

The Science Behind FRS

The results of several independent clinical trials have provided us with a better understanding of the energy and potential health benefits of FRS — especially the effect of quercetin. The following studies provide insight on the impact of FRS on health, lifestyle and daily activity.



Sports Performance Study: Dietary antioxidant supplementation combined with quercetin improves cycling time trial performance. MacRae Holden, Mefford Karl. *International Journal of Sport Nutrition and Exercise Metabolism*, 2006, 16, 405-419

An independent, double-blind, placebo-controlled crossover study on the effect of FRS on cycling performance in eleven elite cyclists was completed at Pepperdine University in June 2004 and has been published in the *International Journal of Sports Nutrition and Exercise Metabolism*. The results were dramatic, a 3.1% increase in performance — one minute and 31 seconds improvement in time to complete a 30 km simulated mountainous time trial.

Immune System Study: Quercetin reduces illness but not immune perturbations after intensive exercise. Neiman David, Henson, DA, et al. *Med Sci Sports Exerc.*, 2007 Sep; 39(9): 1561-9. Appalachian State University Study, 2007, double-blind, randomized, placebo-controlled study

A clinical study, funded in part by the United States Defense Advanced Research Projects Agency (DARPA) showed the antioxidant quercetin significantly reduced incidence of upper respiratory tract illness during the two week period following intensified exercise. Researchers also reported enhanced alertness and reaction time in athletes taking the quercetin supplement during high stress. Forty test subjects were subjected to extreme physical stress during a five week period. Half were given 1000 mg of quercetin daily (the approximate amount in 3 servings of FRS) and half were given a placebo. In the quercetin group, the incidence of upper respiratory infection was 1 out of 20, while in the placebo group, 9 out of 20 athletes experienced infection.

Work Performance Study: The Effects of an Antioxidant Nutrition Drink FRS on Work Performance and Health Parameters in an Industrial Setting. Eric Durak, MSc, Mica Bell, BS Medical Health and Fitness, Santa Barbara, CA, 2005

During a six-week study, university employees were asked to perform their daily jobs, which required physical exertion, lifting, repetitive movements and attention to detail. At the end of the study, subjects experienced improvements in work performance, as measured in a Work Productivity Assessment Index survey. Researchers reported that when the workers took FRS they experienced:

35.6% less work frustration

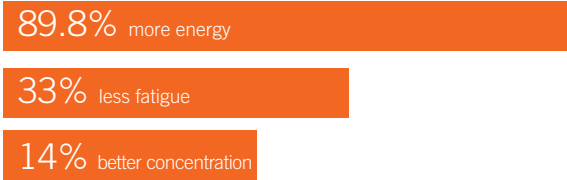
45.5% less fatigue

24% more concentration



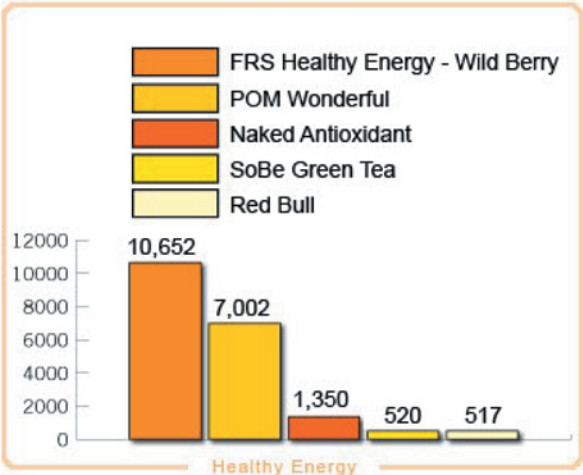
Fatigue Study: The Effects of Quercetin Flavonoid on Quality of Life Indices in Advanced Cancer Patients: A Double-Blind Randomized Pilot Study. Durak Eric, MSc, Medical Health and Fitness, Taguchi Julie, MD, Department of Oncology, Sansum - Santa Barbara Medical Clinic, Santa Barbara, CA 2005

Researchers gathered a group of volunteers aged 49 to 69 who had been diagnosed with advanced-stage cancer for at least 1.6 years. When subjects consumed FRS on a daily basis, they reported:



Antioxidant Power Analysis. Comparison of the ORAC value of FRS and other functional beverages. Brunswick Laboratories

The ORAC test measures total antioxidant power. The higher the ORAC score, the better a food or beverage fights free radicals. The FRS Company asked scientists at an independent lab to conduct an ORAC test on FRS and other popular antioxidant and energy drinks. Here’s what they found:



Additional information on these studies is available on request.

