

A surgical option for patients with hip osteoarthritis that is being used with increasing frequency is the Birmingham hip resurfacing procedure. While the focus of this evidence-based presentation is on rehabilitation strategies for patients status post Birmingham hip resurfacing, we will also provide a brief overview of the examination, evaluation, diagnosis, prognosis, and outcomes assessment of this patient population. This interactive presentation will use discussion, demonstration, patient vignettes, and clinical algorithms to assist physical therapists with patient management. In addition, this presentation will include commentary from a physical therapist that recently underwent a Birmingham hip resurfacing procedure.

#### Learning Objectives:

By the end of this program, participants will be able to:

1. Discuss which patients with hip osteoarthritis are most appropriate for the Birmingham hip resurfacing procedure
2. Discuss an examination strategy for patients status post Birmingham hip resurfacing
3. Develop intervention strategies for patients with status post Birmingham hip resurfacing
4. Choose appropriate outcome measures for patients status post Birmingham hip resurfacing

#### Key References:

1. Häkkinen A et al. Muscle strength and range of movement deficits 1 year after hip resurfacing surgery using posterior approach. *Disability & Rehabilitation*. 2010; 32 (6): 483-491.
2. Hakkinen A. Muscle strength and range of movement deficits one year after hip resurfacing surgery using posterior approach. *Journal of Disability and Rehabilitation*. 2010; 32(6): 483-91.
3. Crow JB, Gelfand B, Su EP. Use of joint mobilization in a patient with severely restricted hip motion following bilateral hip resurfacing arthroplasty. *Phys Ther*. 2008; 88(12):1591-1600.
4. Wells, P. Accuracy of clinical assessment of deep-vein thrombosis. *Lancet*. 1995; 34(81):1326-30
5. Murulanda G, Wilson S, Edwards P, Raterman S. Early clinical experience with the use of the Birmingham hip resurfacing system. *Orthopedics*. 2008; 31(12):113-117
6. Naal, F. Sports after hip resurfacing arthroplasty. *The American Journal of Sports Medicine*. 2007; 35 (5); 705-711.
7. Shrader W. Gait and stair function in total and resurfacing hip arthroplasty. *Clin Orthop Relat Res*. 2009; 467(6): 1476–1484
8. Mont M. Gait analysis of patients with resurfacing hip arthroplasty compared with hip osteoarthritis and standard total hip arthroplasty. *The Journal of Arthroplasty*. 2007; 22(1).

9. Quesada M, Marker D, Mont M. Metal-On-Metal hip resurfacing: Advantages and disadvantages. *The Journal of Arthroplasty*. 2008; 23(7): 69-74.
10. Achten et al. A randomized controlled trial of total hip arthroplasty versus resurfacing arthroplasty in the treatment of young patients with arthritis of the hip joint. *BMC Musculoskeletal Disorders*. 2010; 11:8
11. Wyness L, Vale L, McCormack K, et al. The effectiveness of metal on metal hip resurfacing: a systematic review of the available evidence published before 2002. *BMC Health Services Research*. 2004; 4:39–47.
12. Cibulka, et al. Hip Pain and Mobility Deficits – Hip osteoarthritis: Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther* 2009; 39(4):A1-A25.
13. Lewis CL, Sahrmann SA. Acetabular labral tears. *Phys Ther*. 2006; 86:110–121.
14. Goodman, Fuller. *Pathology: Implications for the Physical Therapist*. Saunders Elsevier; St. Louis, Missouri: 2007.
15. Kisner C & Colby L. *Therapeutic Exercise: Foundations and Techniques*. 5th Ed. FA Davis Company; Philadelphia: 2007.

Speaker Credentials/ Bio:

David Cameron, PT, PhD, OCS, ATC is a Clinical Assistant Professor at Sacred Heart University.

Kaitlyn Atwood, Danielle Catanzaro, Daniel Falanga, and Nicholas Salis are DPT students at Sacred Heart University.

Kevin Chui, PT, PhD, GCS is an Assistant Professor at Sacred Heart University.

