THE SUPPPLEMENT BEAST MODE AND ITS EFFECT ON ANAEROBIC POWER

Principal Investigator: Isaac Majors **Faculty Sponsor: Dr. Judy Wilson**

Cardiovascular Research Laboratory, The University of Texas at Arlington, Arlington, TX

Abstract

INTRODUCTION – Anaerobic metabolism is the production of energy in the absence of oxygen and anaerobic power can be measured as either mean or peak power output in exercise that lasts thirty seconds or less. Power is force times velocity and it is measured in Watts. Research has shown that caffeine has a positive effect on sports performance and today many athletes use it as an ergogenic aid. Caffeine's affect on maximal anaerobic power however are less understood.

PURPOSE – The purpose of this study was to use the supplement Beast Mode and determine its effect on maximal anaerobic power as measured with back to back Wingate tests.

METHODS – All subjects had previous experience with performing anaerobic work, and all had previously performed a Wingate test. The subject was given either the supplement being tested or a placebo of sugar-free Kool-aid. The subject then waited 20 minutes to allow for absorption of the supplement and then began testing. The Wingate test requires pedaling for 30 seconds at maximal speed against a constant force or resistance. After the first test the subject was given 5 minutes of rest and proceeded to repeat the test. The subjects returned on a separate day to repeat the two Wingate tests again after consuming the other beverage. During testing, mean and peak power, and total work were measured. Heart rate, blood pressure and rate of perceived exertion (RPE) were measured before and after each test.

RESULTS – Five males (mean age 23.6 ± 2.3 yrs), students at UTA, volunteered to participate in this study. The subjects had similar height (70 in. ± 1.6) and were all muscular despite some differences in weight (198 lbs ± 49.9). There was a statistically significant difference in mean power and total work between the second tests of the placebo and supplement runs (p=0.02) and (p=0.04), respectively. No significant difference was seen in peak power and RPE in all tests, or the mean power and total work between the first tests.

CONCLUSION – The results indicate that while the supplement had no affect on peak anaerobic power, it did have an effect on the continuation of mean maximal anaerobic power and the total work done as time progressed. This is important in sports that require repeated maximal bursts of exertion, and this supplement could possibly enhance athletic performance in those sports.

Purpose

The purpose of this study was to use the supplement "Beast Mode" and determine its effect on maximal anaerobic power as measured with back to back Wingate tests.

Methods

Subjects were tested with and without the supplement Beast Mode for maximal anaerobic power by the use of back to back Wingate tests with a 5 min rest between each test. Each subject was given either the placebo or supplement and was required to wait for 20 minutes before testing so that the body had time to absorb the given drink. Total power, mean power, total work and RPE were measured variables, along with HR and blood pressure.

Results

There was a statistically significant difference in mean power and total work between the second tests of the placebo and supplement runs (p=0.02) and (p=0.04), respectively. No significant difference was seen in peak power and RPE in all tests, or the mean power and total work between the first tests.

Results (cont'd)

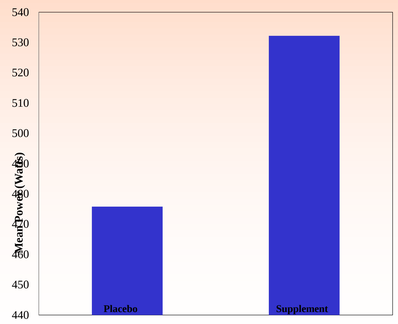

Figure 1: The Relationship Of Mean Power Between Placebo And Supplement Second Runs

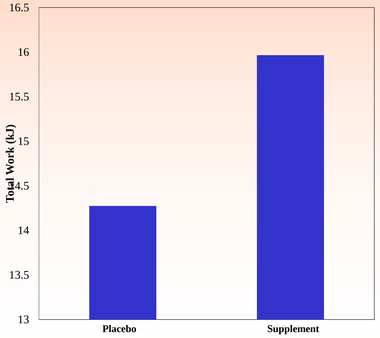

Figure 2: The Relationship Of Total Work Between Placebo And Supplement Second Runs

	Age	Height (in.)	Weight (lbs)
Mean	23.6	70	198
Std Dev	2.3	1.6	49.9

Conclusions

The results indicate that while the supplement had no effect on peak anaerobic power, it did have an effect on the continuation of mean maximal anaerobic power and the total work done as time progressed.