Mechanisms of Knee Injury
Implications for Evidence-based Rehabilitation, Injury Prevention, & Return to Sport Decisions

Saturday, May 12, 2018
8:00 a.m.-5:00 p.m.

Sponsored by the Orthopedic Physical Therapy Residency program at A.T. Still University, Department of Physical Therapy

Course description
The knee is the most common site of lower extremity injury in persons who are physically active. Despite the high number of knee injuries seen in orthopedic practice, evaluation, and treatment programs remain highly variable and are often without scientific backing. The purpose of this course is to critically assess current approaches to the management of common knee disorders through review of research findings and practical clinical experience. Course participants will receive a thorough review of the clinical biomechanics of the tibiofemoral and patellofemoral joint, as well as an overview of the entire lower kinetic chain as it relates to knee dysfunction. Emphasis will be placed on current research in the areas of injury biomechanics, treatment approaches and injury prevention strategies. Implications for return to sport decisions following knee injury/surgery will be addressed.

Course objectives
Upon completion of this course participants will be able to:
1. Describe the influence of abnormal lower extremity mechanics on knee injury.
2. Describe the influence of abnormal lower extremity mechanics on patellofemoral joint dysfunction.
3. Describe a functional assessment of the lower quarter for persons who have undergone ACL reconstruction.
4. Describe the scientific and clinical rationale behind the development of an exercise program for the treatment of common tibiofemoral joint injuries and patellofemoral pain.
5. Describe the scientific and clinical rationale behind the development of exercise programs to prevent ACL injury.

Schedule
8:00-8:30 a.m.  Introductions & Course Overview
8:30-10:00 a.m. Lower limb pathomechanics: Implications for knee injury
10:00-10:15 a.m. Break
10:15 a.m.-noon Mechanisms of knee injury/overuse & patellofemoral pain
Noon-1:00 p.m. Lunch
1:00-2:00 p.m. Functional assessment of the lower quarter: Implications for injury prevention and return to sport decisions.
2:00-3:00 p.m. ACL rehabilitation & Injury prevention training
3:00-3:15 p.m. Break
3:15-5:00 p.m. Intervention strategies for knee injuries & patellofemoral pain

.8 CEUs awarded at time of course completion for 8 contact hours
Instructor
Christopher M. Powers, PhD, PT, FACSM, FAPTA, is an associate professor in the Division of Biokinesiology & Physical Therapy. He also has joint appointments in the Departments of Radiology and Orthopaedic Surgery within the Keck School of Medicine. Dr. Powers is currently co-director of the Musculoskeletal Biomechanics Research Laboratory and the director of the program in Biokinesiology at USC. He received a bachelor’s degree in physical education from the University of California, Santa Barbara in 1984, his masters degree in physical therapy from Columbia University in 1987, and a PhD in biokinesiology in 1996 from USC. Dr. Powers did his post-doctoral training at the Orthopaedic Biomechanics Laboratory, University of California, Irvine.

Dr. Powers’ research and teaching interests relate to the biomechanical aspects of human movement. More specifically, his research focuses on how altered kinematics, kinetics, and muscular actions contribute to lower extremity injury. He is particularly interested in the pathomechanics underlying knee and patellofemoral joint dysfunction. He has published more than 150 peer-reviewed articles and has received several research awards from the American Physical Therapy Association, including the Rose Excellence in Research Award from the Orthopaedic Section, the Eugene Michels New Investigator Award, the Dorothy Briggs Scientific Inquiry Award and the Helen J Hislop Award for contributions to the professional literature.

Dr. Powers is a Fellow of the American College of Sports Medicine and a Catherine Worthingham Fellow of the American Physical Therapy Association. He also is a member of the American Society for Biomechanics, American Society for Testing and Measures, and the North American Society for Gait and Clinical Movement Analysis. In addition, Dr. Powers is editor of the Journal of Orthopaedic and Sports Physical Therapy and currently serves as president of the California Chapter of the APTA.

Program registration form
**Mechanisms of Knee Injury:**
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Register online at orthoptresidency.atsu.edu or mail payment and registration form to:
A.T. Still University
ATTN: Cheri Hodges
Department of Physical Therapy
5850 E. Still Circle
Mesa, AZ 85206

Registration fees (please check one)
- $195
- $160 for ATSU alumni and for clinical instructors

Check made out to ATSU
Mentors of ATSU orthopedic residents no charge
Discount available to three or more attendees from one organization

Name ________________________________
PT license # ____________________________
Address ________________________________
                           ________________________________
City ____________________________
State/ZIP ____________________________
Phone number ____________________________
Email ______________________________

For additional information, email Cheri Hodges at chodges@atsu.edu