



# Mid Atlantic Regional Chapter of the American College of Sports Medicine

Annual Scientific Meeting, November 2<sup>nd</sup> - 3<sup>rd</sup>, 2018  
Conference Proceedings  
International Journal of Exercise Science, Issue 9, Volume 7



## Acute Resistance Exercise Fails to Alter Post-Exercise Glycemic Control

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Acute exercise has commonly been found to transiently enhance glycemic control during recovery from the exercise. This effect has more commonly been observed following aerobic exercise. **PURPOSE:** This study combined results from two recent smaller investigations to gauge the effects of resistance exercise on post-exercise blood glucose (BG) response to an oral glucose tolerance test (OGTT). **METHODS:** Data from seventeen resistance-trained volunteers were used. All subjects completed a resting control trial consisting of a 75-min OGTT following consumption of a 25% glucose solution dosed at 1 g/kg body mass. On a separate day, subjects completed either 30 repetitions of squat only exercise (at 10-RM); 30 repetitions each of squat, bench press and biceps curl (at 10-RM); or ~30 repetitions each of biceps curl and knee extension (at 10-RM). BG was assessed via fingertip sampling prior to exercise, post-exercise and during the OGTT. Blood lactate was collected at rest and upon completion of exercise. **RESULTS:** Resistance exercise resulted in significantly increased blood lactate vs. resting state ( $8.58 \pm 0.87$  vs.  $1.39 \pm 0.22$  mmol/L). OGTT response following acute resistance exercise was not significantly different ( $p > 0.05$ ) from the resting condition. BG area under the curve was 2% smaller ( $p > 0.05$ ) following resistance exercise compared to resting control ( $11330.6 \pm 320$  vs.  $11551.3 \pm 405$  arbitrary units). **CONCLUSION:** Based on the results of this investigation, acute resistance exercise was not found to elicit enhanced glycemic control. The overall energy deficit and magnitude of the body's glycogen depletion may be important factors to consider when examining post-exercise blood glucose response to an OGTT challenge.