Biomechanics, Imaging and Care of the High School Athlete

A biomechanical model for this growing population

Saturday

8:00-9:00am – General Clinical (Terry Yochum, DC)

Introduction
Terminology of Spondylolysis/Spondylolisthesis
A. Definition and Historical Perspectives
. Etiology of Spondylolisthesis
Clinical Presentation of Active versus Inactive Spondylolisthesis
A. Signs and Symptoms
B. Neurological Findings
C. Orthopedic Findings
D. The Stork (Micheli’s) Test

9:00-10:00am – General Clinical (Terry Yochum, DC)

Imaging Findings
A. Plain Films
B. Computed Tomography
C. Planar Bone Scan
D. SPECT Bone Scan
E. MRI Scan
Treatment and Prognosis
A. Detailed Discussion Concerning Patient Management of the Active/Athletic Patient
B. Spinal Manipulative Therapy for Active versus Inactive Spondylolisthesis
C. Use of the Boston overlap Brace for Active Spondylolisthesis
Case Management

10:00-10:15am – Morning Break

10:15-11:15am – General Clinical (Terry Yochum, DC)

A. Does altered biomechanics cause bone marrow edema?
   1. Research study done at Thomas Jefferson University Medical School in Philadelphia, PA performed by Mark Schweitzer, M.D.
2. Discussion of data, clinical results and imaging findings.

B. The effects of altered biomechanics on the presence of BME
   1. Research study performed at Logan College of Chiropractic placing 17 students in unilateral artificial
      foot pronation for 4 weeks and 5 participants utilized as controls.
      a. MRI scans of both lower extremities, sacroiliac joints and lumbar spine were obtained.
      b. Preliminary discussion of the clinical and imaging findings of the study.

2. Integration of findings into clinical practice.

11:15-12:15pm – General Clinical (Terry Yochum, DC)
   A. Selected case presentations of sports related injuries of the lower extremities.
      1. Images presented to include plain film radiographs, bone scans, CT scans and MRI scans.

12:15-1:15pm - Lunch

1:15-2:15pm – Other (Basic Science & Research) (Timothy Maggs, DC)
   - Introduction—discussion of current healthcare system, reasons for “crisis” and possible solutions, particularly as it pertains to chiropractic

2:15-3:15 – Technique (Timothy Maggs, DC)
   - Structural Management® is the perfect protocol to care for the middle and high school athlete. This
     is a massive market and biomechanically minded chiropractors are the best suited to care both preventatively
     and therapeutically for this group.

3:15-3:30 – Afternoon Break

3:30-4:30pm – Technique (Timothy Maggs, DC)
   - Caring for the Acute Injury. Specific clinical protocols utilizing low level laser therapy in dealing
     with the acutely injured patient.

4:30-5:30pm – Other (Basic Sciences & Research) (Timothy Maggs, DC)
   - The Structural Fingerprint® Exam. A detailed, hands-on, explanation of this biomechanical exam,
     with discussion of each test, the relevance, interpretation and recommendations needed.
Sunday

8:00-9:00am – General Clinical (Timothy Maggs, DC)
- Custom Orthotics and Digital Scanning. A detailed overview as to the role custom orthotics play in addressing biomechanical imbalances and weaknesses, and the value of using digital scanning instead of casting kits.

9:00-10:00 – General Clinical (Timothy Maggs, DC)
- Biomechanical X-Rays. The biomechanical information found on standard x-rays should be used in every chiropractic office in the world. There are many predictable signs and indicators that should objectively guide the treatment plan for each and every patient.

10:00-10:15am – Morning Break

10:15-11:15 – Technique (Timothy Maggs, DC)
- Rehab. A hands on description of the options available to address biomechanical imbalances, weaknesses, restrictions and areas of vulnerability. These will include improved centers of gravity, low level laser therapy, and strength and flexibility exercises.

- Report of Findings. This is one of the most critical components of The Structural Management® Program, as we, as providers, need to both educate and motivate our patients, in the report of findings, to take action. This is where we learn what the patient’s goal is; do they want just symptomatic relief or do they also want corrective care. The doctor’s communication and listening skills are critical here. An explanation of the treatments that will be provided is important, and will include chiropractic adjustments, low level laser therapy, custom orthotics, spinal decompression and more.

11:15-12:15pm – Technique (Timothy Maggs, DC)
- Patient Program. We will discuss both our Advanced Conditioning™ Program, which will be offered at the initial report of findings, as well as our Advanced Management™ Program (lifetime care), which will be offered at the completion of the first year.

- Muscle Management™ Program. All humans, especially athletes, repetitively use specific muscles, and without complete recovery, oftentimes become injured. We will review the physiology of active muscles, while showing how to 1) better prepare muscles for activity, 2) accelerate the recovery of used muscles and 3) show how to treat injured muscles. Treatment and care of the muscular system will include The Stick, low level laser therapy, kinesiotaping and more.

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- Build a successful biomechanical model practice
- Learn solid protocols for the uninjured as well as injured
- Utilize biomechanical x-ray information
- Understand the global need for custom orthotics
- Improved communication for successful report of findings