



## Further Support for Ubiquinol in Boosting Sporting Performance

09 May 2014 --- The energy enhancing properties of Ubiquinol, a natural and basic component of the body's respiratory chain, are well documented. Now, scientific interest is focusing on the micronutrient's additional benefits for sports nutrition.

Medium to intense sporting activity is associated with high power performance but also with decreased production of reactive oxygen species (ROS) and therefore cell damage. A recent study shows that Ubiquinol, obtained by natural yeast-fermentation, has a positive effect on cellular antioxidant activity and mitochondrial functions.

In the double-blind crossover study, 21 athletes from a rugby team were randomized to take either 200 mg Ubiquinol per day or placebo. After a supplementation phase of three weeks, followed by a two-week washout period, treatment was switched between placebo and Ubiquinol group in a crossover manner. Blood plasma samples were obtained from the participants before and after a single bout of intensive physical exercise provided by a 40 minute run on a treadmill at a maximum heart rate of 80 per cent. Biochemical analyses, including lipid profile, antioxidant levels and markers of muscular stress, were then conducted on the samples. Results for the placebo group showed a decrease in total plasma CoQ10 content, lowered plasma antioxidant defence, increased intracellular ROS levels and uncoupling of compensatory mechanisms in mitochondrial membranes. In contrast, the Ubiquinol group showed less of a decrease in CoQ10 total plasma levels, as well as lowered intracellular ROS levels during exercise and the recovery phase, and slightly accelerated recovery of mitochondrial functionality.

Previous scientific findings show how Ubiquinol supplementation can be of further benefit to sportspeople. For example, Ubiquinol is able to significantly enhance peak power production in comparison to placebo in trained athletes . There is also proof that supplementation before strenuous exercise modulates inflammatory signalling and subsequent muscle damage . Additional studies about the influence of short term supplementation with Ubiquinol related to physical activity are ongoing .

The German Sport University Cologne confirms that Ubiquinol is not categorized as a performance-enhancing substance. As such, it is part of the Cologne List of tested, doping-free substances. The micronutrient can be safely used in a wide range of sports supplements and functional foods for amateur and professional sportspeople alike – alone or as part of a multicomponent system.

#### References:

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