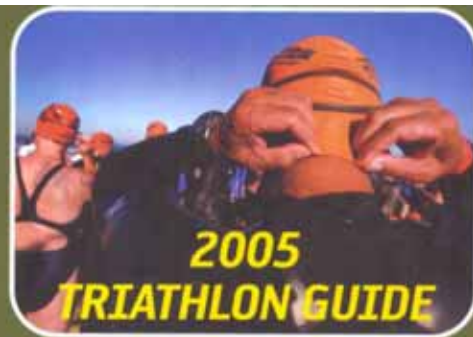


# LA S&F

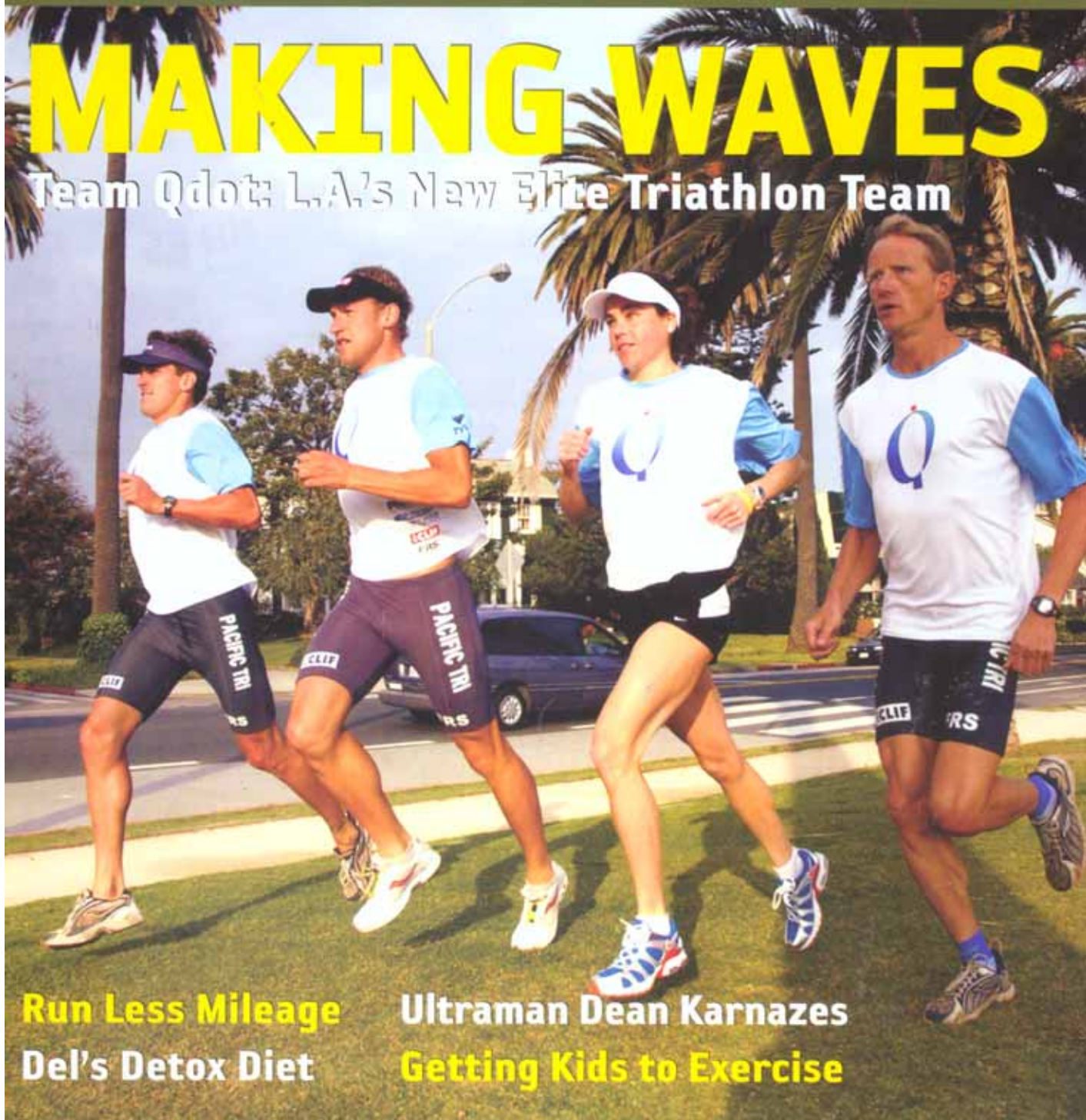
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# MAKING WAVES

Team Qdot: L.A.'s New Elite Triathlon Team



**Run Less Mileage**  
**Del's Detox Diet**

**Ultraman Dean Karnazes**  
**Getting Kids to Exercise**

# A healthy energy drink?

New antioxidant beverage helps fight fatigue and boosts performance

By Katie Clary

The quest for a magic performance-enhancing elixir is elusive, but innovators at a Carpinteria-based company called New Sun Nutrition think they've nailed it with a so-called "antioxidant cocktail." Like blueberries on steroids, this orange-tangerine-flavored supplement, called FRS Plus, helps the body combat damaging free radicals with a slew of vitamins, green tea extracts and a potent antioxidant called quercetin.

But the bold type for athletes is the supplement's dramatic boost of athletic performance in a clinical study completed last June.

Professional triathlete Matt Dixon, founder of Team Qdot, was turned on to the product by teammate Holger Beckmann, one of 11 willing guinea pigs for the study conducted at Pepperdine University. Dixon and Beckmann have since joined the supplement's growing following.

"With FRS, they're in probably the most crowded environment, as far as the nutritional 'magic-pill' environment," said Dixon, who recently approached the company to sponsor his team, and it gladly came on board. "It's the one product around right now that is exciting and actually has science behind it."

The product was credible enough to bring former Balance Bar president and co-founder Dick Lamb out of retirement in Santa Barbara and pull Pepperdine University sports medicine professor and independent researcher Dr. Holden MacRae out of a semester-long sabbatical.

As president and CEO of New Sun Nutrition, Lamb called MacRae, who had conducted research for Balance Bar in 1994, and explained the need for a clinical study. Despite initial skepticism, MacRae agreed to run the double-blind, placebo-controlled study (meaning neither he nor the study participants knew which drink had the key ingredient of quercetin). The study examined the effects of FRS on cycling performance over a 30-kilometer simulated hilly course.

The cyclists showed a notable 3.1 percent improvement in performance while drinking the supplement over six weeks of time trials.

"I'm a supporter," MacRae said. "There's not many supplements I'd say are worth it, but this is one of them."

At an elite level, a 3.1 percent improvement, as measured by time, can be the difference between standing on the podium and being just another finisher. At the men's cycling 50-kilometer time trial for the Athens Olympics, for example, 3.1 percent was the time difference between Tyler Hamilton's winning finish and ninth place, MacRae explained. And the incremental improvement is even more significant for sports like swimming and track, where success is measured in seconds and tenths of seconds.

For the average athletes less concerned with shaving seconds off race times, swigging the drink will be most significant in aiding recovery from week-end warrior workouts, according to Lamb.

"These are the guys and girls who trash themselves on Saturday, and are so sore Sunday they can hardly walk," Lamb said. "FRS is far more important for them in terms of preventing muscle soreness. It can really speed recovery."

According to MacRae, this bounce-back factor leads to more efficient training and better performance.

"The critical issue is if I train today, can I train as hard or harder tomorrow?" MacRae said.

But perhaps the most convincing testimony: 10 of the 11 study participants continue drinking FRS Plus, and MacRae jumped on the antioxidant bandwagon after reviewing the experiment results last summer.

The science behind the drink is indicated in its name — FRS standing for Free Radical Scavenger. Free radicals are unstable molecules that move freely through the body and bond with other molecules in healthy cells, damaging chromosomes, enzymes, cell membranes and mitochondria, through oxidation (the same process that makes iron rust and food mold). The accumulation of this damage is associated with health concerns ranging from premature aging to fatigue to Alzheimer's.

Most of the damaging free radicals are produced in the mitochondria, the energy powerhouses of the cell. During intense exercise, mitochondrial metabolism can be at least 20 times greater than at rest, MacRae explained, thus contributing to a free radical production that probably can't be quenched by our inherent antioxidant defenses. At least not with the average person's sub-par diet.

As such, the producers of FRS claim that although our body naturally produces free radical scavengers that neutralize the damage and can harness antioxidants found in foods such as blueberries and pomegranates, they

believe most people, athletes especially, can benefit from the antioxidant supplementation.

"My recovery between workouts improved," Dixon said. "I could go hard and the next day I could come back. It was this continuing thing where hard workouts didn't leave your body as damaged as usual." <<



## A Closer Look

- **What is Quercetin?** A potent antioxidant found in red onions, apples, blueberries and spinach, and the only ingredient not found in the placebo version of the FRS supplement used in the study — in a nutshell, the magic ingredient. (At least when coupled with a gamut of vitamins and green tea extracts in the supplement.) Quercetin also directly affects brain function, as one of the seven molecules that can cross the blood-brain barrier, Lamb explained when relating the improved mental acuity many athletes described. Or as MacRae summed up, quercetin provides "an enhancement of brain function and the control of movement."

- **The Fine Print.** None of the participants or researchers detected any side effects during the 12-week study. The only fine print to draw attention to: The ingredients include caffeine, which might help explain, in part, the "increase in energy and alertness within 30 minutes of ingestion" denoted on the FRS Plus website. Neither quercetin or fat-soluble vitamins A and E are present in large enough quantities to create concern of over-supplementation unless you drink gallons of it. Drinking FRS Plus daily and taking a multivitamin won't create a problem.