

## The Science and Clinical Application of Personalized Blood Flow Restriction

Al Gesite, PT, MS, COMT, STC & Zachary Dunkle, PT, DPT, OCS, CPPS

Wednesday, June 28th, 2017

5:30 PM – 8:30 PM

Woodruff Health Science Center, Auditorium

2.5 Continuing Education Hours (.25 CEU)

### Course Description and Objectives

Resistance training and progressively loading clients is an essential aspect of physical therapy. However, recovery from injury or surgery often leaves the client with prolonged atrophy and strength loss secondary to an inability to tolerate resistance loads necessary to produce musculoskeletal changes. Personalized Blood Flow Restriction (PBFR) has recently become a preferred method of overcoming these difficulties. PBFR is a method of partially occluding arterial blood flow while exercising based on the client's individual characteristics. By partially occluding arterial blood flow, the venous return is completely occluded, which allows the metabolites from the exercising muscle to build. This allows one to train at therapeutic loads of 20-30% of their 1 repetition maximum (1RM) and produce similar changes in strength and hypertrophy to resistance training at 80% plus of their 1RM. This course will introduce the clinician to the history of blood flow restriction training along with the current science and clinical application of personalized blood flow restriction.

*Upon completion of this course, the participants will be able to:*

1. Describe why personalized blood flow restriction is preferred to non-personalized blood flow restriction training in the medical setting.
2. Understand the physiologic mechanisms of personalized blood flow restriction training that contributes to increases in muscle hypertrophy and strength.
3. Understand the safety and risks of using personalized blood flow restriction training.
4. Describe the benefits of low load resistance training with personalized blood flow restriction compared to both high load training and free flow low load training.

### Instructor Biography

#### **Al Gesite, PT, MS, cOMT, STC**

Al has been an incomparable orthopedic physiotherapist for 19 years. He is the owner of PhysioEdge Physical Therapy in Marietta, GA. He received his undergraduate studies in Business Administration from Georgia State University and a Masters of Science in Physical Therapy from Armstrong Atlantic State University. He is an active learner and has pursued advanced training and education in manual & manipulative therapy, sports medicine, and movement science including Selective Functional Movement

Assessment (SFMA) and Functional Movement Screen (FMS). He has a Post-Graduate Certificate in Orthopaedic Manipulative & Manual Therapy from Curtin University in Perth, Australia, followed by a Sports Physical Therapy Certification from both the North American Sports Medicine Institute and the University of St. Augustine. Aside from being committed to life long learning and the treatment of patients, he serves as a faculty instructor for KinetaCore & Evidence in Motion in both the Functional Dry Needling and Functional Therapeutic courses. He is also a Certified First Responder. Al is a credentialed APTA Clinical Instructor and an active member of the American Physical Therapy Association (APTA), both the Orthopedic and Sports Therapy Section, the Physical Therapy Association of Georgia (PTAG), and the American Academy of Orthopedic Manual Therapists (AAOMPT).

### **Zachary Dunkle, PT, DPT, OCS, CPPS**

Zac is a board certified orthopedic clinical specialist, who took a unique path to becoming a physical therapist. Prior to becoming a physical therapist, Zac served as a Scout Sniper and Reconnaissance Marine. After leaving the Marine Corps, he attended the Pennsylvania State University, where he graduated with a Bachelor of Science in Kinesiology. While at Penn State, Zac assisted lead researchers in the Neuromotion laboratory investigating gait changes following ACL ruptures. After graduating from Emory University's Doctor of Physical Therapy program, he completed an orthopedic physical therapy residency at Emory University. In addition to being an orthopedic physical therapist, he is a Certified Physical Preparation Specialist who uses unconventional training methods to enhance athletic performance. In addition to treating patients, Zac currently teaches within the orthopedic residency program at Emory University and is an instructor with Owens Recovery Science, teaching Blood Flow Restriction courses. Zac is an active member of the American Physical Therapy Association (APTA) and the Physical Therapy Association of Georgia (PTAG).

## **Program Agenda**

**5:30 PM – 5:45 PM**

*Registration and Dinner*

**5:45 PM – 8:20 PM**

*Lecture: Personalized Blood Flow Restriction*

**8:20 PM – 8:30 PM**

*Questions & Answer Session*

*Conclusion*

*Completion of Course Evaluation forms and Post-test*

## **Resources and Deadlines**

There is no limit to the number of participants for this course.

**Online Registration Deadline: Monday, June 26, 2017\*\***

<https://form.jotform.us/71405475951156>