Evaluation and Treatment of Shoulder Biomechanics
An Evidence-Based Course

7:30  8:00  Registration
8:00  10:00  Clinical Ideas-Biomechanics and Muscle Function
• Phases of elevation
• Plane of scapula
• Muscular parameters
10:00  10:15  Break
10:15  12:00  Evidence Perspectives-
Evaluation and Assessment
• Philosophy/practical use of evidence
• Special tests and selection of the most appropriate tests
• Mobility assessment
12:00  1:00  Lunch (on your own)
1:00  2:30  Principles and Practice (Lab)
• Sequential evaluation performed
• Novel “chairs” labs
• Functional tests philosophy
2:30  2:45  Break
2:45  3:45  Sports Biomechanics and Overhead Injury
• Integration of functional overhead
• Comparative sports biomechanics
• Common sports injury and treatment
3:45  4:45  Rotator Cuff Dysfunction and Management (Overuse Through Trauma)
• Causality of interrelated diagnostic categories
• Specialized assessment/lab
• Surgical rehab principles and challenges
4:45  5:00  Review/Questions

Day Two

8:00  10:00  Scapular Biomechanics and Recognition of Synergy (Lec/Lab)
• Emergent concepts of scapular tracking
• Integration of exercise and myofascial techniques
• Extensive laboratory analysis and practice
10:00  10:15  Break
10:15  12:00  Impingement-Facts and Fallacies
• Special tests progression
• Differentiating primary vs. secondary impingement problems
• Evidence-based exercise core
• Rationale for joint mobilization current evidence
• Specialized exercise techniques
12:00  1:00  Lunch (on your own)
1:00  2:45  Shoulder Stiffness Pathology
• Pathways for shoulder arthrofibrosis
• Comprehensive program design
• Sequence for joint mobilization
• 5 degree rule for mobility progression
2:45  3:00  Break
3:00  4:30  Instability and Injury-Management and Assessment (Lab)
• Description of continuum of hypermobility and injury
• Injury classification
• Surgical rehab considerations
4:30  5:00  Questions/Answers
About the Educator

Mark S. Albert, MED, PT, ATC, SCS, has over 37 years of clinical experience in sports and orthopedic physical therapy settings. Mark is one of the first therapists recognized as a Board Certified Specialist in Sports, having been certified in 1987. He has presented over 400 courses and seminars on specialty areas such as sports injury, management of shoulder, knee dysfunction and exercise rehabilitation. Mark has worked in a variety of settings, treating athletes and orthopedic injuries for all ages and abilities. Mark taught for the Georgia State physical therapy program on topics including prevention and care of athletic injuries, abnormal exercise physiology, orthopedic hip and knee, orthopedic shoulder and thorax and exercise physiology.

Mr. Albert served on the editorial board of JOSPT, the Journal of Isokinetics and Exercise Science and Prevention Magazine and is an internationally recognized author of many publications in the areas of orthopedic and sports therapy, isokinetics and rehabilitation. Some of his article titles include: “Rehabilitation of the Knee,” “A Problem Solving Approach,” “Isokinetic Assessment of Inertial Training,” “Homestudy Guide to Orthopedic Series” and “Concepts of Muscle Training.” Mark has also published a book titled Principles of Knee Treatment and Rehabilitation and is the author of the textbook Eccentric Muscle Training in Sports and Orthopedics, Second Edition, which is considered to be a classic reference tool and was recently reprinted in Japanese and French.

In addition to his extensive writing career, Mark also served as the athletic trainer for the Georgia Chiefs, Georgia Tech Association, as well as three other universities and several high schools. His extensive research background and clinical experience enable him to provide the most up to date information in his courses.

Why You Should Attend This Course

This two-day intermediate level course is designed to emphasize the clinical guidelines utilized when developing an evidence-based rehabilitation program. Biomechanics form the keystone philosophy for a multi-modal treatment approach; emphasizing both manual treatment/assessment and dynamic exercise methods. Current evidence-based interventions are presented and analyzed for a variety of diagnoses. Postsurgical programs and time phased rehab progression are thoroughly discussed for diagnoses such as: rotator cuff tendinitis, tears, ligamentous injuries and dislocation. Evaluation and treatment techniques for specialized sports shoulder injuries and dysfunctions include rotator cuff undersurface tears, dead-arm syndrome, scapular neuritis, myofascial syndromes and microtrauma principles.

The instructor will describe essential components of overhead performance biomechanics and relate specific injuries and treatment concepts for the myriad of sports that involve throwing motions, swimming strokes and weight training for the upper extremity. Clinicians will also be presented with information and techniques on how to analyze and recognize dysfunction phases for painful, stiff shoulders (adhesive capsulitis), in addition to understanding the prognosis of recovery while incorporating evidence-based manual therapy techniques.

The presentation of rehabilitation programs are based on actual patient cases and outcomes. The assessment and treatment techniques will be thoroughly practiced during the laboratory sessions. This course incorporates the use of exercise and manual skills combined with new evidence-based perspectives to promote excellent patient outcomes.

Course Objectives

Upon completion of this course participants will be able to:

- Discuss the importance of understanding the biomechanics of the shoulder when developing a comprehensive shoulder evaluation.
- Discuss the underlying mechanisms of common shoulder dysfunctions.
- Perform special tests of the shoulder to determine dysfunction.
- Recognize the components of overhead performance biomechanics as it relates to injuries of sporting events that involve throwing motions, swimming strokes and weight training for the upper extremity.
- Recognize that myofascial trigger point therapy is an integral part of the rehab program.
- Develop specialized assessment and treatment programs for specific sports injuries to include: rotator cuff undersurface tears, dead arm syndrome, suprascapular neuritis, myofascial syndromes and microtraumas.
- Explain the dysfunction phases of adhesive capsulitis, painful shoulder and integrate evidence-based rehabilitation techniques to maximize outcomes.
- Analyze available multimodal treatments and rehabilitation techniques for effective shoulder treatments.
- Justify the role of current evidence-based information for effective shoulder treatments.

Certificates for attendance are given upon successful completion of the course.