**AUTO-REGULATED EXERCISE SELECTION TRAINING REGIMEN PRODUCES SMALL INCREASES IN LEAN BODY MASS AND MAXIMAL STRENGTH ADAPTATIONS IN STRENGTH-TRAINED INDIVIDUALS**

“Individuals selecting exercises that are similar to the prescribed exercises and seeing increases in overall strength and body composition”

INTRODUCTION:

* Auto-regulation is a form of training that adjusts the number of reps or the weight being used to account for how someone feels on a day-to-day or week-to-week basis
* This study addresses a qualitative variable (exercises) vs. quantitative variables (number of reps, percentages/weight lifted, or rest times)
* This study suggested that, with multiple years of experience, subjects would be able to select exercises they feel most prepared to perform

SUBJECTS:

* Thirty-two strength-trained men volunteered for this study
* Criteria for this study was as followed – be able to squat 1.75x and bench press 1.3x their bodyweight
* Subjects were required to have continuously trained for at least three years before study

METHODS:

* Both groups trained 3 times per week for 9 straight weeks
* Day 1 of training (6-8 reps), day 2 of training (12-14 reps), and day 3 of training (18-20 reps)
* The load placed on the bar and the number of sets and reps performed were equal across both groups
* Subjects took pre-workout supplementation and post-workout nutrition before and after each training session
* Nutrition monitoring, perceived exertion scale, body composition assessment, and muscular strength assessments were all a part of the training methods
* Auto-Regulated group were asked to pick movements that best fit them for the day (Dumbbell Bench Press for an upper body pressing motion if they didn’t feel like using the bar for that particular training session, etc.)
* Fixed exercise selection group was asked to perform the same movements each day regardless of feel (Barbell Bench Press on upper body pressing day with no other option/choice, etc.)

RESULTS:

* No significant differences in caloric intake between groups throughout the training period
* Many participates chose certain exercise over others during the 9-week training period
* The auto-regulated group chose higher reps on each day compared to the fixed group (20% more)
* No significant differences were displayed when it came to how each participate felt before each training session
* The auto-regulated group displayed a significant improvement in the barbell bench press

SUMMARY:

* Partial confirmation of hypothesis: Auto-regulated group produced a small advantage in total lean body mass improvements and upper body maximum strength adaptations
* Data suggests that strength-trained individuals self-selected compound (mulit-joint) exercises more frequently compared with isolation or accessory exercises
* Research has indicated that untrained individuals may be more responsive to training, whereas trained individuals may need to add more variation or progression to see further adaptations
* It has been demonstrated that strength gains are specific to the movement that is practiced most frequently

APPLICATION TO SLC STRENGTH:

* When training as SLC Strength and Conditioning, compound (multi-joint) movements are always going to be seen within the program. With that being said, an upper body pressing motion has multiple exercises to choose from when selecting the right one for you on any given day. This can pertain to many movement patterns you will see in the training facility. If you need to change the selection of the exercise, this body of literature suggests that keeping the same load/intensity, as well as reps being used for that specific day will still lead you in the right direction when it comes to body composition changes and maximal strength improvements