



**Technical Data Sheet**  
300908

## **Research Study: AlphaSize® Alpha-Glycerol Phosphoryl Choline (A-GPC) Administration And Changes In Growth Hormone And Power Output**

### **Study Title**

Ziegenfuss T.N., Landis J., J.E. Hofheins. "Acute Supplementation With Alpha-Glycerolphosphorylcholine Augments Growth Hormone Response To, And Peak Force Production During, Resistance Exercise". The Center for Applied Health Science Research, Division of Sports Nutrition and Exercise Science, Fairlawn, OH 44333

Presented at The Fifth Annual International Society of Sports Nutrition (ISSN) meeting, June 9, 2008, Las Vegas, NV, and submitted for publication to JISSN.

### **Synopsis Of Study**

To explore growth hormone (GH) and explosive power performance changes after a single administration of 600 mg of A-GPC 50% active, 90 minutes prior to exercise. Rigorous exercise bouts consisted of six sets of Smith Machine squats at 70% of 1 repetition maximum (RM), followed by three sets of bench press throws at 50% of 1 RM to determine statistical changes. Blood samples were obtained prior to exercise and again at 0, 5, 15, 30, 60, and 90 minutes post exercise.

### **Synopsis Of Findings**

#### **Growth Hormone: Change In Serum Growth Hormone (GH) Levels**

<b>Time Period</b>	<b>Placebo Group GH (ng/mL)</b>	<b>Active Group GH (ng/mL)</b>	<b>Change (%)</b>
Immediately post exercise	1.5	5.0	333
15 minutes post exercise	4.5	8.3	184
30 minutes post exercise	5.0	7.2	144
60 minutes post exercise	3.9	3.9	0

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**Peak Force: Change In Peak Bench Press Force (Newtons)**

<b>Interpretation</b>	<b>Placebo Group Force (Newtons)</b>	<b>Active Group Force (Newtons)</b>	<b>Change (%)</b>
Active subjects were able to generate more force than placebo subjects.	818.43	933.29	114

**Peak Power: Change In Peak Bench Press Power (Watts)**

<b>Interpretation</b>	<b>Placebo Group Power (Watts)</b>	<b>Active Group Power (Watts)</b>	<b>Change (%)</b>
Active subjects were able to generate more peak power than placebo subjects.	813.71	920.14	113

**Rate Of Force Development (RFD) Change In Highest Rate Of Force Development Over 30 ms Time Period (N/S)**

<b>Interpretation</b>	<b>Placebo Group RFD (N/S)</b>	<b>Active Group RFD (N/S)</b>	<b>Change (%)</b>
There was a non-statistically significant difference favoring active subjects over placebo subjects in rate of force development.	865.86	900.29	104