The effects of nutritional supplement, Mass FX™, on muscular strength, body composition, and blood chemistries in resistance trained adult males.

Abstract

The purpose of this study was to determine the effects of a nutritional supplement, Mass FX, on muscular strength, body composition, and blood chemistries in resistance-trained adult males. Eight subjects, mean age 25 +/- 3.02 years, were randomly assigned to two groups (n=4). Each group was given either Mass FX or a Placebo in a double-blind manner to be taken orally for six weeks (4caps/day regardless of bodyweight). For the duration of the study, both groups were following the same training program and a diet customized to each subject's bodyweight in conjunction to the supplementation. Data were analyzed using Analysis of Covariance (ANCOVA) with a Bonferroni correction resulting in a family-wise level of significance of □ = 0.05, to avoid inflation of the Type I error. To confirm results, an independent samples t-test using a Bonferroni correction with a family-wise level of significance of □=0.05 was performed. Using ANCOVA, the groups were significantly different for the Bench Press outcome; whereas using the independent samples t-test, the two groups were significantly different for Bench Press and Free Testosterone. The results of this study indicate that supplementation with Mass FX induced better improvements than Placebo in muscular strength as measured by the bench press ($p<0.05$). Other measures in muscular strength, body composition, and free testosterone showed improvements, but were not statistically significant ($p>0.05$). No adverse

effects on selected clinical health markers: complete blood count with differential, hepatic (AST, ALP, ALT), lipids (TC, TGs, LDL, VLDL), and renal (creatinine, BUN) were observed from Mass FX supplementation (Group significance $p>0.05$). Mean difference (Post-Pre) in total and free testosterone concentrations exhibited apparent increases in the Mass FX group, in contrast to Placebo in which reductions in both mean difference total and free testosterone concentrations were observed. Lack of significance in the remaining variables of interest could be attributed to low power because of the small sample size used in this study. Thus, due to limitations in terms of sample representation and size, this study should be considered a pilot study. Future studies need to investigate these variables using larger sample sizes.

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Overall Results Summary:

STRENGTH - (in pounds):

Bench Press: Mean increase Mass FX 33.75
Mean increase Placebo 3.75
Percent Difference: 800 %

Deadlift: Mean increase Mass FX 35
Mean increase Placebo 17.5
Percent Difference: 100 %

Leg Press: Mean increase Mass FX 106.25
Mean increase Placebo 30
Percent Difference: 254.16 %

BODY COMPOSITION -

Mass FX mean Lean Mass increase (in pounds): 5.1 pounds
Placebo mean Lean Mass increase: 2.175
Percent difference: 134.482 %

Mass FX mean fat decrease (in pounds): -2.425 pounds
Placebo mean fat decrease (in pounds): -2.325 pounds
Percent difference: 4.301 %

SERUM - Serum Steroids:

Mass FX Total Test mean change (in ng/dl): Increase 98.75
Placebo Total test mean change (in ng/dl: Decrease -189.5

Mass FX Free Test mean change (in pg/ml): Increase 46.35
Placebo Free test mean change (in pg/ml): Decrease -41.1