

POSTGRADUATE PROGRAM OUTLINE

Course Title: “Concussion Management”

Instructor: Todd Turnbull, DC, CCSP

Course

Objectives: This course will discuss the features of concussions as they are currently understood, including clinical assessment and management.

Statement

Of Purpose: The doctor of chiropractic can and should play a key role in the assessment and management of the concussed patient. The body of knowledge regarding concussions is expanding rapidly and healthcare providers need support to stay abreast of this information. Practical application of diagnostic procedures and treatment protocols are the core of this program. Discussion of Return to play guidelines for providers are included.

Overview of

Course: The course begins by defining traumatic brain injuries and proceeds into discussing the causes, pathophysiology and prognosis of them. The potential impact of the neuromusculoskeletal response to concussions will be addressed next.

After this introduction, clinical assessment of concussions will include red flags that require emergency care, acute concussion factors and pediatric complications. Then, physical examination will be discussed, including application of on-field diagnostic skills and neurological testing.

Evaluation and treatment protocols for musculoskeletal related dysfunction will be addressed. Manual manipulation techniques to reduce concussion symptoms and cranial nerve lesions will be introduced. Self care recommendations for sleep strategies, nutrition, therapeutic stretching, strengthening and cardiovascular exercise will be explored.

Introduction of rehabilitation therapies will include training approaches to improving cognition, balance and vision issues. Understanding how to integrate care with appropriate concussion professionals will be addressed.

The discussion of concussion management will include considerations for return to play, return to work, and return to school. Modifying factors and application of return to play guidelines will be presented.

Medico-legal issues regarding return to play guidelines including proper documentation will be investigated. Case reports relevant to concussion management by Chiropractors will be reviewed.

The seminar will conclude with a review of the role of chiropractors in managing concussed patients and an empowering charge to Doctors of Chiropractic to recognize their necessary value to the individual patient.

Course Synopsis:

- defining traumatic brain injuries
- clinical assessment include red flags and pediatric complications
- application of on-field diagnostic skills and neurological testing
- manual manipulation of cervical and cranial nerve lesions
- rehab for sleep, nutrition, stretching, strengthening and cardiovascular exercise
- approaches to improving cognition, balance and vision issues
- application of return to play guidelines and modifying factors
- medico-legal issues regarding return to play guidelines

Hour-By-Hour Outline

Hour 1: Recognize concussion signs and symptoms.
Describe pathophysiology as it relates to concussions.
Discuss the diagnosis and prognosis of concussions.
Review concussion red flags and dangers of manipulation.
Understand the health concerns of pediatric athletes.
Explore diagnostic tests to evaluate concussion status.

Hour 2: Apply diagnostic skills to on-field and clinic settings.
Assess static motion coupled with cross-plane evaluation.
Analyze dynamic joint motion using outcome-based testing.

Demonstrate manual muscle testing to find dysfunctions.
Interpret neurological tests to evaluate concussion progress.

Hour 3: Discuss neurophysiology of musculoskeletal dysfunction.
Demonstrate non-thrust treatment techniques.
Address cranial nerve lesions with manipulation techniques.
Create new muscle memory patterns to correct chronic issues.
Introduce the half-somersault maneuver for vertigo relief.

Hour 4: Incorporate nutritional support for better brain function.
Explore sleep strategies for concussed patients.
Utilize brain therapy/games programs to improve cognition.
Describe vision therapies including Optokinetic drums and gaze stabilization.
Apply traction therapy to reduce intrathecal pressure.
Apply mobility exercises to improve musculoskeletal function.

Hour 5: Demonstrate balance exercises to improve proprioception.
Discuss cardio exercise to stimulate blood flow and neogenesis.
Apply jaw and cervical strength protocols using graduated isometrics.
Integrate therapeutic stretching protocols to improve agility.
Illustrate self release techniques to enhance mobility.

Hour 6: Introduce return to play guidelines.
Explain return to lifestyle guidelines.
Explore other return to lifestyle guidelines.
Understand modifying factors for RTP.
Investigate medico-legal issues of RTP.
Discuss the role of Chiropractors.