clinically correlated history, clinical findings, and advanced spinal imaging to conclude an accurate diagnosis, prognosis, and treatment plan in an evidence-based paradigm that passes a peer-reviewed panel. The case presented must emanate from contemporary practice utilizing accepted guidelines for sequence acquisition and collaboration if clinically indicated.* 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, 2025

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*. 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, 2025

Diagnosing and Case Management, *The requirements for diagnosing based upon in an initial evaluation and management encounter ranging from a 99202 – 99205 that includes comorbidities, non-musculoskeletal, and sequelae to injury diagnosis*. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

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, 2025

Documentation, Demonstrative and Compliance, *Elements of Evaluation and Management codes 99202-99203-99204-99205, inclusive of complexity of management and time components. Demonstrative documentation of spinal-related pain generators; spinal cord, thecal sac, myelomalacia, spinal nerve root insult, connective tissue, recurrent meningeal nerves*. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Medical-Legal-Insurance Documentation, *Accurate and compliant documentation of history and clinical findings inclusive of functional losses, loss of activities of daily living, duties under duress and permanent loss of enjoyment of life. Prognosing static vs. stable care, gaps in care both in the onset and in the middle of passive care with a focus on detailed diagnosing. The integration of chiropractic academia, the court system and the insurance reimbursor's requirements for complete documentation*. 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

Evaluation and Management, *An overview of the evaluation and management process inclusive of utilizing electronic medical records to conclude evidenced-based conclusions with the utilization of macros. The importance of adhering to an academic standard and considering co-morbidities*. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Evaluation and Management, *Concluding a chief complaint, history and what needs to be considered in a physical examination. This covers in dept the required elements for chief complaint, history of present illness, review of systems, and past, family, and/or social history. This module also covers the following components of a physical examination: observation,*

palpation, percussion, and auscultation. Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Evaluation and Management, Coding and Spinal Examination: *Detailing 99202-99205 and 99212-99215 inclusive of required elements for compliant billing. It reviews the elements for an extensive review of systems, cervical and lumbar anatomy and basic testing. The course also covers the basics of vertebra-basilar circulation orthopedic assessment.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Evaluation and Management, Neurological Evaluation: *Reviewing complete motor and sensory evaluation inclusive of reflex arcs with an explanation of Wexler Scales in both the upper and lower extremities. The course breaks down testing for upper and lower motor neuron lesions along with upper and lower extremity motor and sensory testing examinations.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Evaluation and Management, Documenting Visit Encounters: *Forensically detailing the S.O.A.P. note process for visit encounters and discussing the necessity for clinically correlating symptoms, clinical findings and diagnosis with the area(s) treated. It also details how to modify treatment plans, diagnosis, document collaborative care and introduce test findings between evaluations.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Evaluation and Management, Case Management and Treatment Orders: *This module discusses how to document a clinically determined treatment plan inclusive of both manual and adjunctive therapies. It discusses how to document both short-term and long-term goals as well as referring out for collaborative care and/or diagnostic testing. It also includes how to prognose your patient and determine when MMI (Maximum Medical Improvement) has been attained.* Cleveland University, Kansas City, Academy of Chiropractic, Post-Doctoral Division, Long Island, NY, 2025

Concussion/Mild Traumatic Brain Injury and Traumatic Brain Injury, *Diagnosing and Triaging, Developed proficiency in differentiating mTBI from more severe presentations through evidence-based neurological and cognitive assessments. Trained in identifying red-flag symptoms requiring urgent imaging or specialist referral. Acquired expertise in correlating patient history, mechanism of injury, and exam findings for accurate classification. Focused on optimizing patient outcomes through early identification and appropriate interdisciplinary care coordination.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Documenting and Coding Evaluations and Re-Evaluations, *The documentation requirements for CPT codes 99202 through 99205 are determined by either medical decision-making (MDM) or total time spent on the date of the encounter. Each higher-level code reflects increasing complexity of history, examination, and MDM, or greater total time. For time-based coding, 99202 requires 15–29 minutes, 99203 requires 30–44 minutes, 99204 requires 45–59 minutes, and 99205 requires 60–74 minutes of total provider time. MDM criteria include the number and complexity of problems addressed, the amount and/or complexity of data reviewed, and the risk*

of morbidity or mortality from patient management. Accurate documentation is essential to support code selection and to ensure compliance with CMS and payer requirements. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

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 doctor's documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics. 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, 2025

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. 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, 2025

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 history and physical examination findings to x-ray biomechanical results in creating an accurate diagnosis, prognosis, and treatment plan. 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, 2025

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. 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, 2025

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 building a reputation as an evidence-based provider. The step-by-step minutiae of building a report. 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, 2025

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. 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, 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-communited, extrude-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, *Identifying 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 Arthritides on X-ray and MRI, *Identifying 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, *Identifying and diagnosing Schwannoma's, Adenoma's, Fibroid Leiomyomas and Uterine Sarcoma's, Renal 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 endplate, cartilaginous endplate, 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

Trends in Spinal Healthcare, *Analyzing spinal healthcare trends in both utilization and necessity and understanding the marketplace and how a level of clinical excellence is reflected in a doctor's documentation and credentials. Treatment pathways in triaging spinal pathobiomechanics.* 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, 2025

MRI Spine Interpretation, *An evidence-based understanding of time-related etiology of disc pathology considering the American Society of Neuroradiology's designation of protrusion, extrusion, and sequestration of spinal discs, Considering the signal intensity of discs in age-dating pathology and acquisition protocols for advanced spinal imaging.* 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, 2025

Spinal Biomechanics; A Literature Perspective, *An evidenced-based model for spinal biomechanical engineering and pathobiomechanics considering the pathophysiological limits in translations, angular deviation, and rotational planes. Utilizing the Cartesian system in plotting vertebral points to demonstratively conclude an accurate diagnosis, prognosis and biomechanical treatment plan with the consideration of long-term care in the non-specific mechanical spine pain patient when necessary.* 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, 2025

Case Management of Mechanical Spine Pathology, *Clinical Grand Rounds of herniated, protruded, extruded, sequestered, and bulging discs. Differentially diagnosing vascular vs. mechanical spinal lesions and the necessity for urgent vascular, neurological intervention, Collaborating in a team environment utilizing a neuroradiologist, electrophysiologist, and neurosurgeon with the chiropractor as the primary spine care provider.* 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, 2025

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.* 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, 2025

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.* 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, 2025

Non-Specific Spine Pain, Chiropractic and Outcomes, *Analyzing neuro-biomechanical pathological lesions define primary spinal lesions and removes the dogma of non-specific back pain. Creating evidence-based demonstrative documentation in the creation of treatment plans.* 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, 2025

Spinal Tumor MRI Interpretation, *Diagnosing and documenting: Ependymoma, Astrocytoma, Hemangioblastoma, Lipoma, Meningioma, Neurofibroma, Schwannoma, Myxopapillary Ependymoma.* 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, 2025

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, and how to keep documentation efficient. 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, 2025

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, Pfirman 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 chiropractic spinal adjustment and in defining the chiropractic spinal adjustment mechanisms. 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, 2025

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. 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, 2025

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. 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, 2025

Research Trends in Spine Care: Ongoing study of emerging spinal research with emphasis on disc pathology, biomechanical engineering, anomalies, tumors, and infections. Actively engaged in reviewing clinical applications of cutting-edge findings to improve patient outcomes. Focus includes interpreting complex imaging and integrating advancements in diagnostics and treatment protocols. Collaboration with neurosurgeons, orthopedic specialists, oncologists, and infectious disease experts is integral to case management based on pathology. Emphasis is placed on interdisciplinary coordination to ensure comprehensive and evidence-based spine care. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Documenting complicated and uncomplicated spinal cases, focusing on anatomical and biomechanical pathology: Creating comprehensive evaluation, management, and medical-legal reports tailored to the complexity of each case. Integrating clinical findings with imaging and laboratory data to support evidence-based care. Demonstrated ability to manage cases independently or in collaboration with medical specialists when appropriate. Translating complex diagnostic and functional findings into clear, actionable documentation for clinical and legal use. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2025

Primary Spine Care 14: Case Management and Documentation - Spinal Biomechanics in Clinical Practice, The utilization of X-Ray digitization to diagnose spinal biomechanical pathology and analyzing trends in healthcare when triaging mechanical spine pain. The role of credentials in interprofessional collaboration. 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 14: Case Management and Documentation - MRI Spine Sequence Acquisition and Interpretation, The understanding and utilization of T1, T2, STIR, Proton Density, FSE, GRE image sequencing for conclusive diagnosing of fracture, tumor, infection,

and disc pathology. Identifying herniation, protrusion, bulge, extrusion-migrated, and extrusion-fragments on MRI images. 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 14: Case Management and Documentation - Spinal Disc Microanatomy, *The understanding of the human spinal discal elements; annulus, nucleus pulposus, cartilaginous end plates inclusive of the neurology, visualization, differentiation from the neonate to adults. The understanding of the etiology of Modic changes on MRI and how spinal biomechanics are altered.* 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 14: Case Management and Documentation - Interprofessional Collaboration on Mechanical Back Pain in Clinical Practice, *Triaging neurologically compromised cases in conjunction with positive MRI images, and collaboratively managing cases with neurosurgeons in clinical practice. Post-operative management of spinal cases through full recovery.* 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 14: Case Management and Documentation - Spinal Biomechanical Engineering Analytic, *The analytics of spinal biomechanical engineering utilizing X-Ray digitizing for Alteration of Motion Segment Integrity and biomechanical pathology. Determining laxity of ligaments in connective tissue pathology and the long-term negative sequels of the pathology.* 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 14: Case Management and Documentation - Demonstrative Reporting of MRI Spinal Disc Pathology, *The diagnosis, and reporting of spinal disc bulges, herniations, protrusions, extrusions, and fragments. Reporting varices, Modic 1, 2, and 3, posterior longitudinal, interspinous, and intertransverse ligament. Reporting the ligamentum Flavum and epidural fat as a space-occupying lesion.* 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 17, Current and Future Trends in Documentation, *Evidence-Based demonstrative documentation for creating successful patient-centered collaborative care. Using "reputation building" through effective documentation to develop relationships with MD PCPs, MD Specialists, ERs, and Urgent Care Centers. Using demonstrative evidence will eradicate the Non-Specific Back Pain "Dogma," allowing chiropractic utilization to increase based on the evidence.* 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 17, MRI Spine Ancillary Tumor Detection and Advanced Imaging Stroke Detection, *Spinal imaging techniques to assess spinal structures and detect abnormalities. The sequences also identify ancillary findings such as renal, ovarian, extradural, and intradural tumors. Careful evaluation of spinal MRIs can reveal critical pathologies beyond musculoskeletal issues. Analyzing the morphology of the abdominal aorta to determine potential stroke risks.* 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 17, Analyzing Spinal Pathobiomechanics, *Identifying and diagnosing spinal segmental lesions in the facet, joint capsules 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 17, Spinal Biomechanical Pathology, *Identifying 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 17, *Advanced Credential Reporting, creating a professional bio and CV, essential for establishing credibility in the medical-legal field. Incorporating outcome statistics from cases helps demonstrate your work's real-world impact, especially in the medical legal arena. Getting published in the National Institutes of Health (NIH) using research, peer review, and adherence to scientific standards and enhances your reputation by validating your work within the healthcare community and increasing your authority in the healthcare community field.* 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 17, Age-Dating Herniated Disc via MRI and X-Ray, *Utilizing the evidence in the literature to age-dating spinal herniated discs and trauma. Including interpreting X-rays, MRIs in T1, T2, STIR and Fat Saturation sequences, and other imaging alongside understanding the evidence of joint pathology. Being able to collaborate with physicians or as a medical-legal expert. Accurate age-dating helps establish a prognosis for patient recovery. The process must be grounded in evidence-based rationale to ensure reliability. Mastering this skill enhances both clinical decision-making and legal credibility.* 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 17, Clinical Grand Rounds in Primary Spine Care, Clinical Grand Rounds for a case involve assessing disc, ligament, and spinal pathology. The process includes establishing a diagnosis, determining the prognosis, and developing a treatment plan. Special attention is given to conditions such as cord edema, myelomalacia, myelopathy, and tethered cords. Utilizing follow-up examinations as a step in crucial in refining the diagnosis and treatment approach. Adjustments to the treatment plan are made as new clinical findings emerge. This ensures that patient care remains dynamic and responsive to evolving spinal conditions. 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

2022 Trends in Spinal Healthcare, *Analyzing evidence-based spinal healthcare trends in both utilization and necessity and understanding the marketplace. The use of evidence-based demonstrative documentation in reporting treatment pathways in triaging spinal pathobiomechanics.* 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, 2025

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 vertebrate, 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 nodes. Learn how to collaborate effectively with radiologists, neuroradiologists, and neurosurgeons on clinical findings.* 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, 2025

Chiropractic vs. Physical Therapy vs. Medical Case Management and Outcomes, *Analysing evidence-based 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.* 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, 2025

MSK Extremity Radiological Interpretation, *Utilizing both MRI and x-ray in identifying via x-ray and advanced imaging extremity instabilities from ligamentous, osseous or neoplastic derangement.* 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, 2025

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 by understanding the regulatory and administrative rules. Learn how to educate the lawyer on bodily injury through evidence-based demonstrative reporting.* 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, 2025

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. 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, 2025

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 etiology. There will be an extensive question and answer session following the instructional presentation. 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, 2025

Age-Dating Herniated Discs and Trauma, Age dating herniated discs and trauma are critical skills 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 collaborating 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. 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, 2025

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 requires interprofessional collaboration with a discussion of diagnostic dilemmas and proper communication methods. 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, 2025

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, fragments discs and differentially diagnosing tethered cord, syringomyelia, traumatic Schmorl's Nodes, Myelomalacia, spinal cord edema, vacuum disc and other intra, and extra-dural lesions. 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, 2025

Case Management, Spinal MRI and Documentation Documenting Herniated Discs, Age-Dating Disc Pathology, and Connective Tissue Pathology as Sequella to Trauma, Herniated Discs and Connective Tissue Pathology, differentially diagnosing herniated discs vs. normal and bulging discs and protruded, extruded and fragmented discs. Normal vs. Pathological connective tissues and age-dating herniated discs. 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, 2025

Case Management, Spinal MRI and Documentation, Case Management of Traumatic Spinal Injuries, Understanding flexion-extension cervical injuries and diagnosing connective tissue pathology. Determining impairments and the literature-based standard for permanent injuries. 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, 2025

Case Management, Spinal MRI and Documentation, Managing Herniated and Bulging Discs, Serious Injury in Non-Herniated Cases from Trauma, Spinal disc morphology, and innervation. Herniated, bulged, protruded, and sequestered disc characteristics and management. Literature-based documentation requirements for no-dis spinal injuries. 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, 2025

Case Management, Spinal MRI and Documentation, Herniated Discs and Permanent Brain Malfunction & Biomechanical Failure, A case-study of a post-traumatic herniated disc and related brain malfunction supported by contemporary literature, MRI acquisition, and necessity protocols. 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, 2025

Case Management, Spinal MRI and Documentation, Demonstrative Documentation of Disc Herniation and MRI Physics, Understanding the documentation requirements to demonstrate spinal disc lesions in reporting pathology. Understanding the physics of nucleus resonating in T1 and T2 weighted imagery. 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, 2025

Case Management, Spinal MRI and Documentation, Post-Traumatic Herniated Discs, Related Migraines-Headaches & Strain/Sprain Permanence, Relationship of headaches, and migraines to cervical spine disc herniation, clinical rationale for ordering MRI's and the relationship of ligamentous pathology to spinal trauma. 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, 2025

Case Management, Spinal MRI and Documentation, Documentation of Low-Speed Crashes in Determining Etiology of Serious Bodily Injuries, Documentation requirements during the evaluation, and management encounter to understand the etiology of spinal injuries. Having a complete understanding of the forces involved to conclude a differential diagnosis, while concurrent ruling malingerers, if applicable. 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, 2025

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.* 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, 2025

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, disc herniations, neural canals, cauda equina, 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.* 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, 2025

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* 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, 2025

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, 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.* 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, 2025

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.* 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, 2025

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.* 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, 2025

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.* 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, 2025

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.* 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, 2025

MRI Spine Clinical Grand Rounds, *Visualizing, diagnosing, and documenting lumbar spine sequencing, degenerative disc disease, nerve root sleeve abutment, far lateral herniations vs. bulges, normal vs. dissected inferior vena cava aneurism, epidural fat as a space occupying lesion, facet arthropathy and edema, hypertrophy of ligamentum flava, and pseudo disc at the S1-S2 level.* 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, 2025

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 the utilization of the spinal cord's central canal for CSF transport.* 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, 2025

Patient Triage and Documentation, *Utilizing a complete history and evaluation, triaging the chronic and acute patient with consideration of collaboration with medical specialists as*

indicated. Correlation the patient intake forms, clinical history, evaluation, and testing, including X-rays, MRI, CAT Scan and EMGs in determining a treatment plan. Academy of Chiropractic-Post Doctoral Division, Long Island, NY, 2024

Triage Based on MRI Findings, Understanding MRI ordering sequences, T1, T2, STIR, Proton Density, and other sequences to conclude an accurate diagnosis. Clinically correlating history, clinical findings to advanced imaging to determine appropriate triage and an accurate conclusive diagnosis. Academy of Chiropractic-Post Doctoral Division, Long Island, NY, 2024

Documenting Biomechanical Pathology and Triage, Concluding an accurate diagnosis, based on x-ray digitizing, and outcome studies in the literature to determine triage and the possible necessity for collaborative care with medical specialists. The documentation requirements for accurate communication between professions to ensure an accurate treatment plan is created and followed. Academy of Chiropractic-Post Doctoral Division, Long Island, NY, 2024

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. 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, 2024

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. 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, 2024

Extremity MRI & Xray Interpretation of the Shoulder, Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. 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, 2024

Extremity MRI & Xray Interpretation of the Shoulder, Identifying fractures in adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors. 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, 2024

Extremity MRI & Xray Interpretation of the Elbow, Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying

fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors. 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, 2024

Extremity MRI & Xray Interpretation of the Wrist, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Extremity MRI & Xray Interpretation of the Hand, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Extremity MRI & Xray Interpretation of the Hip, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement.* 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, 2024

Extremity MRI & Xray Interpretation of the Hip, *Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Extremity MRI & Xray Interpretation of the Knee, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures. Identifying fractures in adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement.* 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, 2024

Extremity MRI & Xray Interpretation of the Knee, *Identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Extremity MRI & X-ray Interpretation of the Ankle, *Identifying normal anatomy on both MRI and X-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Extremity MRI & X-ray Interpretation of the Foot, *Identifying normal anatomy on both MRI and x-ray, inclusive of osseous, connective tissue, and neurological structures, identifying fractures in the adult and pediatric cases. Differentially diagnosing various arthritic etiologies of osseous derangement. Differentially diagnosing various arthritic changes vs. benign and metastatic Tumors.* 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, 2024

Required Elements for 100% Reimbursement, *Diagnosing Active, Sequella, and Subsequent encounter codes for connective tissue pathology. The documentation elements required for 99202, 99203, 99204, and 99205. Developing ethical financial relationships for reimbursement in the medical-legal community and the documentation required. Using laws, regulations, and case law in contemporary practice to manage cases.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Neurology of Ligament Pathology- Normal Morphology and Tissue Damage, *Connective tissue morphology, embryology and wound repair as sequela to trauma. Full components of strain-sprain models and permanency implications with wound repair and osseous aberration with aberrant structural integrity.* 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, 2024

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.* 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, 2024

Neurology of Ligament Pathology- Neurological Innervation, *The peripheral and central 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 to disparate areas of the spine to create homeostasis until tetanus ensues creating osseous changes under the effect of Wolff's Law.* 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, 2024

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. 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, 2024

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. 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, 2024

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. 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, 2024

Concussion And Electroencephalogram Testing: 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. 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, 2024

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. 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, 2024

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), Diagnosis & Interpretation: Anatomy and Physiology of Electrodiagnostics: An in-depth review of basic

neuroanatomy and physiology dermatomes and myotomes to both the upper and lower extremities and the neurophysiology of axons and dendrites along with the myelin and function of saltatory for conduction. The sodium and potassium pump's function in action potentials. 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, 2024

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), Diagnosis & Interpretation: Nerve Conduction Velocity (NCV) Part 1: Nerve conduction velocity testing, the equipment required and the specifics of motor and sensory testing. This section covers the motor and sensory NCV procedures and interpretation including latency, amplitude (CMAP) physiology and interpretation including the understanding of the various nuances of the wave forms. 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, 2024

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), Diagnosis & Interpretation: Nerve Conduction Velocity (NCV) Part 2: Compound motor action potentials (CMAP) and sensory nerve action potentials (SNAP) testing and interpretation including the analysis and diagnosis of the wave forms. It also covers compressive neuropathies of the median, ulnar and posterior tibial nerves; known as carpal tunnel, cubital tunnel and tarsal tunnel syndromes. This section offers interpretation algorithms to help understand the neurodiagnostic conclusions. 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, 2024

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), Diagnosis & Interpretation: Needle Electromyogram (EMG) Studies: The EMG process, inclusive of how the test is performed and the steps required in planning and electromyographic study. This covers the spontaneous activity of motor unit action potential, positive sharp waves and fibrillations. The insertional activity (both normal and abnormal), recruitment activity in a broad polyphasic presentation and satellite potentials. This covers the diagnosing of patterns of motor unit abnormalities including neuropathic demyelinated neuropathies along with acute myopathic neuropathies. This section also covers the rules of false positive and false negative results. 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, 2024

Electrodiagnostics: Electromyogram/Nerve Conduction Velocity (EMG/NCV), Diagnosis & Interpretation: Overview of EMG and NCV Procedures, Results, Diagnoses and Documentation. The clinical incorporation of electrodiagnostic studies as part of a care plan where neuropathology is suspected. It also covers how to use electrodiagnostics in a collaborative environment between the chiropractor as the primary spine care provider and the surgeon, when clinically indicated. This section covers sample cases and health conclude and accurate treatment plans based upon electro-neurodiagnostic findings when clinically indicated. 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, 2024

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.* 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, 2024

Orthopedic Testing: Cervical Spine, *Integration of cervical 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.* 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, 2024

Orthopedic Testing: Cervical Spine, *Integration of cervical 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.* 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, 2024

Orthopedic Testing: Lumbar Spine, *Integration of lumbar 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.* 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, 2024

Orthopedic Testing: Clinical Grand Rounds, how to integrate orthopedic testing in the clinical setting utilizing both simple and complex patient scenarios. It includes potential stroke, or vertebrobasilar insufficient patients and understanding the nuances in a clinical evaluation with orthopedic testing as a critical part of the evaluation and screening process. How to integrate orthopedic testing in the clinical setting utilizing both simple and complex patient scenarios. It includes potential stroke, or vertebrobasilar insufficient patients and understanding the nuances in a clinical evaluation with orthopedic testing as a critical part of the evaluation and screening process. 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, 2024

Stroke Anatomy and Physiology: Brain Vascular Anatomy, *The anatomy and physiology of the brain and how blood perfusion affects brain function. A detailed analysis of the blood supply to the brain and the physiology of ischemia.* 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, 2024

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 precursors to stroke with associated paradoxical emboli and thrombotic etiologies. Historical and co-morbidities that have etiology in stroke inclusive of diabetes, coagulopathy, acquired and hereditary deficiencies.* 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, 2024

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 chiropractic, primary care or manual medicine clinical setting.* 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, 2024

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. 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, 2024

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.* 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, 2024

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.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

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. Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

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.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Accident Reconstruction: Research, Causality and Bodily Injury, *Delta V issues correlated to injury and mortality, side impact crashes and severity of injuries, event data recorder reports correlated to injury, frontal impact kinematics, crash injury metrics with many variables and inquiries related to head restraints.* Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

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.* 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, 2024

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.* 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, 2024

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.* 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, 2024

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.* 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, 2024

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. 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, 2024

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.* 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, 2024

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 School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2024

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 examinations 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, 2024

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, 2024

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, 2024

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, 2024

MRI Clinical Application, *The clinical application of the results of space occupying lesions. Disc*

and tumor pathologies and clinical indications of manual and adjustive therapies in patients 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, 2024

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 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 School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2024

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 vertebrates, 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, 2024

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 complications of stenosis, pseudo-protrusions, cantilevered vertebrates, Schmorl's nodes and herniations. Morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and illustrated. Central canal and cauda equina compromise interpretation with management. 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, 2024

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 vertebrate, Schmorl's 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 School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2024

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 vertebrates, Schmorl's nodes and herniations. morphology of lumbar disc pathologies of central and lateral herniations, protrusions, extrusions, sequestration, focal and broad based herniations are defined and

illustrated. Spinal cord and canal compromise interpretation with management. 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, 2024

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, advanced 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 School of Medicine and Biomedical Sciences, Academy of Chiropractic Post-Doctoral Division, Buffalo, NY, 2024

Spinal Biomechanical Engineering: Cartesian System, The Cartesian Coordinate System from 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. 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, 2024

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. 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, 2024

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. 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, 2024

Spinal Biomechanics in Trauma, To utilize whiplash associated disorders in various vectors of impact and whiplash mechanisms in determining pathobiomechanics. To clinically correlate annular tears, disc herniations, fractures, ligament pathology and spinal segmental instability as sequellae to pathobiomechanics from trauma. The utilization of digital motion x-ray in diagnosing normal versus abnormal facet motion along with case studies to understand the clinical application. 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, 2024

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, ocular and proprioceptive neurological integration in the righting reflex as evidenced in imaging. Digital and numerical algorithms in analyzing a spine.* 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, 2024

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 movements. Ligament instability/failure/pathology are identified all using numerical values and models. Review of case studies to analyze pathobiomechanics using a computerized/numerical algorithm.* 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, 2024

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.* 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, 2024

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.* 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, 2024

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

University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Diagnostics, Risk Factors, Clinical Presentation and Triaging the Trauma Patient, *An extensive understanding of the injured with clinically coordinating the history, physical findings and when to integrate neurodiagnostics. An understanding of how to utilize emergency room records in creating an accurate diagnosis and the significance of "risk factors" in spinal injury.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Crash Dynamics and Its Relationship to Causality, *An extensive understanding of the physics involved in the transference of energy from the bullet car to the target car. This includes G's of force, newtons, gravity, energy, skid marks, crumple zones, spring factors, event data recorder and the graphing of the movement of the vehicle before, during and after the crash. Determining the clinical correlation of forces and bodily injury.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

MRI, Bone Scan and X-Ray Protocols, Physiology and Indications for the Trauma Patient, *MRI interpretation, physiology, history and clinical indications, bone scan interpretation, physiology and clinical indications, x-ray clinical indications for the trauma patient.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Neurodiagnostic Testing Protocols, Physiology and Indications for the Trauma Patient, *Electromyography (EMG), Nerve Conduction Velocity (NCV), Somato Sensory Evoked Potential (SSEP), Visual Evoked Potential (VEP), Brain Stem Auditory Evoked Potential (BAER) and Visual-Electronystagmosgraphy (V-ENG) interpretation, protocols and clinical indications for the trauma patient.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Documentation and Reporting for the Trauma Victim, *Understanding the necessity for accurate documentation and diagnosis utilizing the ICD-9 and the CPT to accurately describe the injury through diagnosis. Understanding and utilizing state regulations on reimbursement issues pertaining to healthcare.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

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.* Cleveland University - Kansas City, Academy of Chiropractic Post-Doctoral Division, Long Island, NY, 2024

Manipulation Under Anesthesia, MUA involves the controlled manipulation of a patient's joints, typically under the influence of anesthesia, to increase joint mobility, relieve pain, and improve functionality. With the patient under anesthesia, the healthcare provider performs controlled joint manipulations. This involves applying specific, gentle forces to the affected joint(s) to break up

adhesions, scar tissue, or other factors that may be limiting joint mobility. The goal is to restore normal range of motion and relieve pain. Certification in Manipulation Under Anesthesia, American Academy of Manual and Physical Therapy, American Academy of Manual and Physical Therapy, Granbury, TX, 2007

Impairment Rating and the Law, Post-graduate training course in impairment rating and the law, providing expertise in utilizing the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment 5th Edition. This comprehensive program gains a deep understanding of the intricacies of assessing permanent impairments with the necessary skills to accurately evaluate and rate impairments following the latest guidelines. This course keeps with industry standards, and ability to apply the AMA Guides effectively. Florida Chiropractic Association, Florida Chiropractic Association, Orlando, FL, 1995

Whiplash and Spinal Trauma, 1989 - 1994 - A comprehensive post-graduate training course in Whiplash and Spinal Trauma, designed to enhance clinician expertise in the field of traumatology. This intensive program equipped me with in-depth knowledge of the assessment, diagnosis, and treatment of whiplash-related injuries and spinal trauma. I gained valuable hands-on experience, honing my clinical skills in managing patients with these conditions. Specific training on adequately diagnosing and clinically managing patients with biomechanical acceleration/deceleration whiplash injuries. Daniel Murphy D.C., Florida Chiropractic Association, Orlando, FL, 1994

SELECTED TEACHING/INSTRUCTING/LECTURING/CONSULTING

Clinical Adjunct Professor/Instructor, Keiser University – College of Chiropractic Medicine, West Palm Beach, FL, 2023 - Present

Instructor, Anatomy & Physiology, Lake Worth Massage Academy, Lake Worth, FL, 1993- 1994

SELECTED MEMBERSHIPS

Council on Neurology, Member, 2023 – Present

American Chiropractic Association Sports Council, Member, 1988 - Present

International Chiropractic Association, Member, 1987 - Present

International College of Applied Kinesiology, Member, 1987 - Present

Florida Chiropractic Association, Member, 1986 - Present

American Chiropractic Association, Member, 1986 - Present

SELECTED HONORS AND AWARDS

Dean's List, Life University, 1986

National Dean's List, Lif University, 1986

Senior X-Ray Intern, Life University, 1986

Senior Clinic Intern, Life University, 1986

Clinical Excellence Award, Life University, 1986

Certificate of Proficiency in Radiology, Life University 1985