Talbott S., Talbott J., Wood D. **Post-Exercise Recovery and Mood State Enhanced By Dietary Supplementation Following an Ironman Triathlon.** SupplementWatch, Inc., and Wicked Fast Sports Nutrition, Draper, UT, 84020, USA. Shawn@WickedFastSN.com

It is well known that extreme endurance exercise results in profound biochemical and psychological changes. Ultraendurance competition has been shown to negatively impact global mood state (POMS – Profile of Mood States) and correlate with biochemical changes (e.g. elevated cortisol, reduced testosterone, suppressed immune function) and training state (e.g. lower mood with overtraining). Previous studies have also shown certain dietary supplementation regimens to modify the biochemical responses to endurance exercise (e.g. cortisol and testosterone), but less is known about the impact of dietary supplements on the psychological recovery from extreme endurance exercise. Dietary supplementation with protein bars and carbohydrate beverages has been used effectively to promote immediate post-exercise recovery (glycogen restoration), but longer-term recovery strategies (days to weeks) targeting psychological parameters have been used less frequently. The current study was conducted to evaluate the effect of post-competition dietary supplementation on recovery and mood state during the critical 2 weeks following an Ironman-distance triathlon. Eighteen subjects were randomly assigned to receive the supplement (S, n=11) or to a control group (C, n=7). Subjects were instructed to perform their “normal” post-race recovery regimen (C) or do so with the addition of a morning and evening dietary supplement for 14 days following an Ironman-distance triathlon (2.4 mile swim, 112 mile bike, 26.2 mile run). The morning supplement consisted of 5 herbal extracts (Cordyceps, Rhodiola, Eleuthero, Ashwagandha, and Eurycoma) and the evening supplement consisted of 4 amino acids (Glutamine, Leucine, Valine, Isoleucine), 2 proteolytic enzymes (Papain and Bromelain), a sterol (Beta-sitosterol), and a flavonoid antioxidant (Citrus bioflavonoids). The morning supplement has previously been shown to maintain normal cortisol and testosterone levels in endurance athletes (compared to increased cortisol and reduced testosterone in non-supplemented controls) and the evening supplement has previously been shown to reduce muscle soreness and upper-respiratory tract infections (URTIs). In this study, the standardized Profile of Mood States (POMS) questionnaire was used to evaluate Tension, Depression, Anger, Vigor, Fatigue, Confusion and Global Mood State at baseline and following the 2-week period following the triathlon. Data were analyzed using unpaired t-tests with significance set at $p < 0.05$. Two weeks post-event, S had significantly lower scores for overall Stress (-21%, p=0.037), Tension (-54%, p=0.009), Depression (-64%, trend p=0.07), Anger (-62%, p=0.027), Fatigue (-53%, p=0.025) and Confusion (-67%, p=0.001) and higher scores for Vigor (+69%, p=0.001) and Global Mood State (+29%, p=0.002) compared to C. Adequate recovery is important for competitive athletes, not only for the obvious benefits of being able to train and compete at a higher level, but also for the less obvious benefits of protecting the athlete from overtraining, illness and injury. Overall, these results strongly indicate that targeted dietary supplementation is effective for enhancing recovery, as assessed by mood state and related psychological parameters, following intense endurance exercise.