

Presenter: Robert Fenell, DC

12 CE Hours

Title: Upper & Lower Extremity Biomechanics and Orthopedic Assessment

Course Objectives:

- 1. Provide the DC with a more thorough knowledge and understanding of upper and lower extremity biomechanics.**
- 2. Equip the DC with the necessary knowledge to perform examination procedure, diagnose and treat patients' health concerns pertaining to the upper and lower extremity regions.**
- 3. Encourage the DC to become more focused on providing extremity care, when necessary, in order to provide a higher standard of care.**

Course Description: This extremity adjusting course will help the DC in their understanding of upper and lower extremity biomechanics. A relationship between structure and function of the extraspinal regions will be identified. Orthopedic testing and examination procedure will be discussed and demonstrated. The DC will learn critical skills and procedures on how to properly examine, diagnose and treat conditions involving the upper and lower extremities. Treatment techniques for correction of biomechanical insufficiencies involving the extremity regions will be discussed and demonstrated. The DC will also learn new methods on how to effectively communicate to their patients the value, benefit and need for extremity care and provide a more exhaustive treatment approach for their patients.

Outline:

- 1. 60 minutes: General consideration pertaining to case management of extremity conditions:**
 - a. Discussion of extraspinal biomechanical relationship to healthy spine function
 - b. Alteration of normal biomechanics and dysfunctional patterns
- 2. 150 minutes: Carpal biomechanics and orthopedic assessment:**
 - a. Carpal joint structure, movement patterns and biomechanics
 - b. Relationship of metacarpals and phalanges to carpal patterns of dysfunction
 - c. Relationship of distal radioulnar joint to carpal patterns of dysfunction
 - d. Orthopedic and diagnostic procedures
 - e. Hands On: Practical demonstration and instructional training including motion palpation, orthopedic assessment, and carpal adjusting procedures.
- 3. 150 minutes: Tarsal biomechanics and orthopedic assessment:**
 - a. Tarsal joint structure, movement patterns and biomechanics
 - b. Comparison between planus and cavus foot types
 - c. Relationship of ankle mortise, syndesmosis, and knee function
 - d. Orthopedic and diagnostic procedures
 - e. Hands On: Practical demonstration and instructional training including motion palpation, orthopedic assessment, and tarsal adjusting procedures.

Day 2:

4. 60 minutes: Patient education and report of findings

- a. Giving patients a proper understanding of the relationship of their condition to a loss of structural integrity of the involved body regions.
- b. Proper and ethical communication practices to ensure appropriate care standards are achieved.
- c. Establishing patient consent to care.

5. 180 minutes: Shoulder biomechanics and orthopedic assessment:

- d. Shoulder movement patterns and biomechanics
- e. Shoulder dysfunction and the relationship to the entire upper limb
- f. Relationship of shoulder patterns to spinal dysfunction
- g. Orthopedic and diagnostic procedures
- h. Hands On: Practice demonstration and instructional training including motion palpation, orthopedic assessment, and shoulder adjusting procedures.

6. 120 minutes: Elbow biomechanics and orthopedic assessment:

- i. Discussion of elbow biomechanics
- j. Elbow dysfunction and the relationship to the shoulder and wrist
- k. Orthopedic and diagnostic procedures
- l. Hands On: Practice demonstration and instructional training including motion palpation, orthopedic assessment, and elbow adjusting procedures.