

Honey Boosts Performance

New study suggests honey can boost endurance performance in athletes

A new study presented today at the annual Experimental Biology meetings is first to show honey to perform as well as glucose in sustaining endurance and power in elite cyclists. The study indicates that using honey as a carbohydrate source during exercise significantly improved performance and power during endurance cycling trials. In the quest for that "extra advantage," endurance athletes at all levels turn to bio available carbohydrate sources, such as the many "sports gels" on the market, to fuel strenuous exercise.

"Numerous studies have singled out carbohydrates as a critical nutrient in endurance exercise. Most of the studies to date have shown supplementation with glucose to provide the extra staying power. We were pleased to find that honey, a 'cocktail' of various natural sugars, performed just as well," stated Professor Richard Kreider, Ph.D., the study's principal investigator and Director of the University of Memphis Exercise and Sport Nutrition Laboratory.

"Carbohydrates in gel form are preferred because they are easier to use and carry. Because of this, honey has a competitive, ready-to-use edge and a widely liked flavor," added Dr. Kreider.

Nine competitive cyclists received one of three supplements in gel form per week, over a three week period: honey, glucose or a flavored, calorie-free placebo. The endurance test conducted each week was a 64 km (40 miles) time trial on each subject's racing bicycle, fitted to a calibrated, computerized race simulator. The cyclists received 15 grams of carbohydrate in gel form along with 250 ml of water prior to and every 16 km during the time trials.

Both the glucose and honey produced a statistically significant reduction in the time to finish, and a significant increase in the athletes' average power. The results of the study indicate that honey is an effective and affordable alternative carbohydrate source for endurance athletes. Those who prefer natural products will welcome honey as a nutritious alternative to sports gels.

The study notes:

- Honey reduced time to complete a 64 km time trial by over 3 minutes (compared to placebo)
- Honey produced over 6% greater cycling power during the time trial (compared to placebo)
- Equal performance to glucose, the most common carbohydrate supplement
- Well tolerated by all the subjects

This clinical trial is the third in a series of studies focusing on the use of honey by athletes. The first study (involving 71 subjects), determined that honey has a milder effect on blood sugar than other popular forms of carbohydrate gel. The second study in the series (with 39 weight-trained subjects) investigated the combination of honey with a protein supplement and suggested that honey speeds muscle recovery after a workout.

All three studies were supported by the National Honey Board and were conducted at the University of Memphis Exercise and Sport Nutrition Laboratory under the direction of Dr. Kreider. Located in Longmont, CO, the National Honey Board is a non-profit organization that develops research and consumer information programs to increase the demand for honey. The studies were done in collaboration with IMAGINutrition, Inc., a nutritional research and technology think tank located in Aptos, CA.