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MEMORANDUM

04-18-08

Team AAEFX,

Now that I'm back from Germany (FIBO), I wanted to send you the results of the fourth Kre-Alkalyn study, entitled "*Clinical Trial Comparison of Kre-Alkalyn vs- Creatine Monohydrate*".

During this 4 month trial, numerous tests and measurements were performed to see if there truly was a difference between two groups: one was administered Kre-Alkalyn and the other Creatine Monohydrate.

It should come as no surprise that the overall creatinine levels of the Kre-Alkalyn group were less than those of the Creatine Monohydrate group. But... there were some rather significant differences, especially with regard to factors that we would've never even considered or thought to examine.

For example, they found that cholesterol levels in the Creatine Monohydrate group were actually slightly elevated, while the Kre-Alkalyn group was shown to have lowered cholesterol levels.

In my opinion, the other, and probably the most significant finding in this study, was Kre-Alkalyn's effect on VO_2 max. To the best of my knowledge, no other study has referenced VO_2 max related to creatine.

Just so you know, VO_2 max is the maximum volume of oxygen the body can consume during intense, whole-body exercise, while breathing air at sea level. This volume is expressed as a rate, either liters per minute (L/min) or milliliters per kg body weight per minute (ml/kg/min). Because oxygen consumption is linearly related to energy expenditure, when we measure oxygen consumption, we are indirectly measuring an individual's maximal capacity to do work aerobically. A high maximal oxygen consumption is one of the hallmark characteristics of great endurance athletes in running, cycling, rowing and cross-country skiing, etc.

In a nutshell, both standard creatine and Kre-Alkalyn were shown to actually improve VO_2 max, with Kre-Alkalyn showing the greater improvement of the two. Anyway you look at it, this is exciting information.

By the way, if any of you need to contact Flex Wheeler, remember that he won't return until next Monday (April 21st) because he stayed over to make appearances for us in Poland.

All The Best,

Brian Andrews
President, All American EFX

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Clinical Trial Comparing Kre-Alkalyn to Creatine Monohydrate

- Date:** December 9, 2006
- Study:** Clinical Trial Comparison of Kre-Alkalyn -vs- Creatine Monohydrate
- By:** Dr. Afgerinos Affouras (sports doctor, CSKA senior soccer team), Dr. Katia Vodenicharova, M.D. (therapist, nephrologist), Dr. Dobriana Shishmanova (PhD cardiologist), Dr. Krassimir Goranov M.D., Dr. Karmen Stroychev M.D.
- Test Performed at:** Dr. I.S. Greenberg Medical Center, Sofia, Bulgaria
- Purpose of Study:** To determine if a difference exists between Kre-Alkalyn and Creatine Monohydrate
- Procedures:** 24 healthy male Olympic-level soccer players were divided randomly into two groups. One group ingested Kre-Alkalyn and the other used Creatine Monohydrate. This was a 4 month study.
- Athletes were tested at the start to determine a base line and then were tested once per month for 4 months. Since these are Olympic-level athletes, no changes were made to their diet or training schedule during the duration of this study.
- The following was the administration schedule for both groups:
- | | | |
|---------|------------|-----------|
| Month 1 | 0 capsules | 0 grams |
| Month 2 | 4 capsules | 3 grams |
| Month 3 | 6 capsules | 4.5 grams |
| Month 4 | 8 capsules | 6 grams |

The test group was administered capsules each containing 750 mg of Kre-Alkalyn. The creatine monohydrate group was administered capsules each containing 750 mg of creatine monohydrate. Both capsules were verified for purity by an independent lab.

Results:

Creatinine Levels In Urine:

Creatinine levels in the Kre-Alkalyn group were much lower than those of the creatine group. The following chart (Fig. 1)* reflects the average % difference of creatinine levels in the Kre-alkalyn group versus the creatine monohydrate group.

Std. Error of Difference
7.14 % - Month 1a
7.17 % - Month 1b
8.31 % - Month 2a
8.51 % - Month 2b
7.30 % - Month 3a
7.21 % - Month 3b
4.94 % - Month 4a
4.94 % - Month 4b

Fig. 1 - % Difference of Kre-Alkalyn Group's Creatinine Levels In Urine Below Creatine Group

(*Figure 1 - Measurements taken twice monthly. Average standard error of difference was 6.94%)

Body Weight:

No significant differences were found between the two groups in body weight measurements. Since these are endurance athletes who control their body weight, a significant difference was not expected to be found.

Cholesterol:

Cholesterol levels for the creatine monohydrate group were elevated by .02. Cholesterol levels for the Kre-Alkalyn group dropped by .08. (This was a very interesting and significant discovery)

HDL and LDL Testing:

HDL: ("good" cholesterol)

Creatine Group	HDL elevated by .03
Kre-Alkalyn Group	HDL elevated by .01

LDL: ("bad" cholesterol)

Creatine Group	LDL increased by .12
Kre-Alkalyn Group	LDL decreased by .14

Triglycerides:

Creatine Group	Lowered 3-glycerides by .08
Kre-Alkalyn Group	Lowered 3-glycerides by .11

WBC:

Creatine Group	Lowered WBC count by 1
Kre-Alkalyn Group	Elevated WBC count by .76

RBC:

Creatine Group	Elevated RBC count by .09
Kre-Alkalyn Group	Elevated RBC count by .12

pH:

pH was measured in the urine.

Creatine group base line	5.5
Creatine group ending	5.6
Std error of difference	0.1

Kre-Alkalyn group base line	5.27
Kre-Alkalyn group ending	5.92
Std error of difference	0.65

VO₂ Max:

VO₂ max levels were dramatically increased in the Kre-Alkalyn group over the creatine group as shown in the following chart (Fig. 2).

Std. Error Mean
169.510
135.628
185.556
154.076
157.073
147.838

Fig. 2 - VO₂ Max Increase (l/p/min)

*(Figure 2 - Represents the average increase in VO₂ max of the Kre-Alkalyn group (158.28) over the creatine group)

Conclusion & Final Analysis:

Kre-Alkalyn out performed creatine monohydrate in nearly all ergometry measurements. Most notable were that Kre-Alkalyn actually lowered cholesterol and triglyceride levels over creatine. pH was also found to be elevated in the Kre-Alkalyn group.

The most significant performance finding was an increase in VO₂ Max of the Kre-Alkalyn group over the creatine group.