Title: Biomechanical and structural considerations in the rehabilitation of adults with hip pain
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Course Description:
Hip pain has become an increasingly common complaint in the active young and middle aged adult. Identifying causes of hip pain in this population can be challenging. Recent attention has focused on structural abnormalities and surgical correction for these abnormalities. Although structural abnormalities may contribute to hip pain, increased joint forces and microtrauma due to faulty movement or muscle recruitment patterns also play an important role. Physical therapy intervention targeted at reducing joint forces and microtrauma to hip joint structures provides an alternative to surgical intervention and/or an important adjunct to surgery. This presentation will emphasize biomechanical and anatomical factors that may contribute to pain problems such as femoroacetabular impingement (FAI), structural instability and acetabular labral tears. Kinematic and kinetic research will be presented describing the forces at the hip during walking and selected hip exercises. Clinical cases will be presented to demonstrate examination and treatment of individuals with hip pain.

Course Learning Objectives (3-5 objectives recommended):
Upon completion of this course, the participants will be able to:
1. Describe the structural characteristics of the hip and variations in patients with hip pain
2. Discuss the hip joint forces developed during walking and selected exercises
3. Describe treatment strategies targeted at reducing forces to hip joint structures to decrease pain and promote healing.

Instructional Level:
Basic Intermediate X Advanced Multiple

Instructional Format (indicate approx. percentage)
X Lecture ☐ Lab ☐ Combination ________________________________

Tentative Outline of time and content: (3 hours)
45 min: Structural and muscular characteristics of the hip joint and variations in patients with hip pain
45 min: Joint forces at the hip joint during selected exercises and walking: effects of alterations in muscle forces and ankle pushoff
15 min: Break
60 min: Case examples of evaluation and treatment integrating anatomical and biomechanical factors
15 min: Discussion

Key References: Minimum of 5 current references (less than 5 years old):

