

Dr. Jason Mazarella

DC, DAAPM, DCAPM, DAAETS, DqEEG (c), DWTT (D), FIAMA, MVC-FRA, CATSM, CBIS, CMVT, CPM, CDRSC, CDAAC, BSc Kin, BSc HPA



Dr. Mazarella Professional Highlights:

- Doctor of Chiropractic
- BSc Kinesiology Movement Science and Health Policy Administration
- Accident Reconstruction Level 1-3 Toronto Police
- Crash Data Retrieval and Analysis Certification Toronto Police
- Accident Investigation Northwestern University of Public Health
- Motor Vehicle Crash Forensics Risk Analysis Certification 1 of 188 in the world.
- Post Graduate Lecture (Medical and ACR): Only medically accredited and sponsored program on Whiplash in the world.
- Recognized: Leading Physicians of the World 2014

Medical Background Licensed Doctor USA and Canada

- Diplomat American Academy of Pain Management 2011 and 2016
- Diplomat Canadian Academy of Pain Management 2011
- Diplomat American Academy of Experts in Traumatic Stress 2010
- Fellowship International Academy of Medical Acupuncture 2006
- Registered Acupuncturist CTCMPAO 2014
- Certification Motor Vehicle Trauma 2011
- Certification Pain Management 2010
- Certification Acute Traumatic Stress Management 2011
- Certification Brain Injury 2009
- Certificate Whiplash and Brain Traumatology 2005
- Advanced Certificate of Competency Whiplash & Brain Traumatology 2011
- NBCE Certified Physiotherapy Competency 2005
- BSc. Kinesiology Movement Science 2001
- BSc. Health Policy and Administration 2001
- Kinesiology/Physics Training: 37 Credits
- Over 50,000 Motor Vehicle Accident Examinations and treatments

Crash Forensics and Accident Reconstruction Background Certifications USA and Canada

- Crash Data Retrieval System Operators (Technician) Certification 2012
- Crash Data Analysis and Application Certification 2013
- Crash Data Retrieval System Operators (Technician) Certification 2012
- Certificate Accident Investigation Northwestern University 2011
- Certification Accident Investigation and Reconstruction Level 2, 2012
- Certification Accident Investigation and Reconstruction Level 3, 2013
- Certification Motor Vehicle Crash – Forensics Risk Analysis 2006

Additional Background

- Testing Accident Reconstruction and Investigation/Crash Forensics
- Over 400 continuing education hours of CCE approved continuing education in motor vehicle trauma related programs.
- Over 460 continuing education hours of Accident Investigation and Accident Reconstruction training.
- Over 20 continuing education hours of CCE approved continuing education in live scale human volunteer crash testing research and study.
- 17 hours of continuing education in Biomedical Sciences.
- Live Human Volunteer Crash Testing – Pedestrian Crash Test
- Live Human Volunteer Crash Testing – High Speed Crash Test
- Live Human Volunteer Crash Testing – Low Speed Crash Test
- Mock Fatal Pedestrian Crash Testing.
- Dynamic Field Testing: Coefficient of Friction, Skid Distance, Speed Analysis
- Post Graduate Lecture: Toronto Police College Level 4 Accident Reconstruction Certification: Crash Forensics and Injury Potential.
- Expert Testimony: Motor vehicle trauma, pain, crash forensics and injury biomechanics/kinematics in Virginia, Court Case No: CL-2007-4185.

Abridged CV

For a Full CV please contact our office

Whiplash Past to Present
Excellence in Whiplash Medical
Education 2008 -Present



**North American
SPINE
Institute**

First Ever Whiplash Accredited Educational
program by Medical and Chiropractic
Universities & Organizations

First Accredited Whiplash Program in Multiple
Countries: 29

First Whiplash Guidelines Taught in Medical
and Chiropractic Accredited CE Programs

Whiplash Evidence Based Guidelines with
research up to 2022

NO External Funding in Development of this
Whiplash Program or Associated Whiplash
Guidelines!

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- **Whiplash Education and Training for Healthcare Professionals:**
 - Academic Accreditation and/or Endorsement partners for both Whiplash Programs shown below
- **Dr. Jason Mazzarella, DC**
 - Whiplash Traumatology & Treatment: A Multidisciplinary Approach to Care.
 - 108 Medical, Chiropractic and AAFP Continuing Education Credit Hours
 - Whiplash Traumatology, Neurophysiology, Pain and Treatment Seminar Series: A Multidisciplinary Approach to Care.
 - 32 Medical, Chiropractic, Physical Therapy, and Massage therapy Continuing Education Credit Hours



EXPERIENCE

Doctor

2006 – Present

- Patient Treatment, Assessment and Diagnosis
- Preferred Provider Allstate Insurance Company of Canada – MVA Treatment Services
- Preferred Provider Pembridge Insurance Company – MVA Treatment Services
- Preferred Provider PAFCO Insurance Company – MVA Treatment Services

Treatment Services Include

- Chiropractic Care (CMT-D, SOT, Drop, Flexion/Distracton)
- Physiotherapy
- Acupuncture (Needle and Electrical)
- Kinesiology
- Nerve Mobilization
- Vestibular and Concussion Rehabilitation
- Alpha Stimulation
- Functional Neurology
- Photobiomodulation
- Neuro-Acoustic Therapy
- Neuro-Optic Therapy
- Nutrition
- qEEG Assessment and Neurofeedback
- Biofeedback

- Physical Medicine Chronic Pain Therapy

Director - North American Spine Institute, Inc.

2006 – Present

- Independent Medical Review and Assessment
- Post Graduate Instructor and Educator
- Medical Management and Consulting
- Medical Witness - Medical Expert Testimony Services (USA)
- Preferred Provider, Crash Forensics Assessments – Gore Mutual Insurance Company
- Preferred Provider, Treatment Services – Allstate Insurance Company
- Preferred Provider, Treatment Services – Pembridge Insurance Company
- Preferred Provider, Treatment Services – PAFCO Insurance Company
- Preferred Provider, Assessments Services – Echelon Insurance Company
- Medical Review Expert: Allstate Insurance Company of Canada 2015: Review of “Enabling Recovery From common Traffic Injuries: A focus on the Injured Person. Ontario Protocol for Traffic Injury Management Collaboration” for Insurer FSCO recommendations.

Independent Medical Assessment Services Include:

- Motor Vehicle Crash Forensics Risk Analysis Examination and Assessments
- Chronic Pain Assessments
- Mild Traumatic Brain Injury Assessments
- qEEG Neurophysiology Assessments
- sEMG Neurophysiology Assessments
- Work Site Assessments
- Physical Demands Analysis Assessments
- Functional Demands Analysis Assessments
- Minor Injury Guideline/Whiplash Guideline Assessments for Appropriateness
- In Home Assessments
- Disability Evaluation Assessments
- Orthotic Gait Analysis Assessments
- Rebuttal Independent Medical Assessments
- Independent Medical Assessments Plaintiff and Defense
- Defense Medical Assessments - Tort
- Plaintiff Medical Assessments - Tort

MEMBERSHIPS

- College of Chiropractors of Ontario: 2008 – Present
- American Chiropractic Association: 2006-2013
- National Pain Foundation: 2008-2012
- American Pain Foundation: 2009-2012
- International Chiropractic Association: 2006-2008
- National Pain Education Council: 2007-2009
- American Academy of Pain Management: 2009-2018
- Ontario Kinesiology Association: 2009 – 2014
- Brain Injury Association of America: 2009 – 2014
- Ontario Brain Injury Association: 2009 – 2021
- Brain Injury Society of Toronto: 2009 – 2021
- The National Center for Crisis Management: 2010 – 2015
- The American Academy of Experts in Traumatic Stress: 2010 – 2015
- Canadian Academy of Pain Management: 2011-2017
- International Association for the Study of Pain: 2012 - 2014
- Canadian Institute for the Relief of Pain and Disability 2012- 2014

 TEACHING EXPERIENCE – POST-GRADUATE

North American Spine Institute

2006 - Present

As director of the North American Spine Institute, I am responsible for developing and teaching post graduate continuing education courses on the subject of pain, whiplash traumatology and treatment to chiropractors, medical doctors, osteopathic doctors, physician assistants and physiotherapist/physical therapists throughout the United States and Canada.

2008

- Continuing Medical and Chiropractic Education Accreditation Credit (105 hours) Provided by:
 - o University of Buffalo School of Medicine and Biomedical Sciences
 - o National University of Health Sciences
 - o American Chiropractic Association
 - o American Academy of Family Physicians



- **2008-2010 Whiplash Traumatology and Treatment Seminar Series**
- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 1: Basic Concepts in Whiplash and Whiplash associated Brain Injury and Chronic Pain.
 - o History of Whiplash, Brain Injury and Chronic Pain
 - o Epidemiology: Prevalence, Incidences, Risk Factors, Statistics and Research
 - o Anatomy: Cervical, Thoracic and Lumbar Spine: Muscles, Ligaments, Discs, and Nerves
 - o Muscle Referral Patterns: Whiplash Specific Muscles
 - o Pathophysiology: Lesions, Soft tissue Healing, Stages of Injury
 - o Pathophysiology: symptoms of whiplash, secondary symptoms of whiplash
 - o Whiplash, Brain Injury and Chronic Pain Guidelines
 - o Biomechanics: definitions and explanations of relevant terms. Biomechanics: ROM, biomechanics of spine and supporting structures.
 - o Kinematics: crash sequence of events
 - o Whiplash Common Syndromes: TOS, CTS, Fibromyalgia, Headaches.
 - o Whiplash Common Syndromes: TMJ, SI dysfunction, QL s/s, Insomnia.
 - o Whiplash common Syndromes: Depression, Chronic Pain, PTSD
- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 2: Health Professional Management of Whiplash.
 - o Chiropractic: Treatment, Evaluation, Cervical Traction, Posture Analysis, Nutrition and Gait analysis
 - o Physical Therapy: Modalities, Stretching Exercises, Stabilizing Exercises, Core Strength, Isometrics and Nerve Mobilization.
 - o Acupuncture: basics, clean needle technique, types of acupuncture.
 - o Acupuncture: treatment points
 - o Medicine: the role of family physicians
 - o Medicine: the role of neurologists, orthopaedic surgeons, and psychologists.
 - o Massage Therapy: trigger point referral patterns of involved musculature.
 - o Massage Therapy: trigger point referral patterns of involved musculature.
 - o Medicine: the role of emergency room physicians
 - o Complimentary Care: yoga, palates, and electromagnetic therapies
 - o Whiplash Guidelines when they apply and how to utilize them appropriately.
 - o Whiplash Guidelines when they apply and how to utilize them appropriately.

- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 3: Recording Keeping and Narrative Reports.
 - o History and Examination questions
 - o Physical Examination: muscles
 - o Physical Examination: nerves
 - o Physical Examination: orthopaedic testing
 - o New Patient Forms
 - o Self Assessment Questionnaires, describe and explain forms and validity
 - o Self Assessment Questionnaires, describe and explain forms and validity
 - o Insurance Forms
 - o Patient Reports
 - o Doctor's Training, education and CV
 - o Letters for Payment
 - o IME Reports
 - o Medical Shorthand

- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 4: Medicolegal Concepts, Crash Forensics, Depositions, Arbitrations and Court Room Testimony.
 - o Crash Forensics: introduction
 - o Crash Forensics: Occupant kinematics, terminology, Delta V, definitions and explanations.
 - o Crash Forensics: Risk Factors and Crash Vectors
 - o Accident Reconstruction: introduction, qualifications and vehicle dynamics
 - o Accident Reconstruction: reports, reliability, and ACR reconstruction
 - o Accident Reconstruction: Crash Forensics Assessment Reports Review
 - o Depositions
 - o Arbitrations
 - o Testifying in Court: questions and answers review
 - o Testifying in Court: CV and appearance
 - o Testifying in Court: Research
 - o Testifying in Court: Medical vs. Chiropractic vs. Physical Therapy

- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 5: Special Tests / Imaging and Whiplash, Chronic Pain and Mild Traumatic Brain Injury Research.
 - o Radiographs: general terms and pictures
 - o Radiographs: views, Davis Series and x-ray regulations
 - o MRI and CT Studies
 - o Videofluoroscopy and PET Scan Studies
 - o Whiplash and Brain Injury Mechanism Research
 - o Chronic Pain Research
 - o Risk Factor and Yellow Flags Research
 - o Immune Response Research and Facet Joint Injury Research
 - o Whiplash Epidemiology Research
 - o Delayed Onset of WAD, Primate Studies, TMJ and Headaches
Research associated with Whiplash, Brain Injury and Chronic Pain.

- Whiplash Traumatology and Treatment: A Multidisciplinary Approach to Care. Module 6: Whiplash Research.
- Developed Whiplash Traumatology and Treatment Professional Guidelines.
 - o Course work accredited for CME and CCE educational credit to attending Chiropractic Doctors, Medical Doctors, Medical Specialists, and Osteopathic Doctors. Family Physician educational credit provided to Medical Family Doctors.

2009

In 2009, I was asked to develop a post graduate chiropractic continuing education course (CCE) by the American Chiropractic Association. The topic of this seminar was Chiropractic Treatment for Whiplash Injuries.

Seminar: Postgraduate instructor of the program: Chiropractic Treatment of Whiplash Tele-seminar offered by the American Chiropractic Association – October 20, 2009.

2010

In 2010, I was asked to develop a post graduate chiropractic continuing education course (CCE) by the American Chiropractic Association. The topic of the first seminar was Pain Management Treatment Options and Research. The topic of the second seminar was Whiplash Injury: Guidelines and Rebuttal/IME Report Writing.

Seminar: Postgraduate instructor of the program: Pain Management Treatment Options and Research Tele-seminar offered by the American Chiropractic Association – May 27, 2010.

Seminar: Postgraduate instructor of the program: Whiplash Injury: Guidelines and Rebuttal/IME Report Writing offered by the American Chiropractic Association – September 21, 2010.

2013

In 2013, I was asked to develop a professional accident reconstruction and crash forensics seminar by Stephen. O'Donovan Sergeant 735, Toronto Police Service, Collision Reconstruction Squad. The topic of this seminar was Occupant kinematics, Injury Biomechanics and Crash Forensics.

Professional Accident Reconstruction Seminar: Occupant kinematics, Injury Biomechanics and Crash Forensics. November 13, 2013 at the Toronto Police College. Level 4 Accident Reconstruction Toronto Police Accident Reconstruction Department.

In 2013, I was asked to develop a professional medical presentation by Dr. Eldon Tunks, President of the Canadian Academy of Pain Management for Physical Medicine and Rehabilitation Residents and Faculty at McMaster's Medical School. The topic of this seminar was Crash Forensics, Injury Biomechanics, Occupant Kinematics and the Biopsychosocial Model of Pain.

Professional Medical Presentation: Crash Forensics, Injury Biomechanics, Occupant Kinematics and the Biopsychosocial Model of Pain. December 18, 2013 at McMasters Medical School. Presentation to McMaster Department of Physical Medicine and Rehabilitation / McMaster University first to fifth year residents and staff.

2014

In 2014, I became an Education Provider for the Ontario Kinesiology Association. This entailed developing 5 professional seminars for Kinesiologist in Ontario.

Seminars topics and subjects included:

Nerve Mobilization - Upper Extremity: June 21 - June 22, 2014

Radial Nerve:

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Radial Nerve
3. Anatomy Review - Radial Nerve and Muscle Innervation
4. Radial Nerve innervated Muscle and Function Testing
5. Radial Nerve innervated Muscle referral and Pain Patter Review
6. Radial Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Radial Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Radial Nerve
9. Pathological Processes and Special Conditions - Radial Nerve

Median Nerve

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Median Nerve
3. Anatomy Review - Median Nerve and Muscle Innervation
4. Median Nerve innervated Muscle and Function Testing
5. Median Nerve innervated Muscle referral and Pain Patter Review
6. Median Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Median Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Median Nerve
9. Pathological Processes and Special Conditions - Median Nerve

Ulnar Nerve

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Ulnar Nerve
3. Anatomy Review - Ulnar Nerve and Muscle Innervation
4. Ulnar Nerve innervated Muscle and Function Testing
5. Ulnar Nerve innervated Muscle referral and Pain Patter Review
6. Ulnar Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Ulnar Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Ulnar Nerve
9. Pathological Processes and Special Conditions - Ulnar Nerve

Summary, Conclusion and Certificate Test.

Nerve Mobilization - Lower Extremity: July 12 - July 13, 2014

This seminar will discuss:

Sciatic Nerve:

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Sciatica Nerve
3. Anatomy Review - Sciatica Nerve and Muscle Innervation
4. Sciatica Nerve innervated Muscle and Function Testing
5. Sciatica Nerve innervated Muscle referral and Pain Patter Review
6. Sciatica Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Sciatica Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Sciatica Nerve
9. Pathological Processes and Special Conditions - Sciatica Nerve

Peroneal Nerve

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Peroneal Nerve
3. Anatomy Review - Peroneal Nerve and Muscle Innervation
4. Peroneal Nerve innervated Muscle and Function Testing
5. Peroneal Nerve innervated Muscle referral and Pain Patter Review
6. Peroneal Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Peroneal Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Peroneal Nerve
9. Pathological Processes and Special Conditions - Peroneal Nerve

Tibial Nerve

1. Functional Anatomy and Physiology of the Nervous System
2. Clinical Neurobiomechanics - Tibial Nerve
3. Anatomy Review - Tibial Nerve and Muscle Innervation
4. Tibial Nerve innervated Muscle and Function Testing

5. Tibial Nerve innervated Muscle referral and Pain Patter Review
6. Tibial Nerve innervated Muscle Rehabilitation
7. Clinical Reasoning and Examination - Tibial Nerve
8. Nerve Mobilization Technique and Treatment Protocol - Tibial Nerve
9. Pathological Processes and Special Conditions - Tibial Nerve

Summary, Conclusion and Certificate Test.

Chronic Pain Management - Neuroplasticity and Rehabilitation - August 2 - August 3, 2014

This seminar will discuss:

1. Pain Concepts and Terminology
2. Pain Physiology and Neurology
3. Concepts of Neuroplasticity and Pain
4. Introduction into the Biopsychosocial Model of Pain
5. Pain Orthopaedic Testing
6. Pain Muscle Function Testing
7. Musculoskeletal Pain Referral Patterns
8. fMRI Pain Research
9. Pain Special Conditions - Fibromyalgia
10. Functional Treatment Options
 - Stimulation of Descending Inhibitory Pain Pathways
 - Exercise Prescription - What Intensity Reduces Subjective Pain

Neck Pain: Whiplash Traumatology Diagnosed - August 9 - August 10, 2014.

This seminar will discuss:

1. Whiplash Concepts and Terminology
2. Whiplash Injury Biomechanics - Neck
3. Whiplash Occupant Kinematics Based on Collision Vector - Neck
4. Introduction into Whiplash Treatment Guidelines
5. Cervical Spine Orthopaedic Testing
6. Thoracic Outlet Orthopaedic Testing
7. Cervical Spine Muscle Function Testing
8. Cervical Spine Musculoskeletal Referral Patterns
9. Cervical Spine Rehabilitation Protocol - Facet Joint Injury
10. Cervical Spine Rehabilitation Protocol - Musculoskeletal Injury
11. Cervical Spine Exercise Protocol
12. Secondary Sequelae

Whiplash: Independent Medical Assessment, Guidelines and Protocols. September 6 - September 7, 2014.

This seminar will discuss:

1. Basic Concepts and Terminology of Whiplash
2. Qualifications: Who has them and why do they matter
3. Physical Examination and Orthopaedic Testing
4. Outcome Assessment Tools
5. Whiplash Traumatology Guidelines
6. Epidemiological Risk Factors - Injury Potential Determination
7. Diagnosis: WAD II vs WAD III
8. Case Law, Whiplash and Chronic Pain
9. Report Writing - Narrative Reports
10. Report Writing - Rebuttals and IME Response Letters

In 2014, I was asked to develop a professional medical presentation by Stuart Moulton, Executive Director of the Ontario Kinesiology Association. The topic of this seminar was Pain Management: Median Nerve Entrapment, Muscle Testing and Nerve Mobilization Treatment.

Professional Medical Presentation: Pain Management: Median Nerve Entrapment, Muscle Testing and Nerve Mobilization Treatment. November 9, 2014, at the Sheraton Hotel Niagara Falls Canada. Presentation to Ontario Kinesiology members and faculty, as Kinesiologists throughout Ontario Canada.

2016

In 2016, I was asked to develop a post graduate medical continuing education course (CME) by the International Conference on Pain Management and Research, as well as Chair the conference and be part of the organizing committee. The topic of this seminar was Functional Pain Management and Treatment Options.

Seminar: Postgraduate instructor of the program: Functional Pain Management and Treatment Options. offered by the International Conference on Pain Management and Research – October 2016 Vancouver Canada

2016-2019

In 2016, 2017, 2018 and 2019, I was asked to develop a post graduate medical continuing education course (CME) by the International Conference on Pain Management and Research, as well as be part of the organizing committee. The topic of this seminar was Functional Pain Management and Treatment Options.

2022 (Seminar March and September 2022) – Currently Accredited

As director of the North American Spine Institute, I am responsible for developing and teaching post graduate continuing education courses entitled: Whiplash Traumatology and Treatment: Injury Mechanisms, Neurophysiology, Pain, Special Testing and Treatment to chiropractors, medical doctors, osteopathic doctors, physician assistants and physiotherapist/physical therapists throughout the United States and Canada.

- Continuing Medical Education Credit (32 Hours) Provided by:
 - o Michigan State University Medical and Osteopathic School.
 - o European Chiropractor's Union
 - o NorthEast College of Chiropractic
 - o National University of Health Sciences
 - o Academic Endorsement McMasters University Medical School
 - o This program has medical, chiropractic, physical therapy and massage therapy accreditation and endorsement in 29 countries.



- o European Chiropractors' Union
- Whiplash Traumatology and Treatment: Injury Mechanisms, Neurophysiology, Pain, Special Testing and Treatment: Module 1: Motor Vehicle Crash Forensics
 - o What is Crash Forensics
 - o Types of Collision Vectors / PDOF
 - o Rear Impact
 - o Phases of Injury/Sequence of Events
 - o General Crash Times – Kinematic response in msec.
 - o Reverse S Curve
 - o Neurophysiological consequences
 - o Example Live Crash Testing
 - o Common Injury Patterns Assessment and Diagnosis
 - o Acceleration Deceleration Injury Patterns
 - o Front Impact
 - o Phases of Injury/Sequence of Events
 - o Kinematic Response
 - o Side Impact

- Phases of Injury/Sequence of Events
- Kinematic Response Near Side Collision
- Kinematic Response Far Side Collision
- Special Considerations
- Small Overlap Collision
- Human factors affecting injury outcome
- Force loads acting on the spine
- Accident Risk Factors
- Acute Risk Factors
- Late/Chronic Risk Factors
- Accident Reconstruction and Injury
- ACR it's start in personal injury
- General objective of ACR
- ACR and Injury Analysis
- ACR and court rulings on injury
- Introduction to Event Data Recorders

- Whiplash Traumatology and Treatment: Injury Mechanisms, Neurophysiology, Pain, Special Testing and Treatment: Module 2: Physical Examination
 - Physical Examination
 - History and Intake
 - Relevant Past Medical History
 - Physical Examination – Muscle
 - Physical Examination – Neurological
 - Trauma Neurology
 - Spinal Cord Hypersensitivity after Trauma
 - Glia Cell Response
 - Brain fMRI studies and pain
 - Receptive Field enlargement
 - Consideration of alterations in Endocrine function
 - Hypothalamus controls limbic system and affect on autonomic and endocrine function.
 - Hypothalamus role in regulating neuroendocrine and immune response.
 - Physical Examination – Vestibular
 - Physical Examination – Orthopedic
 - Types of Referred Pain
 - Neurotome
 - Angiotome
 - Dermatome
 - Myotome
 - Sclerotome
 - Viscerotomes
 - Whiplash Traumatology Associated Common Syndromes/Disorders
 - Thoracic Outlet Syndrome
 - Carpal Tunnel Syndrome
 - Headaches
 - Sacroiliac Joint Injury
 - Vestibular Injury
 - Tinnitus
 - Traumatic Stress - Psychological components of Injury and Pain
 - Memory Acquisition and Storage

- Whiplash Traumatology and Treatment: Injury Mechanisms, Neurophysiology, Pain, Special Testing and Treatment: Module 3: Neurophysiology
 - Neurophysiology
 - Concussion Injury Mechanisms
 - Coup Counter Coup Injuries
 - Pressure Gradient Injuries
 - Diffuse Axonal Injuries
 - Closed Head Injuries

- Concussion Sub-Types
 - Mild Traumatic Brain Injury
 - Blood Brain Barrier Disruption
 - White Matter Disruption
 - Grey Matter Disruption
 - Head Injury
 - Post-Concussion Syndrome
 - General Cognitive Processing Ability
 - Reduced Cerebral Metabolism
 - Neuropathy Injury Mechanisms
 - Human Factors – Steering Wheel
 - Crash Factors – Offset Collision
 - Vehicle Factors – Seatbelt and Airbag
 - Traumatic Stress
 - Pain Pathophysiology
 - Pain Terminology
 - Pain Pathophysiology
 - Pain Generators
 - Pain Fiber Evaluation and Testing
 - Pain Neurotransmitters
 - Pain Response
 - Inflammation
 - Muscle Guarding/Splinting
 - Altered Biomechanics
 - Digital Algometry Testing
 - Nerve Adhesion Testing
 - Biomechanics in Pain Assessment
 - Neurophysiological Special Testing
 - Quantitative Electroencephalography (qEEG)
 - Surface Electromyography (sEMG)
 - Electromyography (EMG)
 - Nerve Conduction Velocity (NCV)
 - Motor NCV study
 - Sensory NCV study
 - AMA Guidelines 6^o Edition Impairment
- Whiplash Traumatology and Treatment: Injury Mechanisms, Neurophysiology, Pain, Special Testing and Treatment: Module 4: Treatment and Medico-Legal Concepts
- Vestibular Testing
 - Electronystagmography (ENG)
 - Visual Evoked Potentials (VEP)
 - Somatosensory Evoked Potentials (SEP)
 - Posturography Computerized Testing
 - AMA Guidelines 6^o Edition Impairment
 - Physical Medicine Treatment Options and Protocol
 - Postural Analysis
 - Cervical Traction
 - Alpha Stimulation
 - Photobiomodulation
 - Pulsed Radio Frequency
 - Neurofeedback
 - Biofeedback
 - Nutrition
 - Spinal Manipulation
 - Acupuncture/Traditional Chinese Acupuncture
 - C-Fiber / Chronic
 - Auricular Acupuncture
 - fMRI Studies
 - Whiplash Treatment Options

- Electrical Therapy
- Laser Therapy
- Exercise
- Strengthening
- Neurokinetic Exercises
- Muscle Re-Education
- Vestibular Exercises
- Nerve Mobilization
- Massage Therapy
- Lymph Drainage
- Trigger Point Therapy
- Counter Rotation
- Medical
- Opioid Usage
- Pharmaceuticals
- Injections
- Trigger Point Injections
- Nerve Blocks
- Epidural Steroid Injections (ESI)
- Botox
- Radiofrequency Neurotomy (RFN)
- Surgery
- Complimentary Care Post Rehabilitation
- Yoga
- Pilates
- Consequences of Inadequate or Under Treatment
- Additional Special Testing
- Radiographic Examination
- Primary Views of Consideration
- Primary Lines of Measurement
- Standard of Care – Davis Series
- Videofluoroscopy Examination
- MRI Examination
- Diffuse Tensor Imaging (DTI)
- Magnetic Transfer Imaging (MTI)
- Magnetic Resonance Spectroscopy (MRS)
- Magnetic Source Imaging (MSI)
- Functional MRI (fMRI)
- Contrast-Enhanced MRI
- PET (Positron Emission Tomography)
- Radionuclide Bone Scan
- SPECT (Single Photon Emission Computed Tomography)
- CT Examination
- Myelography
- Discography
- Bone Scan
- Thermography
- Regional Cerebral Blood flow Perfusion Examination
- POCUS US
- Angiography and Color-Coded Duplex Sonography (CCDS)
- Muscular Evaluation
- Sample Assessment and Report Writing – Med-Legal
- Sample report review
- Documentation
- Intake and Examination Forms
- Outcome Assessments
- Report Writing for Success
- Medical Review and Rebuttals
- Example Rebuttal Reports.

- What I learned as a Preferred Provider for Allstate.
- Revised: Whiplash Traumatology and Treatment Professional Guidelines.
 - Course work accredited for CME and CCE educational credit to attending Chiropractic Doctors, Medical Doctors, Medical Specialists, and Osteopathic Doctors. Physical Therapy and Massage Therapy educational credit provided to registered Physical Therapists and Massage Therapists.
 - Continuing Education Credit approved in 29 countries.