



28th Injuries in Baseball Course

January 22 –24, 2010

The Wynfrey Hotel

Birmingham, AL

FRIDAY

January 22, 2010

7:00 a.m. **WELCOME**
James R. Andrews, M.D.
Kevin E. Wilk, D.P.T.

SESSION I **SHOULDER Part I**

Objective: Associate shoulder anatomy with biomechanics, examination, treatment and rehabilitation of the unstable shoulder

7:05 a.m. Moderator/Faculty Introductions
James R. Andrews, M.D.

7:10 a.m. **LIVE VIDEO DEMONSTRATION**
Shoulder Anatomy
Jeffrey Hartzell, M.D.
James M. Paci, M.D.
Benjamin B. Bedford, M.D.

7:30 a.m. Biomechanics of the Shoulder
Becky Bolt, M.S.

7:50 a.m. **LIVE VIDEO DEMONSTRATION**
Clinical Examination of the Shoulder
James R. Andrews, M.D.
Neal S. ElAttrache, M.D.
Stephen J. O'Brien, M.D.

8: 05 a.m. Internal Impingement: Pathology and Surgical Treatment
Lonnie Paulos, M.D.

- 8:25 a.m. An Algorithmic Approach to the Biceps-Labrum Complex in Throwers
Stephen J. O'Brien, M.D.
- 8:45 a.m. Assessing Asymmetry in the Overhead Thrower. What's Normal and
What's Pathological
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.
- 9:05 a.m. Partial Thickness Rotator Cuff Tears: State of the Art
Neal S. ElAttrache, M.D.
- 9:25 a.m. The Throwing Shoulder in the Higher Level Older Professional Athlete
James R. Andrews, M.D.
- 9:45 a.m. What's New: Non-Operative Rehabilitation of the Thrower's Shoulder
Kevin E. Wilk, D.P.T.
- 10:05 a.m. **Panel Discussion**
Moderator: James R. Andrews, M.D.
Jeffrey Hartzell, M.D.
Becky Bolt, M.S.
Neal S. ElAttrache, M.D.
Stephen J. O'Brien, M.D.
Lonnie Paulos, M.D.
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.
Kevin E. Wilk, D.P.T.

10:25 a.m. **BREAK**

SESSION II
SHOULDER Part II

- Objective: Apply current advances in treatment and rehabilitation to injuries of the
throwing shoulder
- 10:45 a.m. Moderator/ Faculty Introductions
Jeffrey R. Dugas, M.D.
- 10:50 a.m. Coracoid Impingement: Diagnosis and Treatment
Steve Jordan, M.D.
- 11:10 a.m. Labral Tears in Throwers: Diagnosis and Surgical Management
Neal S. ElAttrache, M.D.
- 11:30 a.m. Effect of Anchor Spacing in Labral Repair

Benton A. Emblom, M.D.

- 11:40 a.m. The Batter's Shoulder
Jeffrey R. Dugas, M.D.
- 11:55 a.m. Rehabilitation Following SLAP Repair Surgery
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.
- 12:05 p.m. Less Common Pathology in the Thrower's Shoulder
E. Lyle Cain, Jr., M.D.
- 12:20 p.m. Injuries to the AC Joint in Throwers
George A. Paletta, Jr., M.D.
- 12:40 p.m. Putting It All Together
John Conway, M.D.
- 1:00 p.m. **Panel Discussion**
Moderator: Jeffrey R. Dugas, M.D.
Steve E. Jordan, M.D.
Neal S. ElAttrache, M.D.
Benton A. Emblom, M.D.
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.
E. Lyle Cain, Jr., M.D.
George A. Paletta, Jr., M.D.
John Conway, M.D.
- 1:20 p.m. **LUNCH**

SESSION III
REHABILITATION

- Objective: Discuss current concepts in the treatment of injuries to the throwing shoulder
- 2:25 p.m. Moderator/Faculty Introductions
Kevin E. Wilk, D.P.T.
- 2:30 p.m. Special Rehabilitation Concerns for Overhead Athletes
George J. Davies, D.P.T., M.Ed., P.T., S.C.S., A.T., C. L.A.T., C.S.C.S.,
F.A.P.T.A.
- 2:45 p.m. Stretching, Joint Mobilization, Soft Tissue and Other Techniques to Enhance ROM of the Thrower's Shoulder

Kevin E. Wilk, D.P.T.
Ken Crenshaw, A.T.,C., C.S.C.S.
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.

- 3:10 p.m. Training the Scapular Region
Russ Paine, P.T.
- 3:25 p.m. Plyometric Drills for the Thrower: New Drills
Robert E. Mangine, M.Ed., P.T., A.T.,C.
- 3:40 p.m. Neuromuscular Training for Baseball Players: Theory and Practice
Lynn Snyder-Mackler, ScD, P.T., F.A.P.T.A.
- 3:55 p.m. Dynamic Stabilization Drills
Todd Hooks, P.T., S.C.S., A.T.,C., M.O.M.T., M.T.C., C.S.C.S.
- 4:15 p.m. **LIVE VIDEO DEMONSTRATION**
Dynamic Reaction Exercises
Ken Crenshaw, A.T.,C., C.S.C.S.
Nathan Shaw, A.T., C., C.S.C.S
- 4:35 p.m. **Panel Discussion**
Moderator: Kevin E. Wilk, D.P.T.
George J. Davies, D.P.T., M.Ed., P.T., S.C.S., A.T.,C. L.A.T., C.S.C.S.,
F.A.P.T.A.
Ken Crenshaw, A.T.,C., C.S.C.S.
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.
Russ Paine, P.T.
Robert E. Mangine, M.Ed., P.T., A.T.,C.
Lynn Snyder-Mackler, ScD, P.T., F.A.P.T.A.
Todd Hooks, P.T., S.C.S., A.T.,C., M.O.M.T., M.T.C., C.S.C.S.
Nathan Shaw, A.T., C., C.S.C.S.

4:50 p.m. **BREAK**

SESSION IV **CONDITIONING and TRAINING**

Objective: Examine current concepts and training techniques for the overhead athlete

5:10 p.m. Moderator /Faculty Introductions
Rafael Escamilla, Ph.D., P.T., C.S.C.S., F.A.C.S.M. _

5:15 p.m. Corrective Exercises for Baseball Pitchers

Mike Ryan, A.T.C., C.S.C.S.

- 5:35 p.m. Hip and Core Activation Exercises
Ken Crenshaw, A.T.,C., C.S.C.S.
Nathan Shaw, A.T., C., C.S.C.S.
- 5:55 p.m. Plyometric Drills: Where Are We Today? Where are We Going?
David Donatucci, M.Ed., C.S.C.S.
- 6:15 p.m. Comparison of Three Resistance Training Programs on
Shoulder Strength and Power
Rafael Escamilla, Ph.D., P.T., C.S.C.S., F.A.C.S.M.
- 6:35 p.m. Two Out Drill to Re-Establish ROM Between Innings
Kyle M. Yamashiro, P.T., C.S.C.S.
- 6:55 p.m. **Panel Discussion**
Moderator: Rafael Escamilla, Ph.D., P.T., C.S.C.S., F.A.C.S.M.
Mike Ryan, A.T.C., C.S.C.S.
Ken Crenshaw, A.T.,C., C.S.C.S.
Nathan Shaw, A.T., C., C.S.C.S.
David Donatucci, M.Ed., C.S.C.S.
Kyle M. Yamashiro, P.T., C.S.C.S.
- 7:15 p.m. Adjourn
- 7:15 p.m. **REGISTRANTS' RECEPTION**

SATURDAY
January 23, 2010

SESSION V
ELBOW I

Objective: Review current concepts relating to the anatomy, biomechanics, examination and treatment of the elbow

7:45 a.m. Moderator/Faculty Introductions
James R. Andrews, M.D.

7:50 a.m. **LIVE VIDEO DEMONSTRATION**
Anatomy of the Elbow
Benton A. Emblom, M.D.
Mark J. Sytsma, M.D.
Jesse L. Pace, D.O.

- 8:10 a.m. Biomechanics of the Elbow
Dave Fortenbaugh, M.S.
- 8:30 a.m. **LIVE VIDEO DEMONSTRATION**
Physical Exam of the Elbow
John Conway, M.D.
Neal S. ElAttrache, M.D.
George A. Paletta, Jr., M.D.
- 8:50 a.m. Non-Operative Rehabilitation of Selected Elbow Lesions
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.
- 9:10 a.m. How Do We Keep the Thrower's Elbow Healthy?
Paul Harker, A.T.,C.
- 9:30 a.m. **Panel Discussion**
Moderator: James R. Andrews, M.D.
Benton A. Emblom, M.D.
Dave Fortenbaugh, M.S.
John Conway, M.D.
Neal S. ElAttrache, M.D.
George A. Paletta, Jr., M.D.
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.
Paul Harker, A.T.,C.
- 9:50 a.m. **BREAK**

SESSION VI
ELBOW II

- Objective: Discuss the treatment and rehabilitation of injuries to the elbow
- 10:10 a.m. Moderator/Faculty Introductions
E. Lyle Cain, Jr., M.D.
- 10:15 a.m. 10-year Follow-up of UCL Reconstruction in Pitchers
E. Lyle Cain, Jr., M.D.
- 10:35 a.m. UCL Reconstruction using Hamstring Autograft for Elbows with Bone
Deficiency
Jeffrey R. Dugas, M.D.
- 10:55 a.m. Newer Techniques for UCL Reconstruction
George A. Paletta, Jr., M.D.

- 11:15 a.m. OCD of the Elbow in Throwers
Neal S. ElAttrache, M.D.
- 11:35 a.m. Stress Fractures of the Elbow in Throwers
John Conway, M.D.
- 11:55 a.m. Lacertus Fibrosis Syndrome of the Elbow
Steve E. Jordan, M.D.
- 12:10 p.m. Post-Operative Rehabilitation Following UCL Surgery
Kevin E. Wilk, D.P.T.
- 12:30 p.m. **Panel Discussion and Case Presentations**
Moderator: E. Lyle Cain, Jr., M.D.
Jeffrey R. Dugas, M.D.
George A. Paletta, Jr., M.D.
Neal S. ElAttrache, M.D.
John Conway, M.D.
Steve Jordan, M.D.
Kevin E. Wilk, D.P.T.
- 12:50 p.m. **JAMES R. ANDREWS AWARD FOR EXCELLENCE IN
BASEBALL SPORTS MEDICINE**
- ASMI CAREER SERVICE AWARD**
- 1:00 p.m. **Lunch**

**SESSION VII
MEDICAL CONSIDERATIONS**

- Objective: Identify and discuss current trends associated with baseball in primary
 care sports medicine
- 2:00 p.m. Moderator/Faculty Introductions
José O. Ortega, M.D.
- 2:05 p.m. ENT / Facial Injuries
E. Scott Elledge, M.D., F.A.C.S.
- 2:25 p.m. Sickle Cell Trait
Michael D. Goodlett, M.D.
- 2:45 p.m. Pediatric Injuries in Baseball

Marshall Crowther, M.D.

3:05 p.m. Heat Related Injuries
Tracy R. Ray, M.D.

3:25 p.m. **Panel Discussion**
Moderator: José O. Ortega, M.D.
E. Scott Elledge, M.D., F.A.C.S.
Michael D. Goodlett, M.D.
Marshall Crowther, M.D.
Tracy R. Ray, M.D.

3:45 p.m. **BREAK**

SESSION VIII A
REHABILITATION and TRAINING

Objective: Recognize the importance of training techniques and rehabilitation of today's athlete

4:05 p.m. Moderator/Faculty Introductions
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.

4:10 p.m. Rehabilitation Based on Age and the Player's Level
George J. Davies, D.P.T., M.Ed., P.T., S.C.S., A.T.,C. L.A.T., C.S.C.S.,
F.A.P.T.A.

4:30 p.m. Core Training for the Overhead Athlete
A.J. Yenchak, P.T., D.P.T., C.S.C.S.

4:50 p.m. Special Rehabilitation Concerns/Principles of the Female Thrower
Lynn Snyder-Mackler, ScD, P.T., F.A.P.T.A.

5:10 p.m. Rehabilitation of the Lower Extremity and Tendinitis
Russ Paine, P.T.

5:30 p.m. Rehabilitation Following Rotator Cuff Repair
Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.

5:50 p.m. Rehabilitation of Groin/Hamstring Strain
Robert E. Mangine, M.Ed., P.T., A.T.,C.

6:10 p.m. More Plyometric Drills
David Donatucci, M.Ed., C.S.C.S.

6:30 p.m. More Functional Drills
Ken Crenshaw, A.T.,C., C.S.C.S.

6:50 p.m. **Panel Discussion**
Moderator: Michael M. Reinold, P.T., D.P.T., S.C.S., A.T.,C., C.S.C.S.
George J. Davies, D.P.T., M.Ed., P.T., S.C.S., A.T.,C. L.A.T., C.S.C.S.,
F.A.P.T.A.
A.J. Yenchak, P.T., D.P.T., C.S.C.S.
Lynn Snyder-Mackler, ScD, P.T., F.A.P.T.A.
Russ Paine, P.T.
Robert E. Mangine, M.Ed., P.T., A.T.,C.
David Donatucci, M.Ed., C.S.C.S.
Ken Crenshaw, A.T.,C., C.S.C.S.

7:10 p.m. ADJOURN

SESSION VIII B THE SCIENCE OF COACHING

Objective: Discuss the practical aspects of developing healthy pitchers

3:35 p.m. Moderator/Faculty Introductions
E. David Osinski, M.A.

3:40 p.m. Elite Pitching Biomechanics
Glenn S. Fleisig, Ph.D.

4:00 p.m. Summary: International Youth Pitching Mechanics
E. David Osinski, M.A.

4:20 p.m. Drills to Master the Pitching Delivery
Rick Peterson

4:40 p.m. **Panel Discussion**
Moderator: David Osinski, M.A.

Glenn S. Fleisig, Ph.D.
Rick Peterson

5:00 p.m. ADJOURN

SUNDAY
January 24, 2010

7:00 a.m. Rehabilitation / Conditioning Roundtable Discussion

SESSION IX
ADOLESCENT PLAYERS

Objective: Recognize the special aspects of the adolescent player

8:00 a.m. Moderator/Faculty Introductions
Michael J. Axe, M.D.

8:05 a.m. 10-Year Youth Pitching Study: 1999-2008
Glenn S. Fleisig, Ph.D.

8:25 a.m. International Youth Baseball Update 2010
Michael J. Axe, M.D.

8:45 a.m. First Year Pitchers: A Preliminary Report on a Longitudinal Youth Study.
Becky Bolt, M.S.

9:05 a.m. Adolescent Pitching: The Recipe for Success
Carl Nissen, M.D.

9:25 a.m. Throwing and Pitching Drills for Adolescent Pitchers
Rick Peterson

9:45 a.m. Rehabilitation Concerns and Principles for Adolescent Baseball Players
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.

10:05 a.m. STOP Program
James R. Andrews, M.D.

10:15 a.m. **Panel Discussion**
Moderator: Michael J. Axe, M.D.
Glenn S. Fleisig, Ph.D.
Becky Bolt, M.S.
Carl Nissen, M.D.
Rick Peterson
Lenny Macrina, M.S.P.T., S.C.S., C.S.C.S.
James R. Andrews, M.D.

10:30 a.m. BREAK

SESSION X
BASEBALL BIOMECHANICS

Objective: Provide practical information for understanding the biomechanics of the overhead athlete

10:45 a.m. Moderator/Faculty Introductions
Glenn S. Fleisig, Ph.D.

10:50 a.m. Biomechanics of the Lower Extremity during Pitching
Carl W. Nissen, M.D.

11:10 a.m. Training Programs that Increase Throwing Velocity
Rafael Escamilla, Ph.D., P.T., C.S.C.S., F.A.C.S.M.

11:30 a.m. Batting Biomechanics
Dave Fortenbaugh, M.S.

11:50 a.m. **Panel Discussion**
Moderator: Glenn S. Fleisig, Ph.D.
Carl Nissen, M.D.
Rafael Escamilla, Ph.D., P.T., C.S.C.S., F.A.C.S.M.
Dave Fortenbaugh, M.S.

12:10 p.m. **BREAK**

SESSION XI
LOWER EXTREMITY

Objective: Review current concepts in the treatment and rehabilitation of injuries to the lower extremity

12:30 p.m. Moderator/Faculty Introductions

William G. Clancy, Jr., M.D., Ph.D. (Hon)

12:35 p.m. Groin Pain: Conservative vs. Operative Management
Benton A. Emblom, M.D.

12:55 p.m. Patellofemoral Pain: Diagnosis and Treatment
William G. Clancy, Jr., M.D., Ph.D. (Hon)

- 1:15 p.m. Rehabilitation of Patellofemoral Problems
Robert E. Mangan, M.Ed., P.T., A.T.,C.
- 1:35 p.m. Lower Leg Pain, Chronic Compartment Syndrome and Shin Splints
Angus M. McBryde, Jr., M.D.
- 1:55 p.m. **Panel Discussion**
Moderator: William G. Clancy, Jr., M.D., Ph.D. (Hon)
Benton A. Emblom, M.D.
Robert E. Mangan, M.Ed., P.T., A.T.,C.
Angus M. McBryde, Jr., M.D.
- 2:15 p.m. Adjourn**