## Extreme Endurance Takes On "Fran"

Cross-Functional exercise, defined as "constantly varied, high intensity, functional movement," has revolutionized the sport of fitness in an attempt to seek out the world's fittest individuals. Within the generalized programming that Cross-Functional athletes use, there are a series of "Benchmark Workouts" designed to help measure the progress of a cross-functional athlete's development. Among these workouts is 'Fran,' quite possibly one of the most well-known and frequently tested benchmark workouts among cross functional athletes. Fran is a couplet that exercises a 21-15-9 repetition scheme of front squat thrusters (95lbs for men, 65lbs for women) and pull-ups. Due to the metabolic efficiencies needed to complete 'Fran,' and the physiological responses that it elicits, Xendurance chose to highlight this workout and put their showcase product, Extreme Endurance, to the test again.

Extreme Endurance, advertised to reduce muscle soreness, increase aerobic capacity, and buffer lactic acid, is said to be one of a kind. In 2008, Xendurance conducted its first test on Extreme Endurance. In a gold standard, 3<sup>rd</sup> party, double-blind, placebo controlled, crossover study, 22 elite endurance athletes underwent a 10-day supplementation period on Extreme Endurance. Prior to supplementation, each athlete performed a baseline incremental cycle ergometer step test until exhaustion. Capillary blood samples were collected from the earlobe to analyze lactate levels. Upon completion of the 10-day cycle, each of the athletes were retested. After a 10-day usage, Extreme Endurance yielded a statistically significant 15% reduction in blood lactate levels post exercise.

In September of 2013, Xendurance set out to put Extreme Endurance to the test yet again. Jürgen Sessner, lead researcher at Corpus Diagnostics in Hilpoltstein, Germany, flew out to conduct the test. Jürgen has conducted over 8000 stress tests in his 15-year career and was the lead researcher on the clinical study that was presented at the prestigious European Nutraceutical Association meeting in Vienna, Austria, March 13, 2010 and is published in the European Nutraceutical Journal.

In the open label test conducted at East Valley Crossfit in Chandler, AZ, 11 cross-functional athletes, ages ranging from 22-66 were randomly selected. All athletes met the minimum criteria of at least 10 months of training leading up to the study and were required to complete 'Fran' twice over the course of a 7-day period. Upon being selected for the study, all of the athletes took part in a two-week washout period from all supplements. On day one of the study, a baseline 'Fran' test and blood samples were taken. Athletes were then provided with a 7-day trial of Extreme Endurance and were instructed to take 3 tablets in the morning and 3 tablets in the evening, with or without food. At both the baseline and post supplementation test, athletes had blood taken from the earlobe immediately before, after, and 10 minutes after completing 'Fran'. All 'Fran' times and movement standards were validated by a judge for each of the participating athletes.

After further analysis, the single best and worst performances were omitted from the study to ensure more accurate results. Of the remaining 9 athletes, a 7-day supplementation of Extreme Endurance yielded an average of 6.2% or 22-second improvement on their respective 'Fran' times. All blood samples were analyzed by a Hitaldo Super, GL Biosensor System. Blood tests after a 1-week usage of Extreme Endurance reduced lactate levels by 8.9% immediately post workout and 7.1% 10 minutes post workout when compared to blood samples taken at baseline.

