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SELECTED OCCUPATIONAL HISTORY

- Clinic Director, Chiropractor, Genesis Chiropractic Clinic in Horsham, Pennsylvania, (2001 – present)
- Assistant Team Chiropractor for the Philadelphia 76ers, (2003 – 2009, 2012 – present)

EDUCATION AND LICENSURE

- Doctor of Chiropractic, Licensed in the State of Pennsylvania, License #DC-007864-L, (2000 – present)
- Adjunctive Procedures, Licensed in the State of Pennsylvania, License #AJ-007864-L, (2000 – present)
- Doctorate of Chiropractic, Palmer College of Chiropractic, Davenport, Iowa, 2000
- Bachelor of Science in Human Anatomy, Pennsylvania State University, State College, PA, (1997)
- Internship, Palmer College of Chiropractic, Davenport Clinic, Iowa, (1999-2000)
- National Board of Chiropractic Examiners, Physiotherapy, (2000)
- National Board of Chiropractic Examiners, Part IV, (2000)
- National Board of Chiropractic Examiners, Part III, (2000)
- National Board of Chiropractic Examiners, Part II, (1999)
- National Board of Chiropractic Examiners, Part I, (1999)

SELECTED POST-GRADUATE EDUCATION AND CERTIFICATIONS

CBP Basic Certification Series (Deed Harrison, D.C. - 2017)

This course provides an integrated education for the Doctor of Chiropractic in the science and art of spine, posture, upper cervical spinal disorders, lumbo-pelvic disorders, thoracic spine, and lower extremity disorders. The total permutations of abnormal posture using formulas from probability theory will be delineated and a literature review on postural displacements as they correlate to patient conditions will be provided. The details of objective postural assessment and measurement will be reviewed. The Chiropractor will learn corrective global postural subluxation set-ups for the head, thoracic cage, & pelvis on a drop table. To provide diagnosis, analysis and course of care for short leg syndrome and lower extremity disorders as well as upper cervical subluxations/fixations. A survey of research material will be reviewed supporting the utilization and efficacy of Chiropractic Biophysics drop table technique treatment methods across a population of patients with chronic pain conditions. The Chiropractor will learn how posture displacement influences the upper cervical spine as well as normal joint kinematics and instability analysis of the upper cervical spine. The biomechanics and neurophysiological mechanisms of instrument adjusting techniques will be reviewed with indications for different techniques of segmental versus postural adjusting. Corrective global postural subluxation set-ups for the head, thoracic cage, and pelvis with a hand-held instrument used to adjust the upper cervical area will be reviewed as will segmental adjusting techniques for upper cervical subluxation/displacements. The DC will learn at least one proper side and opposite side type of set up for each of the head to thoracic spine postures

and the DC will learn one proper side and opposite side type of set up for each of the very common full spine postures. A comparative review of upper cervical methods of adjusting and a literature review on upper cervical anomalies will be learned. The details of case management using these instrument-adjusting methods will be covered using a variety of case studies for a comprehensive picture of clinical application of this course material. A survey of research material will be reviewed supporting the utilization and efficacy of the course materials. Detailed literature reviews covering the crisis of lumbar disorders in patient populations, the role of spinal manipulative therapy and structural correction of sagittal lumbar lordosis will be covered. Normal average and ideal values for the lumbar lordosis will be reviewed. Detailed categories of lumbo-pelvic postures, spine kinematics and abnormalities of the sagittal lumbar lordosis will be learned. The Chiropractor will learn appropriate application and timing of postural and functional exercises for the lumbar spine designed to correct spinal subluxation and strengthen the lower back tissues. The Chiropractor will be introduced to 17 categories of sagittal lumbar traction and 5 methods of coronal lumbar traction with demonstrations for structural rehabilitation of the lumbar spine. Indications and contraindications to these new structural rehabilitation procedures will be reviewed. The details of case management using these structural rehabilitation methods will be covered using a variety of case studies for a comprehensive picture of clinical application of this course material. A survey of research material will be reviewed supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods across a population of patients with chronic pain conditions. This course provides a comprehensive overview of the thoracic spine and posture as they related to health and disease. Current research is reviewed demonstrating how thoracic subluxations can be at the core of a patient's health disorders. Detailed analysis and CBP protocols of thoracic rehabilitation interventions are covered. Thoracic posture corrective procedures (exercise, adjusting, and traction) are reviewed using a variety of easy to follow case studies.

Chiropractic BioPhysics Posture and X-Ray (Deed Harrison, D.C. - 2017)

This course provides an integrated education for the Doctor of Chiropractic reviewing the literature on frequency and duration topics for establishing a logical treatment plan for Chiropractic patients. This course will define two types of structural based models for chiropractic assessment, interventions and outcomes. The first is a set of average and ideal alignment values for the upright spinal column and the second is an optimum static equilibrium upright postural model; detailed literature will be presented. Using the models as a starting position, six biomechanical types of subluxation will be delineated. Emphasis will be placed on abnormal posture and segmental spinal coupling patterns as rotations and translations in 3-D as well as alterations of the sagittal plane curvatures. The validity, reliability projection geometry of CBP analysis methods will be presented. The CBP method of postural examination and with practical technique training stations will be taught. Some basic definitions and theorems from mechanical engineering governing rigid body motion will be reviewed and applied to the spine and posture. The attendee will learn to identify, categorize, quantify, and correct the structural component of the vertebral subluxation complex. Lastly, the attendee will learn to structure patient specific, evidence based CBP Rehabilitative Program of care terms of frequency and duration of care.

CERVICAL SPINE & TMJ WORKSHOP (Mitch Mally, D.C. – 2017)

Detailed Adjusting Techniques of the Cervical Spine, Occiput, and TMJ Joint. Additional study of Patient's intake history and subjective remarks and how to apply it to the diagnosis and treatment plan. Develop a clear understanding of normal and abnormal joint mechanics relative to the mechanism of injury. Interpret x-rays, palpate, and identify abnormal joints.

Chiropractic BioPhysics Cervical Rehab (Deed Harrison, D.C. - 2016)

Detailed literature reviews covering the crisis of cervical disorders in patient populations, the role of spinal manipulative therapy and structural correction of sagittal cervical lordosis. Normal average and ideal values for the cervical lordosis. Detailed categories of head to thorax postures, spine kinematics and abnormalities of the sagittal cervical lordosis. Appropriate application and timing of postural and functional exercises for the

cervical spine designed to correct spinal subluxation and strengthen the cervical and upper thoracic spine tissues. 16 categories of sagittal cervical traction and 3 methods of coronal cervical traction with demonstrations for structural rehabilitation of the cervical spine. Indications and contraindications to these new structural rehabilitation procedures. Details of case management using these structural rehabilitation methods using a variety of case studies for a comprehensive picture of clinical application of this course material. A survey of research material supporting the utilization and efficacy of CBP technique structural rehabilitation treatment methods across a population of patients.

Imaging of Thoracolumbar Spine Trauma (Weiner, MD, DC, DACBR - 2016)

Summarize the radiographic findings of simple compression fractures and discuss how spinal biomechanics predispose to their occurrence. Describe the radiographic signs and sequelae of burst fractures and differentiate them from simple compression fractures. Identify the imaging findings of Chance type fractures and discuss their most common complications. Recognize the common radiographic manifestations of posterior arch trauma. Categorize the different types of intervertebral disc lesions and summarize their imaging findings.

Upper Cervical Radiology associated with Spinal Trauma (Weiner, MD, DC, DACBR - 2016)

Assess cervical radiographs to identify the radiographic signs of lower cervical spine trauma, recognizing which views are most diagnostic. Recognize, differentiate, and classify cervical hyperflexion and hyperextension injuries with respect to spinal stability. Identify and describe the imaging findings of neural arch trauma in the lower cervical spine. Discuss and categorize the complications of lower cervical spine trauma. Summarize the gravity as well as the evolving imaging and management protocols of penetrating neck injury.

Analysis of 5 view cervical x-rays for misalignment and loss of motion (Affolter, DC – 2016)

Demonstrate proper patient placement for taking a five view cervical series: Lateral, Flexion, Extension, AP, APOM; Discuss possible errors in patient placement and the effect such errors will have on the analysis of the film; Draw lines on the APOM to determine laterality of atlas; Critique the wedge line analysis and the median skull line analysis; Describe the listing system for the cervical vertebrae

Chiropractic, Orthopedic and Neurological exam of the Cervical Spine (Lawson, DC – 2016)

Recognize the signs and symptoms of a neck disorder; Differentially diagnose neck disorders Perform the different elements of a neck exam; Comprehend the importance of "red flags" in the exam and evaluation of neck complainants; Summarize additional neck tests that can be performed and under what conditions to use them.

Physical Diagnosis of Dizziness: Recognition and Management (Ferezy, DC, DACAN, FIACN – 2016)

Define dizziness; Define vertigo and other associated symptoms; Discuss cervicogenic disequilibrium; Discuss diagnostic tests to determine the cause of vertigo. Evaluation of a patient who complains of "dizziness." It will focus on history, exam techniques and the most common causes of vertigo of both peripheral and central origin.

Brimhall Wellness Seminar (John Brimhall, DC – 2015)

The Triad of Gut Destruction and Immunogenicity of Foods, inflammation, symptomatic expressions & auto-immunity... with complexity recognition, evaluation and treatment. Adjuncts to the Chiropractic Adjustment and the Six Steps to Wellness. Blood, Hair and Toxic Urine challenges to assess and treat the patient with exactness, based on the Scientific Literature and a computerized reporting system. Evaluation of the lower extremities, including feet and an extremely complete orthotic system. Latest research in [Oxidative Medicine](#). Evaluation and taping of the complicated patient. Documentation, coding and compliance.

Foot Function and the Effects on the Core and Body Dynamics (Waerlop/Allen, DC - 2014)

Describe how the motor and sensory homunculus relate to the foot and are integral to training and rehabilitation; Discuss the 3 rockers of the foot; Give examples of problems that result from a loss of the 3 rockers of the foot; Explain the concept of pelvis neutrality and its effect on training; Describe and examine the tripod of the foot; Breakdown most movement into 2 basic rules or tenets; Give examples of the problems which can arise if the 2 basic rules or tenets of movement are not followed; Discuss the clinical consequences of loss of the medial and lateral tripods of the foot

A Systematic Approach to Interpreting Plain Film Radiographs of the Spine/Pelvis (Sherman, DC)

Recognize and identify important key factors for interpreting plain film x-rays of the spine and pelvis; Recognize important medical/legal issues regarding interpreting plain films of the spine and pelvis and be able to apply appropriate radiographic documentation requirements when charting x-ray findings in the medical record; Identify, analyze and interpret normal and abnormal anatomical osseous structures, common congenital and acquired pathologies, common normal radiographic variants and soft tissue calcifications/structures of the cervical, thoracic, lumbar, lumbosacral spine and pelvis.

Identifying aneurysm on x-ray (Osterhouse, DC, DACBR – 2014)

Alert your clinical consciousness to prevent complacency; Explain ways to identify the most common aneurysms clinically and on x-ray in the abdominal aorta, thoracic aorta, and splenic artery; Differentiate aneurysm from dissection and pseudoaneurysm

Disc herniations and degenerative disc disease: clinical findings and diagnostic imaging (Osterhouse, DC, DACBR – 2014)

Describe the anatomy of the disc and what causes the disc herniation; Discuss the clinical presentation and who is at risk for a disc herniation; Explain the diagnostic imaging findings for the disc herniation patient; Evaluate the treatment options for disc herniation patients

Imaging and Conservative Management of Osteoarthritis (Osterhouse, DC, DACBR – 2014)

Describe the patients that are at risk for developing osteoarthritis; Summarize the pathophysiology behind the disease; Discuss what osteoarthritis looks like on plain film and which joints are most likely affected; Discuss the use of advanced imaging in osteoarthritis; Present the research on many conservative treatment options including: physiotherapy, physical therapy/exercise, diet, and acupuncture

Gout: Diagnosis and Diagnostic Imaging (Osterhouse, DC, DACBR – 2014)

Explain the origin and pathophysiology of gout; Understand how to prevent and monitor gout; Examine gout on plain film; Determine the clinical presentation of gout; Describe the differences between the crystal arthritides on plain film

Ankylosing Spondylitis (Osterhouse, DC, DACBR – 2014)

Explain the clinical presentation, physical examination findings, orthopedic tests, laboratory findings, and radiographic findings associated with ankylosing spondylitis; Discuss the extraskeletal manifestations of ankylosing spondylitis; Explain the similarities and differences between the spondyloarthropathies; Discuss the surgical and pharmacological management; Discuss treatment that promotes spine mobility including the chiropractic adjustment

Diagnostic imaging and the diabetic foot (Osterhouse, DC, DACBR – 2014)

Use plain film to identify imaging findings of common diabetic foot fractures; Discuss foot ulcers and using diagnostic imaging to rule out secondary osteomyelitis; Identify diagnostic imaging findings of neuropathic osteoarthropathy (Charcot foot)

Osteoporosis and the use of DEXA for diagnosis (Osterhouse, DC, DACBR – 2014)

Understand Osteoporosis - (risk factors, incidence, prevalence, morbidity, etc.); Understand the fundamentals of DEXA (dual-energy x-ray absorptiometry), the gold standard in bone density testing; Explain how to interpret the results; Investigate the advantages and limitations of DEXA; Investigate the indications and contraindications for utilization of DEXA

Imaging of Musculoskeletal Trauma (Weiner, MD, DC, DACBR - 2014)

Discuss the fundamental role of trauma in musculoskeletal disease and the various diagnostic imaging techniques used to evaluate it; Identify, describe, and classify fractures by both direct & indirect radiographic signs; Review fractures of specific etiologies based upon imaging findings; Evaluate fracture alignment issues, complications, and healing; Identify non-accidental injury of childhood, as well as normal structures that mimic fractures

AP Open Mouth Projection (Martensen, DC, DACBR - 2014)

Point out the anatomy of the upper cervical spine and associated regional anatomy as seen on the APOM; Identify variants of anatomy on APOM, noting if they are clinically relevant in providing Chiropractic care; Differentiate pathology noted in the region; Discuss the advantages and disadvantages of imaging modalities for the upper cervical spine and maxillofacial region

Chest Xray (Osterhouse, DC, DACBR – 2014)

Determine the diagnostic imaging findings consistent with a diagnosis of emphysema; Discuss the plain film findings of congestive heart failure and conservative treatment options for these patients; Determine the stage of sarcoidosis on plain film; Identify the most common mediastinal masses of the chest; Analyze different diagnostic imaging manifestations of pneumonia

Imaging of Upper Cervical Spine Trauma (Weiner, MD, DC, DACBR - 2014)

Recognize normal bony and soft tissue anatomy of the upper cervical spine; Describe the direct and indirect signs of cervical trauma; Identify the more common mimics to cervical spine trauma; Summarize specific traumatic conditions affecting the upper cervical spine and their imaging findings; Assess which traumatic conditions of the upper cervical spine are stable, which are unstable, and how to manage each.

Imaging and Imaging Features related to Back Pain (Martensen, DC, DACBR - 2014)

Identify common causes of back pain; Assess pro and con of different imaging modalities related to back pain; Identify imaging features that may relate to back pain; Develop imaging strategy for back pain

Ordering proper diagnostic imaging for common chiropractic conditions (Osterhouse, DC, DACBR – 2014)

Order proper diagnostic imaging for the lumbar spine; Determine appropriate imaging for various pediatric musculoskeletal complaints; Use plain film imaging for extremity complaints; Determine what advanced imaging is appropriate for different extremity pathology

Tumor-Like Conditions Found on Plain Film Xray (Osterhouse, DC, DACBR – 2014)

Determine the skeletal manifestations of neurofibromatosis and Paget's disease; Assess the diagnostic features of someone with neurofibromatosis or Paget's disease; Identify benign and malignant tumors commonly associated with neurofibromatosis and Paget's disease; Discuss the pathophysiology of neurofibromatosis and Paget's disease

Positron Emission Tomography (PET scans) (Osterhouse, DC, DACBR – 2014)

Identifying bone and joint uses for PET; Discussing neurological uses of PET, focusing on Parkinson's disease and Alzheimer's disease diagnosis; Demonstrating the oncology use of PET; Comparing PET with other diagnostic imaging modalities

Pediatric Fractures (Osterhouse, DC, DACBR – 2014)

Demonstrating the differences between pediatric fractures and adult fractures; Looking at the red flags for reporting non-accidental trauma (child abuse); Identifying fractures in children with osteopenia; Discussing common upper extremity and lower extremity fractures; Assessing proper protocol in imaging pediatric fractures, namely the use of plain film, ultrasound, MRI and CT

Diagnostic Imaging and the Fetus (Osterhouse, DC, DACBR – 2014)

Determine the risks of ionizing radiation on the fetus; Demonstrate the usefulness and limitations of ultrasound with regards to the pregnant woman; Analyze the appropriate usage of magnetic resonance imaging in fetal diagnoses

Pediatric Safety Concerns with Diagnostic Imaging (Osterhouse, DC, DACBR – 2014)

Determine the risk of MRI procedures and gadolinium contrast agents with respect to children; Discuss the consequences of ionizing radiation in plain film, computed tomography, nuclear medicine, and fluoroscopy; Demonstrate procedures to lessen the consequences of diagnostic imaging and discuss alternatives to the riskier modalities

Dislocations and Diagnostic Imaging (Osterhouse, DC, DACBR – 2014)

Evaluate the plain film images of upper and lower extremity dislocations; Determine the mechanism of action and clinical presentation for upper and lower extremity dislocations; Summarize the treatment options for the different upper and lower extremity dislocation; Use assessment tools to determine treatment outcomes for extremity dislocations

Extremity Fractures (Osterhouse, DC, DACBR – 2014)

Summarize the current literature on fracture prevention; Discuss diagnostic imaging and treatment of hip fractures; Evaluate common lower extremity fractures, including stress fractures; Discuss common upper extremity fractures, including the Colle's fracture and stress fractures; Demonstrate knowledge of fractures in special populations, including adolescents and the developmentally disabled

Vertebral Compression Fractures (Osterhouse, DC, DACBR – 2014)

Assess the clinical presentation and diagnostic imaging procedure for vertebral compression fractures; Discuss the use of plain film, CT, MRI, and DEXA; Discuss treatments for vertebral compression fractures; Identify other causes of vertebral fractures; Identify other fractures besides vertebral fractures

Chiropractic and Pregnancy - Common tests and procedures - risks and benefits (Gardner, DC – 2012)

Identify the most common medical tests and procedures performed on pregnant and laboring women; Recognize the risks of these tests and procedures; Assess the benefits of these tests and procedures; Effectively explain these risks and benefits to the pregnant patient; Assist in the preparation of a well thought out and defined birth plan for the pregnant patient

Preventing birth trauma with proper pre-natal care (Gardner, DC – 2012)

Identify the most common birth trauma(s) to a newborn; Assess the biomechanics of the pregnant pelvis; Recognize how certain maternal pelvic misalignments can lead to increased incidence of various birth traumas; Modify adjustive techniques and methods to better care for the pregnant patient; Reduce the prevalence of certain birth traumas due to distortions and misalignments in the maternal pelvis

Dietary and exercise concerns during pregnancy (Gardner, DC – 2012)

Outline necessary dietary requirements for the mother to be; Differentiate between safe and unsafe exercises that can be recommended to the expectant mother; Give examples of safe exercise practices to the pregnant

patient; Identify the normal and customary weight gain during a healthy pregnancy; Offer dietary recommendations and healthy food choices to the pregnant patient

Herbs and Homeopathy during pregnancy (Gardner, DC – 2012)

Outline the most common herbal and homeopathic remedies that may be useful to a DC who cares for pregnant patients; Differentiate between helpful remedies and those contraindicated for use during pregnancy; How and when to successfully integrate these palliative therapies to relieve common complaints of pregnancy; Recognize the basics of homeopathy, why and how it works, how to administer remedies and proper use and storage of remedies; Generalize the use and need for these remedies to accommodate the special needs and concerns of the pregnancy patient

Case Management of Common Pregnancy Related Complaints (Gardner, DC – 2012)

Outline eight commonly encountered complaints of pregnancy that a DC might encounter in practice; Differentiate between similar complaints to establish best course of care; Understand the various causes of each complaint and how to address these causes; Integrate other palliative therapies to relieve these complaints; Analyze and adjust according to the complaint and concomitant exam findings

The Five Common Neurological Complaints of Pregnancy (Gardner, DC – 2012)

Outline the most commonly encountered neurological complaints of pregnancy that a D.C. might encounter in practice; Differentiate between similar complaints to establish best course of care; Modify normal practices, techniques and methods to accommodate for the biomechanical changes of the pregnancy patient; Integrate other palliative therapies to relieve these complaints; Analyze and adjust according to the complaint and concomitant exam findings

Clinical Aspects of Spinal Cord Disease (Ferezy, DC, DACAN, FIACN - 2012)

Discuss relevant neurological anatomy and function of the meninges; Discuss relevant neurological anatomy and function of the arterial and venous CNS circulation; Discuss relevant neurological anatomy and function of the cerebrospinal fluid (CSF) circulation; Illustrate the clinical presentation resulting from disease of the various areas; Outline various categories for vascular CNS lesions; Utilize a Grand Rounds type case presentation

Syndromes involving the spinal cord (Ferezy, DC, DACAN, FIACN - 2012)

Explore current role of the art and science of clinical neurology for the chiropractor; Discuss relevant neurological anatomy of the spinal cord; Summarize relevant functional neurology of the spinal cord; Illustrate the clinical presentation resulting from disease of the various cord areas; Outline various categories for spinal cord lesions; Organize findings of spinal cord disease by anatomical location and clinical presentation

Complete Neurological Examination (Ferezy, DC, DACAN, FIACN - 2012)

Observe a doctor patient encounter where the patient is a paraplegic; Explore the relevant issues and action protocols involved in acute spinal cord disease; Evaluate relevant clinical findings; List the clinical presentations of various complaints and the approach to diagnosis; Summarize relevant functional neurology of the spinal cord

Chiropractic Clinical Neurology: Basic Lower Brain, Brainstem and Spinal Cord Anatomy: A Clinical Perspective (Ferezy, DC, DACAN, FIACN - 2012)

Explore current role of the art and science of clinical neurology for the chiropractor; Discuss relevant neurological anatomy of the central nervous system, exclusive of the cortex; Summarize relevant functional neurology of the central nervous system exclusive of the cortex; Illustrate the clinical presentation resulting from disease of the various brain and cord areas; Outline various categories for spinal cord lesions; Organize findings of central nervous system disease by anatomical location and clinical presentation

Anatomy of the skull and spine with dissection of the cervical spine (Ferezy, DC, DACAN, FIACN - 2012)

Explore current role of the art and science of clinical neurology for the chiropractor; Discuss briefly the relevant neurological anatomy and functional neurology; Describe in detail the anatomy and function of the components of the human skull with attention to aspects which may be important to the chiropractic physician; Explore the current role of clinical neurology for the practicing chiropractor; Describe in detail the anatomy and function of the components of the human spine with attention to aspects which may be important to the chiropractic physician

Brain Anatomy & Function: The Motor Cortex (Ferezy, DC, DACAN, FIACN - 2012)

Discuss briefly the relevant brain anatomy and functional neurology with focus on the frontal lobe and motor cortex; Describe the anatomy and physiology of the human brain cortex as it relates to the basic tenants of chiropractic and to spinal subluxation; Identify key anatomical components of the frontal lobe and motor cortex; Discuss some of the pioneers in neuroscience underscoring their individual contributions; Draw basic neurological pathways associated with the frontal lobe and motor cortex.; Relate function of the frontal lobe and motor cortex to various associated disease conditions.

Identifying the three most common cancers of bone on diagnostic imaging (Osterhouse, DC, DACBR – 2014)

Identify the source of metastatic lesions; Determine an advanced imaging protocol once a metastatic lesion is found; Discuss how to identify on radiographs the two most common primary malignancies of bone - multiple myeloma and osteosarcoma

Soft Tissue Injuries (Simon, DC 2012)

Describe biomechanics of movement of the joints, ligaments, muscles, tendons, bursa, nerves and fascia of the lower extremity, pelvis and spine, TMJ and upper extremity; Explain weight distribution and movement of ligaments, muscle and fascia in relation to the feet as foundation; Discuss soft tissue movement during standing, walking, running, twisting, bending, reaching and grasping; Relate movement interactions and stresses on soft tissues from one body region to another; Demonstrate to your patients, correct posture from the feet as foundation to the cervical spine; Educate and demonstrate the correct use of the core in posture; Show patients how to relax their shoulders using the thoracic spine as a lever; Describe and demonstrate appropriate gait in relation to correct posture; Explain to your patient how the soft tissue adapts to an unstable scoliosis; Apply understanding of injury dynamics in individual soft tissue structures (ligament, musculotendon, bursa, nerve, fascia); Interrelate soft tissue contractures from one region of the body to another; Learn passive and active examination techniques for all soft tissue structures of the soft tissue structures mentioned in Educational Objective 1; Review Applied Kinesiology as a tool for muscle isolation and clinical testing; Differentiate muscle strength testing from the proprioception evaluation of Applied Kinesiology; Integrate Applied Kinesiology examination and treatment into soft tissue evaluation and case management; Clinical examination of soft tissue structures of the soft tissue structures mentioned in Educational Objective 1.; Apply examination findings into differentially diagnosing soft tissue fibrosis, scar tissue and adhesions, trigger points and pain radiation patterns; Inter-relate different regions of the body with local soft tissue findings; Discern appropriate clinical application for advanced imaging studies and soft tissue; Apply treatment protocols for ice, heat, stretching, Somatic Technique, Strain/counterstrain, friction massage, post-isometric relaxation, modalities, massage techniques, myofascial release, active release, Neuromuscular therapy, cold laser, exercise rehabilitations, mobilization and manipulation; Apply techniques mentioned in Educational Objective (above) as well as Applied Kinesiology to all joints, ligaments, muscles, tendons, bursa, nerves and fascia of the lower extremity, pelvis and spine, TMJ, and upper extremity; Relate treatments to improved movement locally, regionally and other affected regions and educate your patient to reasonable goals; View the soft tissue structures of the body as a whole with recognizable patterns of dysfunction and treat these soft tissues for greater flexibility and function.

Revealing the interaction of natural healing with pharmaceutical pain intervention and the resultant effectiveness of manual therapies (Born, DC – 2010)

Explain the three phases of healing for non-cancerous tissue, and examine the physiology of heat and ice therapies; Outline the differences in tissue type and healing times between strains and sprains; Contrast the differences between NSAIDs and corticosteroids, including their side-effects and lasting effects on the body; Discuss the side effects and precautions pertinent to manual therapists for analgesic and anti-inflammatory medications; Classify the pharmaceuticals that act on the central nervous system to control pain, inflammation, circulation, and the immune response, defining specific precautions pertinent to the profession

Differentiating between benign and malignant tumors and the real vs perceived contraindications that pharmaceuticals have regarding manual therapies (Born, DC – 2010)

Explain in concise terms the two kinds of neoplasms, the causes of cancer, and how tumors are named; Differentiate the clinical differences between benign and malignant tumors, and the different approaches for manual therapy needed for each; Compare and contrast the different methods for cancer staging and grading; Discuss the clinical concerns for manual therapies and outline a systematic approach to determine appropriate treatment plans; Discover the pharmaceutical precautions for manual therapists, including those that may damage the therapist's own skin

Comprehensive Introduction to Soft tissue Injury and Treatment (Simon, DC – 2010)

Explain the types of soft tissue; Demonstrate and discuss diagnostic evaluation of soft tissue injury; Explain pain patterns of neurological injury for differential diagnosis; Discuss types of soft tissue injuries; Evaluate soft tissue changes associated with pain; Discuss the mechanisms of healing soft tissue injuries; Describe diagnostic tools in determining soft tissue injuries; Explain the use of ice and heat in soft tissue injuries; Demonstrate and discuss stretching; passive, active and postfacilitation; Demonstrate and discuss somatic technique; Demonstrate and discuss strain/counterstrain; Demonstrate and discuss friction massage; Demonstrate and discuss Postisometric relaxation; Demonstrate and discuss electrical muscle stimulation and ultrasound; Demonstrate and discuss triggerpoint ultrasound in treatment; Discuss massage therapy; Demonstrate and discuss myofascial release; Demonstrate and discuss active release; Demonstrate and discuss Neuromuscular Therapy (NMT); Discuss cold laser therapy; Demonstrate and discuss exercise rehabilitation and muscle strengthening; Discuss mobilization and manipulation

Soft Tissue Injury: The Neglected Cause of Musculoskeletal Disorders (Simon, DC – 2010)

Explain the anatomy and functionality of healthy soft tissue components; Explain the effects of injury on soft tissue; Define effects of injured soft tissue on functionality of the spine and extremities; Discuss patterns of musculoskeletal relationships of recruiting other structures after injury and their effects on functionality; Describe various methods of treatment for dysfunctional soft tissue; Explain relationship of injured tissue to its surrounding structures, its effects and treatment; Explain compensation and recruitment of healthy tissue to the broader scope of complications and the effective treatment of primary and now secondary effects of injury; Describe rehabilitation exercises in relation to proprioception

Soft Tissue Injury: The Shoulder (Simon, DC – 2010)

Explain the structural anatomy of the shoulder and its soft tissue; Explain the functional anatomy of the shoulder and its soft tissue; Demonstrate the active and passive examination of the shoulder and soft tissue; Describe pathological conditions of the bony structures, joints, ligaments, tendons, bursa and muscles of the shoulder; Describe sports injuries to the shoulder; Describe injuries to the nerves, blood vessels and fascia of the shoulder; Demonstrate soft tissue treatments for pathological conditions of the bony structures, joints, ligaments, tendons, bursa and muscles of the shoulder; Demonstrate soft tissue treatments for the nerves, blood vessels and fascia of the shoulder; Define functional relationships of the shoulder with associated regions

Natural analgesic and anti-inflammatory agents (Italia, DC, PhD - 2010)

Identify how free radicals are formed and what parts of the body are affected; Determine the relationship between antioxidants and cardiovascular disease and cancer; Discuss the role that vitamins, amino acids and herbs have in pain control; Examine inflammation and the pro-inflammatory state; Construct an anti-inflammatory diet; Determine which vitamins, minerals and herbs are useful as natural anti-inflammatories; Identify the role of Proteolytic enzymes and inflammation and review sources of fatty acids.

Co Q10: functions, use in performance, Parkinson Disease and migraines (Smith, DC, PhD – 2010)

Identify some of the functions of Co Q10; Use Co Q10 for as appropriate as a supplement; List the issues of performance changes with Co Q10; Discuss the reasons for, and application of, Co Q10 for patients with Parkinson Disease and migraines

Drug, Herb and Nutrient Interactions and Toxicity (Italia, DC, PhD – 2010)

Identify common drug and nutrient interactions; Identify herbal interactions; Identify nutrient and nutrient interactions; Recognize different toxicity levels for various nutrients; To formulate treatment recommendations based a patient's medication intake.

Drug-Vitamin-Herb Interactions (Steriti, ND, PhD - 2010)

Discuss the interactions between nutritional supplements and diuretics, statins and anticoagulant drugs; Discuss the interactions between nutritional supplements and antidepressants, antidiabetic medications, and antibiotics; Discuss the interactions between drugs and the B vitamins, fat soluble vitamins; Discuss the interactions between drugs and vitamin C, folic acid, PABA, progesterone, tyrosine, phenylalanine, and therapeutic oils

Nutritional Support for Cognitive Enhancement and Mental Decline (Steriti, ND, PhD - 2010)

Review Age-Associated Mental Decline, including its symptoms, causes and innovative drug therapies; Discuss and define nutritional support strategies for Age-Associated Mental Decline, including vitamins, hormones and antioxidants; Outline innovative drug strategies for cognitive enhancement; Apply nutritional support strategies for cognitive enhancement

Nutritional Support for ALS (Amyotrophic Lateral Sclerosis) (Steriti, ND, PhD - 2010)

Define the common signs and symptoms leading to the diagnosis of Amyotrophic Lateral Sclerosis; Utilize conventional and alternative lab test for Amyotrophic Lateral Sclerosis; Learn about the conventional treatment options for ALS, including drug therapies and new drug research; Utilize nutritional support strategies for ALS, including diet, and nutritional supplements; Coordinate care with the Medical Profession for innovative drug strategies for ALS

Nutritional Support for Alzheimer's disease (Steriti, ND, PhD - 2010)

Discuss the causes and genetics of Alzheimer's Disease; Review the diagnosis of Alzheimer's Disease, including symptoms, incidence, course, and risk factors; Understand conventional lab tests for Alzheimer's Disease; Review the conventional treatment options for Alzheimer's disease, including drug therapies; Understand new drug research and innovative drug strategies for Alzheimer's disease; Utilize nutritional strategies for Alzheimer's disease, including vitamin, mineral and herbal therapies; Discuss and define drug-vitamin-herb interactions for nutritional supplements recommended for Alzheimer's disease

Nutrition and Exercise (Italia, DC, PhD – 2010)

Understand how muscle contraction occurs; Review practical muscle physiology; Determine how the body responds to exercise; Discuss the role of hormones in regards to muscle; Identify the components of proper assessment for physical fitness; Review the main components of a weight training exercise program; Identify various exercise training methods; Discuss the practical aspects of body composition; Review basic nutrition and how it relates to sport and exercise; Determine the energy needs and energy balance of the athlete

Pediatric Research (Kinsler, DC – 2008)

Construct a list of signs and symptoms relating to Pediatric Meningitis; Identify pediatric injuries associated with strollers; Review a pediatric case involving a herniated nucleus pulposus; Discuss the principles of evaluating common versus rare diagnoses; Evaluate pediatric otitis media and possible herbal remedies; Discuss over-the-counter medications vs. placebo for cough in children and their effect on sleep quality; Discuss the implications of herbal remedies used to treat pediatric patients; Present case report of remission of ADHD associated with chiropractic treatment; Discuss the effect of migraine headaches on quality of life in children; Present case report of pediatric patient with myasthenia gravis treated with chiropractic care; Describe and utilize an effective but non-invasive treatment for warts; Understand the risk versus benefit of diagnostic imaging radiation in children; Recognize patterns of pain in children that might actually indicate malignancies; Develop an understanding of pediatric atlantooccipital dislocation; Be able to perform 5 minute infant physical examination to detect congenital anomalies of the musculoskeletal system; Evaluate the effects of children eating low glycemic foods on later meals and to understand the Glycemic Index Ratings; Recommend an effective, natural treatment for constipation in children and to understand the efficacy of fiber on pediatric constipation; Recognize common and uncommon presentations of Lyme Disease in a child and know when to refer; Create specific recommendations to parents and children about bicycle helmet fitting and safety; Recognize the signs and symptoms of slipped capital femoral epiphysis and make the appropriate recommendations; Discuss potential dangers of OTC medications; Summarize the effects of vaccinations on infants immune systems; Assess the need for Cervical Spine X-Rays in Pediatric Cervical Injuries; Correlate the relationships of physical activity and diet as related to Pediatric Fractures; Discuss prevention of sudden infant death syndrome; Identify if breast feeding longer can make kids smarter; Develop an understanding of the Ottawa Knee Rule; State aspects of Seat Belt Syndrome in children; Determine the safety of scooters for children; Prepare a list of four questions to diagnose pediatric asthma; Identify how family routines may help pediatric asthma; Determine the effect of breast feeding on pediatric asthma; Discuss how to measure a child's pain accurately; Identify aspects of calcium intake for children; Identify if visually impaired children have more scoliosis; Determine if bracing for scoliosis makes a difference; Discuss safe strength training for children; Identify aspects of chronic fatigue syndrome in children; Develop the relationship of asthmatic infants to furry pets; Survey aspects of alternative medicine for children; Identify causes of intoeing gait in children; Develop differential diagnoses of back injuries in young athletes; Construct a physical examination of adolescents for sports participation; Review the medical view of pediatric Chiropractic; Identify the best method to take Pediatric Temperature; Review the relationship between television and aggressive behavior; Identify the link between childhood headaches and adult health; Develop Pediatric recommendations for beverage consumption; Survey aspects of a milk-free diet and relationship to nutrition

Shoulder Pathology (Schwer, DC - 2008)

Develop an understanding of shoulder anatomy and motion as they pertain to diagnosis and treatment of the injured shoulder; Review examination techniques relative to diagnosis of injury in the overhead athlete; Review the characteristics and diagnosis of shoulder injuries common to overhead athletes; Understand the functional anatomy of joint and the classification of traumatic injuries of the acromioclavicular joint; Develop understanding of the mechanisms, examination, diagnosis, radiography and treatment of common acromioclavicular joint injuries

Joint Diagnosis (Schwer, DC - 2008)

Construct examination/radiographic criteria for Osteochondritis Dissecans; Dissect the elbow as it relates to lateral epicondylitis; Develop a diagnostic and treatment approach for adhesive capsulitis; Review possible causes of Intervertebral Disc Degeneration; Create a list of differential diagnoses of foot pain

Physical Diagnosis (Kinsler, DC – 2008)

Establish risk factors and treatment for Osteoporosis; Construct differential diagnoses for Fatigue; Identify the use of the Active Straight Leg Raise Test; Establish risk factors for stroke; Diagnose and Treat Fibromyalgia

Childhood Nutrition - vitamins, minerals, fiber, growth and obesity (Italia, DC, PhD – 2008)

Understand proper growth rates and weight gain in early childhood; Identify specific minerals involved in childhood nutrition; Explain the stages of obesity development in childhood; Review the importance and problems associated with childhood obesity; Evaluate the role of fiber in childhood

Female Nutrition - Osteoporosis, Pregnancy and Lactation (Italia, DC, PhD – 2008)

Demonstrate an understanding of the role of calcium and other minerals in osteoporosis; Design a treatment protocol for the osteoporotic patient; Create nutritional guidelines for the pregnant female; Identify changes in vitamin and mineral requirements in pregnancy; Review the nutritional changes that occur with lactation

Nutrition and the Elderly (Italia, DC, PhD – 2008)

Identify changes in vitamin needs and status that occurs with aging and in the elderly; List changes in mineral needs and status that occurs with aging and in the elderly; Demonstrate an understanding of protein, fiber and water needs of the elderly; Identify important antioxidants in the elderly and the interactions that exist between them; Create a list of nutritional deficiencies and how they can lead to disease and illness in the elderly

Herbal Therapies (Italia, DC, PhD – 2008)

Discuss the mechanism and effects of Psyllium, Pygeum, Senna, Shiitake, St. Johns Wort, Saw Palmetto, Turmeric, Valerian Root, and White Willow; Formulate the Herbal management of Arthritis, Depression, Diabetes, Headaches, Heart Disease, High Blood Pressure and Osteoporosis; Identify the conditions treated with specific herbs; List the effects, indications and dosages for Chamomile, Echinacea, Ephedra, Feverfew, Garlic, Ginger, Ginkgo Biloba, Ginseng, Goldenseal, Gugulipid, Gymnena sylvestre, Horse Chestnut, Licorice, Milk Thistle, Nettle, and Passionflower; Discuss the basics of herbal medicine; Identify the conditions treated with herbs; List the effects, indications and dosages for Tea Tree, Bilberry, Black Cohosh, Boswellia, Bromelain, Calendula, Cascara Sagrada, and Cayenne

Nutritional Treatment for Hypertension, Peripheral Vascular Disease and other CV conditions (Italia, DC, PhD – 2008)

Discuss various diet and lifestyle factors involving hypertension; Recognize the relationship between various minerals and hypertension; Distinguish the nutritional aspects of various related cardiovascular conditions; Identify the relationship between various herbs and peripheral vascular diseases

Nutritional Treatment for Cardiovascular Disease (Italia, DC, PhD – 2008)

Identify risk factors of cardiovascular disease; Construct a list of appropriate food and food groups associated with cardiovascular disease prevention; Evaluate various supplements that are beneficial in prevention and treatment of cardiovascular disease; Differentiate various diets in regard to cardiovascular disease

Differentiating types of calcification and ossification on x-ray (Osterhouse, DC, DACBR – 2006)

Differentiate ossification from calcification; Identify the categories of ossification; Differentiate myositis ossificans progressiva from myositis ossificans traumatica; Discuss imaging utilization with regards to ossification; Review common and uncommon entities predisposed to ossification or calcification

Ligamentous and Osteochondral injuries of the knee (Martensen, DC, DACBR – 2006)

Identify and classify injuries to the anterior cruciate ligament; Diagnose and develop treatment for injuries to the posterior cruciate ligament; Diagnose and develop treatment for injuries to the medial collateral ligament; Diagnose and develop treatment for injuries to the lateral collateral ligament; Describe and classify osteochondritis dissecans of the knee

What is MRI with Indications and contraindications for use (Martensen, DC, DACBR – 2006)

Outline the physical basis of magnetic resonance imaging; Identify patients that are candidates for an MRI; Recognize categories of pathology in the spine that are imaged well with MRI; Recognize cases that require contrast; List contraindications for an MRI

An Interactive, In-depth look at Anatomy of the Knee (Martensen, DC, DACBR – 2006)

Identify the general anatomy of the knee joint; Develop an intimate knowledge of the anatomy of the menisci and ligaments of the knee using gross dissection and cross-sectional imaging; Understand the functional anatomy of the menisci of the knee and define the type and grade of meniscal tears; Establish the conditions discoid lateral meniscus and meniscal cyst and understand the spectrum of treatment available; Identify what type treatment is available for meniscal injuries and when it would be prudent to reevaluate a post-op patient with new knee pain

Pediatric and Adult Anterior Knee Pain (Martensen, DC, DACBR – 2006)

Identify anatomical structures of the knee involved with anterior knee pain; Diagnose fat pad and bursitis syndromes; Establish pathologies of the patellar tendon in adults and children; Differentiate different causes of patellofemoral pain; Match clinical syndromes of knee pain with radiological appearances

LBP origins and how different spine conditions could affect chiropractic treatment (Martensen, DC, DACBR – 2006)

Discuss a common origin of lumbar disc pain; Describe the orientation of lumbar facet joints; Identify the effect of lordosis on the position of the nucleus pulposus; Establish how injuries of the annulus fibrosus can cause nerve root changes; Identify the dynamic stenosis of the lumbar spine

Xray (Italia, DC, PhD - 2006)

Review the basics of bone scans; Identify the potential of rib stress fractures in golfers; Discuss how cervical spine stenosis affects football players; Diagnose lumbar synovial cysts; Establish diagnostics of osteoid osteoma; Review ultrasound and plain film Xray studies; Describe the basics of diskography, myelography and CT scans; Identify osteonecrosis as a possible diagnosis in non-responsive hip therapy; Distinguish congenital and normal skeletal variants of the cervical spine; Construct appropriate radiology reports; Review general imaging techniques; Discuss the basics of MRI imaging techniques; Describe congenital anomalies and normal skeletal variants of the thoracic and lumbar spines; Identify how MRI can document Piriformis syndromes

Physical Therapy (Powers, DC, DABCN - 2006)

Discuss the use of electrotherapy to control pain; Establish parameters for wobble board rehabilitation of the ankle; Describe how SI manipulation affects anterior knee pain; Discuss the use of post-fracture manipulation; Construct therapeutic exercises for patients with lumbar spinal stenosis

Antioxidants, Vitamin E, Silymarin, Magnesium and whole grains (Italia, DC, PhD - 2006)

Review aspects of antioxidants and free radicals; Discuss how silymarin can improve an alcohol-damaged liver; Describe the connection/mechanism between atherosclerosis and vitamin E; Identify research evidence between whole grains and disease; Delineate the relationship of magnesium and hypertension

Nutrition (Italia, DC, PhD - 2006)

Distinguish how orange juice can improve blood lipid profiles; Discuss dietary aspects for the vegetarian athlete; Identify the relationship between bromelain and acute inflammation; Develop the anti-septic activity of tea tree oil; Describe Probiotics; Identify the correlation of resistance exercise and lipoprotein Patterns; Discuss the effect of boswellia on arthritis; Review the effect of green tea on weight loss; Establish the relationship of exercise and water replacement; Identify the relationship of red wine and the cardiovascular system

Neuromuscular Reeducation (Levy, DC - 2005)

Discussion and Demonstration regarding theory and anatomy involving individual and group actions; review techniques and positioning; discussion and demonstration regarding soft tissue techniques involving: longissimus capitis, cervicis, spinalis cervicis, splenius capitis and cervicis, scalenus anterior, middle & posterior, sternocleidomastoid, superior and inferior oblique, rectus capitus posterior major and minor, semispinalis capitis and cervicis; shoulder girdle; hip and hamstring; knee and foot

Clinical Nutrition (Gross, DC – 2004)

Discussion of current approaches to nutrition; updates in research; how to build nutritional programs for patients; how to monitor patients' nutritional needs and progression

Practical Radiology Updates for Chiropractors (Gross, DC – 2004)

Updates in technique including the latest film processing methods; discussion of safety and how to minimize radiation doses in patients with newer technology; optimizing patient positioning; film reading discussion

Graston Technique (2002)

Advanced form of instrument-assisted soft tissue mobilization which enables clinicians to effectively break down scar tissue and fascial restrictions; GT is performed with patented stainless steel instruments designed to effectively detect and treat areas exhibiting soft-tissue fibrosis; improved diagnostic treatment; Detect major and minor fibrotic changes;

Sports and Industrial Medicine / Chiropractic – Lower Extremities (Mally, DC 2000)

Specialized and in depth training of respective medical, orthopedic, chiropractic research summaries on lower extremity injury diagnosis and treatment; physical therapy, rehabilitation, and case management procedures; Foot, Knee, & Hip Anatomy, Biomechanics, Evaluation, Radiology, Differential Diagnosis, Technique

Sports and Industrial Medicine / Chiropractic – Upper Extremities (Mally, DC 2000)

Specialized and in depth training of respective medical, orthopedic, chiropractic research summaries on lower extremity injury diagnosis and treatment; physical therapy, rehabilitation, and case management procedures; Hand, Elbow, & Shoulder Anatomy, Biomechanics, Evaluation, Radiology, Differential Diagnosis, Technique

Lyceum (Reikman, DC – 2000)

Validation of the Vertebral Subluxation Complex; Radiology of the Lumbar Disc Degeneration and Herniation; Posture Analysis; Thoracic Spine Injury Diagnosis and Treatment; Evaluation, Analysis, and Correction of Atlas Misalignment; Upper Cervical Technique;

Applied Kinesiology Certification (Hoag, DC – 1999)

Interdisciplinary approach to health care; core elements of complement therapies; unified approach to diagnosis and treatment of functional illness; functional assessment measurements of posture, gait, and

muscle testing; functional neurologic evaluation, range of motion, static palpation, and motion analysis; how to use these findings in conjunction with standard methods of diagnosis, such as, clinical history, physical examination findings, laboratory tests, and instrumentation to develop a clinical impression of the unique physiologic conditions and the patient's functional physiologic status

Extremity Biomechanics and Adjustments Certification (Mally, DC -1999)

Diagnosis, Treatment, Rehabilitation, and Prevention of Sports Injuries - Clinical Orthopedics of the Extremities (Mally, DC - 1999); Special Attention to biomechanics of extremities and how slight misalignments can impair the entire kinetic chain

Chiropractic and Pediatrics (Council of Chiropractic Pediatrics – 1998)

Examination and Adjustment of the Pediatric Cervical Spine; Development and Evaluation of Pediatric Posture and Gait; Management of Common Childhood disorders; Algorithms of management; chiropractic care of special needs children; pediatric exam and adjustment; craniosacral techniques; torticollis diagnosis and treatment; patterns of spine infections; Sports injuries and Children; management of ADHD in children; trauma and headaches in children

Receptor-Tonus Method of Muscle Treatment Certification (Laws, D.C. - 1998)

Anatomy Review with special attention to how muscles and bones interact; detection and treatment of muscle imbalances and trigger points; lymphatic drainage techniques; discussion of how vertebral subluxation complexes are created and perpetuated, then how to locate and eliminate those foci which are adversely affecting the function of the nervous system; in-depth understanding of the reflex arc, how the intensified reflex arc causes hypermyotonia; how vertebral misalignment and other skeletal conditions occur and how to treat these conditions