

Boot Camp Program for Lumbar Spinal Stenosis (LSS)

Speaker: Carlo Ammendolia

Workshop Syllabus Part I

Course Description:

LSS is a leading cause of pain, disability, and loss of independence in people over the age of 65. Up to 47% of people over the age of 65 will suffer from LSS. With the aging population and because people are living longer, we are experiencing a soaring rise in the number of people suffering from LSS. Over 20 million Americans will suffer from LSS in the next 15 years. Chiropractors are well positioned by their training and skills to make a significant impact in improving walking ability and quality of life in people with LSS. They should and can be the experts in non-operative treatment of LSS.

Workshop Learning Objectives and Outcomes

1. Understand the patho-anatomical and pathophysiological causes of LSS
2. Learn the epidemiology of LSS including prevalence and burden to the individual and society
3. Learn how to effectively diagnosis LSS
4. Learn what other conditions mimic LSS and how to make a comprehensive differential diagnosis
5. Understand when to use imaging and which imaging is best
6. Learn the evidence for current operative and non-operative treatments
7. To introduce the boot camp program for LSS and its rationale, goals, and objectives

A. Lecture Portion Background –

Saturday June 11 8:00 to 9:00 (1 hour)

0-15 Understand the etiology, pathoanatomy and pathophysiology of LSS

Understand the prevalence and burden of disease in symptomatic LSS

15-30 Understand the key features of the history and physical examination for patients presenting with back/lower extremity symptoms impacting walking and standing ability

Know common differential diagnoses for neurogenic claudication due to lumbar spinal stenosis.

30-45 Know how to differentiate each of the diagnoses know red flags for potential serious disease among patients who present with back/lower extremity symptoms

Know the role of imaging for assessing patients with back/lower extremity symptoms impacting walking ability.

45-60

Know when to recommend a surgical consult/epidural injection

Know potential effective non-surgical treatments for neurogenic claudication

Boot Camp Program for Lumbar Spinal Stenosis (LSS)

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Workshop Syllabus Part II

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Course Content:

Saturday June 11 9:30-10:30 (1 hour)

9:30-9:45

Understand the chronic disease model of care and management

Understand the role of patient self-management and self-monitoring

9:45-10:00

Learn how to monitor patient outcomes and instruct on patient self-management

Learn results from clinical trials on the Boot Camp Program for LSS

10:00-10:15

Learn the recommendations from recent clinical practice guidelines on LSS

Learn key motivational factors in managing elder patients with LSS

10:15-10:30

Understand the key elements of Boot Camp Program for LSS

Learn how to enrol patients into the Boot Camp Program

Boot Camp Program for Lumbar Spinal Stenosis (LSS)

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Workshop Syllabus Part III

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Course Content:

B. Hands-On Portion

Saturday June 11 1:30-3:30 (2 hours)

1:30- 1:45

Learn the various ways to implement the manual therapy techniques

Learn how to use the bolster

1:45-2:00

Understand all the prone manual therapy techniques

Learn the underlying objective of each manual maneuver

2:00-2:15

Participants practice all the prone manual therapy techniques

2:15-2:30

Understand all the side posture manual therapy techniques

Learn the underlying objective of each manual maneuver

2:30-2:45

Participants practice all the side posture manual therapy techniques

2:45-3:00

Understand all the supine manual therapy techniques

Learn the underlying objective of each manual maneuver

3:00-3:15

Participants practice all the supine manual therapy techniques

3:15-3:30

Understand all the patient exercises

Learn the underlying objective of each exercise

Boot Camp Program for Lumbar Spinal Stenosis (LSS)

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Workshop Syllabus Part IV

Course Description:

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Workshop Learning Objectives and Outcomes

1. Understand the patho-anatomical and pathophysiological causes of LSS
2. Learn the epidemiology of LSS including prevalence and burden to the individual and society
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Course Content:

C. Putting it all together in your clinic

Saturday June 11 4:00-5:00 (1 hour)

4:00-4:15

Participants practice all the exercise techniques

4:15-4:30

Participants practice all the exercise techniques

Learn how to use the workbook and implementation guide

4:30-4:45

Learn how to conduct a report of findings and get buy in from patients on the program

Learn how to implement and integrate the program in clinic

4:45-5:00

Review the workshop learning objections

Answer questions from participants

Dr. Heather Berlin

Course Title: Impulse Control: Making Your Brain Work for You

Course Description: Can we learn to control our impulses before they control us? Even more importantly: can we learn to let them flow when it really matters? Countless years of life are lost and countless chances at happiness are missed because of our unhealthy relationship with impulses, which we tend to control too little (e.g., addiction and explosive anger) or too much (e.g., repression and anxiety). Understanding the underlying mechanisms of impulse control can give you the potential to live a happier, healthier, and more fulfilled life. Neuroscientist Dr. Heather Berlin and her colleagues have been illuminating these mechanisms for years, including the surprising positive effects of losing control at the right time and in the right place. Some domains of human experience, such as meditation, improvisation, and therapy under certain psychoactive drugs, offer controlled circumstances under which losing control provides overwhelming and repeatable benefits to human well-being. By understanding these dynamics that are already at play in you, you can master the fine art of losing control and gaining it back, learn to adjust your impulse control settings at will, and make your brain work for you.

Learning Objectives: Understand the main theories of the neural basis of consciousness • Understand the underlying mechanisms of impulse control and impulse control disorders • Understand the neuroscience of free will • Review strategies to gain control over impulses and to let go in therapeutic ways • Review new findings in psychedelic-assisted psychotherapy and neural implants

Course Outline:

0-15Mins:

- Introduction and overview of the brain
- The neural basis of consciousness and unconscious processes

15-30Mins:

- The brain basis of impulse control and impulse control disorders
- The neuroscience of free will

30-45Mins:

- Gaining control and losing it in positive ways (e.g., flow states, creativity, meditation)
- New findings in psychedelic-assisted psychotherapy

45-60Mins:

- Gaining control via neural implants
- Conclusions

Dr. Trevor Berry DC, DACNB

Course Title: Low-Level Laser Therapy - The Light of The Future For Chiropractic Doctors

Course Description: This course will outline current research and clinical applications of low-level laser therapy for the Chiropractic practitioner, and how this exciting technology can be used in a variety of conditions and practice specialties.

Learning Objectives:

- Understanding basic laser physiology
- Optimal laser parameters for the human nervous system
- How lasers can be used in peripheral and central pain conditions
- How lasers can be used to support healthy aging
- Introduction to immune system regulation, pathogens and lasers

Course Outline:

(0-15 minutes)

- Introduction to laser physiology and the human nervous system
- Overview of laser research and treatment applications
- Optimal wavelength and dose parameters for the central nervous system

(15-30 minutes)

- Utilization of low-level laser for pain conditions
- Inflammation reduction
- Peripheral nervous system applications
- Central nervous system applications in pain conditions

(30-45 minutes)

- Low level laser for optimizing brain physiology
- Neurological support for the aging brain
- Vagal nerve stimulation and the Brain-Gut axis

(45-60 minutes)

- Supporting the immune system with low-level laser therapy
- Effects of violet and red lasers on pathogens
- Closing remarks

Corey Campbell

Course Title: Motion Palpation Systems and Integration

Course Description: This course will provide a systematic approach to motion palpation and the integration of functional screening into your initial and follow up examinations.

Learning Objectives:

* What Motion Palpation Really is. * Why it's an important piece of every Chiropractic exam. * Why Motion Palpation is a skill. * Why Motion Palpation will never be embraced by the evidence-based side. * Introduction to the systematic approach to palpation * Demonstration of the approach * How to incorporate functional screens within the systematic palpation exam. * Discussion of integration, streamlining, and use of the systematic approach.

Course Outline:

0-15: Introduction:

- What MPI is.
- History of Motion Palpation
- Why Motion Palpation is crucial to joint assessment.

15-30: Motion Palpation Principles:

- Goals of motion palpation.
- Motion palpation techniques
- Breakdown of those techniques

30-45: Systematic approach to Motion Palpation:

- How the system builds in the above techniques
- How the system creates redundancy and confidence
- How the the system can't be efficient

45-60: Demonstration of the MPI system:

- Seated demonstration
- Supine Demonstration
- Prone demonstration

60-75: Demonstration of the MPI System:

- Breakdown of each position and palpations
- Demonstration and discussion of the extremity palpations and importance
- Demonstration of the entire system and the time efficiency it can be performed in.

75-90: Discussion of functional screen integration into the palpation system:

- discussion of functional screens -demonstration of the integration of functional screens
- demonstration of the functional screens and what they mean

90-105: Demonstration of Motion Palpation system and Functional screen integration:

- Demonstration of Motion palpation screen
- Demonstration of Motion Palpation Screen with the functional screens
- Discussion of treatments/ adjustments/ and plans based of the above.

105-120: Conclusion and questions

- Continue demonstration if needed
- Question and answers
- Conclusion and overall message

Dr Kevin Christie DC

Course Title: Exponential Practice Growth with Modern Marketing

Course Description: The key process of transforming your practice into a destination of high-value patients who become raving fans is by positioning yourself as the expert in your community. Strategic content marketing will exponentially grow your practice and help you avoid the cash flow crunch. In this presentation I will teach you how to

Learning Objectives:

Content Marketing Strategy to increase awareness

New Patient Marketing

Marketing to your existing patient base to stay top of mind

Position yourself as a leading educator in your community Increase the types of patients who value your care and are not price-shoppers

Developing a clearly defined audience that becomes a raving fan base.

Course Outline:

Get way more New Patients (0-15 Minutes):

Attract more new patients from content-rich social media strategies that compel the right types of new patients and repel the wrong types of new patients.

Position yourself as the expert (15-30 Minutes):

Learn how to distribute consistent health content that positions you as the leading expert in your community and drives new patients to your practice.

Turn price shoppers into value-driven patients (30-45 Minutes):

Great marketing changes the perception of the potential new patient and your existing patient's care from expensive to that of high-value and worth every penny.

Build a raving fan base who refer often (45-60 Minutes):

The silent killer of many chiropractic practices is not enough patients becoming raving fans who consider you "Their" chiropractor. When you can transform them from saying they "saw a chiropractor" to "Their Chiropractor", you will see many more referrals.

Dr. MaryAnne Dimak DC, MS

Course Title: Moving Past Pain Care: Improving Function and Performance

Course Description: How to increase patient motivation, improve function and performance, and maximize results through integration of active care strategies. Keep patients moving and active in the activities that they enjoy the most through baseline needs analysis, functional assessment, and identification of the ideal course of treatment that will get them achieving their goals as fast as possible.

Learning Objectives:

By attending this course, attendees will:

- Understand the basic principles of the biopsychosocial model as it applies to pain management and rehabilitation.
- Understand the concepts of motivational interviewing to identify baseline functional goals and needs of patients.
- Understand how to perform and analyze basic functional movement pattern assessments.
- Understand how to identify viable treatment plan options using a clinical audit.
- Understand and identify rehabilitation exercises to utilize based on the goals of the patient.

Course Outline:

- I. Inactivity Crisis and Introduction to Principles of the BPS Model (0-15 minutes)
 - a. Non-communicable diseases and connection to the global inactivity crisis
 - b. Biopsychosocial principles as they apply to pain management and rehabilitation
- II. Integration within a Clinical Environment (15-30 minutes)
 - a. Motivational Interviewing and Goal setting
 - b. Baseline needs analysis
 - c. Functional movement assessment
 - d. Identification of entry points for care
- III. Assessment Findings and Interpretation (30-45 minutes)
 - a. Clinical Audit Process
 - b. Contributing factors of the working diagnosis
- IV. Active Care Interventions (45-60 minutes)
 - a. Rehabilitative Strategies
 - b. Exercise Progressions
 - c. Exercise Regressions

J. Donald Dishman and Leonard Wright

Course Title: Principles of Neurorehabilitation: A Case-Based Interactive Presentation Part I

Course Description: This is a five-hour presentation providing an up-to-date overview of cutting-edge neurorehabilitation diagnostics and therapeutic strategies. As a foundation, we will review relevant anatomy and physiology of eye movements and vestibular function. These two key components are essential for the clinician to master to properly evaluate and design an efficacious therapeutic plan. The majority of the session will be case-based presentations from a state-of-the-art neurorehabilitation facility. The presentation is a small group venue with an emphasis on interactive discussion of case management by participants encouraged and facilitated by the presenters.

Course Content:

8:00 AM – 9:00 AM

- Functional Assessment of Eye Movements -15 min
- Welcome and Introduction to core concepts of neurorehabilitation
- The role of the functional anatomic examination in the design of a neurorehabilitation plan
- Eye movements and Vestibular function -15 min
- Overview of cranial nerves III, IV and VI
- Review of nuclear control of functional eye movements of CN III
- Review of nuclear control of functional eye movements of CN IV
- Review of nuclear control of functional eye movements of CN VI
- Supranuclear control of eye movements – 15 min
- Cortical control and influences on function eye movements in health and TBI
- Brainstem centers and how they influence eye movements -15 min
- The role of the basal nuclei in eye movements

J. Donald Dishman and Leonard Wright

Course Title: Principles of Neurorehabilitation: A Case-Based Interactive Presentation Part II

Course Description: This is a five-hour presentation providing an up-to-date overview of cutting-edge neurorehabilitation diagnostics and therapeutic strategies. As a foundation, we will review relevant anatomy and physiology of eye movements and vestibular function. These two key components are essential for the clinician to master to properly evaluate and design an efficacious therapeutic plan. The majority of the session will be case-based presentations from a state-of-the-art neurorehabilitation facility. The presentation is a small group venue with an emphasis on interactive discussion of case management by participants encouraged and facilitated by the presenters.

Course Content:

9:30 AM – 10:30 AM

– Diagnostics and Therapeutics of the Vestibular System **-15 min**

- Review of the anatomy and physiology peripheral vestibular system: the vestibule and the semicircular canals
- Review of the anatomy and physiology of the central vestibular system: brainstem pathways and central projections via the MLF

- Introduction to the bedside evaluation of the vestibular system **-15 min**

- The role of the vestibular system on eye movements
- Central projections of the vestibular and how to evaluate oculomotor function bedside

- The anatomy and physiology of the vestibulocochlear reflex and it's use diagnostically and therapeutically **-15 min**

- An overview of therapeutic maneuvers and procedures for disorders of the vestibular system

- Tying it all together: eye movements and vestibular function and how we can use these functions to localize lesions and focus the goals of our neurorehabilitation plan **-15 min**

J. Donald Dishman and Leonard Wright

Course Title: Principles of Neurorehabilitation: A Case-Based Interactive Presentation Part III

Course Description: This is a five-hour presentation providing an up-to-date overview of cutting-edge neurorehabilitation diagnostics and therapeutic strategies. As a foundation, we will review relevant anatomy and physiology of eye movements and vestibular function. These two key components are essential for the clinician to master to properly evaluate and design an efficacious therapeutic plan. The majority of the session will be case-based presentations from a state-of-the-art neurorehabilitation facility. The presentation is a small group venue with an emphasis on interactive discussion of case management by participants encouraged and facilitated by the presenters.

Course Content:

1:30 PM to 3:30 PM

- Case Presentations and Interactive Discussions **15 min**
- Introduce TBI case study **15 min**
 - Review patient case history, examination, and diagnostics
 - Discuss relevant data and findings related to knowledge of neuroscience and neuroanatomy
 - Present treatment plan approach to the group and discuss risks/benefits, dosages, alternate approaches, and potential outcomes because of this treatment plan.
 - Review video that displayed treatment and equipment used during the case
- Demonstrate results from patient case and continued care plan that can be implemented for continued progress.- **15 min**
- Open discussion with attendees regarding the treatment plan approach and potential alterations to the plan of care -**15 min**
- Introduce Vestibular Case study -**15 min**
 - Review patient case history, examination, and diagnostics
 - Discuss relevant data and findings related to knowledge of neuroscience and neuroanatomy
 - Present treatment plan approach to the group and discuss risks/benefits, dosages, alternate approaches, and potential outcomes because of this treatment plan.
- Review video that displayed treatment and equipment used during the case **15 min**
- Demonstrate results from patient case and continued care plan that can be implemented for continued progress. – **15 min**
- Open discussion with attendees regarding the treatment plan approach and potential alterations to the plan of care -**15 min**

J. Donald Dishman and Leonard Wright

Course Title: Principles of Neurorehabilitation: a Case-Based Interactive Presentation IV

Course Description: This is a five-hour presentation providing an up-to-date overview of cutting-edge neurorehabilitation diagnostics and therapeutic strategies. As a foundation, we will review relevant anatomy and physiology of eye movements and vestibular function. These two key components are essential for the clinician to master to properly evaluate and design an efficacious therapeutic plan. The majority of the session will be case-based presentations from a state-of-the-art neurorehabilitation facility. The presentation is a small group venue with an emphasis on interactive discussion of case management by participants encouraged and facilitated by the presenters.

Course Content:

4:00 PM to 5:00 PM

- Case Presentations and Interactive Discussions -**15 min**

- Introduce final case study • Review patient case history, examination, and diagnostics
- Discuss relevant data and findings related to knowledge of neuroscience and neuroanatomy
- Present treatment plan approach to the group and discuss risks/benefits, dosages, alternate approaches, and potential outcomes because of this treatment plan.

- Review video that displayed treatment and equipment used during the case **15 min**

- Demonstrate results from patient case and continued care plan that can be implemented for continued progress.-**15 min**

- Open discussion with attendees regarding the treatment plan approach and potential alterations to the plan of care - **15 min**

Dr. Tammy Fogarty

Course Title: Clarifying the Role of Dietary Fats in a Sea of Misinformation and Confusion

Course Description:

- Describe the evolution of good vs. bad dietary fats
- Explain the role of dietary fats
- Understand current dietary trends
- Describe the consequences of too much dietary fat
- Choosing fats wisely • Utilizing fats appropriately

Course Outline:

0-15 minutes

- The role of dietary fats in the body
- The role of dietary fats in obesity
- Current dietary trends

15-30 minutes

- Types of dietary fat
- Unsaturated, saturated, and trans fats
- Molecular structure of fat 30-45 minutes
- Consequences of excess dietary fat
- The role of fat in heart disease
- The role of fat in cancer

45-60 minutes

- Best food sources of fat
- Preparing a healthy meal
- Healthy approaches to choosing dietary fat

Documentation of Treatment Part I

Instructor: Gregg Friedman, D.C.

Part I

Course Description:

In this hour presentation, Dr. Gregg Friedman will explain the documentation requirements for history taking and exam, including a discussion as to what the exam is actually for and what it's not for. You will also learn the **one thing** you **MUST** do at the beginning of care for each patient that will help you blow past several documentation requirements and help establish your value with your patients.

Course Objectives:

History Taking:

1. Define the Problem Oriented Medical Record (POMR).
2. Demonstrate taking a complete patient history.
3. Define the concept of outcome assessments in clinical practice.
4. Illustrate methods of determining medical necessity.

Course Content:

Hour 1: History Taking

1. Problem Oriented Medical Record (0-15 Min)
2. Documenting a Thorough History (15-30 Min)
 - a. Onset, Provocative/Palliative, Quality
3. Documenting a Thorough History (30-45 Min)
 - a. Radiating, Site/Severity, Timing
4. Utilizing Functional Outcome Assessments (45-60 Min)

Documentation of Treatment Part II

Instructor: Gregg Friedman, D.C.

Parts II

Course Description:

In this hour presentation, Dr. Gregg Friedman will explain the documentation requirements for history taking and exam, including a discussion as to what the exam is actually for and what it's not for. You will also learn the **one thing** you **MUST** do at the beginning of care for each patient that will help you blow past several documentation requirements and help establish your value with your patients.

Course Objectives:

Physical Examination:

1. Define the Evaluation and Management Examination for the musculoskeletal system.
2. Describe the reasons for the E/M exam.
3. Define the concept of outcome assessments in clinical practice.
4. Distinguish between subjective and objective outcome assessments.
5. Describe the P.A.R.T. format of documentation.

Course Content:

Hour 2: Physical Examination

1. 1995 Guidelines (0-15 Min)
2. 1997 Guidelines (15-30 Min)
3. Examination of the Musculoskeletal System (30-45 Min)
4. The P.A.R.T. Format of Documentation (45-60 Min)

Documentation of Treatment Part III and IV

Instructor: Gregg Friedman, D.C.

Part III

Course Description:

In this two-hour presentation Dr. Gregg Friedman will illustrate how to document both wellness and subjective complaints. How to demonstrate how to document image findings along with any subsequent diagnosis. How to document treatment goals and protocols. He will also share 3 important vital signs to be on the look out for in a post Covid-19 world. Finishing up with the proper way to complete the 3-part assessment.

Course Objectives:

1. Illustrate documentation of subjective complaints and wellness care
2. Discuss proper documentation of imaging findings and diagnoses
3. Demonstrate documentation of treatment provided
4. Illustrate appropriate documentation of treatment goals
5. Discuss documentation of subjective complaints and wellness care for subsequent visits
6. Illustrate 3 vital signs that can be measured on documented in a post-Covid world
7. Demonstrate proper documentation of daily objective findings
8. Discuss proper documentation of the 3 parts of the Assessment

Course Content:

1. Documenting Subjective Complaints and Wellness Care for the Initial Visit (0-15 min)
2. Documenting Imaging Findings and Diagnoses (15-30 min)
3. Documenting Treatment Provided (30-45 min)
4. Documenting Proper Goals for Treatment Plan – Initial Visit (45-60 min)
5. Documenting Subjective Complaints and Wellness Care for Subsequent Visits (60-75 min)
6. Documenting Vital Signs in a Post-Covid World (75-90 min)
7. Documenting Objective Findings for Subsequent Visits (90-105 min)
8. Documenting the 3 Components of Assessment (105-120 min)

Documentation of Treatment Part IV

Instructor: Gregg Friedman, D.C.

Part IV

Course Description:

In this one-hour presentation Dr. Gregg Friedman will demonstrate what justifies CMT, passive modalities, and active treatment protocols. He will how demonstrate how to document a through treatment plans for any subsequent patient visits.

Course Objectives:

1. Illustrate documentation that justifies CMT
2. Illustrate documentation that justifies passive modalities
3. Demonstrate documentation that justifies active rehab
4. Discuss documentation of goals and treatment plan for subsequent visits

Course Content:

1. Documenting Justification of Treatment for CMT (0-15 min)
2. Documenting Justification of Treatment for Passive Modalities (15-30 min)
3. Documenting Justification of Treatment for Active Rehab (30-45 min)
4. Documenting Proper Goals for Treatment Plan – Subsequent Visits (45-60 min)

Dr. Lisa Goodman

Course Title: Post Birth Infant Exam and Treatment

Course Description: This one hour lecture will discuss the fundamental impacts of the birthing process on a newborn, it will include evaluation and treatment of birth related injuries and symptoms in newborns. This will include a history of the pregnancy, labor and delivery as well as physical examination. The presentation will cover newborn injuries related to uncomplicated births, traumatic births and cesarean births. Treatment, case management, referrals and imaging.

Learning Objectives:

Understand and explain the impact of the birthing process on infants Understand and explain the history and examination of a neonate Understand and be able to perform chiropractic treatment of a newborn for covered findings

Course Outline:

History of Birthing Process and Overview of Birth Related Injuries **0-15 Minutes**

Overview of birth related injuries/symptoms

History of Pregnancy, Labor and Delivery

History taking of neonate

Examination of neonate **15-30 Minutes**

Observation

Supine

Prone

Upright/Inverted

Diagnosis and Treatment **30-45 Minutes**

Diagnosis of birth related injury/symptoms Chiropractic adjustments

Additional treatment (tape, soft tissue treatment)

Case Management **45-60 Minutes**

Indications for Imaging/Referral

Recommendations for treatment/timelines

Home Care/PT

Dr. Lisa Goodman

Course Title: The True Value in Hiring or Becoming a Chiropractic Associate

Course Description: This one hour lecture will discuss the associate position in a chiropractic practice. This will cover a review of employment types/options for chiropractors, how an associateship can and should create value for both associates and employers. Furthermore, how both parties can benefit from a well executed associate contract and form a long term mutually beneficial relationship. Additional discussion will focus on associate red flags, contracts, responsibilities for both parties and time for Q and A.

Learning Objectives:

Understand what an associateship is and what to expect Understand the responsibilities and opportunities of an employer supporting an associate Understand the responsibilities and opportunities of an associate as an employee and team member in a chiropractic practice Ultimately be able to confidently offer and accept a valuable associateship

Course Outline:

Overview of chiropractic employment options **0-15 Minutes**

Practice ownership

Associateship Other opportunities (chains, corporate, ICs, etc.)

The Associateship 15-30 Minutes

What do you expect?

What do you deserve?

How to feel valued

The Employer 30-45 Minutes

Why and when to hire an associate

Don't 'eat your young' Finding balance and value

Summary and Q & A 45-60 Minutes

Sample associateship successes

Sample associateship missteps

Q&A

Dr. Nichelle Gurule

Course Title: Rehab approach to postpartum care: diving into a discussion of the appropriate rehab for a woman in her postpartum recovery – Part 1

Course Description: Treating postpartum women is complex with all the changes their body has gone through during pregnancy, birth, and the transition into motherhood. Adjustments are a great tool for this population, but we can support women even more in their recovery through rehab.

Learn how to best support women postpartum by learning how to help them rehab and return to fitness.

Course Outline:

1. Understanding the postpartum body (15 min)
 - a. Why does this population need a different approach to care?
 - b. What can you be doing to improve patient outcomes?
 - c. Why does this population need extra support?

2. Common birth injuries (15 minutes)
 - a. Perineal tearing
 - b. Tailbone sprain/strain
 - c. Belly birth
 - d. Nerve damage

3. Common conditions postpartum (15 min)
 - a. Neck and Midback pain
 - b. Low back and hip pain
 - c. Diastasis Recti
 - d. Pelvic Floor Dysfunction

4. Assessment and Treatment (15 min)
 - a. Assessment:
 - i. Breathing and posture
 - ii. Abdominal tension
 - iii. Movements (squats, single leg squats, balance, plank, etc)

 - b. Treatment
 - i. Addressing all the components to postpartum health
 1. Posture, breathing, gut health, breastfeeding, nutrition

Dr. Nichelle Gurule

Course Title: Rehab approach to postpartum care: diving into a discussion of the appropriate rehab for a woman in her postpartum recovery - Part II

Course Description: Treating postpartum women is complex with all the changes their body has gone through during pregnancy, birth, and the transition into motherhood. Adjustments are a great tool for this population, but we can support women even more in their recovery through rehab.

Learn how to best support women postpartum by learning how to help them rehab and return to fitness.

Course Outline:

1. Rehab Approach for recovery (0-15 min)
 - a. Upper body
 - b. Lower bod

2. Rehab Approach for core dysfunctions (15-30 min)
 - a. Diastasis
 - b. Pelvic Floor

3. Rehab Approach for return to fitness (30-45 min)

4. Setting patients up for success (45-60 min)
 - a. How to layout a treatment and rehab plan
 - b. Ways to improve compliance

Nichelle Gurule

Course Title: Tied Up: Improving health outcomes for babies with proper assessment and treatment of tongue ties.

Course: 2 hours

Course Description: Learn the symptoms associated with tethered oral tissues, how to assess for ties, treatment options, and rehab care to improve infant feeding.

Course Outline:

1. Introduction to tethered oral ties (15 min)
 - a. What are they?
 - b. Immediate issues versus long term issues from ties
 - c. Is this just a fad or a legitimate health issue?
2. Causes for tethered oral ties (15 min)
 - a. Neuroepigenetics
 - b. Stress, toxins, genetics (MTHFR genetic variation), inflammation
3. Anatomy and Physiology of the Jaw and Tongue (15 min)
 - a. Anatomy of infant sucking for breastfeeding
 - b. Development of the jaw and tongue in utero and beyond
4. Symptoms of tethered oral ties (15 min)
 - a. Reported symptoms from mother
 - b. Observed symptoms
5. Observations and Assessment of tethered oral ties (15 min)
 - a. Observation:
 - i. Baby's posture
 1. Neck position, neck ROM, torso position and ROM, leg position, etc
 - ii. Observe nursing or bottle feeding
 - b. Determine structural versus functional
 - i. Palpation of suckle pattern
 - c. Palpation of cheek and jaw tension
 - d. Evaluate Global Spinal ROM
 - e. Assess Cranial Bones
6. Treatment options (15 min)
 - a. Cranial Sacral and chiropractic
 - b. Revision
 - i. Who performs the revision?
 - ii. How is the revision performed?
 - c. Rehab
 - d. Long term care options
7. Rehab for post revision (15 min)

- a. Stretches
 - b. Exercises to improve suckle pattern
- 8. Pain Management for Post Revision of Tethered Oral Ties (15 min)
 - a. Natural methods

Dr. Richard Harris II Outline

Course Title: Holistic Approach to Hypertension

Course Description: This one-hour webinar will discuss how to approach patients with high blood pressure from a holistic perspective. It will cover root causes of high blood pressure and treatment options including nutrition, exercise, supplements, etc.

Learning Objectives:

- Understand and explain the root causes of high blood pressure (0-15 minutes)
- Understand and explain nutritional strategies to lower blood pressure (15-30 minutes)
- Understand and explain how sunlight, sleep, and mindfulness lower blood pressure (30-45 minutes)
- Understand and explain how COq10, Garlic, and L-arginine can lower blood pressure (45-60 minutes)

Dr Jason Hulme

Course Title: Registration to Rehabilitation: Clinical Excellence for the Modern Office Part II

Course Description: We will cover areas in the chiropractic practice spanning from listening for red flags on the initial phone call with a new patient to the key things you need to know about how to apply exceptional rehabilitation when treatment rooms are small and time is limited! We will hands on practice exam and rehab principles.

Course Outline:

0-15 - Course introduction and a broad picture of the entire scope of patient care from patient intake with acute pain to rehabilitation and even sports performance. - Updated data related to how big the musculoskeletal burden is in America.

16-30 - Importance of differentiating the difference between chiropractic neuromuscular pain, orthopedic pain and medical/internal referred pain. We will cover how red flag statements can sneak past a CA if not listening for the right key words. - Cover the difference between healthy individuals and unhealthy individuals as it applies to pain and rehab timelines. Reviewing Huber et al 2020 and what current literature can teach us about tissue quality in active population of patients vs sedentary.

31-45 - Chronicity of pain - the cycle that leads to more utilization in healthcare and how chiropractic assistants are a vital role in breaking this cycle aka reviewing Littlewood et al 2013. How understanding the pain scale at a higher level is not only simple but also helps guide this process.

46-60 - The science behind decision making and how a chiropractic assistant is vital in the roles of observe, orient, decide, act. - Hands on participation in performing Beighton score for hypermobility and cover why this information is so vital to the chiropractic office.

Dr Jason Hulme

Course Title: Registration to Rehabilitation: Clinical Excellence for the Modern Office Part I

Course Description: We will cover areas in the chiropractic practice spanning from listening for red flags on the initial phone call with a new patient to the key things you need to know about how to apply exceptional rehabilitation when treatment rooms are small and time is limited! We will hands on practice exam and rehab principles.

Course Content:

0-15- Case presentation Rebuilding Steve: An education course through the journey of a man in the ICU for 129 days with Covid and his chiropractic journey through rehabilitation back to functioning without an oxygen tank - Setting the stage for how Steve's case exemplifies all aspects of chiropractic care and how we will train from exam through rehabilitation

15-30 - Introduction to the ARRG Principles of rehabilitation. - Explanation of the types of rehabilitation aka inflammatory ROM or resistance. Sport load absorption, neuromuscular, vestibular, plyometric, deceleration

30-45 - Hands on participation in inflammatory rehab exercises for the spine (cervical, thoracic and lumbar) - We will cover principles for application as well as explain their diagnostic value through serial examinations of test/retest as well as change over time

45-60 - Hands on participation in inflammatory rehab exercises shoulder and knee exercises. - Begin introduction to manually resisted strength exercise

60-75 - Education on resistance exercise reducing all cause mortality and the point of therapy/training is to put the body into positions it wouldn't habitually be in so that it adapts and gets stronger. - Applying BJ Palmer's 2nd Principle of Rehabilitation and the evidence behind it today.

76-90 - Hands on Manually Resisted Exercise Manual Resistance shoulder abduction in scaption, scapular movements - Upper Extremity Manually Resisted Exercises wrist and elbow

90-105 - Exercise pyramid and how to apply resistance exercise based on sets, reps and principles to make sure patients see results - Easy methods to have the patients track their weights for wellness discussions and maintaining their strength goals

105-120 - Principles to tie it all together by building the plan backward from end goal for the patient using a ladder based progression and being realistic about how far you can improve in your time with them. - Explanation of a few easy tests to perform that give good test/retest ability that help guide the rehab.

Daymond John's 5 Shark Points: Fundamentals for Success in Business and Life

Instructor: Daymond John

Course Description:

Daymond John has been a phenomenally successful business person for over 25 years. Along his entrepreneurial journey, through his many successes as well as failures, he has learned a few things about getting the best out of business and life. He believes the keys to his success include establishing the right mindset and following a few fundamental principles, which he calls his five "S.H.A.R.K points." Get ready! Daymond John is going to share his unique goal-setting and achievement strategies, which will empower audience members to make positive changes in every aspect of their lives.

Dr Nicky Kirk

Course Title: Cognition, Eye Movement, and Reaction Time.

Course Description: At Synapse Human Performance center, we confront numerous complicated cases, many of which exhibit signs and symptoms of visual dysfunction. We incorporate training and protocols designed to target and improve these processes. Cognitive-visual training is the enhancement of several aspects of visual function with integrated activities which combine to influence reaction speed, decision making and faster processing of our environment. This is applicable to a range of presentations from post concussive syndromes and their sequelae to somatosensory recovery after a musculoskeletal injury. From low cost to high tech, the visual system can be trained to maximize visual function, performance, and quality of life. In this emerging discipline which has been termed neuro-visual performance, we will discuss how to perform baseline assessments, prepare training programs and rehabilitative techniques based on our understanding of the science.

Learning Objectives:

- Understand and explain oculomotor function, reaction time and visual tracking.
- Understand and explain baseline concussion testing from a cognitive-visual perspective.
- Understand how to perform cognitive-visual training and rehabilitation.

Course Outline:

I. The Foundation of Cognitive-Visual Function 0-15 minutes

A. Oculomotor function

B. Gaze stability

C. Processing capability and speed

II. Baseline Testing

A. What's important in baseline cognitive visual training 15-30 minutes

III. Visual Suppression 30-45 minutes

A. Eye dominance/hand/foot dominance

B. Assessing visual suppression

C. How to work with visual suppression

IV. Creating Programs 45-60 minutes

A. Low tech and high-tech equipment

B. Eye tracking strategies

C. Assessing and working with visual suppression

D. Reaction testing and training

E. Gaze stabilization assessment and rehabilitation

Dr Jeffrey Langmaid Outline

Course Title: The Smart Patient Journey

Course Description: Discover how you can seamlessly guide your patients' journey from potential patient to active patient, and finally to proactive advocate for your practice. A smart patient journey will help you effortlessly attract, engage, and retain more of your ideal patients.

Learning Objectives:

- Identify the 3 key phases all patients move through in your practice
- Understand the 6 touchstones of patient engagement (2 touchstones for each phase)
- Discover how to build a flywheel of attraction and retention

Course Outline:

0-15 Minutes: Introducing the Smart Patient Journey Defining your patients' journey Understanding the ideal patient journey

15-30 Minutes: The 3 Phases all Patients Move Through in Your Practice Defining Potential Patients, Active Patients, and Proactive Patients The 6 Touchstones of Patient Engagement

30-45 Minutes: Implementing the 6 Touchstones of Patient Engagement How to Teach & Invite How to Educate & Retain How to Enroll & Reactivate

46-60 Minutes: Conclusions and Recap The importance of guiding your patient's journey Recap the critical steps of the smart patient journey

The Genius Life

Instructor: Max Lugavere

Course Description:

- “Genius Foods for a Smarter, Happier, Healthier Brain” – Discover powerful “Genius Foods” for optimal brain health to boost brain performance and help prevent cognitive aging.
- “Hacking Your Environment to Achieve Extraordinary Performance” – The modern environment can lead to stress, malaise, and sickness costing us life and productivity. Discover key tactics for molding your environment to suit your biological needs so you’ll feel happier and more productive immediately.
- “Workplace Wellness: Brain and Mental Health Hacks for an Undeniable Edge” – Mental health is on the decline and workplace burnout is epidemic. Discover key tricks including specific foods and lifestyle practices involving nature, light and temperature that can profoundly boost mental vigilance, resilience, and fortitude.

Course Content:

1. Introduction/Modern Dilemma (5 Min)
 - a. Shift from Hunter-Gatherer to Domestic Food Reliance
 - b. Modern Food Landscape
2. Food Ultra-Processing (15 Min)
 - a. Inflammation 101
 - b. The Obesity Crisis
 - c. Keytones and the Brain
3. The 10 Genius Foods (15 Min)
 - a. Dark leafy greens
 - b. Eggs
 - c. Grass-fed beef
 - d. Wild salmon
 - e. Avocados
 - f. Extra virgin olive oil
 - i. Modern oil production 101
 - g. Mushrooms

- h. Crucifers
 - i. Berries
 - j. Dark Chocolate
 - k. Nuts
4. Review of FINGER Intervention Study (10 Min)
 5. Review of Exercise and Brain Health (10 Min)
 - a. Aerobic
 - i. BDNF
 - b. Resistance Training
 - i. Irisin
 - ii. IGF1
 6. Knowledge is Power/Close (5 Min)

Dr. Davis McAlister Outline

Course Title: Expand Your Practice Through Understanding ACL Injury Risk

Course Description: This one-hour presentation will provide in depth information and research on the contributing factors that result in non-contact ACL injuries in athletes. This presentation will include an anatomical review, biomechanics review, contributing anatomical structural features that increase risk, forces and movements applied that result in the non-contact injury, the functional assessment tools e for determining if an athlete will be at a higher risk, and the evidence-based, basic components of a pre-habilitation program.

Learning Objectives:

- 1) Review the anatomy and mechanics of the knee
- 2) Learn the mechanisms that contribute to non-contact ACL injury
- 3) Conduct and analyze the functional movement patterns to assess injury risk
- 4) Learn the basic components of an effective pre-habilitation program

Course Outline (organized in 15 minute increments) *Please add supporting details to describe your content fully:

- I. Anatomy review and biomechanics of the knee – 0-15 minutes
 - A. Bones, ligaments, joint capsule
 - B. Knee Screw Home Rotation Mechanism
 - C. 4-bar Mechanism of the knee
- II. Contributing Factors for ACL Injury – 15-30 minutes
 - A. Anatomical features of the knee that contribute to injury
 - B. Dynamic and modifiable features of the knee that contribute to injury
- III. Functional Assessments for Adequately Assessing an Athlete- 30-45 Minutes
 - A. Back squat
 - B. Y-Balance/Star Excursion Test
 - C. Drop Jump Screening Test
 - D. Single-leg Vertical Jump Assessment
 - E. Single-leg Motion Analysis
- IV. The Basic Components of an ACL Pre-habilitation Program- 45-60 minutes
 - A. 6 principles of a successful ACL pre-hab program
 - B. 3 components- Plyometrics, neuromuscular training, strength training
 - C. Training program design

Lumbar Stenosis: Learn How to Understand and Treat the Millions of Patients Seeking Care for Lumbar Spinal Stenosis

Instructor: William Morgan and Robert Rosenbaum

Course Description:

The attendee will be able to understand the multifactorial mechanisms which contribute to creating a central canal spinal stenosis. This course will uncover the subjective presentation, physical findings, and appearance on MRI of a patient with lumbar central canal stenosis. After completing this course of instruction, the attendee will understand the nuances of lumbar central canal stenosis and should feel confident in identifying and offering conservative care to patients with this malady. This course will attempt to present the most up-to-date research regarding lumbar stenosis. The attendee will also learn ways to refer to another healthcare professional, how to treat based on diagnosis and symptoms.

General Topics to be Covered with this Course of Instruction:

1. Identify the signs and symptoms of lumbar stenosis
2. Identify the contributing factors which result in central canal lumbar stenosis
3. Discern three most common spinal central canal shapes
4. Understand the effects of central canal stenosis on the vasculature within the canal
5. Identify and manage lumbar stenosis patients
6. Counseling, treating, referring to another healthcare professional and other consultants

Course Content:

0-15 minutes: Introduction of the presentation and contributing factors to lumbar spinal stenosis

15-30 minutes: Understanding the multifactorial contributing factors which create the symptoms of lumbar spinal stenosis

30-45 minutes: The effects of stenosis on the epidural plexus, and the effects of epidural plexus on the central canal

45-60 minutes: Non-surgical management of central canal lumbar spinal stenosis

60-75 minutes: When to counsel your patients based on symptoms.

75-90 minutes: When to treat your patients creating care plans based on Diagnosis and symptoms

90-105 minutes: When to refer patient out to other health care professionals

105-120 minutes: When to call in a professional consultant for your patient for counseling.

The Science of the Adjustment

Instructor: William Morgan

Course Description:

The chiropractic adjustment is the unifying foundation of the chiropractic profession. It is what patients associate with a chiropractic treatment and is what many in the profession believe provides our unique niche in healthcare.

Dr. Morgan will explore some of the commonly held beliefs about the adjustment, as well as what the current evidence tells us about how the adjustment affects the body. He will drive home his points with clinical cases and real-world experience.

Course Objectives:

- Understand how the history and theories of neurology and chiropractic influenced the development of the chiropractic profession.
- Learn about the effects of the adjustment on the mechanics of the body and nervous system.
- Re-introduce to the practitioner, the concept of confirmation bias and how that can interfere with the ability to interpret outcomes accurately and objectively.

Course Content:

- Define the terminology and theories pertaining to the adjustment and chiropractic (15 Mins)
- Explore the modern history of neurology from 1871- present and how the science of neurology has influenced the development of the profession of chiropractic and its theories (15 Mins)
- Uncover what the current research has discovered about the chiropractic adjustment (15 Mins)
- Share practical ways to implement this knowledge in treating patients (15 Mins)

Dr. Lindsay Mumma Outline

Course Title 1: Pelvic Adjusting: Pregnancy, Postpartum, Pediatric Part I

Course Description 1: Learn the most effective ways of assessing and addressing the pelvis in your most dynamically changing patients. Biomechanically advantageous palpation and adjusting techniques will be demonstrated in order to ensure both patient and doctor comfort. Learn the appropriate adaptations for hormonal and biomechanical changes related to pregnancy and postpartum as well as age- and size-related variations for the smallest patients. Part 1 Learning Objectives: Landmarks & Biomechanics of the Pelvis in Development, Gait, and Labor

Course Outline 1

9:30-9:45 Intro; bony and soft tissue landmarks for palpation

9:45-10:00 Developmental milestones involving the pelvis

10:00-10:15 Biomechanics of the pelvis in gait

10:15-10:30 Biomechanics of the pelvis in labor

Dr. Lindsay Mumma

Course Title 2: Pelvic Adjusting: Pregnancy, Postpartum, Pediatric Part II

Course Description 2: Learn the most effective ways of assessing and addressing the pelvis in your most dynamically changing patients. Biomechanically advantageous palpation and adjusting techniques will be demonstrated in order to ensure both patient and doctor comfort. Learn the appropriate adaptations for hormonal and biomechanical changes related to pregnancy and postpartum as well as age- and size-related variations for the smallest patients. Part 2 Learning Objectives: Palpation and Adjusting of the Pediatric, Pregnant, and Postpartum Pelvis

Course Outline 2:

1:30-1:45 Communication strategies for pediatric patients
1:45-2:00 Biomechanics of the doctor in pelvic adjusting
2:00-2:15 Seated palpation of the pelvis and pelvic floor
2:15-2:30 Side-lying and prone palpation
2:30-2:45 Functional tests for the pelvis
2:45-3:00 Pediatric in-arms adjusting
3:00-3:15 Prenatal adjusting - equipment, variations, modifications
3:15-3:30 Postpartum progression of adjusting

Dr. Lindsay Mumma

Course Title 3: Pelvic Adjusting: Pregnancy, Postpartum, Pediatric Part III

Course Description 3: Learn the most effective ways of assessing and addressing the pelvis in your most dynamically changing patients. Biomechanically advantageous palpation and adjusting techniques will be demonstrated in order to ensure both patient and doctor comfort. Learn the appropriate adaptations for hormonal and biomechanical changes related to pregnancy and postpartum as well as age- and size-related variations for the smallest patients. Part 3 Learning Objectives: Manual Therapy and Rehabilitation for the Pediatric, Pregnant, and Postpartum Pelvis

Course Outline 3:

4:00-4:15 Relation of foot to pelvis

4:15-4:30 Manual mobilization of the pelvis

4:30-4:45 In-office manual rehab to support adjustments

4:45-5:00 Take-home rehab

Dr. Josh Satterlee

Course Title: Clinic/Gym Hybrid Live: Advanced Rehab and Active Care Part One

Course Description: This course presents a systematic approach to rehabilitation by first creating an organizational structure for the advanced rehabilitation of patients in a musculoskeletal setting. Multiple exercise and rehabilitation strategies will be taught and each participant will perform each one. These approaches will be enhanced by overlaying the current peer reviewed research surrounding intensity and patient communication. Following this course, each participant should be able to construct a systematic, progressing rehabilitation plan for every patient in pain, and will be able to harness their psychological advantages to increase compliance and the effectiveness of care.

Course Objectives:

- Understand and explain the role of intensity, volume, and load while rehabilitating patients in pain
- Develop, demonstrate, and instruct advanced rehabilitation strategies for patients with low back, neck, and shoulder pain
- Understand and explain the clinical progressions and regressions involved in advanced rehabilitation methods
- Acknowledge, understand, and explain the psychology of patients in pain and the effect of exercise intensity on them

Course Outline:

- Introduction and Basic Terminology- 0-15 mins
 - Review mechanisms of pain
 - The psychology of pain
 - Harnessing the placebo effect
- Most Common Injuries in Adult Patients- 15-30 mins
 - Current research around injury prevalence
 - Stages of healing and application to exercise
 - Effect of modalities on pain and exercise
- Clinical Progressions for Rehab- 30-45 mins

- The role of postures and load positions on pain
- Progressing through volume and intensity in advanced rehabilitation
- Peer reviewed evidence regarding exercise intensity
- The effects of motor learning on painful patients
- Creating Primary Movements- 45-60 mins
- The 10 Primary Movement Classifications
- 4 Primary Movement Classifications of the Lower Extremity
- 4 Primary Movement classifications of the Upper Extremity
- 2 Primary Movement Classifications of the Core and Pelvis

Dr. Josh Satterlee

Course Title: Clinic/Gym Hybrid Live: Advanced Rehab and Active Care Part II

Course Description Part 2: This course presents a systematic approach to rehabilitation by first creating an organizational structure for the advanced rehabilitation of patients in a musculoskeletal setting. Multiple exercise and rehabilitation strategies will be taught and each participant will perform each one. These approaches will be enhanced by overlaying the current peer reviewed research surrounding intensity and patient communication.

Following this course, each participant should be able to construct a systematic, progressing rehabilitation plan for every patient in pain, and will be able to harness their psychological advantages to increase compliance and the effectiveness of care.

Course Objectives:

- Understand and explain the role of intensity, volume, and load while rehabilitating patients in pain
- Develop, demonstrate, and instruct advanced rehabilitation strategies for patients with low back, neck, and shoulder pain
- Understand and explain the clinical progressions and regressions involved in advanced rehabilitation methods
- Acknowledge, understand, and explain the psychology of patients in pain and the effect of exercise intensity on them

Course Outline Part II:

- The 4 Major Human Postures in Rehabilitation- 0-15 mins
 - Common Prone and Supine Rehab strategies and limitations
 - The advantages of quadruped and non-weight bearing exercises
 - Axial loading and weight bearing through half kneeling and tall kneeling
 - The disadvantages of standing posture exercises and spinal pain
 - Why to avoid seated postures in rehabilitation
- Changing External Load Positioning Strategies- 15-30 mins
 - The effect of axial loading on the spinal column
 - Bracing vs activating the core

- The effect of diaphragmatic alignment on core position
- Calculating Volume for Therapeutic Effect- 30-45 mins
- Repetitions and sets of exercise
- Calculating foot-pounds of workload
- The role of exercise intensity on volume
- The negative effects of volume on painful populations
- The Role of External Supports in Advancing Rehab- 45-60 mins
- Using assistive devices, supports, and balance tools
- Using weight as an assistive device
- Support vs stimulation
- Verbal and visual cues

Address Chronic Stress To Transform Your Practice

Kyl Smith, DC

2 Hour Session Outline

Chronic stress causes muscle atrophy, accelerates sarcopenia, shortens telomeres, and may cause imbalances in core hormones triggering fatigue, tiredness, and loss of motivation/productivity in otherwise healthy adults. In this session, DC's will learn how to direct staff and patients to mitigate the negative effects of chronic stress while improving musculoskeletal integrity and decreasing chronic pain. This session will explore both the fundamental mechanisms of glucocorticoid signaling as well as the mechanisms of glucocorticoid-induced muscle atrophy.

Outline:

0-15-Minute

15-minute increment of this 2-hour session is intended to introduce our brief review of the peer-reviewed scientific literature regarding stress and its effect on the physiology and musculoskeletal system in otherwise healthy adults.

Discussion points: Acute and chronic stress affecting the physiology of the chiropractic patient. Acute or chronic stress, with accompanying increased cortisol dramatically shifts physiological balance and weakens the musculoskeletal system.

Publications Cited:

Aschbacher K, O'Donovan A, Wolkowitz OM, Dhabhar FS, Su T, and Epel E. Good Stress, Bad Stress and Oxidative Stress: Insights from Anticipatory Cortisol Reactivity

Psychoneuroendocrinology. 2013 September ; 38(9): 1698–1708.

Ikumi Yanagita, et al. A High Serum Cortisol/DHEA-S Ratio Is a Risk Factor for Sarcopenia in Elderly Diabetic Patients. *J Endocrinology Soc*. 2019 Mar 5;3(4):801-813. doi: 10.1210/js.2018-00271. eCollection 2019 Apr 1.

Chetty S, Sapolsky RM, et al. Stress and glucocorticoids promote oligodendrogenesis in the adult hippocampus. *Mol Psychiatry* 2014 Feb 11. doi: 10.1038/mp.2013.190.

15-30 Minute

This 15-minute increment of this 2-hour session reviews the peer-reviewed scientific literature regarding stress in otherwise healthy adults. The publications cited help to establish the groundwork for the discussion points by providing scientific opinions,

references, and clinical validation related to issues and subjects addressed later in this program including improving musculoskeletal integrity.

Publications Cited:

Sapolsky RM. Importance of a sense of control and the physiological benefits of leadership. *Proc Natl Acad Sci USA*. 2012 Oct 30;109(44):17730-1. doi: 10.1073/pnas.1215502109. Epub 2012 Oct 16

Sapolsky RM. Stress and Glucocorticoid Contributions to Normal and Pathological Aging. *Brain Aging: Models, Methods, and Mechanisms*. Boca Raton (FL): CRC Press; 2007. Chapter 13.

30-45 Minutes

This 15-minute increment of this 2-hour session reviews the peer-reviewed scientific literature regarding stress and the hormone cortisol in healthy exercising adults.

The three peer-reviewed journal articles cited below introduce several double-blind placebo-controlled clinical trials showing lowered excess cortisol levels in healthy exercising adults. Potential discussion points and benefits in practice include: Improvements in perceived wellbeing; Improved exercise capacity during high intensity cycling; As well as reduced perceived muscle soreness after exercise.

Publications Cited:

Jager R, et al., Phospholipids and sports performance, *Journal of the International Society of Sports Nutrition*. 2007;4:5-15

Starks MA, Starks SL, Kingsley M, Purpura M, Jäger R. The effects of phosphatidylserine on endocrine response to moderate intensity exercise. *J Int Soc Sports Nutr*. 2008; 5: 11.

Glade MJ, Smith K. Oxidative stress, nutritional antioxidants, and testosterone secretion in men. *Ann Nutr Dis Ther* 2015;2:1019.

45-60 Minutes

This 15-minute increment of this 2-hour session reviews the peer-reviewed scientific literature regarding the glycemic index of the diet, exercise, and how both significantly affect insulin sensitivity in otherwise healthy adults.

Discussion Points: The excess consumption of simple carbohydrates will promote proliferation and differentiation of preadipocytes, further enhancing central adiposity. Managing Glycemic Loads (grams of both simple sugars and carbohydrates per meal)

may become a critical factor to manage through lifestyle improvements for certain populations of aging men and women.

Discussion Points: A single bout of moderate to high-intensity exercise (cycling, running) to exhaustion or near-exhaustion produces an immediate short-term increase in whole-body insulin sensitivity in healthy untrained men. Even more beneficial, daily lifestyle modifications including high-intensity exercise has the capacity to increase insulin sensitivity and improve blood sugar regulation within just seven days. In addition, high-intensity exercise to exhaustion or near-exhaustion produces improvements in musculoskeletal integrity that translate to decreased chronic pain complaints in chiropractic practice.

Publications Cited:

Glade MJ, Smith K. A glance at... glycemic index. *Nutrition*, Volume 31 (2015), Issue 3 , 539–541.

Glade MJ, Smith K. A glance at ... exercise and glucose uptake. *Nutrition*, Volume 31 (2015), Issue 6, 893–897.

60-75 Minutes

The 5th 15-minute increment of this 2-hour session continues to review the peer-reviewed scientific literature regarding the glycemic index of the diet; the benefits of certain types of exercise; and builds on the multiple ways to improve insulin sensitivity in otherwise healthy adults.

Discussion Point: This increment introduces the importance of insulin sensitivity and how that subject strongly relates to the emerging research supporting the physiological benefits and importance of “metabolic flexibility.”

Publication Cited:

Jens Freese, et al. The sedentary (r)evolution: Have we lost our metabolic flexibility? Institute of Outdoor Sports and Environmental Science, German Sports University Cologne, Cologne, 50933, Germany. *F1000Research* 2018, 6:1787 Last updated: 02 FEB 2018

75-90 Minutes

This 15-minute increment of this 2-hour session now builds on the peer-reviewed scientific literature regarding the importance of supporting, enhancing, and ultimately generating more metabolic flexibility to produce positive metabolic responses in otherwise healthy adults. These positive metabolic responses help to mitigate the negative effects of chronic stress while improving musculoskeletal integrity and potentially decreasing chronic pain.

Discussion Points: Identifying targeted methods of exercise to improve metabolic flexibility with the outcome of improving both healthy BMI and musculoskeletal integrity. Underlying mechanisms of action are discussed.

Publications Cited:

Jens Freese, et al. The sedentary (r)evolution: Have we lost our metabolic flexibility? Institute of Outdoor Sports and Environmental Science, German Sports University Cologne, Cologne, 50933, Germany. *F1000Research* 2018, 6:1787 Last updated: 02 FEB 2018

Glade MJ, Smith K. A glance at ... exercise and glucose uptake. *Nutrition*, Volume 31 (2015), Issue 6 , 893–897.

90-105 Minutes

This 15-minute increment of this 2-hour session further builds on the peer-reviewed scientific literature regarding metabolic flexibility and introduces several additional positive physiological outcomes associated with being more metabolically flexible.

Discussion Points: One of the positive physiological outcomes associated with metabolic flexibility is an increase in AMP-activated protein kinase (AMPK) as a nutrient-sensing enzyme. AMPK functions as a central regulator of metabolism and energy production in the body. AMPK is activated by a variety of inputs, including calorie restriction, lowered blood insulin levels, and exercise.

Publications Cited:

Valentine RJ, et al. Insulin inhibits AMPK activity and phosphorylates AMPK Ser^{485/491} through Akt in hepatocytes, myotubes and incubated rat skeletal muscle. *Arch Biochem Biophys*. 2014; 562: 62-69.

Weikel KA, et al. Unraveling the actions of AMP-activated protein kinase in metabolic diseases: Systemic to molecular insights. *Metabolism*. 2016; 65(5): 634-645.

Lopez M. Hypothalamic AMPK and energy balance. *Eur J Clin Invest*. 2018; 48(9): e12996.

105-120 Minutes

This final 15-minute increment of this 2-hour session ties the previous seven sessions together by summarizing the previous scientific literature and spotlights the most common inhibitory factors affecting AMPK. Inhibitory factor examples are: The presence of hyperinsulinemia, chronic overnutrition, and / or obesity.

Discussion points: AMPK is shown to work rapidly to restore cellular ATP levels and modulates two downstream signaling pathways affecting the musculoskeletal system, mTOR and PPAR. AMPK activation is positively associated with reduced inflammation, weight loss, enhanced insulin sensitivity, enhanced muscle function, as well as healthy aging in otherwise healthy adults.

Publications Cited:

Kjobsted R, et al. AMPK in skeletal muscle function and metabolism. *FASEB J*. 2018; 32(4): 1741-1777.

McCarty MF. AMPK activation—protean potential for boosting healthspan. *Age (Dordr)*. 2014; 36(2): 641-663.

Dr Alex Vidan

Course Title: The Science and Communication Behind an Over 90% New Patient Start

Course Description: Inside the mind of a patient starting care. When DCs understand how to communicate what the new patient cares most about, then the patient starts to see how the DC is the answer to solving their problem.

Learning Objectives: • Understanding and explain what the research shows patients are looking for in care. • Understanding and explaining the problems associated with new patients and retention. • Understanding and explain the science of communication behind patients starting care

Course Outline:

1. Expectation vs Opportunity 0-15 minutes
 - I. Doctors' Wants vs. Patients' Needs
 - II. The Science Behind Taking Action
2. New Patient Problems and Retention Problems 15-30 minutes
 - I. Removing our ego for growth
 - II. Always a Student
3. Time and Convenience 30-45 minutes
 - I. What do people pay for
4. Communication for a 90% New Patient Start Rate 45-60 minutes
 - I. The Science of Communication

COURSE TITLE: Musculoskeletal Pain, A Multi-Modal Approach Part 1

Brett Winchester DC

DESCRIPTION: A 4 hour discussion on how to integrated a variety of approaches into one treatment model. Current research continues to tell us that a multi-modal approach is the gold standard for musculoskeletal treatment. More specifically, we can have a greater impact on pains syndromes and the results are more likely to be sustained when a combination of modalities are used. The four pillars to be discussed will be Manipulation (MPI), Stabilization (DNS), MDT (Mckenzie), and Neuro-dynamics (Shacklock). Historically, chiropractors suffer on when to use these different techniques in the most efficient way and how to use them together in a given treatment session. Current evidence in these modalities will be presented. Most importantly, the ability of the chiropractor to classify their patients is paramount and guides this process.

LEARNING OBJECTIVES:

Review current evidence on using a multi-modal approach for treatment
Understand the importance of being able to dynamically palpate and correlate to manipulation
Know current research on directional preference and what it means
Review Stabilization through a DNS lens
Recognize cases that require Neurodynamic assessment and treatment
Discuss classification into these categories and when to combine

AGENDA:

Hour 1: Current evidence on multi-modal approach
15 min: Intro
15 min: Research pertaining to a Multi-Modal approach
15 min: Techniques utilized in Multi-Modal approach
15 min: Evidence for specific techniques and classification

COURSE TITLE: Musculoskeletal Pain, A Multi-Modal Approach Part II

Brett Winchester DC

DESCRIPTION: A 4 hour discussion on how to integrated a variety of approaches into one treatment model. Current research continues to tell us that a multi-modal approach is the gold standard for musculoskeletal treatment. More specifically, we can have a greater impact on pains syndromes and the results are more likely to be sustained when a combination of modalities are used. The four pillars to be discussed will be Manipulation (MPI), Stabilization (DNS), MDT (Mckenzie), and Neuro-dynamics (Shacklock). Historically, chiropractors suffer on when to use these different techniques in the most efficient way and how to use them together in a given treatment session. Current evidence in these modalities will be presented. Most importantly, the ability of the chiropractor to classify their patients is paramount and guides this process.

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Hour 3: Manipulation

0-15 min: An update on current research on manipulation
15-30 min: The neurophysiologic effects of manipulation
30-45 min: How to marry joint play and manipulation
45-60 min: How to implement manipulation with rehabilitation techniques

Hour 4: Stabilization

60-75 min: An in depth look at current research on lumbar spine stabilization
75-90 min: The timeline of how we have got to the this point in stabilization
90-105 min: Understanding the difference between respiration and stabilization
105-150 min: How to teach these concepts in chiropractic practice

COURSE TITLE: Musculoskeletal Pain, A Multi-Modal Approach Part III

Brett Winchester DC

DESCRIPTION: A 4 hour discussion on how to integrated a variety of approaches into one treatment model. Current research continues to tell us that a multi-modal approach is the gold standard for musculoskeletal treatment. More specifically, we can have a greater impact on pains syndromes and the results are more likely to be sustained when a combination of modalities are used. The four pillars to be discussed will be Manipulation (MPI), Stabilization (DNS), MDT (Mckenzie), and Neuro-dynamics (Shacklock). Historically, chiropractors suffer on when to use these different techniques in the most efficient way and how to use them together in a given treatment session. Current evidence in these modalities will be presented. Most importantly, the ability of the chiropractor to classify their patients is paramount and guides this process.

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Hour 4: Directional Preference/Neurodynamics

0-15 min: Current research on directional preference

15-30 min: How to assess for directional preference

30-45 min: Why neurodynamics should be in every chiropractors tool box

45-60 min: Basic neurodynamic tools for everyday practice