

Poster presentation

## Effects of BIOCREAT supplementation on strength and body composition during an 8-week resistance training program

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### Background

BIOCREAT is a highly purified unique molecule extracted from Fenugreek (*Trigonella Foenun greacum*) seeds. BIOCREAT is a proprietary patent pending molecule of INDUSBIOTECH that is hypothesized to enhance creatine uptake. The purpose of this study was to evaluate the effects of BIOCREAT supplementation on strength and body composition.

### Methods

47 Resistance trained men completed all phases of testing. Subjects were matched according to body weight and randomly assigned to ingest in a double blind manner 75 g of dextrose (N = 15, 20 ± 1.1 yrs, 177 ± 6 cm, 87 ± 11 kg, 16 ± 5.6 %BF), 75 g of dextrose/5 g creatine in powdered form (N = 14, 21 ± 4 yrs, 181 ± 7.1 cm, 89 ± 12 kg, 18 ± 5.5 %BF) or 900 mg BIOCREAT/3.5 g creatine capsules (N = 17, 21 ± 2 yrs, 179 ± 6 cm, 85 ± 10 kg, 15 ± 6 %BF). Subjects participated in a supervised 4-day per week periodized resistance-training program split into two upper and two lower extremity workouts per week for a total of 8-weeks. At 0, 4, and 8-weeks, subjects were tested on body composition via dual energy x-ray absorptiometry, 1 RM strength, muscular endurance, and anaerobic capacity. Statistical analyses utilized a two-way ANOVA with

repeated measures for all criterion variables ( $p \leq 0.05$ ). Data are presented as mean ± SD changes from baseline values.

### Results

Significant group × time interaction effects ( $p \leq .05$ ) were observed with BIOCREAT and creatine groups compared to placebo in changes of lean mass (PL: .4 ± 1.7 kg, CRE: 1.8 ± 2.1 kg, BIO: 1.8 ± 1.3 kg) and bench press 1 RM (PL: 8 ± 10.7 lbs, CRE: 21 ± 13 lbs, BIO: 16 ± 11 lbs). Further analysis revealed that the BIO group had a significantly ( $p \leq .05$ ) greater Wingate peak power (PL: 18.9 ± 55.7 watts, CRE: 12.1 ± 70.4 watts, BIO: 55.8 ± 66.1 watts) at the four week time point in comparison to PL and CRE. Significant main effects for time ( $p \leq .05$ ) were observed on body weight, fat mass, body fat percentage, leg press, and Wingate mean power. No significant interactions were observed among groups for muscular endurance on bench press or leg press or in any clinical safety data including lipid panel, liver function, kidney function, and/or CBC panel ( $p > 0.05$ ).

### Conclusion

It is concluded that BIOCREAT supplementation had a significant impact on upper body strength and body com-

position in comparison to placebo in a double blind controlled trial. The results obtained also demonstrated that there was no significant difference between BIOCREAT and the dextrose/creatine mixture on parameters of upper body strength and body composition. These changes were obtained with no clinical side effects. We conclude that in addition to a structured resistance training program, BIOCREAT can significantly increase strength and muscle mass.

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