Level 1 Blood Flow Restriction Training Course – 1 Day (8 Hours)

Course Description:
Blood Flow Restriction Rehabilitation (BFR) is a powerful tool for the rehabilitation and Fitness professional. with over 160 peer-reviewed articles in the scientific literature the efficacy can not be denied. By applying a tourniquet to exercising limbs you can improve strength, hypertrophy and endurance changes while using a very light load within a small space like an athletic training room or small treatment room.

Course Objectives:
By the end of the course, attendees will be able to:

- Discuss the benefits of blood flow restriction (BFR) training
- Discuss Indications and Contraindications of BFR Training
- Demonstrate safe and effective placement of BFR cuffs
- Compare and contrast different uses of BFR from bed ridden to athletic performance training
- Critically Analyze the utility of BFR in the rehabilitation setting
- Develop and devise a training program for a potential patient or client

Course Outline:
Hour 1 - Introduction
a. What is Blood Flow Restriction (BFR) Training
b. Why would a clinician use BFR - Increase Strength/Hypertrophy/Cardiovascular function in a rehab setting
c. Why would a fitness fanatic use BFR - Increase Strength/hypertrophy/Recovery/cardio - in a gym/crossfit setting
d. Case Studies
Hour 2 - The Science Behind BFR Training
Hour 3 - How Does BFR Work?
Hour 4 - Who benefits from BFR?
a. Who should avoid BFR?
a. Indications/Contraindications
b. Programming BFR Training
c. High intensity Training (def.)
d. Low Intensity Training (def.)
e. Establishing a 1RM using a 10RM test
f. Reps and Sets and total volume
Hour 5 - Using BFR Cuffs
a. Compression Scale -
b. Pneumatic Compression Scale
c. Upper Extremity Application - Zone
i. radial pulse
d. Lower Extremity Application - Zone

i. posterior tibialis pulse

Hour 6 - Upper Extremity Exercises
Hour 7 - Lower Extremity Exercises
Hour 8 - Using BFR for recovery
Hour 9 - Using BFR for increasing Aerobic Capacity

References:

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3. Loenneke JP, Abe T, Wilson JM, Ugrinowitsch C, & Bemben MG (2012) Blood flow restriction: how does it work? Front Physiol, 3, 392.

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5. Loenneke JP, Fahs CA, Wilson JM, & Bemben MG (2011). Blood flow restriction: the metabolite/volume threshold theory. Med Hypotheses, 77(5), 748-752.

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7. Loenneke JP, Wilson GJ, & Wilson JM (2010) A mechanistic approach to blood flow occlusion. Int J Sports Med, 31(1) , 1-4.

8. Schoenfeld, BJ (2013). Potential mechanisms for a role of metabolic stress in hypertrophic adaptations to resistance training. Sports Med, 43(3), 179-194.

9. Loenneke JP, Abe T, Wilson JM, Thiebaud RS, Fahs CA, Rossow LM, & Bemben MG (2012) Blood flow restriction: an evidence-based progressive model. Acta Physiol Hung, 99(3) , 235-250.

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11. Lowery RP, Joy JM, Loenneke JP, Oliveira de Souza E, Weiner S, McCleary S, & Wilson JM (2013). Practical blood flow restriction training increases muscle hypertrophy during a periodized resistance training program. National Strength and Conditioning Conference, J Strength Cond Res supplement.