

\$3.95

# ENDURANCE NEWS

JUNE/JULY 2014  
#90

**NEW website!**

**Healthier proteins**

**TRI TIPS**

Bike leg and transitions

**Reduce your sodium intake**

**Product Spotlight : Race Day Boost, Energy Surge**



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2013 National Champion Victor Sheldon at the Vail Lake Kenda Cup, where he placed 1st Master.  
Photo : Philip Beckman / PB Creative



## The Hammer Nutrition Promise of Satisfaction

**Products** - Powerful, safe, natural, and undeniably effective! They will do exactly what we say they will, and will outperform the competition every time . . . Guaranteed!

**Knowledge** - Our time-tested, science-based fueling protocols will help you achieve your best possible performance . . . Guaranteed!

**Service** - Second to none, the best you've ever had! We treat you like you are important to us, because you are . . . Guaranteed!

## ON THE COVER

Noah Adams races to a top 10 finish in a Kenda Cup Series event at Bonelli Park. Photo : Philip Beckman / PB Creative

# ENDURANCE NEWS

The informed athlete's advantage since 1992

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## Our Mission

The objective of *Endurance News* is to provide you, the serious endurance athlete, with a valuable resource that you will find informative, educational, thought provoking, and helpful in your ongoing pursuit of optimum performance and health.

*Endurance News* features insightful articles on diet, nutrition, training, and other topics of interest for endurance athletes - written by our staff, professional and elite amateur athletes, and other experts in the area of nutrition and exercise.

In reading this and future issues, please remember that the views expressed in this publication will always be biased in favor of a healthy diet and hard training that emphasizes quality over quantity, and prudent supplementation to improve health and performance. But above all, we at *Endurance News* believe that there are no shortcuts and that success can only come from hard work.

Back issues available at [www.hammernutrition.com](http://www.hammernutrition.com)

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# LETTERS

Send your letters to [letters@hammernutrition.com](mailto:letters@hammernutrition.com) for possible inclusion in a future issue of *Endurance News*.

Greetings Hammer Crew,

Just wanted to write to say "thanks" to Josh for his excellent customer service! Josh is very knowledgeable about Hammer Nutrition products, and he gave me an excellent suggestion to meet my needs. I really look forward to trying the Endurolytes Fizz drink he recommended as a healthy alternative to my zero-calorie sodas (which are laden with aspartame and acid). I am hopeful that Fizz will prove to have both a low glycemic index number and a fairly neutral pH. Thank you Josh!

Robert F. Close

Hi Hammer Team,

Thanks to everyone at Hammer Nutrition for the wonderful article "700 races and counting . . ." in the February/March issue of *Endurance News*. It only proves what your products can do for someone who has had three knee surgeries, blood clots, cancer, and asthma.

Sincerely,  
John Lowrey

Reason #246 why I love Hammer Nutrition:  
Quality, progressive education.

The most recent issue of *Endurance News* (#89) contains info about alkalizing foods. I highly suggest everyone read it! About six years ago I switched to an alkalizing diet and I performed better, am healthier, and feel younger.

Thanks Hammer!  
Damian Stoy

Dear Hammer Nutrition,

Someone shared with me the February/March 2014 issue of *Endurance News* magazine. I see that you used one of our photos from last fall's [Mars Hill] mountain bike race. Your magazine is quite the production. I'm impressed with the effort your staff puts into producing a nearly 100-page magazine.

Hugh Moran, Mars Hill Cross



**OOPS! We made a mistake.** On page 60 of *Endurance News* #89, we printed the incorrect usage suggestions for Phytolean along with "Steve's Faves" article. Proper usage is to take 2 capsules 30 minutes prior to a meal, especially if high in starchy carbohydrates. We are dedicated to providing you with critical and accurate information on each and every one of our products, but we're human and we make mistakes. We apologize for the confusion it caused.

# Welcome to the 90th issue of *Endurance News.*

**S**ummer is here, and it's time to get serious about your nutrition and fueling plan to get you through the racing season. This issue is packed with articles to help you achieve your goals, and feel great while doing it. It also has great articles from our sponsored athletes, regular contributors, and our staff, as well as updates on our new products and much more.

Here are my six suggestions to help you make the most of your hard work and ensure that this is one of your best years on the race course and in your everyday life:

1. Hydrate daily: drink between half of your bodyweight in ounces and one gallon of water a day.
2. Massively reduce or eliminate your consumption of refined sugars, especially high fructose corn syrup.
3. Reduce or eliminate wheat consumption (it will also reduce sugar cravings).
4. Avoid all chemical additives, and artificial sweeteners, colors, and flavors.
5. Massively reduce sodium intake (canned, packaged, and restaurant food).
6. Eat more whole foods and less processed foods!

In the last issue, I talked about our brand new website. We successfully launched it May 8, and I'm eager to receive your feedback. Let us know how you like it and what we can do to improve it further. The site includes



*Brian has a little fun on a training ride in Arizona.  
Photo : Madeline Frank*

some new links, such as our Core Values statement. Here's a sneak peek:

## **CORE VALUES**

### **Hammer Nutrition – family owned, Made in the USA**

The following core values reflect the philosophy and principles that have guided Hammer Nutrition from our

humble roots in 1987 to the company you see today. We are unwavering in our commitment to maintain our core values, and have done so steadfastly for almost three decades. The outward reflection of our brand, each one of our products, and everything we do represent the embodiment of these values.

*- continued on page 5*

- continued from page 4

### Purpose

Create and grow a multi-generational family business supplying the highest quality, natural, most effective products ever developed to endurance athletes of every variety. We support our products and the athletes who use them with honest information and the best customer care imaginable.

### No Compromise Products

Every one of our products is 100% research based, extensively field tested, composed of the highest-quality U.S. and European ingredients, and manufactured in accord with the strictest manufacturing practices in the world. Every ingredient is carefully selected for complete efficacy and provided in amounts that will deliver real benefits and the promised results. Our extensive commitment to quality products and manufacturing has its own website page: [www.hammernutrition.com/about/commitment-to-quality/](http://www.hammernutrition.com/about/commitment-to-quality/).

### Innovation

Discovering the newest micro and macro nutrients, and their proper use, to optimize your energy, endurance, recovery, and overall health has always been the cornerstone of our business. Since 1987, we've led the field every step of the way, spawning new product categories and a long list of imitators in the process.

Whether it was introducing the first high-potency CoQ10 product in 1987, or the first all complex carbohydrate energy drink fortified with protein in 1992, or creating the first energy gel sold with a re-usable flask in 1995, Hammer Nutrition has been at the forefront of innovation in the endurance fuel and supplement world.

We relish this leading role and will continue to stay on the cutting edge of innovation in the area of human performance, health, and longevity.

### Education

We do not engage in self-serving circular reasoning or the use of selective science to support dubious products and formulations. Instead, we rely on the entire collective body of research and knowledge about the human body and how to achieve and maintain peak health and performance through diet, hydration, and lifestyle choices.

We take a holistic approach to athletic performance and health, distill it, and share it with you in a language you can understand—because an educated athlete is an empowered athlete. Since day one, we have advocated eating a whole food diet to achieve and maintain peak athletic performance and overall health.

Today, significantly more evidence confirms beyond question that a whole food diet—one that minimizes or eliminates processed foods, sugar, wheat, dairy, salt, and chemical additives—is the most effective way to stay healthy, perform best, and avoid the disease and malaise that “junk food” diets and products foster. Every one of our products is congruent with this truth and works with the body in a complementary way. Our pioneering “less is best” approach to fueling before, during, and after exercise has revolutionized endurance sports participation and massively extended the limits of what can be accomplished by athletes. It has also been adopted by most other companies in the marketplace and by many self-proclaimed experts.

Our magazine, *Endurance News*, published continuously since 1992, as well as the voluminous body of information available on our website, stands as a testament to not only our commitment to educating and informing our clients, but to the unchanging message that we have championed and that so many others have emulated and appropriated.

Look for more of our core values on our website and in upcoming issues of *Endurance News*. Have a great season and enjoy the read.

To your health,



Brian Frank  
Proprietor

# Sugar

## Do the math

It's possible that you or someone you know has fallen prey to the siren song of a few so-called experts currently touting sugar, and only sugar, as the ideal source of calories while engaging in strenuous physical exercise. Considering the plethora of empirical evidence that proves the causal link between high dietary sugar intake with a laundry list of diseases and illness, I could not help but be confused by their claims.

So, I decided to do some rough calculations to see how much sugar would be added to your diet if you used sugar-based sports drinks in combination with other sugar-laden products for your caloric needs during training and competition. The results surprised me, so I thought I'd share them with you.

Let's put aside for the moment the debate about whether simple sugars or complex carbohydrates produce better performance, and consider only the health implications.

Here's the math: each serving of these sugar-based “hydration” drinks contains 10 grams of sugar, and three servings (30 grams) per hour are recommended. Since this sugar content is not meant to provide all of your caloric needs, additional sugar is recommended at rates not specifically stated. For this supplemental amount I used 20 grams to be on the conservative side. So now we've got 50 grams of sugar (about 1.75 ounces) per hour of exercise. Staying conservative, I calculated 10 hours per week of exercise for 50 weeks of the year. That adds up to an additional 500 grams (more than 1 pound!) per week of dietary sugar intake, and 25,000 grams (over 55 pounds!) of additional sugar consumption each year!

### Conclusion

We know that the average American consumes about 150 pounds of sugar per year and that excessive rate of consumption is a contributing cause of most of the major health issues we face as individuals and as a nation. The question that must be asked is whether *consuming an additional 50 pounds or more of sugar annually* is a wise option for achieving peak athletic performance and optimal health? For me, the answer is a resounding NO.



# Personal Tour de Moab

## HAMMER STYLE!



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BY TYLER MILLER, Hammer Nutrition sponsored athlete

---

I just wrapped up my own personal Tour de Moab with 147 miles and 14,000 feet of climbing. This may not seem like a lot for five days of mountain biking, but Moab miles are not normal miles. There's no sitting in the saddle mashing a big gear up a hill. It's steep, technical, and punishing—yet oh so glorious at the same time. It's one of the few places your small chain ring will feel like your best buddy.

I'd like to share how Hammer Nutrition products helped make this one of the best weeks of my life. The basic plan was to ride hard for five days in a row. This was not only to get in as much riding as I could, but also as a precursor to the Breck Epic in August. Most of all, I just wanted to ride—and ride a lot.

I knew that proper fueling and nutrition would be essential for each leg. Hammer Nutrition products kept me feeling strong and able to push myself to the very last mile on day 5. I've been using Hammer products exclusively for years because they do it all—get me prepped, keep me fueled, and provide recovery for all of my rides and workouts.

My week in Moab had no training plan, no heart rate monitor, and no intervals. I had one goal: ride the way I wanted to ride. I encourage you to do the same. Whether you run, swim, ride, climb, hike, or paddle, take some time to do it just for fun, and let Hammer Nutrition fuel you along the way.

I'd like to express a heartfelt thank you to Moab for recharging my soul 100% and to Hammer Nutrition for fueling me so that I could ride strong until my recharge was complete. Cheers and see ya on the trail! **HN**

# Tyler's Tour

## DAY 1

### Slickrock Trail (21 miles)

**Fuel:** One bottle of HEED and one of Perpetuem. Normally I wouldn't use Perpetuem for a shorter ride like this, but I find that the protein in Perpetuem helps greatly when riding for consecutive days. I also had Hammer Gels just to keep the calories up.

**Recovery:** Two scoops of Recoverite (a must-have and my go-to for quicker recovery). Recoverite is excellent for quick turn-arounds like this was—a late-day ride, with the next one starting the following morning.

## DAY 2

### Amasa Back area, the Captain Ahab trail (25 miles)

**Pre-ride:** Endurolytes Fizz and water, plus 2 Race Caps Supreme about 20 minutes prior to riding. Race Caps make me feel strong all day, even on tough long rides.

**Fuel:** One bottle of Perpetuem (drank first), followed by a bottle of a Mango Fizz and Strawberry-Vanilla Perpetuem mix. This is an amazing combination, giving me strength, energy, and focus to get through the most challenging rides. The third bottle was HEED, for the 5-mile ride back to town. I like drinking HEED at the end of a ride to boost electrolytes for recovery, plus it tastes great. I also had a Hammer Bar and a Hammer Gel on this ride to supplement calories.

**Recovery:** Two scoops of Recoverite and a Hammer Whey Recovery Bar. Day 3 was going to be a big one, and I wanted a little extra recovery help.

LEFT: Tyler enjoys a few rides on the Moab Brand Trails. BELOW TOP: Tyler relies on Hammer Nutrition to fuel him along the world famous Slickrock Trail. BELOW BOTTOM: The view of Porcupine Rim as Tyler makes his descent. Photos : Courtesy Tyler Miller.



## DAY 3

### Mag 7 trail system (48 miles; about four hours in the saddle, with the ride there from town)

**Pre-ride:** Fizz and 2 Race Caps. This combo consistently works well for me. Getting your body ready for a long day is as important as fueling during the ride.

**Fuel:** Same as day 2. If riding an area like this for four hours, you need more water (hydration). I ate two Hammer Bars and two Hammer Gels, alternating one every hour. If you start to feel hungry you missed it—be proactive!

**Recovery:** Same as day 2 with the addition of two Endurance Aminos—great for recovery and longer events.

## DAY 4

### Klondike Bluffs trail system (26 miles)

**Pre-ride:** 2 Race Caps. This ride didn't have as much climbing and it was cooler, so I was more concerned about feeling strong and focused all day.

**Ride:** Again, same as day 2. Normally for a ride like this, I'd take only two bottles of fuel. But I've learned it's not good to get behind when riding consecutive days like this; making up for dehydration or a lack of fuel can hurt you the next day.

**Recovery:** Two scoops of Recoverite and a Hammer Whey Recovery Bar. I wanted to be strong for the final day!

## DAY 5

### Porcupine Rim (27 miles)

**Pre-ride:** Same as day 3. I wanted to finish smiling!

**Ride:** Same as day 2. Drinking enough Perpetuem before a descent helps me stay focused and ready to attack whatever the trail throws at me. I ate a Hammer Bar at the top and a Hammer Gel on the road back to town.

**Recovery:** Two scoops of Recoverite and 2 Endurance Aminos. After 5 days of riding, your body needs time to recover. I find it helps to get started right away with the right recovery fuels!

# Race-day liquid fueling is a solid plan

BY ADAM ELLENSTEIN

I wanted to share a moment of success with everyone at Hammer Nutrition and thank you for fueling me throughout the inaugural Ultraman Florida 2014.

I began the race with the intention of fueling using Perpetuem along with an assortment of solid food options. After a successful 10K swim taking only Perpetuem, I started on the bike. A few hours in, I had my first bit of solid food. My body almost immediately rejected it.

On the fly, my crew adjusted the plan to provide me adequate calories using only Perpetuem. It worked flawlessly! Over the remainder of day one, and over the course of the next two days of 170 miles of cycling and 52.4 miles of running, every calorie I took was from Perpetuem—and I felt great!

It was absolutely amazing to experience the way Perpetuem worked in such demanding conditions, over the course of three challenging and rewarding days.

Thank you Hammer Nutrition for Perpetuem! We did it. I finished Ultraman Florida, a three-day, 320-mile endurance event. Often when I talk to people about it, they want to know where I placed, how long it took me, and how fast I went. I suppose I could detail the speeds I traveled, my race splits, overall times, leader board positioning, etc. But that assumes any of those things mattered to me.

For me, this race was about energy—sharing energy. For me, success in endurance racing and life itself are about fueling your body and spirit with energy. Success is not defined at the finish line. We have only one finish line in life, and the distance between here and there is filled with so much opportunity, so much happiness, and so much energy!

Thanks again to everyone at Hammer Nutrition! **HN**



ABOVE: Crew chief Ron Wells paces Adam for 26 miles in the heat. BELOW: Ron holds out a fresh bottle of Perpetuem as Adam logs the miles. Photos : Diane Wells





# PERPETUEM-POWERED PODIUM FINISHES

"100-mile mountain bike racing demands high-quality fuel to keep you running at your best all day without hunger and GI tract problems. That's why I use Perpetuem and other Hammer Nutrition products exclusively. Thanks Hammer!"

- Marland Whaley, 2013 NUE Series Masters Champion

**1st - Tatanka 100 (14th overall) - FUELED BY PERPETUEM**

**2nd - High Cascades 100 - Lost by only 1 minute. FUELED BY PERPETUEM**

**1st - Pierre's Hole 100 (7th overall) - Won by 42 minutes. FUELED BY PERPETUEM**

**2nd - Park City Point to Point - FUELED BY PERPETUEM**

**1st - Fool's Gold 100 Finals (10th overall) - Clinched the national title. FUELED BY PERPETUEM**

## Ultra fuel for long distance efforts

- Super easy to digest
- Consistent, long-lasting energy
- Avoid the bonk!

### MSRP

\$3.25 - Single serving

\$2.95 - 6 or more\*

\$29.95 - 16 Servings

\$49.95 - 32 Servings

\*Mix and match flavors.

Flavors: Orange-Vanilla,  
Caffe Latte, Strawberry-  
Vanilla, Unflavored.



## FREE HAMMER GEL!

Receive a FREE single-serving Hammer Gel when you purchase a 16- or 32-serving Perpetuem. Ad code EN90P. Offer expires 7/10/14. Valid while supplies last.



**HAMMER**  
NUTRITION

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# Rising to the challenge

## Adventure racing demands peak fitness, mental clarity, and quality nutrition.

BY MARIA MASLANKA, Hammer Nutrition  
Sponsored Athlete

*Maria trains on "The Bowl",  
a large sand dune southwest  
of Lake Michigan.*

I began my endurance journey about 10 years ago, running marathons and road cycling 24-hour challenges. But since I fell into the world of adventure racing, there's been no turning back! Now I get my endurance fix from 24-hour-plus multi-disciplined events that include trail running, mountain biking, canoeing, zip lining, swimming, and sometimes even rock climbing. There's an orienteering and navigational aspect too. Completing these races requires not only physical stamina but also mental sharpness and focus.

As any athlete can imagine, the work and effort it takes to train for these races is time consuming and challenging. More importantly, it requires quality fuel. Nothing is more frustrating than being capable mentally yet being physically unable to last due to nutritional stumbling blocks. To be successful as an athlete, it's important to be both healthy and fit—I've learned that proper nutrition is as vital as training.

In my earlier years, I experienced setbacks while trying to find the sacred juice for optimal performance. I've bonked during ultra marathons, 24-hour cycling challenges, and 24+ hour-adventure races. My frustration led me on a quest to find nutrition that would successfully maintain my endurance; when evaluating potential nutrition sources, I had three criteria: science, quality, and wisdom. Hammer Nutrition is the only company that met all three of my standards. Because they cater to endurance athletes specifically, the research behind their products is hard to match. A few of my staples are:

- **Endurolytes Fizz** – With lots of miles, terrain, and long hours of unpredictable weather, I sweat a lot to say the least. Keeping energy levels balanced and not worrying about bonking is easy to do with Fizz. I also particularly enjoy the carbonation; it helps keep my stomach happy and calm.
- **Perpetuem** – This magic brew keeps my mind at ease; knowing I am hitting my calorie mark, I can stay mentally focused during a race. Calories equal energy, and this stuff keeps me going. The solid tablets are convenient and easy to carry.
- **Hammer Gel** – These are like little jolts of energy when I get tired. The gels taste great and their texture is smooth. They keep me peppy and focused when I need to be. They're my go-to fuel when I want something different.
- **Hammer Bars** – My main solid food when racing. Hammer Bars are hearty, filling, and great tasting. All of the nutrition is easily digested and taste bud worthy. Cashew Coconut Chocolate Chip is my favorite flavor to date.

Pushing our bodies to their maximum demands a solid base of excellent, high-quality nutrition. As the old cliché goes, the proof is in the pudding (or Fizz, HEED, Hammer Bars, etc...), and this "pudding" is loaded with vital quality nutrients, knowledge, and wisdom. Big thanks to Hammer Nutrition and what they have done for us endurance athletes. **HN**

# Enjoy a ***Clear Day!***



Allergy season ammunition *without* the potential side effects associated with pharmaceutical antihistamine and decongestant medications.

- Reduce allergy occurrences
- Rapidly relieve allergy symptoms
- Better results from training

*"My husband Al suffers from asthma, which has been pretty bad the past few months. He is on steroids for it. He also has allergies and sinus problems. Today was a bad afternoon for him, but then a parcel showed up from Hammer Nutrition. Inside was the Clear Day I had ordered for him. He took two capsules and for the first time in days he felt the pressure lift from his sinuses! This is a guy who has been living on prescription allergy and sinus medications and nothing seemed to work . . . until now! Two Clear Day and 30 minutes later he was feeling better. WOW! This product is nothing short of AMAZING!"*

*- Suzy Degazon*



*Al and Suzy celebrate their victory at the Bonell Tri Relay.*



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# Just hitting her stride

## Lessons learned add up to a win at Steep Ravine

BY LINDA HORA

**H**ere it is—the day after the Steep Ravine Trail Run half marathon—and I feel great physically and mentally. This is big for me: I just celebrated a birthday that puts me very close to 50! I'm a different athlete than I was 30 years ago, and I've chosen to benefit from the change. The maturity I've gained from each race has made me recognize the limits of the human body, the necessity of good nutrition, and last (but certainly not least) the importance of "post-race" replenishment.

### Training essential

Training for the Steep Ravine, I made sure I had Hammer Nutrition's Recoverite for any workout of one hour or longer. Recoverite's benefits became especially clear to me the single time that I ran out of it. In the entire five years I had trained using Hammer's recovery drink, I had never been sore after a long training run. Running out of Recoverite—and then needing to eat to replenish my system—was an eye-opening and painful lesson. I now have back-up Recoverite canisters in my "Earthquake Preparedness" box!

### Race day strategy

The Steep Ravine starts with a climb up a long, steep set of stairs built into a trail in Stinson Beach. Based on my past experiences (and mistakes) with this course, I planned to hold back in the beginning, drink HEED throughout to stay energized, and then really start my race at mile 8, a long uphill.

I followed my plan and held a pace that allowed me to charge uphill, soon leaving behind both the person that had been on my heels and the one that had been ahead of me. I felt fantastic as I climbed the ridge again, hit the top, and saw the beach. A guy screamed "left" as he raced down the final steps, two at a time. It looked like fun so I took after him, skipping the steps, crossing the road, and a few strides later, racing past the finish line.

I finished 2nd female, and 1st for the "40 and over" set. I had Recoverite to celebrate, and the next day, I felt great. Not bad for a little lady pushing 50! **HN**

# NATE'S CORNER

## Remaining *tranquillo*

For better race day performances, know when and how to stay in the “here and now.”

**W**hat happens when you begin to think about a key race—past, present, or future? You start to get excited, right? You smile, you feel a little nervous, your heart rate increases . . . all predictable responses as your body prepares for “fight or flight.”

We tend to think a lot about our goals when we're performing key workouts. After all, we equate performing well in those workouts with performing well in our key races, as we should. What you might not realize is that your body becomes a little more tense and your heart rate (HR) increases as you think about your key race during your training session. Without doing anything differently—other than envisioning yourself doing very well in your key race and hammering away on the race course—you're sending “fight or flight” signals to your body, which in turn amps you up. Simply thinking of the race can cause your HR to accelerate as many as 10 beats per minute, even as you're holding a steady pace!

I'm not implying that the elevated HR or increased tension is bad. But when you notice this happening, take stock. Take a deep breath and bring yourself back to the present. Focus on the task at hand and on what you're doing in the here and now. Your HR will slow, and you'll feel the tension leaving your chest, shoulders, and neck.

Setting goals, working toward them, visualizing perfect races, and setting personal records are all positive and enjoyable aspects of training and racing. Together, they help to create the positive feedback loop that leads to better performances. But, it's also important to know when to “turn it off.” Focusing too much on what is yet to come impacts your ability to make the most of the here and now. Keep your eye on the prize, but stay focused on the present. And by “present,” I mean everything that's going on in your life—not just in today's scheduled workout. Try to instill a feeling of *tranquillo*—quietness—to your day.

- Nate Llerandi  
**HN**

*Nate Llerandi, Hammer Nutrition sponsored athlete and longtime ambassador, has been coaching endurance athletes since 1990. He draws from his extensive experience as a world-class triathlete, including ranking as Top American and 6th place in the prestigious ITU World Cup Series. Nate's most recent competitions include the Pike's Peak Marathon; and the Dead Dog Classic Stage Race and Sunshine Hill Climb Challenge road cycling events.*

## ALICIA SCHULTZ'S 26.2 WITH DONNA RACE RECIPE



### TRAINING RUN FUELS:

Endurolytes  
Endurolytes Fizz

### APRÈS RACE

RECOVERY:  
Hammer Vegan  
Recovery Bar

### RACE DAY ENERGY:

Espresso, Peanut Butter,  
and Vanilla Hammer Gels  
(one every 45 minutes)

## RESULTS

1st place AG, 2nd place masters women,  
and only 2 minutes off my PR at the 26.2  
with Donna Race

*“I'm happy to have done so well at the 26.2 with Donna, considering my month-long injury leading up to the race. A Hammer Gel every 45 minutes is what kept me fueled, and the Hammer Vegan Recovery Bar was oh so delicious afterward. Thanks Hammer Nutrition for great products!” - Alicia Schultz*

# OUR ATHLETES SAY IT BEST



[ A sampling of the unsolicited feedback we receive from athletes enjoying the benefits of Hammer Nutrition. ]



*"We have 66 riders competing in a six-race series that ends at the California High School Mountain Bike State Championships in May. At all NorCal races and events, we proudly display our custom Hammer tent.*

*... **We are fueled at all races with Hammer Bars, Hammer Gel, HEED, and Endurolytes.**" – Steve Pflingsten, San Ramon Valley High School mountain bike team*

***"Thank you for providing gluten-free products that***

***work.*** *I have celiac disease, so having Hammer Nutrition products available has made the difference in my training." – Samuel*



*"Despite the challenging single-track trail, shin-deep puddles, shoe-sucking mud, and chilly weather, I finished 3rd female and top 15% overall in the 50K Hagg Lake Mud Run.*

***Regular intervals of Endurance Amino, Hammer Gel, and HEED kept me in the race.*** *Thanks again Hammer Nutrition!" – Kristina Pattison*



Photo: B. Balci

“At the Calema Midwinters Windsurfing Festival races, I used Hammer Gel, Hammer Bars, Endurolytes, and Vegan Recovery Bars. I found that the **Hammer Bars were great to eat instead of lunch. They were easy to digest and allowed me to push farther. The Endurolytes were very beneficial in the heat . . .** Despite an injury in the fifth race, which forced me to stop racing for the day, I finished as 2nd female and 3rd overall.” - Olivia Mew



Photo : Dominique Vallee / www.oliviamew.ca

“A Hammer Bar for breakfast, Hammer Gel during the run, and Recoverite afterward kept me fueled and feeling **great** for the Castlewood Cup 15K, my first trail race. (Barney and Fred are friends of Hammer Nutrition too!)” - Eric Bruce



“I have used Hammer Nutrition products since 2006, and would not race without them. Below is a photo we took when we got some of our team’s shipment in. Can you tell we love Hammer?” - Paula Pearson, Team Lupine Racing USA



# Fueled for the challenge



Hammer Nutrition sponsored athlete Kelly Agnew achieves an FKT in Moab.

BY KELLY AGNEW

*ABOVE and RIGHT: Staying cool: Kelly Agnew set a new FKT for Moab's White Rim Trail in March wearing Hammer's cool-tee running shirt and new moisture-wicking Jackrabbit running hat. BELOW: Kelly's Garmin confirms his record-breaking time: Photos : Jo Agnew*



*Note:* FKT (fastest known time) attempts have risen to prominence in recent years, with many athletes preparing for them with the same focus as they would a race. Ultra runner Kelly Agnew recently set his sights on running the White Rim Trail, a 100-mile jeep road (with 7 miles of pavement) in the Islands in the Sky district of Canyonlands National Park, near Moab, Utah. On March 8, 2014, fueled by Hammer Nutrition products, Kelly ran the White Rim Trail in 17:47:25, breaking the previous record. -HN



I love running in Moab and when I found out the White Rim Trail was almost exactly 100 miles long, I got excited by the possibility of trying for an FKT (fastest known time). I was a bit intimidated by the existing record of 18:43:22, set by Peter Bakwin in 2006, but the challenge further fueled my desire to go for it.

I knew I'd need a nearly flawless run if I had any hope of beating it. My wife Jo and I always spend a tremendous amount of time planning my runs and races. We develop very detailed written race plans, and go through every possible race day scenario. For this run, I planned to meet Jo at frequent intervals, which would allow me to use a single handheld bottle. I use the Hammer Purist bottles and slip them into whatever bottle carries I have on hand. I also brought my Osprey Rev 6 hydration pack in case I needed to run longer without crew support (but that never happened).

On March 7 at 5:00 a.m., I set out on the trail, with a goal of not only beating

the current record, but dropping it by a significant margin. It turned out that the most difficult part of the run was the monotony. The scenery in Canyonlands is beautiful but it never changes. I could see the same landmarks off in the distance for hours and sometimes I felt like I wasn't making any progress at all. It was a huge mental challenge.

But fueled on Hammer Gels and Endurolytes Fizz, I attained my goal, running the entire White Rim Trail in 17 hours, 47 minutes, 25 seconds and setting a new record. Reflecting back, I'm happy with the finish time, but I can see opportunities to do even better.

I plan to return to the White Rim Trail this fall and run it in an attempt to set the unsupported record. In this attempt, I won't be able to have any crew, which will make it extremely challenging. There's no reliable water source on the route, and I'll have to carry a lot of gear and fuel to complete that run all by myself. I'm looking forward to an epic year and these FKT attempts really complement my racing. **HN**

## FOR THE RECORD



For anyone else who would like to attempt an FKT, I offer the following advice:

- **Know the course.** A lot of these courses are very remote and you're on your own. Spend a lot of time researching the route. Find run reports, maps, and videos on YouTube. Scour every resource and plan for every eventuality. Do this with your entire crew so everyone knows what to expect, and keep a focus on safety. A lot of things can go wrong and good preparation can keep everyone safe.
- **Bring more than you think you'll need.** I fueled almost exclusively on Hammer Gels and managed my electrolytes with Endurolytes Fizz, but I also brought other things, such as Perpetuem, as a back-up.
- **Have sufficient crew members.** My wife Jo is a pro—in fact I think she is the best in the business. But I put a lot of pressure on her during the run because she was committed to staying fully awake during my attempt. There were several dangerous sections of road that she had to navigate on her own and I know she was getting pretty frazzled. If I had known the conditions in advance, I never would have put her through all that.

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The advertisement for Hammer Nutrition Running Caps features three different styles of caps: a black cap with white gear patterns and '53X II' branding, a white cap with red 'HAMMER NUTRITION' branding, and a red cap with white 'HAMMER NUTRITION' branding. The background is a bright, sunlit sky. Text highlights features like 'Moisture wicking, low-profile, and lightweight!', 'Black under bill', 'SPF 30', and 'Visibility piping'. The Jack Rabbit logo is prominently displayed, along with 'MADE IN USA' and the MSRP of \$19.95. The Hammer Nutrition logo and 'ORDER TODAY!' call to action are at the bottom, with the contact number 1.800.336.1977 and website www.hammernutrition.com.

# TRI TIPS: Cycling toward the win

BY BRYAN BROSIOUS, Hammer Nutrition sponsored athlete and 2013 National Congress of State Games Athlete of the Year

*This is the second in a series of three articles about training for and competing in triathlons. For tips on the swimming leg, see EN 89.*



In life and in sport, cycling can make us feel free and fast. It's my favorite triathlon discipline because it allows so much diversity in training and racing. Here's what I've learned for peak performance during the cycling portion of the race.

- **Train consistently.** For your first triathlon, train mostly at a moderate or easy pace. To “get in the miles” and “build your base,” cycling three to four times per week is a good approach. Your week could include one long ride at an easy pace, one medium tempo ride or a ride with shorter interval repeats, and one or two easier recovery rides. Remember to fuel consistently before and during your rides with your chosen Hammer Nutrition products, and after your rides use Recoverite and Hammer Whey Protein. Hammer clothing will help you ride in comfort and style.
- **Prepare for the first transition.** New triathletes often overlook the transition between the race's swim and bike portions, and that can be a costly mistake. It's important to be ready for it. Near the end of the swim portion, I begin to mentally rehearse my transition. I envision swimming until my hand touches the bottom near the edge of the water before standing up, removing my goggles and swim cap, and then working my wetsuit down to my waist. The key to a good transition is to move quickly, but not rush. Try to keep your transition items to a minimum and multitask, doing as much as you can do safely while moving on your bike—namely, consuming your Hammer fuels and hydrating.
- **Accelerate gradually.** Once you're on the bike, build into your pace gradually. It's easy to start too fast, energized by the crowd's response as you exit transition. Try to rein yourself in until you find your rhythm. I focus on breathing deeply and pedaling smoothly for the first few minutes. After you find your pace, think about your nutrition and hydration. Hammer Gel and HEED work very well on the bike. Sometimes I use a small bottle of HEED; other times I drink plain water and use Hammer Gel. Depending on the race's duration, Perpetuem and Sustained Energy also can meet your nutritional needs on the bike. Proper pacing and nutrition will help you feel great and set you up for a strong run.
- **Get ready to run.** In the final minutes of the bike, start preparing for the second transition. This usually means backing off the effort slightly, and increasing your cadence to unload your legs. Be cautious—there will be a lot of congestion in the dismount area: control your riding and keep your head up as you approach. When you're safely off your bike, move quickly but don't rush. Rack your bike, remove your helmet, and put on your running shoes. You're likely to find Hammer Gel and HEED served on the run course, but as insurance I always carry a few Hammer Gels with me into the run.

With proper training, well-executed transitions, and a well-paced bike segment, you'll be ready to run. Look for my tips on this final leg of the journey in the next *Endurance News*. **HN**

# “Less is best”

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Efficiency—achieving desired results without waste—is important in training, racing, and even packaging. That’s why we think you’ll appreciate our new streamlined packaging for our powdered fuels. While our powdered fuels historically came in six randomly sized containers, new manufacturing processes have allowed us to package them in just three standard-sized containers.

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Tyler Rasmussen prepares his fuel for the day.

I awoke to a racket: boots clawing through loose scree, the clatter of equipment, voices in a strange language. I took a moment to realize where I was: at a mountaineering high camp on summit day. Once fully awake, I realized I had overslept—unusual for me. I got up, dressed, stuffed gear in my pack, and hurriedly collapsed the tent. As the experienced mountaineer and climbing leader of my team, I was concerned and a bit embarrassed about being late. We gathered in a floppy canvas tent that served as a dining hall. Outside, the night was cold, windless, and inky dark. Each of us tried to eat a little, but that's hard to do in the middle of the night when you're not hungry and your thoughts are on impending adventure.

My team was a Los Angeles-based film crew with little to no climbing experience. Some had never slept in a tent before, and now they were about to strap on crampons, clip a rope into a harness, take hold of an ice axe, and struggle upward in a small pool of light from a headlamp. Tonight they would be climbers. Once on the summit, they would set up camp and go to work. All those noisy Kurdish porters had assembled to help haul our gear. Unlike most mountaineers, we were to stay on the summit two weeks, maybe longer.

In May 2013, producer/director Brent Baum and producer Matt Marsden had begun searching for a director of photography for their documentary film on Mount Ararat. Since I had filmed a TV series on K2, the world's second highest mountain, and three Mount Everest expeditions, I was hired as DP and mountain consultant. My challenge was to outfit the film crew with gear, clothing, and provisions and prepare them to climb, live, and work safely on the mountain.

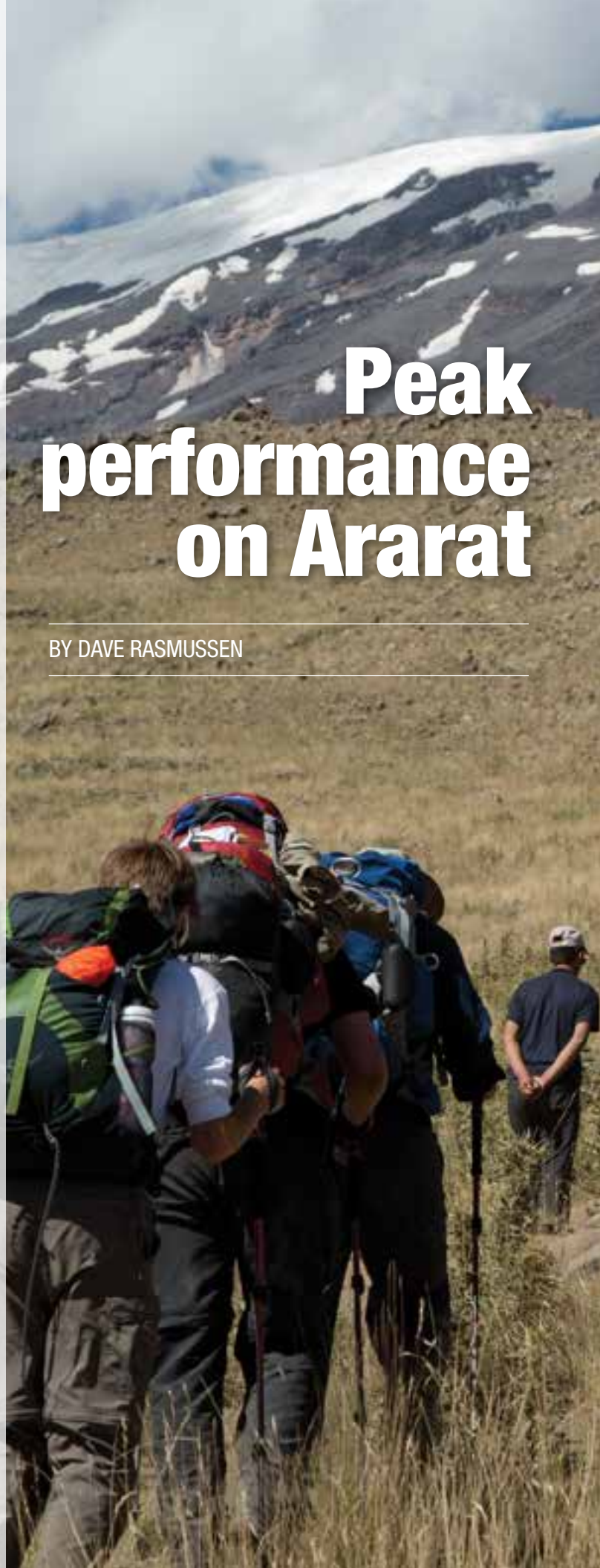
### Fueled for the extremes

While I'm not a racer (swimming, running, or cycling), I can climb mountains. It requires endurance—slow, steady, and strong for many long hours. Several Everest expeditions ago, I discovered Hammer Nutrition and wondered how their products would work in the mountaineering world. Since my home is only two miles from Hammer's Montana headquarters, I simply popped in one day and inquired what they had to offer and if it

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# Peak performance on Ararat

BY DAVE RASMUSSEN



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would work for mountaineering. I found out that indeed it does.

Like every athlete who uses Hammer, I discovered specific products that work well for me as a climber. First is Perpetuem. For me, it's a must. It gives me huge energy for those long, hard, thin-air days. Next are the Hammer Gels, which are easy to use for a quick boost while on the move. Hammer Bars are a tasty way to refuel when stopping for a break, and my water bottle is always fortified with HEED. Endurolytes Fizz has become a favorite of everyone on the team. Besides being a convenient source of electrolytes, they're ideal for making unpleasant-tasting boiled water more palatable. I've used other Hammer products as well, but these are my standards for climbing. My film crew on Mt. Ararat used all of these products to fuel their climb up the mountain and to sustain themselves while living and working on the summit.

Once on top of the mountain, our film team went to work filming the ark team of explorers as they embarked on new search activities. During our time on Ararat's summit, we watched as they battled blizzards and technical obstacles.

Aside from the filming on Mt. Ararat, our crew traveled to many countries, seeking people and places to tell the story of *Finding Noah*—vulcanologists, dendochronologists, satellite imaging experts, and ark explorers. I had grown up hearing stories of people looking for and even claiming to have found evidence of the ark, which, according to the Bible, came to rest in the mountains of Ararat. Could the ark really be there? From a professional viewpoint, many scientists would consider the search off limits because it mixes science with religion.

But prior to embarking for Ararat, our film team interviewed Boston University's Farouk El-Baz, Ph.D., director for the Center for Remote Sensing and an expert in satellite imaging who worked on NASA's Apollo program. From Dr. El-Baz's perspective, "historical texts are all part of the human knowledge, and human knowledge is based on both religious text and things in nature . . . I really think all of these things are connected; you cannot separate them from each other." **HN**



## Working in extreme conditions requires endurance and effective fueling.

Editor's note: Climbing mountains comes with the territory for Dave Rasmussen, a documentary cameraman. His most recent project took him to Mt. Ararat (17,000' elev.) in eastern Turkey for a documentary about the search for the Biblical ark of Noah. Fueled by sponsor Hammer Nutrition, the crew, which included Dave's son Tyler, climbed about 10,000 feet hauling nearly a half ton of gear. The film, *Finding Noah*, is expected to be released this summer. (See [www.findingnoah.com](http://www.findingnoah.com).)

**BACKGROUND:** The Finding Noah crew heads toward Mt. Ararat. **RIGHT TOP:** L to R Tyler Rasmussen, David Lamb, Brent Baum, Joshua Lamb, Jean-Louis "J-L" Blackburn, and Dave Rasmussen grab a photo op with Mt. Ararat in the background. **RIGHT BOTTOM:** A chilly night in camp on Mt. Ararat. Photos : Courtesy Dave Rasmussen



Photo : Clark Ortega

# The atypical [Hammer] athlete

In each issue of *Endurance News*, we highlight some of the less conventional ways athletes use our products. From professionals in the firefighting business to adventurers doing things the rest of us only dream about, Hammer Nutrition customers use our products far and wide. Hammer's "atypical athletes" prove that the importance of smart fueling and nutrition applies to far more than cycling and running!



## [Chris Morgan]

I'm a three-year member of the USA Team Handball national team and recently moved to Auburn, AL, to take part in its long-term training program. The goal is to create a team that will reestablish the U.S. as an international contender at the Olympics and World Championships. We had our first test in late February when we traveled to Mexico for a qualification tournament for the Pan American Championships. We finished 2-2, securing 3rd place and a spot in the Pan Am Championships this June.

I'm a longtime user of Hammer Nutrition and love Recoverite, HEED, Anti-Fatigue Caps, and Endurolytes, whether I'm slugging through double sessions, out for a bike ride, or hiking. I'm glad I had Hammer products in Mexico. The conditions were challenging, between the polluted air and the 7,000-foot elevation change from our training center in Auburn. Nothing is worse than waking up halfway through a



tournament feeling sluggish. But with my Hammer Nutrition supply, that didn't happen. Next stop, a tournament in Uruguay!

- Chris Morgan, Hammer Nutrition dealer

### Are you an atypical Hammer athlete?

Send us your story, and you might be featured in the next issue of *Endurance News!*  
[athleteupdates@hammernutrition.com]



## [Alex Bardsley]

Dangerous and reckless: these are the words that come to mind when most individuals think of action sports. Freeride mountain biking falls under this description, yet it is also where my community of athletes finds its peace of mind.

Cycling seemed to find its way to me. I grew up living next to the most alternative and freeride oriented bike shop in the town of Missoula, MT. I started with a BMX and gradually moved towards the dirt jump bike through the influence of the bike shop owners and workers. After sticking with the sport through many crashes and setbacks I began to see improvement in my riding. My style seemed to grow with my experiences and started to reflect my emotions and individuality. Adrenaline and fear began to become normal for me, and I continued to crave more and more of it.

The fueling of my riding has evolved from unhealthy energy drinks into the Hammer

Nutrition products I now use. My energy, fitness, and focus level have dramatically improved since I started my relationship with Hammer.

**Big Ring 53x11 Coffee:** My day starts off with coffee whether I am home or not. I believe that having a clear productive morning helps deal with the stress of life and makes you a happier person.

**Hammer Bars, Chocolate Chip:** Whenever I begin to bonk during my sessions I refuel with Hammer Bars to keep my focus.

**Hammer Fizz, Mango:** I love mango! The Mango Fizz is not only delicious but it helps me get through those long days of cycling.

**REM Caps:** Since my brain seems to never stop thinking about cycling, REM Caps help whenever I can't sleep. They are especially helpful right before competitions or filming days.

Photo : Drae Howell

Photo : Alex Chiu

# Complex carbs – still the quality choice

## A closer look at the science reveals the truth about this critical aspect of sports nutrition

BY STEVE BORN

**A**thletes know carbohydrates are king when it comes to fueling during exercise. And for more than two decades, Hammer Nutrition has maintained that endurance athletes will perform significantly better if they fuel their bodies during exercise only with complex carbohydrates, avoiding simple sugars such as glucose, sucrose, and fructose. That's why our fuels for use during exercise contain only complex carbohydrates in the form of maltodextrin.

But in recent years, a plethora of new sports fuels, composed primarily of simple sugars, have come onto the market. Their makers tout them as superior fuels, often citing studies to back their claims. So what is the best carbohydrate for the endurance athlete—maltodextrin, simple sugars, or some combination? A closer look at those studies reveals why complex carbs such as maltodextrin still are the best choice for high quality workouts and better race results.

### The trouble with the “multiple carbohydrates are better” studies

Our longstanding position is that the human body can effectively convert to energy approximately 1.0-1.1 grams of carbohydrates (approximately 4.0 – 4.6

calories) per minute, or 240-276 calories per hour. Several years ago, however, research showed that a greater volume of calories could be converted to energy—upwards of 1.8 grams (7.2 calories) per minute—using various blends of carbohydrate sources, primarily simple sugars.

Who wouldn't want their body to produce more energy on a per-minute/hourly basis? Instead of maxing out at around 280 calories an hour, you could conceivably crank out closer to 430 calories an hour! With those numbers, it's not surprising many companies jumped on the “multiple carbohydrates” bandwagon, producing fuels that reflect the carbohydrate sources and ratios used in the various studies.

But let's see if what occurred in “the lab” truly can be applied to real-world exercise situations:

1) G. A. Wallis, D.S. Rowlands, C. Shaw, R. L. Jentjens, A. E. Jeukendrup, **Oxidation of combined ingestion of maltodextrins and fructose during exercise.** *Medicine and Science in Sports and Exercise* 37 (3), 426-32 (March 2005). Eight trained cyclists performed three bouts of exercise, each lasting 2.5 hours, all at an intensity of 55% maximum

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power output. The cyclists consumed a maltodextrin-only drink (1.8 grams per minute), a maltodextrin/fructose drink (1.2 grams of maltodextrin + 0.6 grams of fructose per minute), or water. The results showed that carbohydrate oxidation (energy output) was greatest with the maltodextrin/fructose combination, peaking at 1.5 grams/minute (360 calories/hour).

**COMMENT:** What stands out is the low intensity of exercise: 55% of maximum power output is a recovery pace at best. When exercising at an intensity that low, it's not difficult to believe that the athletes were able to consume a massive 432 calories an hour—whether from maltodextrin only or a combination of maltodextrin and fructose—and not suffer stomach issues (though that was never mentioned in the study).

What would happen if the intensity of exercise increased to even a moderate rate/pace? Based on our experience with thousands of athletes, we're convinced gastrointestinal issues would result.

2) K. Currell, A. E. Jeukendrup, **Superior endurance performance with ingestion of multiple transportable carbohydrates.** *Medicine and Science in Sports and Exercise* 40 (2), 275-81 (Feb. 2008). Eight trained cyclists consumed either water, a glucose-only drink (1.8 grams per minute), or a drink containing a 2:1 ratio of glucose and fructose (1.8 grams per minute). They performed a two-hour bout of exercise at 55% Wmax (Watts maximum rate), and then performed a time trial, lasting about one hour, to complete a set amount of work as quickly as possible. The results showed that the cyclists consuming the glucose/fructose combination completed the time trial phase of the test 8% faster than those consuming the glucose-only drink.

**COMMENT:** Because the study did not use complex carbohydrates (maltodextrin), we cannot make an “apples to apples” comparison of simple sugars and complex carbohydrates. The study shows only that a glucose/fructose combination allows for better performance than glucose alone. Additionally, it's hard to conceive of study subjects consuming such high concentrations of either glucose or a glucose/fructose combination (7.2 calories/minute, equaling 432 calories/hour) without experiencing stomach

distress. The only plausible explanation was that the rate of exercise intensity was extremely low.

3) A. E. Jeukendrup, L. Moseley, **Multiple transportable carbohydrates enhance gastric emptying and fluid delivery.** *Scandinavian Journal of Medicine and Science in Sports* 20 (1), 112-21 (Feb. 2010). Eight males consumed either water, glucose (1.5 grams per minute), or a glucose/fructose mixture (1.5 grams per minute). They performed three two-hour bouts of cycling at 61% VO<sub>2</sub>Max. The results showed a greater rate of gastric emptying, and increased “fluid delivery” using the glucose/fructose combination versus the glucose-only combination.

**COMMENT:** Again, maltodextrin wasn't used so it's not possible to compare its efficacy to simple sugars. Also as in the previous study, the exercise intensity (61% VO<sub>2</sub>Max) is quite low, which helps explain why these subjects—who weighed an average of 164 pounds—were able to consume 360 calories an hour without stomach distress.

These are but a handful of the studies that suggest a combination of carbohydrates is more effective at allowing the body to produce energy on a per-minute basis compared to a single carbohydrate source. Although we don't dispute this research, we do dispute the applicability to endurance athletes. Here's why:

The “superiority of multiple carbohydrates” argument is based on glucose (maltodextrin as well) being absorbed by one transporter (SGLT1) and fructose by another transporter (GLUT-5). With two different transporters being used, carbohydrates were absorbed at different rates, thus higher oxidation (burn) rates were noted. But for these benefits to be achieved, it was necessary for the test subjects to ingest large amounts of glucose (or maltodextrin), so as to saturate the SGLT1 transporter. In the first two studies mentioned earlier, the participants consumed 1.8 grams of carbohydrates (7.2 calories) per minute. Over an hour's time, that's a massive 432 calories. In the third study, less carbohydrate was consumed, though it was still high—especially for athletes averaging 164 pounds—at 1.5 grams of carbohydrates (6 calories) per minute, equaling 360 calories hourly.

With that in mind, take a look at these and other studies on multiple

carbohydrate sources and take careful note of the exercise intensity. You'll find that the athletes exercised at a relatively easy effort—“recovery pace,” if that. Though the studies we've reviewed over the course of several years don't appear to address (let alone elaborate) any gastrointestinal issues the test subjects may or may not have had, the relaxed rate of effort is the most likely explanation for the participants' ability to consume such high amounts of calories hourly, whether from simple sugars (alone or in combination) or complex carbohydrates (maltodextrin, alone or in combination with fructose).

## Put us to the test

Exercise pace makes a big difference with regard to the ease of digestion of food and fuel. At a more leisurely pace, athletes can digest just about anything and in high quantities. Boost the intensity to moderate or high, however, and things change dramatically. The price for burning more carbohydrates at a higher rate is that effort and pace must be greatly reduced. As Dr. Bill Misner once wrote, “Raise the heart rate and core temperature even to only 70% VO<sub>2</sub>Max, and the body must divert core accumulated heat from central to peripheral. This reduces the blood volume available to absorb ingested carbohydrate or whatever the athletes have consumed.”

Over the course of more than two-and-a-half decades, we've repeatedly observed that when athletes consume carbohydrate solutions containing either glucose or fructose or both—combinations that supposedly increase carbohydrate oxidation rate—they usually experience gastrointestinal upset. What's more, when the rate of intensity exceeds what was performed in the “multiple carbohydrate” studies, many athletes fail to finish a period of prolonged exercise.

This is why we remain convinced that the ideal carbohydrate source for athletes engaged in moderate-to-high intensity training and racing is complex carbohydrates (maltodextrin) only, and it's why Hammer Nutrition fuels are formulated the way they are. Put our fuels to the test against anything else out there, and we guarantee that you will agree. **HN**

# Maltodextrin does not cause dehydration!

BY STEVE BORN

**T**he makers of a newer fluid replacement drink strongly imply that maltodextrin (the complex carbohydrate used in HEED) is an inferior carbohydrate. That isn't terribly surprising, as their product is comprised of two simple sugars—sucrose and glucose. Their primary anti-maltodextrin argument is that ingesting maltodextrin “increases the segment osmotic pressure” and “with this increased pressure, the body dumps water into the intestines to try to bring the pressure down = effective dehydration so to speak.”

Let's take a closer look at this claim to see if it makes sense. First, some terminology: when they say “osmotic pressure,” they're referring to osmolality—the concentration of a solution's dissolved particles that can permeate a cell membrane, contributing to osmotic pressure. We'll discuss this topic in greater detail in a future issue of *Endurance News*. For now, we'll just mention that body fluid osmolality is 280-303 mOsm, and an energy fuel should be within those same parameters for your body to digest it efficiently.

This particular product has a lower carbohydrate percentage, at 3.5%, while the carbohydrate percentage of most sports drinks is 6–8%. Because solutions that contain simple sugars match body fluid osmolality at concentrations as high as 8%, a bit lower concentration such as this one (3.5%) would naturally be absorbed a bit faster. That's not the issue.

What the makers of this product are

not telling you is that, unlike simple sugars, **maltodextrin matches body fluid osmolality at much higher concentrations** (up to 15-18%), and at this concentration **your body will absorb both the calories and the fluids quite rapidly**. Now, if you consume too-high concentrations of a simple sugar fuel, or one containing a mixture of complex carbohydrates (maltodextrin) and simple sugars, that fuel's osmolality will be well above body fluid parameters, and you will run into the problems associated with delayed absorption, such as GI distress, dehydration, and cramping.

But maltodextrin by itself, mixed in 280-303 mOsm solutions, DOES NOT block fluid absorption in the body, and it DOES NOT cause “effective dehydration.”

Despite the voluminous hype associated with the “for hydration only” and “multiple sources of carbohydrates” sports drinks, the fact remains that complex carbohydrates (maltodextrin) are the ideal way to fuel your body. You can digest a greater volume of calories from maltodextrin than you can from simple sugars, and with no delay in gastric emptying of either calories or fluids.

As Dr. Bill Misner states, “The gold-standard carbohydrate source originates from longer-chain carbohydrates (maltodextrin) because more caloric volume crosses the gastric lining with less distress to the competing athlete.” Or, as another nutritional scientist nicely puts it, “maltodextrin allows one to swallow more energy in less volume.” We completely agree and, hopefully, so do you! **HN**

Photo : Myke Hermsmeyer

# Old school isn't cool when it comes to your (sports) fuel!



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# Montana Trail Crew goes the distance for conservation

Fueled by Hammer, these energized runners cover a lot of ground.

BY MONTANA TRAIL CREW



Seth Swanson, Jedediah Rogers, Jeremy Wolf, and Jimmy Grant.  
Photo : Courtesy Montana Trail Crew.

**H**ave you ever considered using your passion for endurance sports as a means to contribute to the greater good? This past year a group of dedicated Montana runners—including four Hammer Nutrition sponsored athletes—did just that by founding Montana Trail Crew (MTC). The Montana-based nonprofit not only serves the state's mountain and trail running community as a source for information, but promotes conservation and advocates for trails and open space. The idea for the group was forged on long runs through the mountains and wilderness of western Montana. The Northern Rockies are a landscape of such scale that the lone runner is a mere speck traversing silently over ridges and through valleys. By working with a community of like-minded

athletes, these otherwise solitary individuals realized they could be a major force for improving trails, raising funds for open space preservation, and advocating for recreation on public lands.

Members of MTC's all-volunteer board of directors plan events to further the organization's goals. Visitors to their website will find content ranging from adventure tales featuring Montana athletes to inspiring stories of everyday people just discovering their love for the sport. The organization caps the year with its Mountain Running Film Festival, held each fall at Missoula's historic Wilma Theater.

Each of the four MTC board directors has ambitious plans for the coming year that will be fueled by Hammer products and regularly documented on [www.montanatrailcrew.com](http://www.montanatrailcrew.com):

**Jimmy Grant**, who has earned dozens of road and trail race victories during his career, continues to find inspiration in the mountains of western Montana. This year he'll again split time between road and trail racing and mountain training, including road races at Montana Governor's Cup Half Marathon and Missoula Marathon and trail runs at the Spokane River Run 50K, Don't Fence Me In 30K, Pengelly Double Dip Half Marathon, and The Rut 50K. He's also planning a series of adventure runs to explore and document the Montana wilderness in honor of the 50th anniversary of the Wilderness Act. For extended sojourns into the mountains and ultra-

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marathons he depends on Hammer Gels, Perpetuem, and Endurolytes, while Hammer Gels, Endurolytes, and Heed are staples of his road and sub-ultra trail races. Recoverite and Hammer Whey Protein figure prominently in his recovery.

In ultra races, **Jedediah Rogers** hopes for strong showings at Utah's Bryce Canyon 50K and the North Face Endurance Challenge in Park City. The Missoula Marathon is also on his calendar. Above all, he revels in the joy of running unfettered on wild lands, escaping the stresses of modern life. In all of his races and outdoor adventures, he relies on Hammer products—Perpetuem and Hammer Gels to fuel longer runs and races, and Recoverite and Vegan Protein for post-workout recovery. For general health and body maintenance he uses Premium Insurance and Mito Caps.

**Jeremy Wolf's** 2014 slate of ultra races includes the Way Too Cool 50K, Speedgoat 50K, and The Rut 50K. He also looks forward to competing in the US Skyrunner Series this year. With some top performances in 2013, Jeremy grabbed the attention of Hoka One One and is now on their athlete team. As Jeremy has moved into longer distance ultras, he's targeted his fueling for optimum performance using a combination of Perpetuem and Hammer gels; afterwards he replenishes with Recoverite. To stay healthy between and during workouts and races, Jeremy uses Hammer's Premium Insurance Caps.

**Seth Swanson** is gearing up for many races this season, but his primary focus is the Western States 100 in June and Cascade Crest 100 at the end of August. These storied races will certainly provide unique challenges and experiences for Seth. Over the last few years, Seth has used Hammer Nutrition products as a fuel source for running and cycling. Recently he's relied on Hammer Gels exclusively for race-day nutrition, taking down nearly 60 Hammer Gels during a 100-mile race. As a transient Montanan, he appreciates the commitment and quality associated with a Montana-based company like Hammer. Seth envisions his involvement with the Montana Trail Crew as a means to give back to the region's running and outdoor community. **HN**

Jed Rogers ascends North Fork Road near Glacier National Park at the Le Grizz Ultra (50miles). Photo : Myke Hermsmeier

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Nicolette (left), her sister, and her dad at her dad's first 5K, which Nicolette trained him for and ran with him every step of the way.



Nicolette with her Boston Marathon finisher's medal. Photo : MarathonFoto.com

# Running through the pain

A marathon runner endures personal heartache on her way to Boston.

BY NICOLETTE NORDAN, Hammer Nutrition Sponsored Athlete



Nicolette's Boston running shoes gifted to her by her dad.

**T**his year I learned the true meaning of “running through the pain.” Shortly into the new year, my 56-year-old father suffered a massive stroke that left him nearly totally paralyzed and unable to speak. Until then, he had been a single, self-sufficient, working man whose idea of an annual vacation was cycling the 400-plus miles from his home in St Augustine to Key West, FL!

Dad had enthusiastically supported my racing in every way, and the 2014 Boston Marathon was to be no different. He had planned to be there cheering me on. But after his stroke, I wasn't able to train at my usual level. Although I looked forward to my runs (my only time to process my feelings), they were short and without heart. Feeling numb, spent, and without any real excitement for the race, I decided not to run Boston.

## Scaling the wall

Then just three weeks after his stroke, my father began to make great improvements. His rehab center was encouraged, and I was elated. Back to the road I went, training full blast. I started feeling stronger physically and mentally. When my dad heard I had cancelled the trip to Boston he became very upset, so I promised to run and told him he could watch me on TV.

On April 6, 2014, my father suffered a massive heart attack that seemed to come out of the blue. He had had no previous heart issues. The doctors tried valiantly to restore his heart and circulation, but by the time they did it was too late. He fell into a coma and tests showed he had “no brain waves.” On April 9, my sister and I made the very difficult decision to allow

- continued on page 31

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our father to be at peace naturally. With my eyes welling, I again cancelled Boston, knowing Dad would not be in the stands or watching me on television.

Then I remembered: my Boston running shoes, the last pair Dad bought me. I had to run. Along with my shoes, I packed my Hammer Nutrition shorts; pre-wrapped race supplements (four servings of Endurolytes, Anti-Fatigue Caps, and Race Caps Supreme); Hammer Gels; two tubes of my beloved fuel candy, Caffé Latte Perpetuem; and a single-serving Recoverite. I felt honored to wear the Hammer logo. (The day I had received my Hammer sponsorship, Dad proudly reposted my Facebook status to his.)

### Boston bound

On April 21, 2014, my father and I together ran the 26.2 miles of the Boston Marathon, with my mother there to greet me at the N section of the finish. It was bittersweet, but an experience I'm so glad I had. This was my first Boston, and as a Florida flatlander I had worked myself into a frenzy over "heartbreak hill." Heartbreak hill? How about heartbreak hills?

Throughout the course, I experienced emotional ups and downs as well, realizing my dad wasn't at the finish. Then I'd remember my mother, who is just as important to me, was there and I just had to suck it up and finish. I crossed the line holding my last Christmas gift from Dad, a silver atocha coin pendant he purchased on his last cycle to Key West.

My finishing time was 3:42—not impressive but not bad considering I had become quite ill the day before the race and hadn't trained as I'd wanted to. I wobbled to the medals, looked up, and saw a cloud in the shape of a heart, then lost it and wept. For me—and many other runners this year—running at Boston was more than a "run." It was a show of the human spirit. No matter what life throws at us, we can endure anything, if we find the fight within ourselves to finish. Hammer on. **HN**

# TRACI FALBO'S LAND BETWEEN THE LAKES 50-MILE RECIPE

**PRELOAD FOR FOUR DAYS LEADING UP TO RACE:**  
Race Day Boost

**SUPPLEMENTS FOR THE 50:**  
Race Caps Supreme  
Anti-Fatigue Caps  
Endurolytes

**FUEL FOR THE 50:**  
Perpetuem  
Hammer Gel  
Endurolytes Fizz

Photo : Craig Dooley/www.dooleymann.photorelect.com

## RESULTS

2nd place female and 9th overall

*"I Love Hammer fuels! I ended up running only 30 minutes slower than last year, which was great considering the conditions: slick with snow and ice the first loop, then slush the second, leaving rivers of icy water and mud that went on for long lengths. I fell at least five times and ran into a tree after sliding around a corner in the slush! Still felt great and finished strong!" – Traci Falbo*



# Hammerbuck\$ winners in 2014



Photo: Greg Smith

## Gregory Taylor

Ironman 70.3 World Championships  
2nd 55-59 Men's  
\$1,250 credit

USAT Olympic AG Nationals  
3rd 55-59 Men's  
\$375 credit



## Reilly Smith

Ironman 70.3 California Oceanside  
2nd 30-34 Men's  
\$500 cash

Ironman 70.3 Texas  
1st 30-34 Men's  
\$1,000 cash

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## Traci Falbo

Umstead 100  
2nd Female  
\$500 cash

## About Hammerbuck\$

Hammerbuck\$ is a cash and credit contingency program that we began in 2008 as a way of rewarding athletes finishing in the top echelon in specific races who use Hammer Nutrition fuels and supplements and wear Hammer Nutrition logo clothing during the event and while on the podium.

## Start winning today!

If you're ready to be a Hammerbuck\$ winner, go to [www.hammernutrition.com/deals/hammer-bucks/](http://www.hammernutrition.com/deals/hammer-bucks/) for complete details, including requirements, a listing of eligible events, prize payouts, and more.



# By the Numbers

BY MYKE HERMSMEYER, Hammer Nutrition sponsorship coordination team

**T**hey're everywhere! From local mountain bike races to Ironman events, 100-mile ultra-marathons, and beyond, Hammer Nutrition sponsored athletes have kicked off the 2014 racing season with podium finishes across the country. And running, cycling, and swimming aren't their only activities. Hammer representatives are competing in stand-up paddle boarding, paragliding, rock climbing, obstacle racing, skiing, and more.

Every Monday when I arrive at work I'm greeted with an inbox filled with race reports from the previous weekend. These recaps and personal accomplishments are a great way for me to begin the week (especially when reviewed with a cup of freshly brewed 53x11 Coffee!). Looking at our athletes' collective results by the numbers is indeed impressive, and a true testament to the great effects of fueling right.

Whether you are a sponsored athlete or not, we'd love to hear from you! Please email us with your training and race successes. Throughout the year we will recognize you here on this page, "By the Numbers," as well as through the "From our Athletes" stories that appear in each issue. We love celebrating Hammer Nutrition athletes who demonstrate our shared commitment to a healthy, fit lifestyle.

We look forward to hearing from you and invite you to help us set a new PR in our podium count for 2014! **HN**

## STATS

Month	Podiums	AG wins	Overall wins
Jan	27	10	5
Feb	41	18	5
Mar	43	16	9
Apr	48	21	8



Jason Smith captures a win at the March Triathlon Series.  
Photo : Greg Scott

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# Product Spotlight

## Race Day Boost

You're four days away from a personal best!

BY STEVE BORN

**W**e could easily call this product “Personal Best in a Bottle” because for the 20+ years we’ve been selling Race Day Boost, that’s exactly what athletes have said they’ve experienced after using it. But Race Day Boost (often referred to as simply “RDB”) is an equally appropriate name because it does just that—it gives athletes a potent, tangible boost in race performance that augments the hard work they’ve put into their training.

Now that race season is here, it’s time to test Race Day Boost during your training sessions. That will give you a good idea of how your body responds to it. Then, in the four days prior to your key events, put the finishing touches on your prerace preparation by loading up with Race Day Boost in either capsule or powder form. When the gun goes off on race day, get ready to experience RDB’s incredible benefits—and don’t be too surprised if that includes a new personal best.

### How Race Day Boost works

The key to Race Day Boost’s effectiveness is sodium phosphate, a compound with a wealth of research that supports its positive benefits for athletic performance. Sodium phosphate enhances functioning of all three of the body’s ATP-producing energy systems—the ATP-CP system, the lactic acid system, and the oxygen/aerobic system—making it a superb ergogenic aid. With Race Day Boost, you’re boosting the performance of your body’s short-, medium-, and long-term energy production systems. No other product can do that.

Sodium phosphate is one of the most researched substances ever, with overwhelmingly positive results from many years of testing. Studies on sodium phosphate date to 1990 [Lenfant 1990, Lunne 1990], with Dr. Richard Kreider’s 1992 study arguably the hallmark research on this substance. In Kreider’s study, subjects loaded with sodium phosphate for four days (1 gram four times daily). During a 40K time trial, mean power output increased by 17% and oxygen uptake by 17%, netting an 8% improvement in performance time! The amount of sodium phosphate used in Race Day Boost exactly matches the dose used in all studies done with this nutrient.

### How to use it

Most of the studies of the main ingredient in Race Day Boost, sodium tribasic phosphate, showed remarkably positive, performance-enhancing results with a dose of 1 gram (1,000 mg) four times daily for four straight days. *This equals 2 teaspoons or 2 capsules of Race Day Boost, and that’s the dosage we recommend for most athletes.* (For an alternative dose protocol, based on body weight, go to our website page for Race Day Boost.)

### Other tips for usage

1. **During the taper, take Race Day Boost after (not before) a workout.** The four days prior to a race—when you’ll be using Race Day Boost—is NOT the time for high-intensity or long-duration training. Some athletes, however, like to do a short, easy workout or two prior to race. Keep in mind



### Suggested Usage:

Depending on body weight, 2 capsules one to four times daily for four straight days prior to a race.

For best results, allow 3-4 weeks between loading cycles.

that if you do one or two of the four RDB loading doses prior to a workout, you’re going to deplete at least some of the sodium tribasic phosphate. A better approach is to do the majority or all of your RDB loading doses after any workouts.

2. **Reduce dietary sodium leading up to race day.** Over the course of four days of loading with RDB (taking 2 teaspoons or 2 capsules four times each day), you’ll be consuming an additional 3,088 mg of sodium. To accommodate that additional sodium, we recommend lowering your dietary sodium/salt intake. By all means, avoid “sodium loading.” (See the article on page 56.) It will not provide any benefits, and will most likely create performance-inhibiting problems come race day.
3. **Don’t pre-mix Race Day Boost powder.** The glutamine

- continued on page 35

- continued from page 34

component in the powdered version of RDB isn't very stable once mixed in solution; a portion will degrade into ammonia. After mixing Race Day Boost powder, consume it as soon as possible.

4. **Don't use RDB to as a daily dietary supplement.** Dr. Bill Misner states, "I do not recommend using Race Day Boost as a daily alkaline-enhancing supplement; diet is the correct way to raise pH. The pH of body fluids, including urine, saliva, and blood, varies with function and is tightly regulated [via] systems to keep the acid-base homeostasis. The pH of blood is known to be slightly basic, and at a value of 7.4 pH, is vital in maintaining the functioning of cells. For example, enzymes are heavily affected by changes in pH, and have an optimum pH at which they operate. Outside of a small range they can denature and cease to catalyze vital reactions.

"Most plant food contains weak organic acids and salts; however, when they enter a medium of acidified water or acidified dilute salt brines and become heated, they create a buffering action to maintain their original pH. Natural, raw vegetables and fruit juices are alkaline-producing. (Fruit juices become more acid-producing when processed, especially when sweetened.) A diet containing 60-75% vegetables and fruits will raise pH to higher alkaline values. Exercise, especially endurance exercise, lowers pH to acidic levels.

"Athletes should alter their diets to a high pH food menu, plan longer recovery time, and only use RDB loading dose protocol prior to events."

### The bottom line

For more than two decades, endurance athletes have unleashed the power of Race Day Boost to propel them to top performances and personal bests in their "A" races. Race Day Boost flat-out works; its simple formula belies its profound effectiveness, helping to increase cellular energy production and buffering performance-robbing acidity. Whatever the duration of your event, a four-day loading dose of Race Day Boost before a key race can make a noticeable difference in your performance. This is a special product for special events. If you intend to meet or exceed your race day expectations, it's time to include Race Day Boost in your arsenal. **HN**



### Suggested Usage:

Take 2 level teaspoons four times per day, for four days prior to competition. Mix each serving in 6-8 ounces of warm/hot water. After powder dissolves consume immediately. Add 4-6 ounces of fruit juice and/or ice if desired.

For best results, allow 3-4 weeks between loading cycles.

# FAQ

**Q: Why do you use sodium tribasic phosphate in Race Day Boost? What's the difference between that and sodium dibasic phosphate?**

A: We selected the tribasic form of sodium phosphate because it modeled the type used by Dr. Richard Kreider in his research, which determined it to be a remarkable ergogenic. Sodium tribasic phosphate has three phosphorus molecules; sodium dibasic phosphate has two phosphorus molecules.



Photo: Mike Androsco

**"I used Race Day Boost like I always do before a big race."**

- Traci Falbo  
2nd female and 4th overall  
Umstead 100 Mile Run

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Photo : wadleyphotography.com

# Smarter is better, less is best

## The right way to fuel for summer training and racing

BY ENDURANCE NEWS STAFF

**P**erhaps the biggest challenge we face at Hammer Nutrition is convincing athletes that the “replace what you lose” theory of endurance fueling is completely ineffective. We’ve been emphasizing the “less is best” fueling philosophy since 1987, when founder Brian Frank launched the company. Yet the topic of fueling continues to confuse many athletes because misinformation still abounds.

What we’re talking about is the advice that “experts” and organizations still give athletes about their need to “consume what they lose” during exercise in equal or near-equal amounts. They drum up statistics such as “you lose up to 2 grams of sodium per hour, burn up to 900 calories hourly, and sweat up to 2 quarts (liters) an hour” to defend their position.

Even worse, in many instances they don’t offer any numeric guidelines, just vague statements like “drink as much as you can.” Sadly, far too many athletes fuel their bodies exactly this way—based on the recommendations of what one elite athlete may be using and/or saying—with only poor results or a DNF to show for their efforts.

You can realize dramatic benefits by fueling with less: just follow these simple guidelines. (For more detailed info, read the “Less is Best” chapter in *The Endurance Athlete’s GUIDE to SUCCESS*, found on the Hammer Nutrition website.)

- For most athletes under most conditions, the hourly replenishment ranges we suggest are **20-25 ounces of fluids; 100-600 milligrams sodium chloride; and 120-200 calories.**
- Dial in your fueling within these parameters during training, with the realization that “one size does not fit all.”
- With regard to calories, err on the side of under-consumption—it’s an easier problem to fix than overconsumption. Simply consume a bit more if you feel you need more energy.
- Think in terms of replenishing, not replacing. Fuel your body in a way that works with it, and not against it, by providing it with what it can effectively assimilate.

When it comes to fueling, more is not better—smarter is better! Ignore the “expenditure” hype—we guarantee you will feel better during exercise and see dramatic performance improvements. **HN**

# OUR ATHLETES SAY IT BEST



Suzanne E.



Bailey H.

## Proof is in the performance

More and more athletes are adopting the **“less is best”** approach and seeing tremendous results! Here’s what a few of them have told us:

*“At Lake Stevens 70.3, I fueled with Perpetuem and Hammer Gel for my calories. **Less is truly more as my stomach felt great.** I had Strawberry Recoverite immediately afterward, and I recovered fast and had minimal soreness. Thanks Hammer!” - Suzanne Endsley*

*“Because of training and a lot of help from Hammer Nutrition products I completed my first Olympic distance triathlon on May 18 and crushed my overall time goal. I also beat all of my splits! **I’m convinced that by following the ‘less is best’ method of fueling, I was in great shape to finish the race with a smile on my face.**” - Colin Gilliland*

*“Thank you for teaching us about fueling! Hammer Nutrition products have changed our lives. Your products do EXACTLY what they say, and we’ve discovered that less is best! **No more stomach ailments or bonking!**” - Laurie DeVries*

*“I attended a Hammer Nutrition seminar and learned that less can be more. **Understanding this concept and knowing a little more about Hammer Nutrition products has definitely helped with my 70.3 training.**” - Bonnie Ohye*

*“**I fueled right for the overall win (men and women!) at the Madison Freeze for Food 10K. Luckily, I followed the ‘less is best’ mantra and relied on my awesome Hammer products.** As this was a shorter race, I started my morning with coffee and a yummy Oatmeal Apple Hammer Bar around 9:30 a.m., and then had an Apple-Cinnamon Hammer Gel right before the 1 p.m. race start. A little Hammer Gel was the perfect amount to get me through my race without weighing me down.” - Bailey Hinz*

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- Tim T.

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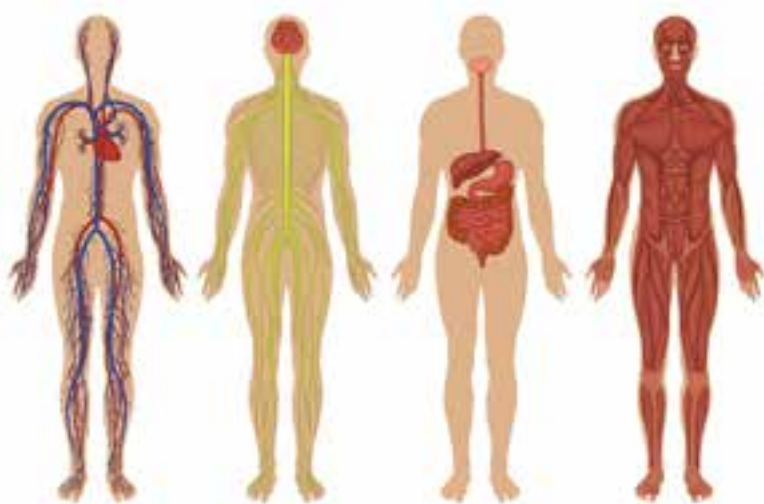
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# Staying stoked

## Replenish electrolytes correctly to finish strong

BY STEVE BORN



**T**hink of electrolytes like the motor oil in your car—they don't make the engine run, but they're absolutely necessary to keep everything operating smoothly. Your muscles, heart, nerves, and digestive system all depend on having adequate levels of electrolytes to function properly.

Muscle cramping usually is a signal that you've allowed your electrolyte levels to drop far too low, or you've replenished them improperly. Like the oil light on the dash of your car, cramping is your body's painful way of saying, "Hey! I'm on empty! Resupply me now or I'm going to stop!"

Just as you shouldn't wait until you're dehydrated or bonking before you replenish fluids and calories, you shouldn't wait for cramps to remind you to replenish electrolytes. To keep your body running strong, you must replenish electrolytes gradually, consistently, and comprehensively. (See our secrets for mastering this vital aspect of fueling on p. 39.)

Hammer Nutrition's **Endurolytes products** are designed to meet your body's complete electrolyte requirements. They will help you counter the effects of hyperthermia, optimize specific bodily functions, and enhance endurance performance, especially beyond the two-hour mark.

Unlike many suppliers of electrolyte replacement products, we do not formulate Endurolytes products to reflect the amount of electrolytes lost through perspiration. Sweat loss can vary greatly. The biggest factor in sodium loss through perspiration is dietary sodium intake. The more sodium you take in, the more you will sweat out during exercise. Other factors include individual make-up, size, fitness level, exercise pace, and heat and humidity.

In addition, your body can replace only about one-third of what it loses during exercise. If you try to replace all of the electrolytes lost, the hormones your body releases can trigger problems such as gastric distress, edema, muscle spasms, and cramping.

Endurolytes products are "electrolyte stress support formulas," not electrolyte replacement products. They help your body perform better under the demands of exercise, especially in heat, by providing a full complement of minerals in the proper balance without interfering with normal body control systems.

**HEED**, Hammer Nutrition's complex carbohydrate powdered sports drink, also contains a complete and easily assimilated electrolyte profile, not just salt and potassium, which is all that most other sports drinks contain.

**Bottom line:** Salty foods and salt tablets won't cut it when it comes to electrolyte replenishment. Instead, adopt a low-sodium approach in your daily diet. During exercise, rely on a product that will provide comprehensive electrolyte support without compromising internal regulation. **HN**

## Secret #1: Cramping isn't the only problem caused by low levels of electrolytes.

Without the proper levels of electrolytes, your body can't properly carry out many critical body functions, including muscle contractions and the transmission of nerve impulses. (Electrolytes are chemicals that form electrically charged particles, or ions, in body fluids. Ions carry the electrical energy needed for many body functions.)

Many athletes neglect consistent electrolyte replenishment because they've "never had cramping problems." But by the time you cramp, your performance has already been severely compromised for some time. The goal with electrolyte replenishment is not so much to prevent cramping, but to maintain body functions at optimal levels for smooth, uninterrupted, and uncompromised performance.

## Secret #3: Skip the salty foods.

If you're getting more than 2,300 milligrams per day of sodium (the upper-end recommended dose) in your diet, you can be sure your sodium loss rates during exercise will be greater, too. Sodium drives thirst, and thirst drives drinking until excess results. Over-hydration is definitely not performance enhancing; in fact, it can have life-threatening and even fatal consequences.

You can easily get an adequate amount of sodium simply by eating natural, unprocessed foods. In addition, the average athlete stores at least 8,000 mg of dietary sodium in tissues, so you already have a vast reservoir of sodium available in your body from your diet, ready to serve you during exercise.

## Secret #2: Salt tablets are not the answer!

How you replenish those electrolytes can mean the difference between staying strong and struggling to finish. Salt tablets are an unacceptable choice for electrolyte replenishment for two important reasons:

1. They can oversupply sodium, thereby overwhelming your body's complex mechanism for regulating this electrolyte.
2. They provide only two of the electrolytes your body requires—sodium and chloride.

Your body has very effective mechanisms for monitoring, recirculating, and conserving its stores of sodium, and consuming excess sodium disrupts or neutralizes these complex mechanisms. If your body detects an increase in sodium from outside sources (e.g., salt tablets, electrolyte products too high in sodium, or food), the kidneys will excrete sodium, and a hormone, vasopressin, will cause fluids to be retained.

So while ingesting large amounts of sodium may temporarily resolve a sodium deficiency, it also substantially increases the risk of other problems—like swelling of hands and feet, elevated blood pressure, and increased sodium excretion. All inhibit performance.

## Secret #4: Replenish electrolytes gradually, consistently, comprehensively.

Proper electrolyte replenishment during endurance exercise requires a consistent approach that incorporates all of the electrolytes in amounts that do not override your normal body mechanisms. Your electrolyte intake must avoid detection by your body's natural "radar system," yet be potent enough to support body functions and prevent heat-related issues such as cramping.

## How much do I need?

Nailing down your fluid and caloric needs is fairly easy to accomplish, but fulfilling your electrolyte needs is more challenging because you have more variability to account for. When training, test different products and amounts to determine what works best for you. We suggest the following dosages as a starting point:



**For normal electrolyte replenishment while exercising:**

### ENDUROLYTES

2 capsules per hour during prolonged exercise; possibly more in hot weather

### ENDUROLYTES FIZZ

1-2 tablets per bottle of water; wait for tablets to dissolve, then consume as needed to maintain hydration and electrolyte levels



**When higher levels of electrolytes are called for (e.g., exercising in extreme heat, intense early-season workouts, and for those prone to cramping, especially those who sweat excessively):**

### ENDUROLYTES EXTREME

1 capsule hourly, increasing the dose to 2 capsules—perhaps even a 3rd capsule—as conditions dictate



**An excellent base of electrolytes:**

### HEED

A scoop of HEED provides the electrolyte equivalent of 1 Endurolytes capsule or 1/2 tablet of Endurolytes Fizz. Some athletes find that a scoop or two of HEED in their water bottle will keep them going strong for an hour or more. Others satisfy their complete electrolyte needs by consuming both HEED (an excellent base) and Endurolytes products.

# Recoverite outperforms chocolate milk

For athletic recovery and refueling, there's really no contest!

BY ENDURANCE NEWS STAFF



**M**ilk might “do a body good” at times, but when it comes to replenishing your body after exercise, nothing—not even chocolate milk—can compare to Recoverite. When you break it down, glass for glass, you discover there really is no contest, especially if your goal is enhanced recovery and reduced muscle soreness.

**CARBOHYDRATES** – A 100-calorie serving of chocolate milk contains approximately 12.5 grams of carbohydrate comprised of sucrose, lactose, and high fructose corn syrup (HFCS). If you're at all serious about your overall health, let alone your recovery, avoid these excess sugars and HFCS in your diet.

To replenish glycogen stores and get a head start on tomorrow's workout, consume only high-glycemic complex carbohydrates for recovery. A 100-calorie serving of Recoverite contains nearly 36% more carbohydrates than chocolate milk, and none of them are in the form of simple sugars, lactose, or HFCS. Recoverite contains only complex carbohydrates (maltodextrin) and a small amount of xylitol—both overwhelmingly better choices than the low-quality carbohydrates found in chocolate milk. (For more about the important differences between carbohydrate sources, see page 24.)

**PROTEIN** – More than 80% of the protein in chocolate milk is in the form of casein, and the remainder is in the form of whey. Based solely on its bioavailability, casein is a poor protein source for recovery, with a mediocre Biological Value (BV) rating of 77.

You'll receive significantly more protein in 100 calories of Recoverite than you will with chocolate milk, and you won't find inferior protein sources such as casein. Pure, 100% whey protein isolate (the only type of protein in Recoverite) offers the following benefits:

- highest BV rating (154) of any protein source
- a greater percentage of the all-important branched chain amino acids (including those most important for muscle tissue repair) than any protein source

When it comes to optimizing recovery, whey protein isolate has absolutely no peer.

**FAT** – Whole chocolate milk has nearly 5 grams of fat in 100 calories, and the overwhelming majority of those fat grams are saturated—definitely not beneficial for recovery or overall health. Recoverite contains no fat, saturated or otherwise—end of discussion!

**rBGH AND ANTIBIOTICS** – Non-organic chocolate milk may contain traces of unwanted hormones and antibiotics used in the beef and dairy industries. Recoverite contains none.

## Summary

To obtain the full value from all the time and energy you put into your training, you must put the highest quality fuel into your body. Because recovery is so key to athletic performance, you simply can't cut corners. When you compare chocolate milk's profile to that of Recoverite, it's abundantly clear: there's really no comparison. Recoverite, not chocolate milk, is the true “state of the art” recovery drink! **HN**



# Recover right for tomorrow's win!

**"With Recoverite immediately after a solid win at Saturday's road race, we're on track to bring the pain at Sunday's criterium."**

- Kurt E, President of UM Cycling Team  
Kurt pushes the pace at OSU Beaver Omnium.  
Photo: Courtesy of University of Montana Cycling Team



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**FREE RECOVERY BAR!**

Order a 16- or 32-serving container of Recoverite and receive a FREE Hammer Whey or Vegan Recovery Bar. Ad code EN90RR. Offer expires 7/10/14. Valid while supplies last.

**ORDER TODAY!** 1.800.336.1977 / [www.hammernutrition.com](http://www.hammernutrition.com)

# Two-a-day the easy way with EMS

## Boost your training efforts safely and effectively



BY VANESSA GAILEY

**T**he closer we get to summer race season, the more we hear from endurance athletes employing a “two-a-day” training strategy—exercising twice in one day, as athletes in professional and college sports often train. But doubling up your workouts can easily lead to overtraining injuries if you aren’t careful to train correctly. There’s a fine line between training to be better prepared on race day, and overtraining to the point of missing the race entirely.

We’ve found that EMS technology can help athletes get the most “bang for their buck,” training-wise—allowing them to reach training goals in the least amount of time and effort, safely and effectively. By augmenting traditional workouts with a strength or endurance session on an EMS unit, you can benefit greatly from two-a-days. EMS also can help prevent injuries from overtraining, as it will only tax the muscles, not joints or connective tissue. Here’s how EMS can work for you:

### EMS after traditional training session

For the best results, follow your traditional training by EMS work later in the day or that evening. All EMS programs (with the exception of warm-up or recovery programs) can cause muscle fatigue. To keep your traditional training workload at its highest and maintain training load absorption capacity, go into that workout fresh and then follow with an EMS session later. Because EMS lacks cardiovascular benefits, consider it supplemental to a traditional workout.

### Train your body to perform when fatigued

Ultra-endurance athletes accomplish a good part of performance while fatigued and operating at less than full capacity. For these athletes, training to perform while tired and not fully recovered is an important goal. In this case, EMS sessions before long workouts might prove beneficial.

### Minimize workout time and reduce injury risk

Sports that require extreme exertion, such as cycling, require athletes to spend many hours in the gym to increase muscle strength, often with poor results. Besides experiencing overall general fatigue from these workouts, athletes lose valuable time that could be spent on technical training. The risks involved with weight training include potential damage to tendons and ligaments imposed by the heavy loads on the joints, as well as cardiac wall hypertrophy, as seen among weightlifters. EMS can decrease the amount of time spent training, and poses no risk to joints.

### Prioritize recovery

After a highly productive day using EMS to do double workouts, there’s no better way to ensure recovery than to drink two scoops of Recoverite and enjoy a relaxing Active Recovery EMS session. The Active Recovery program, available on all models of Compex and Globus, helps to reduce lactic acid, increase intra-muscular blood flow, and promote

the production of endorphins for general muscular relaxation. With complete recovery, you can be ready to go again the next day (though we highly recommend including recovery days in your weekly training strategy).

If you want to increase your workout quantity and quality as quickly as

possible—without straining your body the way a traditional “two-a-day” workout does— try two-a-day with EMS! **HN**

***For the best results, follow your traditional training by EMS work later in the day or that evening.***

# Learn from the BEST so that you can be your BEST

EMS consultations with our experts!

**The Primer - \$49.95  
(FREE with purchase!)**  
30-minute consultation

## Discover the benefits of EMS

To maximize the benefits and value of this powerful device, you'll need to become familiar with the basic functions of your EMS. That includes charging the device, and proper cable and pad connection. In addition, you will learn:

- Navigation through the various programs stored within your unit
- Placement of the electrodes over the muscles you plan to stimulate
- Proper starting level of stimulation for the programs you use daily

**The Competitor - \$79.95**  
60-minute consultation

## Integrate EMS into your daily training regimen

This extended consultation includes everything covered in the 30-minute consultation, plus you'll learn how to:

- Use all of the programs on your device
- Time weekly program use to benefit your sport
- Schedule your training utilizing an array of EMS programs to reach your peak at the right time
- Stack EMS workouts on top of conventional workouts to extend training efforts

**The Expert - \$60.00\***  
60-minute consultation \*Per hour

## Become an advanced EMS user

After completing both the 30-minute and 60-minute initial consultations, you can purchase additional consultation time. You'll quickly become an advanced user and get the most out of your EMS device! With our advanced consultation, you'll learn how to:

- Tailor your EMS use to your unique needs
- Evaluate your progress and adapt your program
- Understand how the science and technology of EMS make your device a very powerful tool

Hammer Nutrition EMS expert Levi Hoch pushes up the mountain during Thursday Night Race League at Whitefish Mountain Resort.  
Photo : Myke Hermsmeyer

# Get Stronger, Recover Faster with Hammer EMS units!

**“ I recently tried an EMS unit. I LOVE it! I can already see and feel an increase in strength and endurance. ”** - Kevin N.

Photo : wadkyphotography.com

**FREE shipping FREE consultation  
FREE extra pads\*.**

\*Complex Edge models excluded

**GLOBUS - MSRP**  
\$499.00 - Premium Fitness  
\$750.00 - Premium Sport  
\$830.00 - Premium Sport PLUS

**COMPEX - MSRP**  
\$399.99 - Edge  
\$579.99 - Performance U.S.  
\$849.00 - Sport Elite

**HAMMER  
NUTRITION**

**ORDER TODAY!**

1.800.336.1977 / [www.hammernutrition.com](http://www.hammernutrition.com)



# EMS EXPERTS

education • resources • success

## Giving you the ultimate competitive advantage

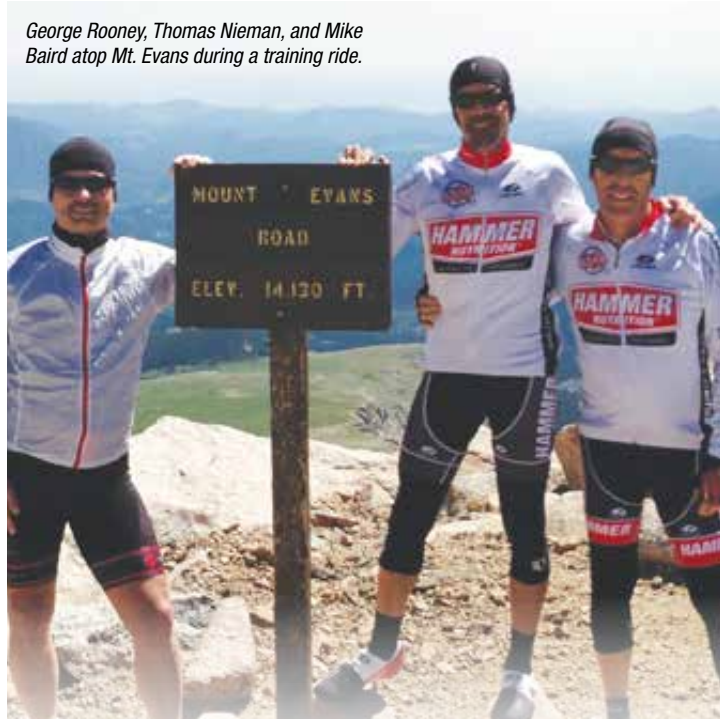
**Incorporating Electronic Muscle Stimulation (EMS) into your training routine will allow you to:**

- Get the ultimate muscle warm-up
- Dramatically increase muscular endurance
- Optimize muscle recovery (minutes instead of days!)

For more than 26 years, Hammer Nutrition has been the leader in educating athletes to fuel properly, and since 2006 has been the leader in EMS education in the U.S.

EMS technology is universally accepted and widely used in Europe for physical preparation, muscular recovery, injury prevention, rehabilitation, pain relief, muscular reinforcement, physical beauty, and more.

Whether you are a professional athlete, weekend warrior, or somewhere in between, EMS devices provide a potent tool to enable you to achieve, and even exceed, your highest athletic goals.



George Rooney, Thomas Nieman, and Mike Baird atop Mt. Evans during a training ride.

## REAL ATHLETES, REAL RESULTS!

*"Maybe it's just that time of year, with people increasing their mileage, but I've been getting a lot of questions lately from people I ride with, asking me what would be the best upgrade to their bike to get the most performance. What I tell them is that the best upgrade wouldn't be to their bike, but to their body. When they look at me with a puzzled look, I tell them that I'm talking about an EMS unit. Then I point them in the direction of Hammer Nutrition. **There is no doubt about it . . . there is nothing you can do to your bicycle that will increase your performance as much as the regular use of an EMS unit.** After three years of regular use of my Compex Sport Elite, I continue to ride more consistently, recover much quicker, and experience less injury. I could never ride at the intensity levels I do, day after day, without it." - Thomas N.*



## More benefits!

- Enjoy a "runner's high" endorphin flood anytime
- Increase muscle power and strength, size if desired
- Accelerate rehabilitation and injury recovery
- Avoid loss of muscle fitness during periods of inactivity
- Get a massage anytime you want

# Hammer Nutrition now provides a complete selection of the leading brands of EMS units!

**Choose the unit you need to reach your athletic goals!**



**Globus Premium Fitness**  
PRICE  
**\$499.00**

**PROGRAMS**

- Demo
- Warmup
- Active Recovery
- Endurance 1 & 2
- Massage
- Plus four more!



**Compex Performance U.S.**  
PRICE  
**\$579.99**

**PROGRAMS**

- Pre-Warmup
- Resistance
- Active Recovery
- Strength
- Endurance



**Globus Premium Sport**  
PRICE  
**\$750.00**

**PROGRAMS**

- Demo
- Warmup
- Resistance 1-3
- Active Recovery
- Sprint Prep
- Endurance Prep
- Endurance 1 & 2
- Max Strength 1-3
- Explosive Strength 1-3
- Massage
- Plus four more!



**Compex Sport Elite**  
PRICE  
**\$849.00**

**PROGRAMS**

- Pre-Warmup
- Resistance
- Active Recovery
- Strength
- Endurance
- Potentiation
- Explosive Strength
- Recovery Plus
- Massage



**Globus Premium Sport Plus**  
PRICE  
**\$850.00**

In addition to what the Globus Premium Sport model offers, this model includes two Ultra Endurance programs as well as a Stretch Relax program.



**Compex Edge**  
PRICE  
**\$399.99**

This model is an entry-level option offering programs for Resistance, Recovery, and Endurance.

*All Compex models include a muscle stimulator, battery charger, user's manual, instructional DVD, electrode placement guidebook, drawstring bag, electrode lead wires (4X), and gel electrodes.*

*All Globus models include a muscle stimulator, carrying case, four lead cables, battery charger, four reusable adhesive electrode pads 2" x 2," four reusable adhesive electrode pads 2" x 3.5," and a user's manual.*

*Both Globus and Compex are cleared by the FDA.*



**Replacement pads and accessories**  
Hammer Nutrition is your EMS headquarters for replacement pads, replacement parts, accessories and more. Check out [www.hammernutrition.com/EMS](http://www.hammernutrition.com/EMS) for complete details.

**EMS consultations with our experts!**

30-minute consultation	<b>\$49.95</b>
60-minute consultation	<b>\$79.95</b>
Advanced consultations	<b>\$60.00</b> per hour

*See our website for details.*

# ORDER TODAY!

Order your EMS unit from Hammer Nutrition and enjoy these **FREE** bonuses:

- 30-minute consultation - **FREE A \$49.95 value!**
- Electrode pads\* - **FREE A \$29.90 value!**
- 90-day money back guarantee - **FREE Priceless!**
- 3-day FedEx Express shipping
- 3-year warranty
- Ongoing tech support

*\*Compex Edge model excluded.*

# Check out our NEW website!

We've completely redesigned our website to serve you better. It includes all of the in-depth knowledge you value, plus great new features like these:

**Responsive design across all devices** – Browse and shop easily from your smart phone, tablet, or computer.

**Improved search** – All products and services are now under one easy-to-navigate menu. You'll find the products and knowledge you seek more easily than ever.

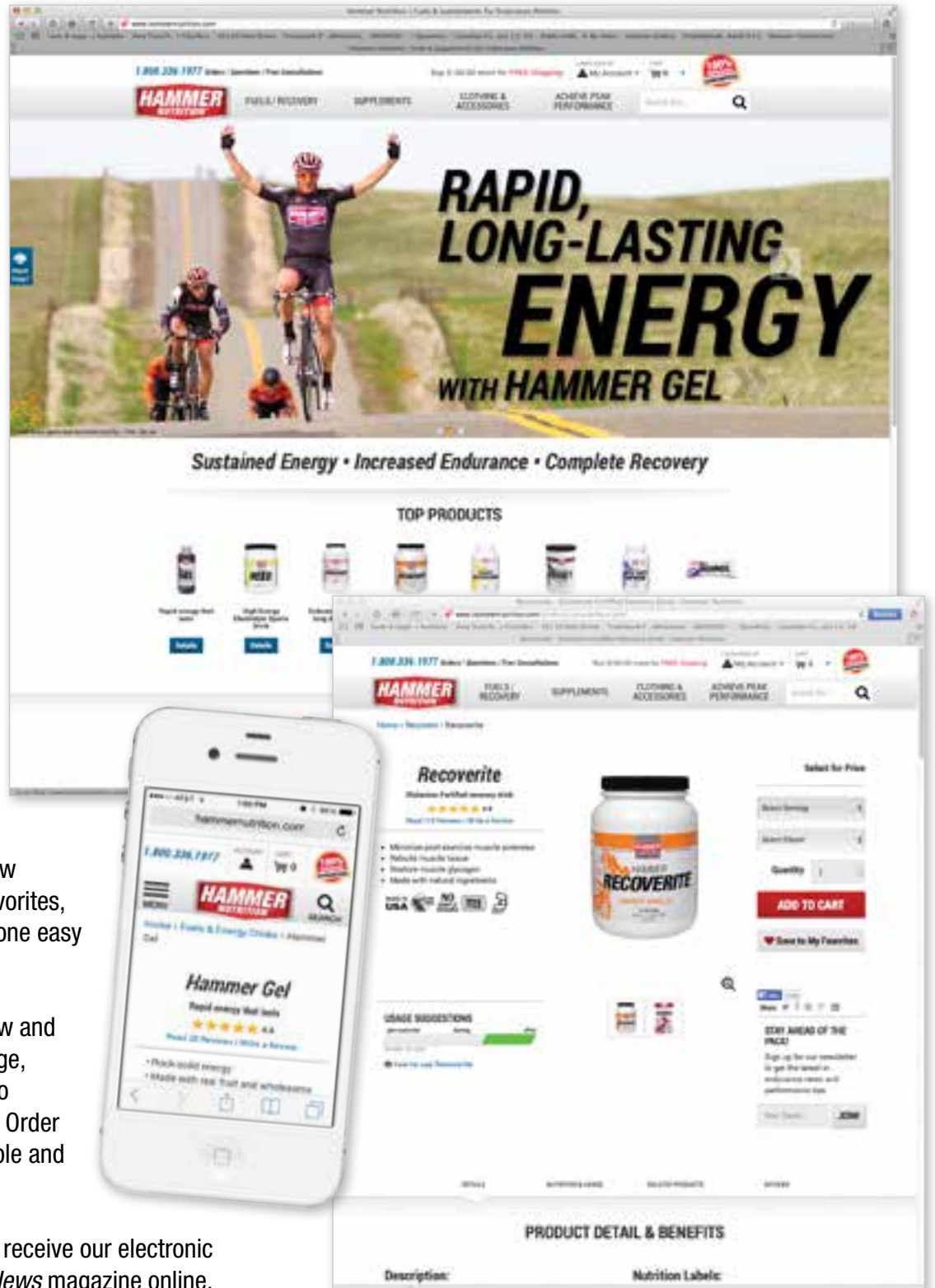
**Improved product pages** – We've simplified product details and included informational icons, product reviews, and easy to follow usage charts.

**Personalized shopping** – By creating an account, you can save favorite products and articles for easy future use. See your referral credits online anytime, too.

**Convenient reordering** – View previous orders and saved favorites, and add them to your cart in one easy step.

**Streamlined checkout** – View and update your cart from any page, anytime. When you're ready to checkout, our one-stop Quick Order page makes the process simple and smooth.

**Exclusive news** – Sign up to receive our electronic newsletter; read *Endurance News* magazine online.





# 2014 PRICE LIST & ORDER FORM

## HAMMER NUTRITION TOP SELLERS



### Recovery made easy

- Reduce post-exercise soreness
- Rebuild muscle tissue
- Restore muscle glycogen

SIZE	PRICE
Single Serving	\$3.50
6 or more	\$2.95
16 Servings	\$32.95
32 Servings	\$56.95

Flavors: Chocolate, Orange-Vanilla, Strawberry, Vanilla



### Rapid energy that lasts

- Rock-solid energy
- Nothing artificial
- Versatile & economical

SIZE	PRICE
Single Serving	\$1.40
12 or more	\$1.25
26 Servings	\$19.95
3 or more	\$17.95

Flavors: Apple-Cinnamon, Banana, Chocolate, Espresso, Montana Huckleberry, Orange, Peanut Butter, Raspberry, Tropical, Unflavored (26 servings only), Vanilla



### The #1 sports drink

- Steady energy
- Buffer lactic acid
- Help prevent cramps

SIZE	PRICE
Single Serving	\$1.95
6 or more	\$1.80
16 Servings	\$17.95
32 Servings	\$29.95
80 Servings	\$54.95

Flavors: Lemon-Lime, Mandarin Orange, Melon, Strawberry, Unflavored (32 servings only)



### A potent, legal performance enhancer

- Enhance energy & endurance
- Reduce muscle fatigue
- Increase workload capacity

SIZE	PRICE
90 Capsules	\$48.95
3 or more	\$44.95

## ORDER TODAY 1.800.336.1977 / www.hammernutrition.com

Product	Flavor	Size	Price	Qty.	Amount

### Ordering is easy!

#### Online Quick Order

Select multiple products from one web page by simply choosing flavor and/or size of items you would like to order.

#### Call

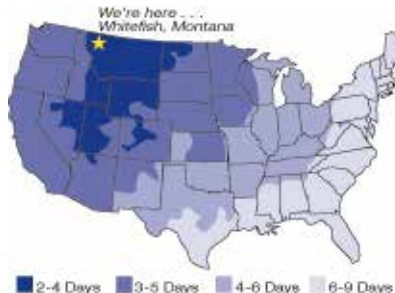
1.800.336.1977 and talk with a Client Advisor.

#### Cruise

www.hammernutrition.com for quick and easy ordering.

#### Shop Local

Check our online Dealer Locator to find one near you.



Subtotal \_\_\_\_\_

Shipping \_\_\_\_\_  
See chart below

TOTAL \_\_\_\_\_

Order Total	Ground FedEx
\$0 to \$39.99	\$4.95
\$40 to \$99.99	\$7.95
\$100+	FREE!

Client # : \_\_\_\_\_

Name : \_\_\_\_\_

Address : \_\_\_\_\_

City, State, Zip : \_\_\_\_\_

Phone : \_\_\_\_\_ Email : \_\_\_\_\_

#### Method of Payment (circle one)

Check / MO • Visa • MC • Discover • AmEx

Card # : \_\_\_\_\_

Exp. : \_\_\_\_\_ Verification # : \_\_\_\_\_

Signature : \_\_\_\_\_



# 2014 PRICE LIST & ORDER FORM

## Endurance Fuels



### RECOVERITE

Single Serving \$3.50 6 @ \$2.95  
 16 Servings \$32.95  
 32 Servings \$56.95

Recoverite Flavors: Chocolate, Orange-Vanilla, Strawberry, Vanilla



### HAMMER GEL

Single Serving \$1.40 12 @ \$1.25  
 26 Servings \$19.95 3 @ \$17.95  
 Hammer Flask \$2.39

Hammer Gel Flavors: Apple-Cinnamon, Banana, Chocolate, Espresso, Montana Huckleberry, Orange, Peanut Butter, Raspberry, Tropical, Unflavored (26 servings only), Vanilla



### HEED

Single Serving \$1.95 6 @ \$1.80  
 16 Servings \$17.95  
 32 Servings \$29.95  
 80 Servings \$54.95

HEED Flavors: Lemon-Lime, Mandarin Orange, Melon, Strawberry, Unflavored (32 servings only)



### HAMMER WHEY

Single Serving \$3.50 6 @ \$2.95  
 24 Servings \$39.95 3 @ \$37.95

Hammer Whey Flavors: Chai (24 servings only), Chocolate, Strawberry, Unflavored (24 servings only), Vanilla



### HAMMER BAR

Hammer Bar \$2.50 12 @ \$2.40

Hammer Bar Flavors: Almond-Raisin, Cashew Coconut, Chocolate Chip, Chocolate Chip, Cranberry, Oatmeal Apple



Sam

**Questions?**  
1.800.336.1977

Endurolytes - 4 Capsule Sample	\$1.05	
Endurolytes - 120 Capsules	\$19.95	3 @ \$17.95
Endurolytes Powder - 150 Servings	\$19.95	3 @ \$17.95
Endurolytes Extreme - 60 Capsules	\$14.95	
Endurolytes Extreme - 120 Capsules	\$24.95	
Endurolytes Fizz - 13 Tablet Tube	\$4.95	3 @ \$4.75
Endurolytes Fizz - 25 Wrapped Singles	\$12.95	4 @ \$10.00

Fizz Flavors: Grape, Grapefruit, Lemon-Lime, Mango

Hammer Whey Recovery Bar \$3.50 12 @ \$3.25

Hammer Whey Recovery Bar Flavor: Peanut Butter-Chocolate

Hammer Vegan Recovery Bar \$2.95 12 @ \$2.75

Hammer Vegan Recovery Bar Flavors: Almond Cacao, Chocolate Peanut

Hammer Soy Protein - Single Serving \$2.95

Hammer Soy Protein - 24 Servings \$31.95 3 @ \$29.95

Hammer Soy Flavor: Vanilla

Hammer Vegan Protein - 26 Servings \$44.95 3 @ \$42.95

Hammer Vegan Protein Flavors: Chocolate, Strawberry, Vanilla

Perpetuem - Single Serving \$3.25 6 @ \$2.95

Perpetuem - 16 Servings \$29.95

Perpetuem - 32 Servings \$49.95

Perpetuem Solids - 6 Tablet Tube \$3.95 3 @ \$3.50

Perpetuem Solids - 90 Tablets \$37.95

Perpetuem Flavors: Caffé Latte, Orange-Vanilla, Strawberry-Vanilla, Unflavored (16 servings only)

Sustained Energy - Single Serving \$3.25 6 @ \$2.95

Sustained Energy - 15 Servings \$32.95

Sustained Energy - 30 Servings \$54.95 3 @ \$51.50

Sustained Energy Flavor: Unflavored

When ordering multiple single-serving sizes of a product, you may mix and match flavors.





# 2014 PRICE LIST & ORDER FORM

## Endurance Supplements



### RACE CAPS SUPREME

90 Capsules \$48.95 3 @ \$44.95



### PREMIUM INSURANCE CAPS

120 Capsules \$19.95

210 Capsules \$34.95



### TISSUE REJUVENATOR

60 Capsules \$17.95

120 Capsules \$29.95 3 @ \$27.50



### MITO CAPS

90 Capsules \$24.95



### PHYTOLEAN

120 Capsules \$34.95 3 @ \$29.95



Anti-Fatigue Caps - 90 Capsules	\$19.95	3 @ \$17.50
AO Booster - 60 Capsules	\$33.95	3 @ \$29.95
Appestat - 90 Capsules	\$27.95	
Boron - 90 Capsules	\$14.95	
Chromemate - 100 Capsules	\$13.95	
Clear Day - 60 Capsules	\$22.95	3 @ \$19.95
Digest Caps - 60 Capsules	\$16.95	
Endurance Amino - 120 Capsules	\$29.95	
Endurance Amino - 240 Capsules	\$54.95	
EndurOmega - 60 Softgels	\$12.95	

EndurOmega - 180 Softgels	\$29.95	
Energy Surge (ATP 100) - 30 Tablets	\$17.95	3 @ \$15.95
Nasol - 30mL / 200 Sprays	\$24.95	
Phytomax - 90 Capsules	\$22.95	3 @ \$19.95
PSA Caps - 60 Capsules	\$24.95	3 @ \$22.95
Race Day Boost - 64 Capsules	\$19.95	
Race Day Boost - 32 Servings	\$22.95	
REM Caps - 60 Capsules	\$19.95	3 @ \$17.95
Super Antioxidant - 60 Capsules	\$33.95	3 @ \$29.95
Xobaline - 30 Tablets	\$9.95	3 @ \$7.95



# 2014 PRICE LIST & ORDER FORM

## Kits MADE IN USA

**Complete Powder Sampler Kit** **\$36.95** Save \$11.30  
 1 packet of each flavor of Recoverite, Sustained Energy, Perpetuem (excluding Unflavored), HEED (excluding Unflavored), Whey (excluding Unflavored and Chai), Soy.

**Junior Powder Sampler Kit** **\$19.95** Save \$4.45  
 1 packet each of Vanilla and Strawberry Recoverite, 1 packet each of Strawberry and Caffè Latte Perpetuem, 1 packet each of Lemon-Lime and Mandarin Orange HEED, 1 packet each of Vanilla and Chocolate Whey.

**Hammer Gel Sampler Kit** **\$9.95** Save \$4.05  
 1 pouch of each flavor, 10 total.

**New Product Sampler Kit** **\$9.95** Save \$4.35  
 1 pouch of Peanut Butter Hammer Gel, 1 packet of Vanilla Recoverite, 1 packet of Strawberry Whey, 1 Chocolate Peanut Vegan Recovery Bar, 1 Almond Cacao Vegan Recovery Bar.

**Long Fueling Starter Kit** **\$84.95** Save \$22.44  
 1 jug of Raspberry Hammer Gel, 8 pouches of Hammer Gel, 3 packets of Sustained Energy, 6 packets of Perpetuem, 4 packets of Recoverite, 1 bottle of Endurolytes, 1 tube of Endurolytes Fizz, 1 Capsule Dispenser, 1 Flask, 1 Water Bottle, 1 Product Usage Manual.

**Short Fueling Starter Kit** **\$69.95** Save \$25.19  
 1 jug of Raspberry Hammer Gel, 9 pouches of Hammer Gel, 8 packets of HEED, 4 packets of Recoverite, 1 bottle of Endurolytes, 1 tube of Endurolytes Fizz, 1 Capsule Dispenser, 1 Flask, 1 Water Bottle, 1 Product Usage Manual.

## Body Care MADE IN USA

Cool Feet 0.1 oz.	\$1.50	Pelle Eccellente 0.3 oz.	\$3.95
Cool Feet 2.7 oz.	\$15.95	Pelle Eccellente 2 oz.	\$19.95
Hammer Balm 0.3 oz.	\$4.95	Pelle Eccellente 4 oz.	\$32.95
Hammer Balm 1.5 oz.	\$21.95	Seat Saver 0.3 oz.	\$2.95
Hammer Balm 4.0 oz.	\$34.95	Seat Saver 2.0 oz.	\$12.95
Hammer Lips 0.15 oz.	\$2.95	Seat Saver 4.0 oz.	\$19.95
Hammer Lips 0.15 oz.	6 @ \$2.75	Soni-Pure 2.0 oz.	\$9.95

*Hammer Lips Flavors: Wildberry, Wintermint*

## 53x11 Coffee

The Big Ring 2 oz.	\$2.95
The Big Ring 12 oz.	\$13.95
The Chain Breaker 12 oz.	\$13.95
The Down Shift 12 oz.	\$13.95
The Early Break 12 oz.	\$13.95

*All 53x11 Coffees are available in ground or whole bean!*



**1-Month Daily Essentials Kit** **\$94.95** Save \$13.90  
 1 Premium Insurance Caps (210), 1 Race Caps Supreme, 1 Mito Caps.

**3-Month Daily Essentials Kit** **\$269.95** Save \$56.60  
 3 Premium Insurance Caps (210), 3 Race Caps Supreme, 3 Mito Caps.

**Race Performance Kit** **\$49.95** Save \$7.90  
 1 Race Day Boost (capsules), 1 Energy Surge, 1 Anti-Fatigue Caps.

**Hammer Bar Kit** **\$7.95** Save \$4.55  
 1 of each flavor of Hammer Bar (Almond Raisin, Cashew Coconut Chocolate Chip, Chocolate Chip, Cranberry, Oatmeal Apple).

**Hammer Recovery Bar Kit** **\$5.95** Save \$3.45  
 1 Almond Cacao Vegan Recovery Bar, 1 Chocolate Peanut Vegan Recovery Bar, 1 Chewy Peanut Butter-Chocolate Whey Recovery Bar.

**Hammer Bar Sampler Kit** **\$13.95** Save \$7.95  
 1 of each flavor of Hammer Bar, 1 of each flavor of Vegan Recovery Bar, 1 Whey Recovery Bar, 8 bars total.

*Note: Kits containing multiples of packets and/or pouches will include various flavors of that product. Please call or see website for details.*

## EMS Units

Globus Premium Fitness	\$499.00
Globus Premium Sport	\$750.00
Globus Premium Sport Plus	\$850.00
Compex Sport Elite	\$849.00
Compex Performance U.S.	\$579.99
Compex Edge	\$399.99

### SPORT ELITE, PERFORMANCE U.S., & EDGE ACCESSORIES

Charger	\$44.99
Battery Pack	\$49.99
Snap Cables (4)	\$59.99
Snap Electrode Pads (4X - 2" x 2")	\$14.95 6 @ \$13.50 12 @ \$12.50
Snap Electrode Pads (2X - 2" x 4")	\$14.95 6 @ \$13.50 12 @ \$12.50
Quick Start Guide for Sport Elite	\$14.99
Quick Start Guide for Performance U.S.	\$14.99
Multimedia CD for Sport Elite	\$14.99
Multimedia CD for Performance U.S.	\$14.99
Belt Clip	\$9.99

### SPORT CLASSIC & FITNESS CLASSIC ACCESSORIES

Charger	\$19.99
Battery Pack	\$39.99
Pin Cables (4)	\$39.99
Snap-On Conversion Cables (4)	\$44.99
Pin Electrode Pads (4X - 2" x 2")	\$9.99 6 @ \$8.95 12 @ \$7.95
Pin Electrode Pads (2X - 2" x 4")	\$9.99 6 @ \$8.95 12 @ \$7.95

### GENERAL ACCESSORIES

Electrode Placement Guide	\$9.99
Spectra Conductivity Gel (8.5 oz.)	\$7.95
Spectra Conductivity Gel (2 oz.)	\$4.95
Drawstring Bag	\$19.99
30-Minute Consultation	\$49.95
60-Minute Consultation	\$79.95
Advanced Consultation	\$60.00/hour

# Get the VIP treatment

Join the Hammer VIP Program today!



Receive a **FREE Hammer Nutrition clothing kit** with your first VIP order!

Select one of our sport-specific kits:

- cycling jersey and shorts
- tri jersey and shorts
- running top and shorts
- swimwear with a swim cap and a large towel

Ask a Client Advisor for more information.



Josh

Levi

Sam

## What is it?

The HAMMER VIP Program offers the ultimate in convenience and VIP treatment with scheduled shipments and discounted pricing.

## How does it work?

Call our 800# to have one of our friendly Client Advisors help you select the correct Hammer Nutrition fuels and supplements to meet your needs and goals. We'll then ship your products every 90 days (free ground shipping!) without you ever having to pick up the phone again.

An advisor will also call or email you approximately ten days before your scheduled ship date to see if you'd like to add anything to your order to take further advantage of free shipping and discounted pricing.

## What do you get?

- 1 - A special team of advisors assigned to your account and special access to our experts.
- 2 - Automatic resupply of products every 90 days.
- 3 - On your first VIP order, we'll send you a clothing kit for FREE. Ask your advisor for details.
- 4 - On your second VIP order, you'll receive a FREE Hammer tee shirt.
- 5 - FREE goodies on every future shipment as well (our choice).
- 6 - Discounted pricing, exclusive offers, and much, much more!
- 7 - FREE ground shipping on all automatic shipments and one fill-in order per quarter.

\*Sorry, international clients are not eligible for these programs; only valid for U.S. residents.

\*\*You are free to cancel your participation in this program at any time, however, some limitations on the free gifts apply. Monthly shipments must be > \$50, quarterly shipments > \$150. VIP program pricing and benefits cannot be combined with ANY other offers, promotions or discounts. See website or ask your Client Advisor for complete details.

**Don't wait any longer, become a **VIP** today!**  
**Call 1.800.336.1977**

Call a Client Advisor to sign up for the Hammer VIP Program and start saving today!

# Get Rewarded

with our Athlete Referral Program

Write your name and client number on the cards, and give them to your endurance athlete friends or acquaintances. When a friend you refer to us places his or her first order and mentions your name or client number, everybody wins! Tell enough friends and you may never have to pay for your product . . . how great is that?

## It's a win-win-win situation!

- They receive a 15% discount on their first order!
- **You get 25% of their order subtotal credited to your account!**
- We get another satisfied client!

**Start earning free product today!**

### A Few Restrictions

Shipping charges are not included in discounts or rewards. • We cannot offer retroactive rewards. Your friend must mention your name or client number at the time of ordering. • The person being referred must not have ordered anything from us before. • Do not refer your spouse or have a friend be the new client and place an order for you. • Not applicable to members of the same household. • Cannot be used with another offer. • We reserve the right to end this program or refuse any individual at any time without notice. • Referral rewards will expire after one year. • Valid referral cards are always available free of charge. • This rewards program does not apply to EMS unit purchases. Visit [www.hammernutrition.com/deals/ems-referral-program/](http://www.hammernutrition.com/deals/ems-referral-program/) for EMS-specific referral program.

*Your friend wants you to save 15% off your first order with us!*

Name \_\_\_\_\_

Client Number \_\_\_\_\_



**Order today!**  
**1.800.336.1977**  
**www.hammernutrition.com**

*Your friend wants you to save 15% off your first order with us!*

Name \_\_\_\_\_

Client Number \_\_\_\_\_



**Order today!**  
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# Phytolean Nutrition Plan

## Nutritional analysis & weight loss

BY BILL MISNER, PhD

In *Endurance News* issue #88, I introduced the Phytolean Nutrition Plan. This nutrition plan, composed of whole plant food calories, is formulated to enhance health and support the attainment of a lean body mass index (BMI). Attaining optimal BMI after off-season weight gain, for either endurance or shorter sprint events, is necessary for best performance.

Phytolean was compounded to inhibit the absorption of complex carbohydrates, increase lipid metabolism, and reduce postprandial blood sugar insulin peaks, resulting in a reduction of adipose (fat) weight. An athlete who consumes Phytolean before eating complex carbohydrates (ideally whole plant, high-fiber foods) is likely to lose fat weight. The Phytolean Nutrition Plan is recommended for 30-90 days while taking Phytolean.

By following this plan, you can decrease fat mass while increasing lean mass ratio. Before Phytolean was marketed, it was tested on several males and females, both non-athletes and athletes, with successful results. One female lost 30 pounds in 30 days by taking Phytolean. Another woman who lost only a few pounds when taking Phytolean capsules alone added the nutritional plan and light exercise to

her strategy and then lost 17 pounds in 30 days.

Here are my responses to several of the questions we received from athletes about following the plan.

**Q: Is it OK to alter the plan by including some high-fat oils, meats, cheeses, and simple sugar foods?**

Athletes who discipline themselves to suffer and sacrifice in training need to commit discipline at the dinner table as well. When many calories of simple sugars and high-fat foods are routinely consumed, weight loss will be limited. People are creatures of habit, craving the calories we habitually consumed during the past 30 to 90 days. Cravings recorded in the hypothalamus regions of the brain drive human appetite on a daily basis. Athletes must make a conscious decision to sacrifice food choices that increase fat mass. For weight loss, the ideal application is 2-3 Phytolean capsules taken 5-10 minutes before eating a diet of whole plant foods, as outlined in EN#88.

**Q: Are there adequate nutrient levels in the whole foods listed in this protocol?**

I have been eating whole plant foods from this exact plan since 2010, and I am convinced that this lifestyle is both health- and performance-enhancing. To answer this question more thoroughly, I analyzed the Phytolean Nutrition Plan by selecting a variety of foods from the plan:

- 12 servings/day vegetables and fruits

- (1/2 cup kale, 1 cup spinach, 1/2 cup carrots, 1/2 cup Brussels sprouts, 1/2 cup broccoli, 1/2 cup red beets, 1/2 cup black beans, 1/2 cup peas, 1/2 cup blueberries, 1 apple, 1 banana, and 1/2 cup tomatoes)

- 5 servings/day grains (2 slices of whole wheat bread and 3 ounces rolled oats cereal)

According to my *First Data Bank Nutritional Analysis* program, this protocol yields 1,798 calories, 62% carbohydrates, 23% fat, 15% protein (69 grams), and 58 grams of dietary fiber. Nutrients that are slightly deficient from this food list include vitamins B2, B3, alpha-tocopherol, and the minerals calcium, zinc, and selenium. Varying the foods you consume from the food list daily will likely complete all nutrient deficits. In addition, many athletes take a multi-vitamin/mineral supplement [such as Premium Insurance Caps]. The Phytolean whole plant food plan provides adequate levels of the macronutrients (carbohydrates, proteins, fats) to support health, performance, and weight-management goals for 30-90 days.

**Q: Does the Phytolean Nutrition Plan contain enough protein and total calories to support training?**

As a weight loss protocol, the Phytolean Nutrition Plan is incompatible with intense performance training that requires nutrient replacement. Long hard training quality and quantity metabolizes lean muscle mass, fat mass, and glycogen stores. Protein replacement increases weight (lean muscle mass) at a rate of nearly double that of fat mass; this will cause the athlete to fail to lose scale-weight post-performance training. Many athletes on the Phytolean Nutrition Plan who attempted to lose weight during hard training and ate to replace their body's nutrient ended up gaining weight, not losing it.

If weight loss is your goal, you must eat only whole plant foods and take 2-3 Phytolean capsules before meals daily. Whole plant foods increase metabolism rate, according to T. Colin Campbell's China Study. Phytolean inhibits the absorption of dietary complex carbohydrates and deposit into fat mass stores. Intense performance training that employs a gram-per-gram nutrient replacement has been observed to inhibit fat mass loss. The Phytolean Nutrition 90-day Plan is best applied in pre-/post-season. **HN**

# In the archives: *Flashback* to 1993

## Are you suffering from protein deficiency?

BY BRIAN FRANK

**W**ith all of the emphasis on carbohydrates concerning recommended diets for endurance athletes, the answer to the above question could be “yes!” Obviously, it is very important to eat plenty of carbs, but not at the expense of adequate protein intake. Protein deficiencies are too common among endurance athletes, and it can have a devastating effect on performance and health. Symptoms of protein deficiency include slow muscular recovery after workouts and less than normal strength. Fatigue, lethargy, anemia, and other more severe conditions also can develop.

In this article, I'll examine a couple of common myths about protein and discuss the dietary protein levels you should maintain as an endurance athlete. As you read, remember that protein is necessary for all aspects of muscle tissue repair and building.

### Myth #1 – “Only bodybuilders need protein.”

The truth is, the protein requirements for bodybuilders and endurance athletes are very similar. Only the way in which the body uses the protein is different. Bodybuilders need protein to build more muscle tissue. Endurance athletes need protein to repair existing muscle tissue that is undergoing constant breakdown from day to day training.

### Myth #2 – “Eating protein will cause unwanted weight gain and muscle growth.”

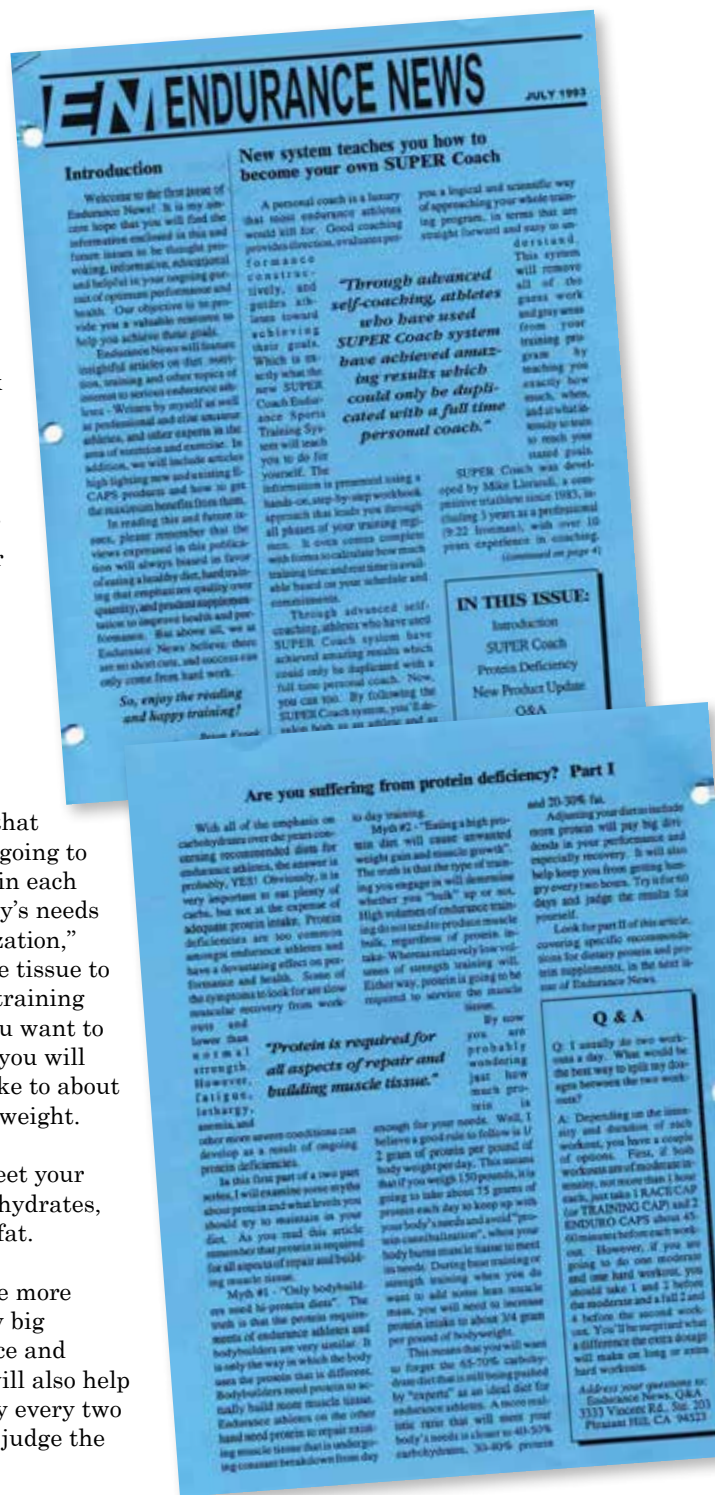
The truth is that the type of

training you engage in will determine whether you “bulk up” or not. High volumes of endurance training do not tend to produce muscle bulk, regardless of protein intake, but relatively low volumes of strength training will. Either way, protein is required.

By now, you probably are wondering just how much protein is enough for your needs. Well, I believe a good rule to follow is 1/2 gram of protein per pound of body weight per day. This means that if you weigh 150 pounds, it's going to take about 75 grams of protein each day to keep up with your body's needs and avoid protein “cannibalization,” when your body burns muscle tissue to meet its needs. During base training or strength training when you want to add some lean muscle mass, you will need to increase protein intake to about 3/4 grams per pound of body weight.

A realistic dietary ratio to meet your body's needs is 40-60% carbohydrates, 10-15% protein, and 25-35% fat.

Adjusting your diet to include more protein, if necessary, will pay big dividends in your performance and especially your recovery. It will also help keep you from getting hungry every two hours. Try it for 60 days and judge the results for yourself. **HN**



# Go wheat-free and thrive

BY VICKI HACKMAN

**W**heat: for many Americans, it's what's for breakfast, lunch, dinner, and the snacks in-between. As an athlete, you probably gave up doughnuts long ago, but wheat-based pasta, cereal, and bread may still be on your menu. Regardless of USDA recommendations to eat lots of whole grains, wheat (whether refined, whole, or cracked) should not be a big chunk of your daily diet. Mounting research shows that wheat can wreak havoc on your body—sapping energy, causing joint pain, impairing your nervous system, and ultimately hurting race-day performance.

Here are six reasons why avoiding wheat could be one of the most beneficial changes you make to your daily diet.

1. **Cut the gluten, ease the pain.** – Modern wheat contains more of the protein complex gluten than the wheat our ancestors ate. The trouble is, our bodies don't handle gluten very well; in fact, many people react very badly to it. The number of people suffering from celiac disease (an immune reaction to gluten that can severely damage the gastrointestinal system, and harm the brain, skin, and other organs) is rising dramatically. Some medical experts believe undiagnosed gluten sensitivity may be to blame for

many cases of migraine headaches, joint pain, depression, and a host of other problems—all of which can impact athletic performance.

2. **Just say “no” to damaging acid.** – Wheat has been estimated to account for 38% of the average American's dietary acid load. Combine that with a diet high in acid-forming meat and dairy products and you have a recipe for “acidosis,” the term for a body fluid pH that's below the normal range of 7.35-7.45. (See the article “Acidosis: a term you should know” in the last issue of *Endurance News*.) As we explained last issue, athletes are even more prone to this performance-depleting condition, which can cause depression of the central nervous system, fatigue, bone and joint damage, and more.
3. **Slow aging.** – Nobody wants to age faster, but that's exactly what happens when you routinely subject your body to wheat products. A carbohydrate unique to wheat, amylopectin A, causes blood sugar levels to skyrocket. Sustained high blood sugar levels in turn trigger by-products that accelerate aging. The effects can include skin damage, cataracts, kidney disease, arthritis, and hardening of the arteries. To maintain athletic form and function

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for as long as possible, skip the wheat.

4. **Take care of your heart.** – The insulin-spiking sugars in wheat also trigger the formation of small LDL particles—the ones that cause plaque to build up in arteries, leading eventually to heart attack and stroke. Help keep your body's most important muscle going strong by eliminating wheat from your diet.
5. **Keep firing on all cylinders.** – Wheat products take a toll on your body's operations center, your brain and nervous system, too. An immune system response to gluten can cause antibodies to bind to brain cells in the cerebellum, resulting in progressive loss of balance and coordination, muscle twitching, and impaired memory. A similar thing, called peripheral neuropathy, can happen with the nerves outside of your brain and spinal cord causing loss of sensation, poor muscle control, and even organ damage. When peripheral neuropathy is gluten induced, some of the damage may be reversed by removing wheat and other glutes from the diet. According to William Davis, MD, in his book *Wheat*

*Belly*, "In one study of 35 gluten-sensitive patients with peripheral neuropathy who were positive for the antigliadin antibody, the 25 participants on a wheat- and gluten-free diet improved over one year, while the 10 control participants who did not remove wheat and gluten deteriorated."

6. **Clear out wheat, clear up skin.** – Sometimes wheat damage shows itself externally, affecting your body's largest organ, the skin. Wheat gluten-related skin conditions include acne (triggered by increased blood sugar and insulin levels), many kinds of ulcers, psoriasis and other rashes, and some cases of hair loss. If you're plagued with any of these annoying and sometimes painful conditions and haven't been able to determine the cause, try eliminating wheat. If your skin condition improves, you can be sure the rest of your body is benefiting too.

These are just some of the ways wheat can wreck your body, health, and athletic performance. Other conditions that can be caused or inflamed by wheat include a range of digestive problems, osteoporosis, and diabetes. With so much at stake, it simply makes sense not to eat the wheaties. **HN**

## Rely on Hammer Nutrition for gluten-free products

All Hammer Nutrition products are gluten-free, with the (possible) exception of Super Antioxidant. Super Antioxidant contains an enzyme that is processed before gluten forms. But if harvest doesn't occur when it should, a very miniscule amount of gluten could be present. To date, we have never received any report of this or any Hammer product causing a gluten-sensitivity reaction. For more information see <http://www.hammernutrition.com/knowledge/which-hammer-products-are-strong-gluten-free-strong.12510.html>.

Also note that although our Endurolytes Fizz contains wheat germ oil, it is gluten-free. The fractional amount of gluten (less than 5 ppm) in wheat germ oil is far less than the FDA's threshold of 20+ ppm defined as a gluten ingredient, according to their August 2013 labeling rules. And wheat germ oil is a far healthier alternative to the polyethylene glycol that other companies use in the manufacturing process of their electrolytes products.



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- Elizabeth O.



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# Why prerace sodium loading isn't the way to go

## The dangers of extremely high sodium intake

BY VANESSA GAILEY

**J**ust as you strive to balance training, diet, and the obligations of day-to-day life, your body constantly works to maintain its balance—and one of the most important aspects of that is blood sodium level.

When you consume too much sodium, your body's natural defense mechanisms kick in. Responding to the possibility of hypernatremia (an abnormally high concentration of sodium in the blood), your body releases the antidiuretic hormone vasopressin to limit water loss through urine and stimulate thirst to increase water intake. Through these and several other mechanisms, your body strives to find a sodium balance.

Bill Misner, Ph.D., explains why it's important to be cautious about how much sodium you ingest:

“Severe symptoms are usually found with acute and significant increases in sodium plasma concentration (hypernatremia). One possible cause is consuming a large volume of a concentrated sodium bicarbonate solution, a strategy sometimes adopted by athletes in preparation for an upcoming race [See p.58.] Ingesting seawater can also cause hypernatremia, because seawater is hypertonic, having a greater concentration of salt than the cells in your body.

“There are several recorded cases of forced ingestion of concentrated salt solution leading to death. Symptoms of hypernatremia can be subtle and include lethargy, weakness, irritability, neuromuscular excitability, hypervolemia, and edema. [1] If sodium levels increase too high, seizures and coma may result. When the dangers from loading sodium in anticipation of losing sodium are examined, the dangers outweigh the benefits.”

### Potential dangers of high sodium

The symptoms and possible consequences of high sodium intake include:

- **Increased blood volume and pressure.** Studies show that reducing your sodium intake through diet can lower your

- continued on page 57

*“Race Caps Supreme and Anti-Fatigue Caps prior to the race put me in animal mode.” - Brian B.*



- continued from page 56

blood pressure by as much as 25%, significantly decreasing your risk for cardiovascular disease.

- **Enlarged and weakened heart.** Excessive salt intake is a direct cause of left ventricular hypertrophy, a strong risk factor for heart failure and other cardiovascular diseases independent of blood pressure.
- **Loss of bone density, and increased risk for brittle bones and osteoporosis** due to poor absorption and use of calcium.
- **Decreased kidney function.** Excess calcium and sodium not used by your body will concentrate in your urine, increasing the filtration load of your kidneys. Evidence shows that people who regularly eat salty foods are more likely to develop kidney stones.
- **Swollen feet, ankles, hands, etc.,** due to fluid becoming trapped in tissues.
- **Increased risk for heartburn, acid reflux, and gastric ulcers and cancers** due to poor regulation of blood and body fluid pH level.
- **Impaired electrolyte balance and hormone function,** inducing dizziness, muscle cramps, shakiness, depression, anxiety, disorientation, or nausea.

Due to the risks of temporary hypernatremia and other serious health conditions, prerace loading with high amounts of sodium in anticipation of sodium loss is not advised. **HN**

#### REFERENCES

1. Y. Ofran, D. Lavi, D. Opher, T.A. Weiss, and E. Elinav, Fatal voluntary salt intake resulting in the highest ever documented sodium plasma level in adults (255 mmol L<sup>-1</sup>): a disorder linked to female gender and psychiatric disorders. *Journal of Internal Medicine* 256: 525–528 (2004)

## Excess sodium: a bad idea in any form

This article is one of three in this issue of *Endurance News* that discusses sodium. (Also see pages 38 and 58.) We've given the topic a lot of attention because while this mineral is vital to your athletic performance and health, managing sodium levels improperly can have disastrous consequences.

Yet despite the real hazards of high sodium intake, two newer endurance supplements/fuels on the market contain *extraordinarily* high amounts of sodium. Maybe you've seen them advertised. You're supposed to consume ("preload") them prior to hot-weather and/or ultra-distance exercise with the purported benefit of increasing your body's stores of fluid (a.k.a. "increased plasma volume") to help prevent dehydration. Although the concept of hydrating by ingesting massive amounts of sodium might sound intriguing, we adamantly do not recommend it! The health risks of high sodium intake far outweigh any potential benefits.

As Dr. Bill Misner writes, "Taking too much sodium makes for edema, bloating, and other side effects, some of which may be chronically harmful to health. Yes, sodium overdose will temporarily increase serum blood volume and extracellular space volume until body osmosis pressures are corrected and returned to balance. However, the question remains—at what price to health outcome over the long haul?"

**Suggested additional reading:** "Medical Dangers of Too Much Sodium" at <http://healthyeating.sfgate.com/medical-dangers-much-sodium-3662.html>.



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# Sodium bicarbonate or sodium tribasic phosphate?

For buffering acid and enhancing endurance, Race Day Boost's STP comes out ahead.



BY STEVE BORN

**A**thletes have tried loading with sodium bicarbonate (baking soda) for decades, hoping to improve their performance by neutralizing the acids that build up in blood and muscles. Research, however, has shown mixed results with this compound, with some studies showing a slight improvement in performance of 1-2%, while others show no ergogenic effect at all.

The research that has shown sodium bicarbonate to have a beneficial effect has been limited to high intensity, anaerobic type events lasting one to seven minutes, so its relevance for endurance athletes is extremely limited, if at all merited. A bigger downside is the massive amount necessary to achieve the hoped for 1-2% improvement. Most baking soda loading dose protocols have recommended a single dose of 300 milligrams per kilogram of body weight prior to a short-duration, high-intensity effort. For a 170-lb athlete (about 77 kg), that's more than 23,000 mg (23 grams) of baking soda—an amount that would, at the very least, cause severe gastrointestinal distress.

## Sodium tribasic phosphate, a better choice for endurance

A better acid-buffering agent for endurance athletes is sodium tribasic phosphate, as you'll read more about in the "Product Spotlight" article on

Race Day Boost, page 34. Additionally, unlike sodium bicarbonate's limited-at-best applications and benefits, sodium tribasic phosphate improves all of the body's three energy producing pathways/systems—the ATP-CP system, the lactic acid system, and the oxygen/aerobic system—making it a superior endurance-enhancing aid.

More importantly, Race Day Boost won't inundate your body with nearly as much sodium as sodium bicarbonate would. First, on a gram-per-gram basis, sodium bicarbonate contains more elemental sodium (27.4%) than sodium tribasic phosphate (19.3%). Additionally, with the effective sodium bicarbonate loading dose at 300mg/kg of body weight, taken in a single dose 60-90 minutes before exercise (yikes!), that adds up to a LOT of sodium. For a 170-pound athlete, the recommended 23,000 mg of baking soda delivers a massive 6,300 mg of sodium, all in a single dose!

In contrast, the maximum loading dose recommendation for Race Day Boost is 1,000 mg of sodium phosphate taken four times daily for four days. That totals 16,000 mg of sodium phosphate, which yields 3,088 mg of elemental sodium—obviously a much more reasonable amount, especially when spread out over the course of four days.

For enhancing endurance while limiting sodium intake during a loading dose, the clear winner is Race Day Boost's sodium tribasic phosphate. **HN**

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Photo: Myka Herasmeier

**HAMMER**  
NUTRITION

# Steve's Faves: Recoverite

BY STEVE BORN

I've long been a big believer in the critical importance of post-workout refueling—it's as important as anything you do in the workout itself. But before we introduced Recoverite (about a decade ago), I had trouble with consistency: I found other recovery drinks either inconvenient to use, hard to digest, or sickeningly sweet or chemical-like in taste. Recoverite, which has a mild and pleasant flavor, solved all that.

Once I finished my workout, all I had to do was toss a couple of scoops of Recoverite into my bottle, add a few ounces of cold water, shake, and drink. Done! In less than a minute or two, the recovery process had begun and I had given my body a great head start on the next day's workout. With Recoverite, I was giving my body exactly what it needed—complex carbohydrates to replenish depleted glycogen, branched chain amino acids to rebuild and strengthen my muscles, and a generous dose of glutamine, a remarkable amino acid for immune system support.

## Recoverite 2.0

So why now, after years of using Recoverite and enjoying its benefits, is it my current favorite product?

Two reasons, mainly:

1. Encouraged by the amount of weight I've lost and kept off, I've been training more hours with greater consistency than I have in years.
2. Although I still consider myself a cyclist first and foremost, I've become more involved in other sports, namely Nordic skiing and, believe it or not, running. I've done some long distance ski races this year (including a memorably

difficult 50K one), and have successfully completed a couple of challenging 25K-or-longer trail runs.

My increased training volume and involvement in new sports—especially running, a sport that's tougher on my body (which is built more for something like rugby)—have made me even more acutely aware of the importance of recovery. Plus, the older I get, the more I realize I need all the help I can get to recover as thoroughly as possible between workouts.

Recoverite has been key in helping me to do just that. Besides allowing me to increase my training volume, it plays a big role in keeping my immune system strong. And while I won't say that Recoverite takes away all of my post-workout aches and pains, I've definitely noticed that the more consistently I use it, the less muscular soreness I experience. That's a real plus, especially now that I'm engaging a wider range of muscle groups than just those involved in cycling.

So even though I've been a big-time believer in Recoverite for many years, I'm now pushing my body more than I have in a long time, and that's given me an even greater appreciation for the effectiveness of this product. Recoverite tastes great, it's so easy to use, and its high-quality formula just flat-out works.

I genuinely believe that whether you're a hardcore competitive athlete, or, like me, working out to stay in shape (and throwing in an occasional race for fun), Recoverite should be a regular part of your exercise regimen. Use Recoverite consistently and I have no doubt you will experience a noticeable improvement in the quality of your workouts and races.

HN



## FAST FACTS

Hammer Nutrition's state-of-the-art recovery drink supplies everything your body needs:

- Just the right amount of complex carbohydrates to replenish depleted glycogen stores
- High amounts of amino acids—especially branched chain amino acids—from whey protein isolate, to rebuild and strengthen muscles
- A generous dose of glutamine, a remarkable amino acid for immune system support

**Dosage:** Mix 2 scoops with 4-8 ounces cold water. Drink immediately after workout or event. Consume another serving 60 minutes later if a solid-food meal is not planned.

## FLAVOR NAME CHANGE

Please note we've changed the name of our Citrus Recoverite to Orange-Vanilla to more accurately describe the flavor. Its flavor and formula remain the same.

# OUR ATHLETES SAY IT BEST



Wendy Skean enjoys Recoverite immediately after 24 Hours in the Old Pueblo where she placed 3rd in open women's single speed. ***"I don't think I could have finished the race without Hammer products."*** - Wendy S.

***"I've used Recoverite for years. It is a key ingredient in my recovery and training, and provides excellent benefits for its value."*** - Steve G

***"I've been using Strawberry Recoverite after every workout for many years. It's my best workout friend and I refer to it as 'Recover Perfect.'"*** - Lance B.

***"This is the best recovery drink I've ever used. I recover much faster and am not as sore after a long run or ride. Thank you Hammer Nutrition!"*** - Sharon W.

***"For me, as an older athlete, recovery after training is key. I use Recoverite after ever workout, and I'm confident it helps me stay healthy and injury free."*** - Kris K.

***"I began using Recoverite a little less than a year ago. I have definitely noticed a difference, in terms of the way my legs feel a day later. They're less sore, and they don't feel like they're made of concrete blocks."*** - Alan S.

***"Recoverite has been my foundation for successful racing and training. It's the first thing I pack in my race bag for post-swim workouts, tempo runs, and rides. I like to call it my miracle recovery drink; it's that great!"*** - Suzanne B.

# MICHAEL WHITE'S SPRINT TRI RECIPE

## PRERACE BREAKFAST 3 HOURS BEFORE:

2 scoops Sustained Energy

## 15 MINUTES PRIOR TO START:

Hammer Gel

## ON THE BIKE AND RUN LEGS:

Endurolytes hourly

HEED in water bottle throughout



Michael crosses the finish line at 3D's Big Fish Sprint Triathlon with his sons.  
Photo : Sheri White

# RESULTS

2nd place AG and 6th overall at 3D's Big Fish Sprint Triathlon

***"I was fortunate enough to place 6th overall but the best part was crossing the finish line with my boys, Matt (8) and Jacob (6). Thanks so much to Hammer Nutrition for the great products and service."*** - Michael White

# POUR IT ON

Do yourself a favor: enjoy premium handcrafted coffee and save thousands of dollars a year!

BY VICKI HACKMAN

**P**our-overs—the trendy term for a very traditional coffee brewing method—are coming to a coffee shop near you, if they haven't already. At specialty shops in San Francisco, Chicago, and New York City, customers can be seen standing in line for 15 minutes to receive a barista-prepared pour-over at up to \$7 per cup.

Why the fuss? Pour-over coffee, often described as “handcrafted,” is simply drip coffee made one cup at a time by hand. No coffee machine required—or desired. The technique involves slowly pouring hot water over freshly ground coffee to bring out the coffee's true essence. Aficionados say the superior flavor makes the price well worth paying. But there is a less expensive option: make your own perfect pour-over and save at least \$1,400 a year! Here's how.

### Pour yourself the perfect cup

It all starts with the beans. The reason pour-overs are catching on is that coffee drinkers are acquiring a taste for excellence—beans that have been organically grown, carefully selected, and micro-roasted to order, ensuring maximum freshness and flavor.

For a do-it-yourself pour-over, start with the 53x11 Coffee of your choice. Whether you grind your 53x11 Coffee beans yourself or buy 53x11 pre-ground, the quality and freshness are guaranteed.

53x11 Coffee is roasted to our exact specs, packaged for your order, and immediately shipped to your door. You'll also need: a cup or mug; kettle (ideally with a long spout for slow, controlled pouring); a single-serve drip cone; and coffee filters. Tip: join the 53x11 Coffee of the Month Club, and get a FREE “Perfect Cup of Coffee Kit”—mug, Melitta Single Cup Coffee Brewer, and 40-count box of unbleached #2 filters. (See the 53x11 Coffee of the Month Club on the Hammer website.)

To make your pour-over:

1. **Heat twice as much water as your cup will hold (e.g., 24 ounces if your cup holds 12 ounces).** Use only pure, fresh water. If using whole beans, grind them to the coarseness of sea salt, as the water heats.
2. **Fit the single-cup cone over your cup, then add a filter.** When the water comes to a boil, slowly pour about half of it through the filter into your cup. This will pre-moisten the filter and heat your cup. Wait about one minute.
3. **Pour out the water from the cup; replace the cone, then add the ground coffee to the filter.** For a bracing brew, start with 2 rounded tablespoons of ground coffee for a 6-ounce cup.
4. **Slowly pour 2-3 tablespoons of the hot water over the center of the grounds.** This will cause the coffee to expand, or “bloom.” Wait

30-45 seconds, and then very slowly pour the remaining water into the grounds. This should take several minutes altogether. Remove the cone and grounds, and enjoy pure coffee flavor at its best!

### The rewards

By developing your inner barista, you'll experience the satisfaction of making your own perfect coffee—and save more than a few bucks in the process. Consider: if you bought two \$2.50 cups (that's on the low end of the price range) of pour-over coffee a day at a specialty coffee shop, you'd spend about \$1,825 a year. OR, brew your own 53x11 single-serve coffee for about 58 cents per 6-oz. cup. (If you prefer your coffee less stout, you'll save even more of course.) Drink two cups per day for just \$425 a year—a savings of more than \$1,400 per year versus coffee shop pour-overs! Pouring your own 53x11 Coffee is a bold move that will yield rich rewards. **HN**



# Good coffee.

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**Join the Coffee of the Month Club and get monthly shipments delivered automatically!**

- Select how many bags you would like to receive.
- Receive a FREE "Perfect Cup of Coffee" travel kit, valued at \$14.85 or home kit, valued at \$20.85.
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# Beyond the extra mile

BY STEVE BORN

**N**ot too long ago, Client Advisor Levi Hoch and I received the following email:

*Hi guys,*

*Thought you might be interested to know that the 400-member road bike club that I belong to, Blackhawk Bicycle and Ski Club, awarded me the title 2013 Cycling Athlete of the Year at its recent annual kickoff banquet. Haha! Pretty cool, and not too bad for a 60-year old that some riding friends call a number of other names.*

*Thanks again to you, Levi, and you, Steve, for all the help getting my program figured out last year. Hammer products and fueling philosophy really work for me, as does using the Compex EMS before and after riding.*

*10,300 miles and 30 century days, 650,000 feet of climbing, 12 invitationals and fondos . . . a lot of aches and pains early in this season. Even with the steel in my shoulder from the crash sometimes acting up, a torn rotator cuff (an older MTB injury), sore old knees, a strained hip flexor, and sore Achilles at times, I totally love it! I have a full bucket list this season and can't wait to retire so I can ride and compete even more in the years ahead.*

*Best Regards,  
Mike McDonald*

Needless to say, Mike's letter made our day. Congratulations Mike on your well-earned award and title. That's really awesome and we can't think of a more deserving winner!

Mike's been a Hammer Nutrition client since 2012. Over the course of multiple correspondences, both Levi and I have had the pleasure of helping him dial in his supplement and fueling program. Levi has been instrumental in providing Mike with expert tips on using the Compex for maximum benefits. Along with Mike's hard work, it sure looks like it's paid off!

After reading about Mike's mileage and climbing this past season, we weren't too surprised to hear that he has been dealing with a little early season soreness. What neither Levi nor I knew, however, was that at least a portion of Mike's current aches is courtesy of an old injury. Naturally, Levi and I jumped at the chance to help out once again—I got Mike back on a daily regimen of Tissue Rejuvenator (4 capsules twice daily to start), and recommended regular use of Hammer Balm on all the sore areas. Levi also let Mike know that the Massage program on his Compex unit would "help reduce aches and pains on any of the injuries you referenced," increasing blood flow, reducing inflammation, and helping to accelerate recovery.

This is but one example of how we—not just Levi and me, but everyone at Hammer Nutrition—strive to take care of our clients like no other company. Superior products, unbeatable customer service, expert advice. Since 1987, these have been the principles that have defined Hammer Nutrition, and they're what set us apart from every other company. **HN**







Here at Hammer Nutrition, we pride ourselves on providing the best possible customer service around. We offer products that work, the knowledge to back them up, and most importantly, a friendly and knowledgeable staff ready and available to help you!

I really enjoyed talking to Sam today. I appreciate his kindness whenever I call. **The extensive knowledge that he has about the products and the time he takes helping us are part of why we keep ordering.** He gave me some really great tips from Steve. I am going to print it out and put it up on the refrigerator. You are the BEST!  
- Carla W.

**“I was impressed by the level of customer service I received when calling in to order Hammer Nutrition products this morning.**

*It could not have been easier or more efficient. I spoke to Josh and he knew the product, was incredibly helpful, and very pleasant. Always a pleasure when I call into Hammer.” - Jenna S.*

“Hammer Nutrition’s philosophy about nutrition **coupled with the great customer service** is definitely something that needs to be shared.” - John F.

**“Thanks for providing me with awesome service every time I do business with Hammer!”** - David S.



# Hammer Vegan Protein's “phenomenal five”

BY STEVE BORN

**F**ive against one is rarely a fair fight, even when the contenders are vegan-friendly proteins. Although hemp protein has garnered some recent attention and a fair number of fans, a closer look shows that it is no match for Hammer Vegan Protein, a combination of five high-quality, complementary protein sources.

## Superior protein quantity and quality

Hemp protein does have several good qualities. It's one of the few “complete” plant-based proteins (with all nine essential amino acids); it contains essential fatty acids—omega 3, 6, and 9; and it's high in fiber. But hemp protein's high volume of fat and fiber comes at the expense of its protein content, which is roughly 50% or less.

Hammer Vegan Protein is also a good source of essential fatty acids, but its levels are not so high that they dilute its protein content. What's more, none of the five protein sources in Hammer Vegan Protein contain significant amounts of fiber. **On a gram for gram basis, Hammer Vegan Protein provides more protein—without large quantities of fiber and fat—than hemp does.**

Let's also look at protein quality. As with other plant-based proteins, the Biological Value (BV, a measure of how well the body can absorb and utilize a protein) of hemp protein is fairly low in comparison to animal proteins. A precise BV rating for hemp protein is difficult to find, but many sources suggest its rating is less than 70. Another measurement of protein quality/efficacy is the Protein Digestibility Corrected Amino Acid Score (PDCAAS). According to this method, an ideal protein (rated at 1.0) meets all of the essential amino acid requirements of

humans. Three protein sources—whey, soy, and egg—rate a 1.0 PDCAAS, while hemp is less than half of that with a rating of 0.46. Despite containing all nine essential amino acids, the relatively low amounts of some of them reduce hemp protein's overall PDCAAS profile and rating.

## Dynamic duo: organic pea and organic brown rice proteins

Hammer Vegan Protein packs greater amino acid power, because it combines five outstanding vegan-friendly protein sources: organic pea protein, organic brown rice protein, organic spirulina, chlorella, and alfalfa. Organic pea protein and organic brown rice protein are the team's star players. **In combination, organic pea protein and organic brown rice protein form a complete protein source, containing excellent amounts of all of the essential amino acids and nonessential amino acids:**

- Both organic pea protein and organic brown rice protein have a higher PDCAAS than hemp, with ratings of 0.73 and 0.47, respectively.
- Organic brown rice protein has the highest BV of any vegetable protein source, with a rating of 82.
- Organic pea protein contains an excellent amino acid profile, and is one of the richest plant-based sources of branched chain amino acids (BCAAs—including the important l-leucine, l-isoleucine, and l-valine). Pea protein is also high in the essential amino acids lysine, arginine, and glutamine.
- Pea protein assists in lowering levels of grehlin, an appetite-stimulating peptide. Consuming pea protein increases the potential for feeling satiated, thus helping to prevent overeating.
- Organic brown rice protein is arguably the most hypoallergenic protein (especially important for anyone who suffers from chronic

food allergies).

- Both of these forms of protein are easily digestible.

## The supporting players

Besides organic pea and organic brown rice proteins, Hammer Vegan Protein contains three other potent amino acid sources:

**Organic Spirulina**, microscopic single-celled algae, is a complete protein source (BV estimated at 65) and has the highest concentration of protein by weight of any food. Considered a superfood, spirulina is vitamin- and mineral-dense—it has more vitamin B12 by weight than liver!—and is rich in enzymes and antioxidants. Spirulina is also considered a blood-building nutrient, and is believed to help maintain digestive system health by serving as a food/fuel source for beneficial intestinal flora.

**Chlorella**, another single-celled algae, is a complete protein (BV estimated at 70) loaded with chlorophyll and essential fatty acids. With a complete B vitamin profile, it's perhaps the most vitamin- and mineral-dense “green food” available. Chlorella also contains naturally occurring RNA and DNA for assisting in cellular growth and repair, and is considered an “eye health” nutrient, courtesy of its beta-carotene and lutein. Chlorella also has gained a reputation as an excellent detoxifying agent; it's purported to have the ability to bind to heavy metals and other toxic substances in the bowels.

**Alfalfa** is an excellent source of amino acids; with a BV of approximately 75.5, it's one of the higher biologically available plant-based proteins. Alfalfa is an ideal food source of many vitamins and minerals including vitamin K, suggested to be highly beneficial for arterial health. Research suggests

- continued on page 67

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that vitamin K directs calcium to the bone, and keeps it there and out of the linings of arteries, thus aiding in the prevention of arterial calcification and arteriosclerosis. Alfalfa is also considered to be a helpful nutrient for lowering cholesterol levels.

### The bottom line

If you're looking for the finest dairy- and soy-free protein available, don't rely on just one source like hemp. Instead, let the "phenomenal five" that make

up Hammer Vegan Protein help you fulfill your protein needs completely, deliciously, and economically.

Sweetened only with natural flavors and a touch of organic stevia extract (never any refined sugars or artificial ingredients), all three flavors of Hammer Vegan Protein—chocolate, strawberry, and vanilla—are satisfyingly delicious. Packed with 20 grams of protein per scoop, and bolstered with a plethora of enzymes to maximize digestion, Hammer Vegan Protein is the low-carb, low-sodium way to fulfill your daily protein needs! **HN**

# Hemp **VS.** Hammer Vegan Protein

## The essential amino acids "showdown"

When it comes to essential amino acids—especially the vitally important branched chain amino acids (BCAAs)—there's no comparison:

### Popular Hemp Protein Brand (per 20 grams)

Histidine – 720 mg  
Isoleucine – 720 mg  
Leucine – 1008 mg  
Lysine – 520 mg  
Methionine – 180 mg  
Phenylalanine – 720 mg  
Threonine – 880 mg  
Tryptophan – 160 mg  
Valine – 880 mg

### Hammer Vegan Protein (per 20 grams)

Histidine – 487 mg  
Isoleucine – 1028 mg  
Leucine – 1707 mg  
Lysine – 1517 mg  
Methionine – 307 mg  
Phenylalanine – 1039 mg  
Threonine – 440 mg  
Tryptophan – 233 mg  
Valine – 1087 mg

Hammer Vegan Protein gives your body more of the essential amino acids it needs!

**Hammer Vegan Protein is an excellent value:**

for less than \$1.75 a serving, this potent five-protein blend provides a full 20 grams of protein.

**Buy three or more containers and save even more!**



**Just \$1.65 per serving!**

# "Protein shakes just got a whole lot better!"

- AJ Kennedy

- GMO-free
- Gluten-free
- Dairy-free
- Soy-free



MSRP  
\$44.95 - 26 Servings  
\$42.95 - 3 or more\*


Flavors: Strawberry, Chocolate, Vanilla  
\*Mix and match flavors



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Anthony Parsells, 200 miles into a 400 mile race and feeling strong!  
Photo : Parsells crew



# Geared up for the challenge

## Hard training and tested nutrition work together for the win

BY ANTHONY PARSELLS, Hammer Nutrition sponsored athlete

***“Thanks to Hammer, I was able to win top overall male standard bike and set a new course record at the Florida RAAM Challenge. Fuels of choice were Perpetuem, Huckleberry Hammer Gel, and Anti-Fatigue Caps. In May I’ll attempt a new UMCA record for the state of Florida, riding from the Georgia-Florida border to Key West with a goal time of under 34 hours. My fuel will undoubtedly be Hammer, the only thing I trust.”***  
- Anthony

**M**y goals for the 2013 Florida Race Across America (RAAM) Challenge 400 were quite simple: qualify for RAAM again and finish in less than 24 hours. Placing in the top three would be a bonus.

My training and earlier races in the year gave me the confidence that I could reach my goals. Despite miserable weather at my first RAAM qualifier (Bike Sebring 24 Hours in February), I managed 409 miles, which put me 4th overall and 1st AG. During the summer I did a series of mile-building rides and brevets with several of them over 300 miles. In August I pre-rode the RAAM course as a spool ride with my father pulling SAG duties. Then, in October, I rode a 1000K brevet, hoping to finish in less than 48 hours. I successfully finished the course in 47 hours with only one hour of sleep and no crew.

### From Daytona and back

By the Florida RAAM Challenge in November, I felt my goals were realistic and attainable. The west-bound leg went well. I passed a couple of riders, exchanged positions for several miles, then ultimately pulled away. When the rollers came I stayed in my comfort zone and made it to Pine Island, the turnaround point where I took a break. As I was topping off with Perpetuem, my crew chief Alex stripped my chain and cassette and re-lubed everything. After about 20 minutes I rolled out.

As the sun set, we reverted back to direct follow, which cost me some time. My strength is not speed, but the ability to take short or no stops. To keep stops to a minimum, I keep my pockets packed and bottles filled.

My race nutrition was simple and well tested: I used 1.5 scoops of Perpetuem mixed in a 6-hour bottle, one Anti-Fatigue Cap per hour, and Hammer Gels and Endurolytes as needed. (I’m 143 pounds and not a heavy sweater.) This recipe works great for me. On long rides of more than 200 miles, I also eat Hammer Whey Recovery Bars for something to chew on. And if I need a little kick on those late night rides, I add a packet or two of instant coffee to a mix of Hammer Chocolate Whey Protein for a nice mocha-flavored drink.

Once we got close to the 300-mile mark, I knew I would finish within my 24-hour goal, and my position would be safe as long as I didn’t let anyone pass me. I relaxed a bit, yet I had no idea where I was on the leaderboard. When I got into New Smyrna, I picked up my speed, then pulled into the finish with a time of 22 hours 36 minutes. I learned I was the 1st male and 1st standard bike, coming in second only to Jacquie Schlitter on her recumbent rocket. Later I found out I had also set a new course record. 2013 was a great year for my cycling, and I expect 2014 to be even bigger. **HN**



Photo : Denise McKinney

# CASEY MCKINNEY'S 10-MILE RUN RECIPE

## TRAINING NUTRITION IN WEEKS

### LEADING UP TO RACE:

Tissue Rejuvenator daily  
HEED and Hammer Gel for long indoor training rides and outdoor runs

## 30 MINUTES PRIOR TO START:

2 servings Espresso  
Hammer Gel and water

## POST-RACE CELEBRATION:

Cold bottle of Recoverite

## SUPPLEMENTS FOR FOUR DAYS

### LEADING UP TO RACE:

Tissue Rejuvenator  
Race Day Boost

## RESULTS

1st place AG and 8th overall at the Frosty's Frozen 10 Mile in Littleton, CO

*"This race was the second of the three-race series. My training has been consistent and free of injuries. I had no problems getting to 80% max heart rate and holding it there throughout the race, finishing in a time of 1:02:11, and more importantly, putting Hammer Nutrition on the top step of the M40-44 podium for the second race in a row. (Plus, I was ready to go on an 8-mile recovery run the next morning)." - Casey McKinney*

# Everybody's fave!

*"Hammer Whey Recovery Bars are ALWAYS A LIFESAVER after a long ride through the mountains." - Chris W.*

*"MY ENTIRE FAMILY LOVES HAMMER WHEY RECOVERY BARS!" - Sarah*

**Enhance your recovery big time** with the BIG Hammer Whey Recovery Bar! 75 grams of chocolatey, peanuty, chewy goodness will satisfy the biggest appetite and deliver **20 grams of premium, natural grass-fed whey protein.**

- 70% organic ingredients
- Gluten-free, GMO-free
- 8 grams of fiber

MSRP  
\$3.50  
\$3.25 - 12 or more  
Flavor: Peanut Butter-Chocolate



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## Low omega-3 intake linked to cognitive decline

Athletes benefit from adequate intake of essential omega-3 fatty acids for many reasons: reduced joint soreness, increased absorption of vital fat-soluble nutrients (such as the CoQ10 and idebenone in Race Caps Supreme), improved lung function, and protection against cardiovascular disease. Recent research suggests yet another reason to bolster your intake of omega-3s: these essential acids also appear to protect against cognitive decline.

Scientists at the Jean Mayer USDA Human Nutrition Research Center on Aging (USDA HNRCA) at Tufts University evaluated a group of 895 participants using an intensive series of cognitive tests and questionnaires to determine intake of omega-3

polyunsaturated fatty acids. The results were determined after comparing baseline test numbers with a two-year follow up.

The researchers found that being in the lowest four quintiles of very long chain omega-3 fatty acids (EPA and DHA) intake predicted cognitive decline over the two years. As we reported in EN 87, the typical American diet is woefully lacking in these essential fatty acids, which can be obtained by eating fatty fish, such as salmon and tuna. The American Heart Association recommends a daily dose of 500 mg EPA/DHA in combination for healthy adults. In this study, the EPA/DHA intake of nearly three-quarters of the participants averaged less than 250 mg per day. **HN**



### Hammer Tip:

Omega-3s support athletic performance and health in a multitude of ways. But consuming an adequate amount of high quality salmon and tuna on a regular basis can be difficult. The simple solution: supplement your daily diet with Hammer Nutrition's **EndurOmega**, a superior source of omega-3 fatty acids. EndurOmega is derived from Atlantic menhaden, regularly tested by third-party independent labs for potency and purity. A single serving of 2 soft gel EndurOmegas provides 300 mg EPA, 200 mg DHA, and 30 mg DPA (an intermediate fatty acid that helps increase blood concentrations of EPA and DHA and benefits the heart, muscles, and kidneys).



## Mitochondria important for controlling inflammation

Mitochondria, known as “cellular power plants,” form the molecule adenosine triphosphate (ATP) used for the storage and transportation of energy inside cells. When mitochondria aren't working as they should, your cells won't have the energy necessary for your body to perform well athletically.

Now scientists have identified another way mitochondria influence athletic performance and health. According to a new report published in *Nature Chemistry*, researchers have found that mitochondria oxidize polyunsaturated fatty acids to generate certain fat molecules known as “lipid mediators.” Lipid mediators are involved in many physiological processes, and their dysfunction has been linked to inflammation, atherosclerosis, metabolic syndrome, and cancer.

Working with two tissue types in test animals, the scientists found that the mitochondrial process of synthesizing these lipid molecules is intensified in injured tissues. The authors expect that their findings could be applied to regulate prostaglandin synthesis during inflammation. **HN**

### Hammer Tip:

The latest news on the role mitochondria play in controlling inflammation (particularly in injured tissues) is one more excellent reason to supplement with Hammer Nutrition's **Mito Caps**. Its unique formula incorporates the results of exciting discoveries in cellular physiology to help mitochondria work more efficiently, improving energy production and fat metabolism and providing superior antioxidant support. To quote one nutritional expert, “the athlete who has the most healthy/efficient mitochondria is the athlete who performs at their best.”

# Artificial sweeteners cause real health problems

Artificial sweeteners are often marketed as a healthy, low- or zero-calorie alternative to sugar, and many people consume them regularly in soft drink beverages and certain sports drinks. Citing growing evidence of serious health problems caused by artificial sweeteners, an article in the journal *Trends in Endocrinology & Metabolism* argues that public health messages should urge limited intake of all sweeteners, including artificial sweeteners.

According to the article, studies in humans have shown that consuming artificially sweetened beverages is associated with obesity, type 2 diabetes, metabolic syndrome, and cardiovascular disease. And it takes only one of these drinks per day to significantly increase your risk for these health problems. What's more, the studies suggest that people who regularly consume artificial sweeteners show altered brain patterns in response to sweetness.

**Bottom line:** Attempting to cut calories or drop pounds by choosing artificially sweetened beverages and foods does not work. Research shows artificial sweeteners only increase the risk for health problems and may even increase cravings for sweetness.



## Hammer Tip:

Hammer Nutrition has taken a hard stance against artificial sweeteners for more than two decades. (See the article in EN 89, "In the archives: artificial sweeteners," first written by founder Brian Frank in 1995.) **Hammer fuels and supplements contain no artificial sweeteners, artificial flavors, or artificial ingredients of any kind. HEED, our popular sports drink, contains the complex carbohydrate maltodextrin (not simple sugars) and the natural sweeteners stevia and xylitol, which benefit health.**



**"Thanks to Hammer Gel I was feeling great and started pushing even harder."** - Gabrielle P.

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- Easily digested
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**FLAVORS:** Apple-Cinnamon, Banana, Chocolate, Espresso, Montana Huckleberry, Orange, **NEW** Peanut Butter, Raspberry, Tropical, Unflavored, Vanilla

**MSRP**  
\$19.95 - 26 Serving Jug    \$1.40 - Single Serving  
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FROM OUR ATHLETES

*Doug Clark finishes 1st masters  
at the USA Olympic Distance  
National Championships.  
Photo : Marathon-Photos.Com*



ATHLETE SPOTLIGHT

# DOUG CLARK

BY VICKI HACKMAN



**T**riathlete Doug Clark of Mendham, NJ, finished his 2013 racing season with an incredible win record (and a nice stash of HammerBucks to go with it). Season highlights included 1st Masters at USA Triathlon Olympic-Distance National Championships, 1st AG at Ironman 70.3 Syracuse, 1st AG at EnduraFit 70.3 EagleMan, 1st AG at Ironman 70.3 Timberman, and 2nd overall at JerseyMan. What makes Doug's accomplishment all the more impressive is that he's been competing for 18 seasons, completing more than 138 triathlons with 44 overall wins, six consecutive national championships, and zero DNFs.

A native of Manchester, England, Doug moved to the U.S. in 1997 to take a position with Alcatel-Lucent as a software engineer. He met his wife Hillary through running ("I only do marathons," she says), and the couple has a 7-year-old daughter, who has already done several youth tris. In recent years, Doug has begun applying some of his winning drive to coaching. As a USAT and USA-Cycling Certified Coach, he mentors other athletes by developing highly personalized training plans and sharing his insights, experience, and scientific background. (See [www.newjerseytriathloncoach.com/](http://www.newjerseytriathloncoach.com/).) Last year, one athlete he coaches was 1st Amateur at Texas Ironman, with a time of 8:53. Another client (who had no previous experience at all) managed to do a sub 11 Ironman, just two months after his first triathlon. As the 2014 season kicks into high gear, we asked Doug to share a few of his secrets for success.

## GOING THE DISTANCE

**EN:** To what do you attribute your great success in the past year—are you doing anything differently?

**DOUG:** After 18 years of competing in triathlons, I feel I've hit upon a winning formula and am only tweaking things in a small way. I think careful planning, a consistent build-up, and in particular having a very long and easy winter layoff have all contributed to my athletic longevity.

**EN:** What is your greatest personal training challenge right now, and how

are you working to overcome it?

**DOUG:** Making time to train is hard for anyone with a job and a family. I'm lucky to have a great early morning swim program that I can go to en route to work, and I'm able to do the 15-mile commute on foot or by bike.

**EN:** What has been the biggest change you've made in your training over the past 18 years since you've been doing triathlons?

**DOUG:** I've eliminated easy bike rides.

Almost everything I do on the bike is indoors, and at a relatively high intensity.

**EN:** You've never missed a tri due to sickness. What role does overall nutrition play in your great health? How much sleep do you aim for?

**DOUG:** I've taken Hammer's Premium Insurance Caps for a long time, and am also careful about always taking some quality nutrition, within 20 minutes of every workout, either a proper meal or a shake with at least a couple scoops of Recoverite plus milk and fruit. I try not to let my defenses down. I'm lucky that I don't seem to need much sleep.

**EN:** Do you have a typical prerace and in-race fueling protocol?

**DOUG:** I love HEED prerace. My prerace breakfast includes 200-400 calories of Heed, depending on the length of the race. During a race, I rely mostly on Hammer Gel and Endurolytes. For an Olympic distance, I use two Espresso Hammer Gels. For a 70.3 distance I'll do eight Hammer Gels of assorted flavors and different caffeine levels.

**EN:** What about other supplements?

**DOUG:** I trained with Race Caps Supreme last summer and am introducing them again this year.

**EN:** How do you prepare for an event that you know will be held in extreme heat?

**DOUG:** If I'm not in that environment then from about a week out I will train indoors with extra clothes. I also turn down the giant fan attached to my handlebars, and I avoid air conditioning if possible.

**EN:** How do you prepare mentally for an event?

**DOUG:** For good or bad, I'm very practical, so I don't use any visualization or similar techniques that I know others find effective.

**EN:** What is the biggest challenge for the first-time athletes you coach?

**DOUG:** Pacing. Typically I'll use their training data for each discipline to suggest initial in-race paces, power, or heart rate targets that seem too

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easy. But invariably these slower paces prove effective. You rarely hear someone who embarked on a triathlon distance for the first time lament, “you know, I wish I’d started out harder.”

**EN:** What advice do you give athletes to prevent injuries?

**DOUG:** Be very conservative in the rate at which you increase your weekly run mileage and at which you introduce intensity. Schedule recovery weeks, stick to them, and also track your shoe mileage. Running in beat-up shoes is a false economy.

**EN:** What event do you most look forward to this coming season? What are your favorites—the ones you plan to do every year?

**DOUG:** USAT Short-Course Nationals in Milwaukee is a very well organized race with great competition. I’ve won the Masters title there the last six years. That’s my “A” race, along with the Age Group Worlds in Edmonton, Canada. Favorite races include Lake Placid, St Croix, and the Volcano Triathlon in Lanzarote, Spain.

**EN:** You met your wife Hillary through running, and you have a young child. Are you able to enjoy running together as a family?

**DOUG:** Hopefully our daughter soon will be able to bike fast enough to join me on a few runs. Having an understanding athletic spouse seems invaluable in maintaining the balance. Hillary and I run together when our schedules permit. Every year we vacation in North Carolina’s Outer Banks with some other athletic families. The beach-running there is fantastic and gives us lots of opportunities to run together as a family. **HN**



TOP: Pedaling towards yet another AG win at Ironman 70.3 Syracuse.

Photo : © FinisherPix.com

BOTTOM: Doug shows off the hardware from his AG win at the EnduraFit Ironman 70.3 EagleMan. Photo : Jamie Chesson

**“After 18 years of competing in triathlons, I feel I’ve hit upon a winning formula.”**

- Doug



*Laura enjoys the  
burgundy while on  
vacation in France.*

## Green magic soup

This tasty and healthful soup has been in my family since I was a little girl. When we are sick we make a huge batch of “green soup” and eat only this. Sometimes we whip in a whole egg for protein or serve it with brown rice for a more filling meal. When I have over-indulged or have eaten too much for the holidays, I fast on this for a day or two. In our house, it is the ultimate comfort food!

### Ingredients:

- 1 tablespoon olive oil
- 1 large (or 2 small) sweet onion(s), chopped
- 3 celery stalks, chopped
- 1 pound green beans, roughly chopped
- 1 pound zucchini, cubed
- 2 (or more) cups parsley, chopped
- Fresh herbs of your choice
- Several cloves of garlic, minced (optional)
- 32 ounces chicken or vegetable stock

### Preparation:

Over medium temperature, heat olive oil in a large soup pot. Add the onions and cook several minutes until softened. Add the celery, green beans, zucchini, parsley, herbs, and garlic (if using); cook about 5 minutes, or until vegetables begin to brown lightly. Add stock, bring to a boil, then gently simmer for about 10 minutes until vegetables are soft but still bright green in color. Remove the pot from the heat. In a food processor or blender, carefully puree the soup in batches. Return the pureed soup to the pot and gently reheat, if necessary. Season to taste with salt and pepper.

## Mediterranean tuna salad

The perfect light supper or lunch dish for a warm summer day. Great for picnics, too!

### Ingredients:

- 1 heart of romaine lettuce, cut into thin ribbons
- 2 hardboiled eggs, peeled and chopped
- 1 cup green beans, cut into 1-inch pieces (I usually use leftovers)
- 1 cup cherry tomatoes
- 1 cup boiled and sliced baby potatoes
- 1/4 cup chopped Kalamata olives
- 1/4 cup crumbled feta cheese
- 1 6-ounce can white albacore tuna, drained
- 1/4-1/3 cup olive oil
- 1 tablespoon fresh lemon juice
- Salt and pepper

### Preparation:

Lightly steam and then drain the green beans if they have not been previously cooked. In a large salad bowl, gently mix together all of the ingredients except for the olive oil, lemon juice, and seasonings. Drizzle with the oil and lemon; season to taste with salt and pepper! Serve at room temperature or lightly chilled.

# Product Spotlight

## Energy Surge

An effective burst of energy on demand!



### Suggested Usage:

Take 1 tablet under tongue and allow to dissolve slowly, 5-30 minutes before workouts. Take additional tablets as needed.

BY STEVE BORN

**T**here's a simple reason why this product has been in the Hammer Nutrition lineup for more than two decades—Energy Surge really works! Roughly five years ago, company owner and CEO Brian Frank wrote:

*When we introduced our sublingual (absorbed orally/under the tongue) Adenosine Triphosphate (ATP) supplement, we were ridiculed for selling “snake oil” by exercise physiologists, biochemists, and nutritionists alike. Since ATP is literally the energy source that our body runs on, being able to add to what the body makes by taking a pill would be a very significant innovation. However, our detractors claimed that orally ingested ATP could never reach the cellular level because it would be broken down in the stomach and turned into relatively mundane phosphate particles. Fast forward 20 years and we now have a patented form of orally administered ATP with research to back it up. More importantly, our clients who use Energy Surge consistently report increases in energy and less fatigue.*

Each Energy Surge tablet contains 100 mg of PEAK ATP®, the patented form of adenosine triphosphate that Brian refers to. ATP, the chemical compound (the “energy currency” of the cell) that provides the overwhelming majority of energy needed by your body, is formed from a long chain of metabolic events in which a variety of substrates are transferred from the foods you eat, primarily carbohydrates. Under normal conditions, such as at rest, the body can produce all the ATP it needs. But during stressful conditions, such

as high-intensity exercise, your body rapidly depletes its ATP stores and cannot replenish them quickly enough by normal means, which creates a shortage.

That's where Energy Surge comes in. Dr. Bill Misner explains that Energy Surge “aids in filling the energy deficit gaps that can occur when the body is stressing to produce energy upon extreme demand. Taking ATP in a sublingual dose when fatigue is sensed may act as a preventative primer for the ATP-endogenous pump.”

When you put an Energy Surge tablet under your tongue and let it dissolve, you get a nice boost of energy exactly when you need it . . . simple as that. It's a “use as needed” product, so don't be shy about taking it frequently during your workouts and races, especially when you need an extra burst of energy. Recommended dosage varies greatly from athlete to athlete. Some athletes take one tablet every 15 minutes for hours on end, while others find that

one tablet an hour works best for them. Bottom line is that you'll want to test it in training to determine your optimum dosage.

Thousands of athletes have attested to the effectiveness of Energy Surge—shouldn't you be one of them? **HN**

***“I used Energy Surge all last season whenever I knew I had a tough climb coming. I took between two to four tablets 10 minutes prior to the climb. I also took it during endurance events, when I felt like my muscles were starting to say, ‘that's enough’ and struggled to keep the pace. I definitely felt the difference, especially as the level built up in my system. The older one gets, the more difficult it becomes for our mitochondria to produce the ATP needed for intense athletic activity. Energy Surge fills the gap.” - Mike M.***

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*"With Anti-Fatigue Caps, I am ready to go!" - Brian B.*



*"Race Day Boost works. If you haven't tried it, you should!" - Stephen B.*



*"Energy Surge helped me finish a half iron with a 6-minute PR!" - Mike B.*

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- Breakthrough race performances

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# Hammer Nutrition sponsored teams

## VuMedi Elite

The first three months of 2014 have been exciting for our program, and we owe so much of our success to your support. Having Hammer Nutrition as a sponsor of our program not only provides us with the best products available but also the best product education the industry has to offer. Our riders use: Lemon-Lime and Strawberry HEED and all flavors of Recoverite. We also rely heavily on Hammer Bars and Gels in all flavors. Hammer's Endurolytes and Endurolytes Fizz keep us going strong. That's #howwehammer! Here are a few of our results through April. Thanks again for everything! – A.J. Kennedy



Adam O'Camb and Chris LaBerge set the pace for the VuMedi team on a group ride. Photo : Alex Chiu

## A few of VuMedi's spring results:

### David Benkoski

Chico Stage Race U25 - Overall 3rd

### Andrew Biscardi

Cherry Pie Criterium- Category 3 - 1st  
Cantua Creek Road Race- Category 3 - 1st  
Pine Flat Road Race- Category 3 - 1st

### Alex Freund

Turlock Lake Road Race - 2nd Place  
UC Davis Criterium - 4th

### Garrett Hankins

Coppertown Circuit Race - 2nd  
UC Santa Cruz Criterium - 1st  
UC Berkeley Criterium - 2nd  
Woodward Road Race - 3rd

### AJ Kennedy

Woodward Road Race - 4th  
Rock Creek Time Trial - 4th  
TopSport Stage Race - Overall 3rd

### Luciano Sponza

TopSport Stage Race - Overall 4th

### Fiona Winder

Red Kite Criterium 5th - Women

### Keith Wong

Santiago Canyon Time Trial - 2nd  
San Dimas Stage Race Stage 1, Category 2 - 3rd

## Hammer Nutrition Super Masters

### Wente Vineyards Classic Road Race



LEFT: Jim Fox and Richard Shields in the new Team Kit, just before the start of the 65+ cat Wente Vineyards Classic Road Race. RIGHT: Jim and Richard finished 1st and 4th in the hilly and very windy road race. Jim was able to get away the first time up the major climb and held it to the finish for the solo win. Photos : Mike Freeman

### Sea Otter Classic



LEFT: Joe Lemire of Hammer Nutrition Super Masters 65+ squad takes 2nd place in the very hilly and difficult Sea Otter Classic Road Race 55+ cat on the old Fort Old Army Reservation.

Photo : Larry Nolan



# Fueling for the fight to save the hawksbill

Saving this endangered sea turtle takes stamina.

BY MIKE LILES

**T**here's no question that Hammer Nutrition products are a must for your typical athlete, but they also work wonders for passion-driven conservationists like me!

As a conservation researcher living in El Salvador, I walk long distances in the humid, tropical heat to do my work. Since 2007, I have been spearheading a program aimed at saving one of the most endangered sea turtles on the planet, the Eastern Pacific hawksbill turtle. Fewer than 500 adult female hawksbills exist from Mexico to Peru, and approximately 50% of these individuals nest in El Salvador. The turtles' primary nesting area is comprised of 40 kilometers (nearly 25 miles) of beaches.

From May to October each year, my team and I tirelessly comb this distance on foot in search of nesting hawksbills to collect their eggs and bring them to hatcheries for protection. Because there are so few of these turtles left, we sometimes find only one nest a night. As you can imagine, it doesn't take long to deplete your energy supply and hydration levels while walking the entire night through sand in tropical conditions.

Hammer Nutrition products keep me going. I never embark on a night-long walk without plenty of Caffé Latte Perpetuem Solids and Chocolate Hammer Gel in my pack. I have Mango Endurolytes Fizz in my water bottle. And I swear by an immediate dose of Recoverite upon my return to the research station—it ensures that my muscles have everything they need for a quick recovery. After all, the next long walk on the beach could be less than 12 hours away! **HN**

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# What makes Hammer Nutrition different?

With Athlete Ambassador Katie Ozolins

Our Athlete Ambassadors recently asked me what sets Hammer Nutrition apart from other sports nutrition companies. I flipped the task around and encouraged them each to give me five points. Here is just one of their responses, from Katie Ozolins from Ontario:

1. Hammer Nutrition uses healthy sweeteners (xylitol birch sugar and stevia—both from plants) instead of artificial sweeteners.
2. Hammer offers gluten-free proteins in various forms—soy, whey, and vegan—to cater to athletes with different dietary needs and preferences.
3. Hammer supports their athletes by providing knowledge about the science behind their products. Through their books (e.g., *Consumer Education Guide*), magazine, and website, they explain how their products work to help you sustain energy and enhance your performance.
4. Hammer reaches out and relates to athletes through its Athlete Ambassadors, YouTube channel, Facebook, and a strong presence at events.
5. Unlike other nutrition companies, Hammer Nutrition is a community that embodies nutrition and the athletic lifestyle. It sponsors and leads training camps for athletes who want to learn more and push their limits.



## How do you Hammer, Canada?




We would love to share more of your endurance stories, podium shots, crazy viral videos (and anything else Hammer related) in the next issue of *Endurance News* and on Facebook. Email me at [ryan@hammernutrition.ca](mailto:ryan@hammernutrition.ca). Hammer on!

*Canadian Hammer Nutrition sponsored athlete Gary Robbins takes off for an ultra running race in Italy. Photo : Cassie Scallon*



*“Rolling through Jasper, some riders flagged us down. Keep your eyes open for the Big Rig, and feel free to stop us for samples!!!” – Darren Thompson, Hammer Nutrition Canada*

# Big Rig tour in full swing

Darren and his family have hit the road in the massive 43-foot Hammer Big Rig. They’re now en route to a series of fueling seminars and sampling stops across Canada. Stay tuned to our Facebook page (<https://www.facebook.com/hammercanada>) for daily updates. Also, check out our event schedule at <http://www.shophammernutrition.ca/pages.php?pageid=8>

# Enter the Calgary “pain cave”

With Athlete Ambassador Nicole Frandsen



We introduced Nicole’s inspiring weight loss triathlon journey in the last issue of *Endurance News*. Now, as part of our ongoing series of Athlete Ambassador challenges, check out her cameo-filled “Hammer Nutrition Pain Cave” video at [www.youtube.com/hammercanada](http://www.youtube.com/hammercanada), under “Ambassador Videos.”



# Hammer camps are BACK!

We've partnered with our team in Canada to bring you a FRESH new series of Hammer-powered cycling experiences for 2014-2015. Expect unique destinations, great food, comfortable accommodations, challenging rides, and knowledgeable staff that you'll grow to know, love, and trust.



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Eight days, 11 riders, and more than 700km of remote mountain terrain: are you up for the challenge?

**August 30 - September 6, 2014:**  
Banff, AB - Whitefish, MT (SOLD OUT)

**August 20 - 27, 2015:**  
Canmore, AB - Whitefish, MT (6 spots remain)

**August 29 - September 5, 2015:**  
Whitefish, MT - Polaris, MT (15 spots remain)

[www.greatdividetour.com](http://www.greatdividetour.com)



## Aloha Cycling Retreat

Hang loose for eight days with the Hammer Nutrition team in tropical Kona, Hawaii.

**November 9-16, 2014:** Road Cycling Camp

**November 18-25, 2014:** Triathlon Camp

[www.alohacycling.com](http://www.alohacycling.com)

**Stay tuned to our Facebook page for early bird pricing!!!**

[www.facebook.com/hammercanada](http://www.facebook.com/hammercanada)



## Carefree Cycling Retreat

Give your spring training a boost with one of our seven-day cycling camps in sunny Carefree, Arizona!

**March 6 - 12, 2015:** Women's Only Camp (hiking, biking, and yoga)

**March 14 - 20, 2015:** Road Camp

**March 22 - 28, 2015:** Mountain Bike Camp

More dates to be announced . . .

[www.carefreecycling.com](http://www.carefreecycling.com)

# South Africa dream team claims XTERRA Championship

BY LESLEY MALLON, Hammer Nutrition South Africa

**T**he first championship race in the Totalsports XTERRA World Tour kicked off in South Africa, and Hammer Nutrition was well represented with a solid men's team podium finish and the fastest time overall. Team Hammer Nutrition South Africa put together its first men's team for the XTERRA South African Championships, and it turned out to be a "dream team."

Swimmer Rudolf Visser, mountain biker Dominic Calitz, and runner Nicholas Rupanga each claimed the fastest time in their leg of the event, beating the individual (solo) professionals for the first time ever at the South Africa Championships! The fantastic achievements by the Hammer Nutrition team showed that its members are world-class athletes in their own right.

Rudolf began the swim in a field of 900 athletes, one minute behind world-class elites such as Dan Hugo and Conrad Stoltz. Rudolf, who fueled with Hammer Gel 15 minutes prior to the swim, not only beat all of the age groupers but caught all the pro athletes by the second buoy. He exited the water about 30 seconds ahead of the first pro competitor in an unbelievable time of 18:52 for the 1500m swim.

Dominic, up next, had never ridden the demanding 28K course prior to the event. Fueled by HEED and Hammer Gel, he set off with the pros in hot pursuit. Dominic blitzed the course in 1:18:59, ahead of the pros. Although the course changes every year and no course records can be set, this was one of the fastest times recorded in this area.

Finally it was up to trail runner Nicholas, who breezed the 11K course using Hammer Gel as his fuel of choice. With a time of 47:23, he outran 2nd place pro athlete Hugo by a wide margin.

The team celebrated its fantastic achievement at the podium. We look forward to similar achievements with the Hammer Nutrition seven-man team next year at the Totalsports Challenge! **HN**



FROM TOP: Swimmer Rudolf Visser, biker Dominic Calitz, and runner Nicholas Rupanga team up for a winning finish. Photos : Johan Visser

# The Difference

## Cycling and living in Tokyo, Japan

BY RYAN HILL, Hammer Nutrition Sponsored Athlete

**C**yclists live to test themselves. Through suffering we become stronger, with time we gain knowledge, and from our life experiences we can tell a story. This is a page from mine. Quick context: I'm a California-born 34-year-old male who has traveled back and forth to Japan for eight years, living in Shinjuku, Edogawa, Tokyo. Besides learning to speak, read, and write Japanese, I've learned that the sport of cycling is quite different in Japan than in the U.S. Here are a few of my observations.

### Sports as luxuries

During my first month in Japan, I realized a basic truth. Sports, training, and athletic lifestyles are luxuries or private hobbies for many Japanese people. This was a surprise to me because the people I met had such vast knowledge of and devotion to their sport. The Japanese athlete's enthusiasm for his or her sport is a level beyond that of most Americans. A Japanese cyclist might get to pedal just once a week, a runner has to find "off" hours to run, and a swimmer must belong to an extremely expensive sports club that has a pool. Most of the cyclists I know have all high-end gear and collecting a new kit is a fulltime obsession.

### Going all out

The pace of living in Tokyo is incredibly fast. The day starts early and ends late, and the pressure to perform can be overwhelming. To cope, some people turn to alcohol, others turn to hobbies, including cycling. Even if you can't cycle every day, you still can be a cyclist—take a photo of your new frame for Instagram, have beers after work with your cyclist friends, and purchase as much cool bike swag as your salary will allow. Go all out!

### Hammering in Japan

Sticking to my own framework for fueling, training, and recovery, I came to Japan well supplied with Hammer Fizz, HEED, Perpetuem, Recoverite, and Hammer Gels. Whenever I got on my bike, I had a great time giving away some of my Hammer Gels and other products. My Japanese friends viewed them much as if they were seeing an American on a Cervelo—they wanted photos, and they wanted to try American cycling food!

Each time I visit, I come equipped with my bike, Hammer Nutrition, and knowledge (including, of course, my *Little Red Book*). My most recent trip was as much about building experiences for sharing one day with my kids, as it was about accumulating miles on the road. They used to say bring cigarettes when you travel as a way to make friends and start conversations. A better idea is to pack your road bike, tour the country, and hand out as many Gels as you can. I promise, you'll make new friends and have more than a few stories. **HN**



TOP: A local cycling enthusiast takes a spin on Ryan's bike. BOTTOM: Ryan takes a break on the boardwalk beachfront in Odaiba, Tokyo across from the Rainbow Bridge. BELOW: Tokyo skyline. Photos : Courtesy Ryan Hill

# We support your sport!

Race season is upon us, as you can tell by the number of events we're supporting. There's never really a "downtime" for us in terms of event sponsorships, but come June and July we're firing on all cylinders! Between June 14 and July 27 Hammer Nutrition is sponsoring nearly 250 events in a variety of endurance sports, and adding more daily. (We receive at least half a dozen requests every day.) Here is just a sampling of the great Hammer-sponsored events happening over the next few weeks.

*"I just finished the Mulholland Challenge, put on by Planet Ultra. I'm SO glad that Hammer Nutrition sponsored the event. I used the Hammer HEED and Gels at every stop!" - Bryan R.*

Photo : Myke Hermsmeyer

DATE	EVENT	LOCATION
6/14	Pat Griskus Olympic Triathlon	Middlebury, CT
6/14	Mt. Evans Ascent (running)	Idaho Springs, CO
6/14-15	National 24-Hour Challenge (cycling*)	Middleville, MI
6/15	Heartland Triathlon	Sebring, FL
6/19-22	Bighorn Trail Run*	Sheridan, WY
6/20-22	Coollest 24 Hour Race against Cancer (mountain biking*)	Cool, CA
6/21	Trail Rail Run*	Mullan, ID
6/22	PACK State Championship Marathon Kayak/Canoe Race	Lock Haven, PA
6/22	PAIN in the Alleganias Triathlon	Salamanca, NY
6/28	Central Illinois 1.2-Mile & 2.4-Mile Open Water Swim	Hudson, IL
6/28	Alta Alpina Challenge (cycling*)	Markleville, CA
6/29	Summer Roundup Triathlon	Jasper, MO
7/5	Afton Trail Run*	Hastings, MN
7/6	Loon Mountain Race/US Mountain Running Championships	Lincoln, NH
7/6	Patapsco 100 (mountain biking*)	Woodlawn, MD
7/12	June Lake Triathlon	Mammoth Lakes, CA
7/12	Buckeye Trail 50K (running*)	Brecksville, OH
7/13	Caseville Back to the Beach Triathlon	Caseville, MI
7/13	El Scorcho (running*)	Ft. Worth, TX
7/19	High Cascades 100 (mountain biking*)	Bend, OR
7/19	Thunderbolt Creek 50K/25K (running*)	Helena, MT
7/20	Heart of the Lakes Triathlon	Annandale, MN
7/20	Tour of the Bitterroot (mountain biking)	Hamilton, MT
7/26	Grand Mesa Ultra Marathon	Cedaredge, CO
7/26	Route 66 Half Iron/Iron Abe/Stoneman (triathlon)	Springfield, IL
7/27	Off Road Assault on Mt. Mitchell (mountain biking)	Old Fort, NC
7/27	Jon Logan Memorial Triathlon & Open Water Swim	Novi, MI

\*Ultra Event

# FUELING STATION



RAD Racing spent some time volunteering at the Hammer booth during Sea Otter. Photos: Chad Baker

## Kicking off the season at the Sea Otter Classic

BY CHAD BAKER, Hammer Nutrition dealer services

**A**fter a long, cold Montana winter, a road trip to Monterey, CA, for the 24th annual Sea Otter Classic was a welcome opportunity to become reacquainted with warmer weather and to catch up with many of our Hammer Nutrition athletes and friends. Our crew for the four-day event included Hammer Nutrition owner and founder Brian Frank, fueling expert Steve Born, Hammer ambassador Mike Freeman, and me.

The Sea Otter Classic is a multitude of both on- and off-road cycling events held at Laguna Seca, one of the most prestigious motor raceways in the U.S. With more than 10,000 athletes, 65,000 spectators, and 300-400 industry vendors present, it was the place for cyclists to be April 10-13.

As in previous years, attendees had many opportunities to sample a range of Hammer Nutrition fuels. Athletes and spectators enjoyed ice-cold HEED and Recoverite, as well as bite-size hors d'oeuvres of Hammer Bars and Hammer Vegan Recovery Bars served on trays. Samples of Endurolytes, Endurolytes Fizz, and Hammer Gel (including our newest flavor, Peanut Butter—a definite crowd-pleaser) also were in plentiful supply to help keep the athletes fueled.

Having lots of one-on-one face time with so many athletes, including our Hammer-sponsored athletes and teams, always makes the experience memorable and enjoyable. We love to help by answering questions and providing guidance for proper fueling. And with more than 75,000 attendees at Sea Otter this year, our booth was crazy busy each day, as you can imagine. That's why we want to give a big shout out and thank you to Rad Racing NW's Jim Brown, Lewis Whiley, Wyatt Mason, Landen Beckner, Nolan Brady, Gideon Bender, Titus Bender, and Scott Funston; Tieni Duro Junior Cycling's Jason Kent and Elaine Ebner; and Norcal IC3's Darryl Smith and Mike Creamer. We really appreciate your hard work and positive energy. You helped make the 2014 Sea Otter Classic a great success for those who attended and for us! **HN**



Visitors to our booth enjoyed some Hammer swag and product samples. Photos: Chad Baker

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Photo : Courtesy Rotelli Performance Racing

# From our athletes

## Catching up with the stars of tomorrow

### Gianna Rotelli (above)

9-year-old Gianna placed 5th overall at the 14th annual Just a Short Run held in North Park, PA, in late March. She was also 18th overall in the field of 198 runners in the 5K division.

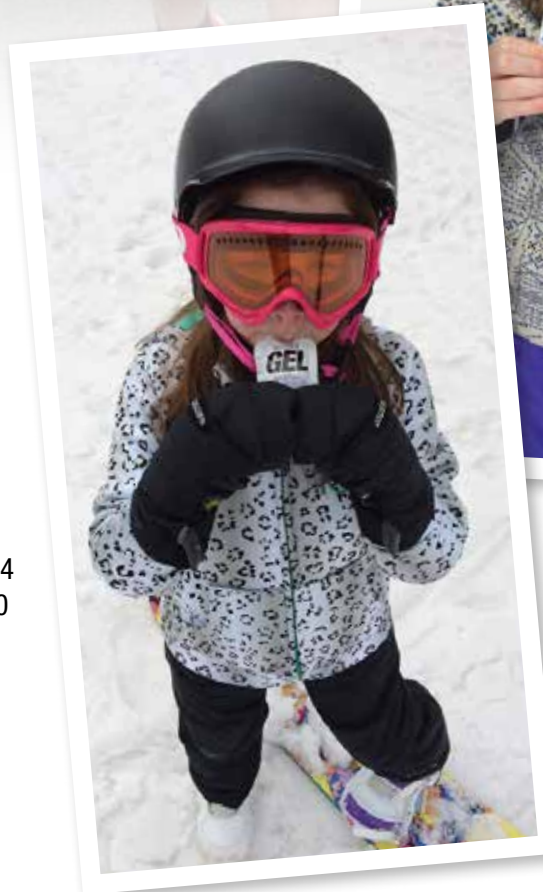
Her time won her the 14 and under, 15-19, 20-24, 25-29, 30-34 AND the 35-39 age groups in the Female category. She was 30 seconds out of 3rd overall and 90 seconds out of 2nd.

We want to know what your juniors are up to! Send your latest news to: [athleteupdates@hammernutrition.com](mailto:athleteupdates@hammernutrition.com)



### Lily and Madison Jenkins

They're partial to the sweeter flavors!!  
"The vanilla tastes JUST like frosting."  
- Steve Jenkins

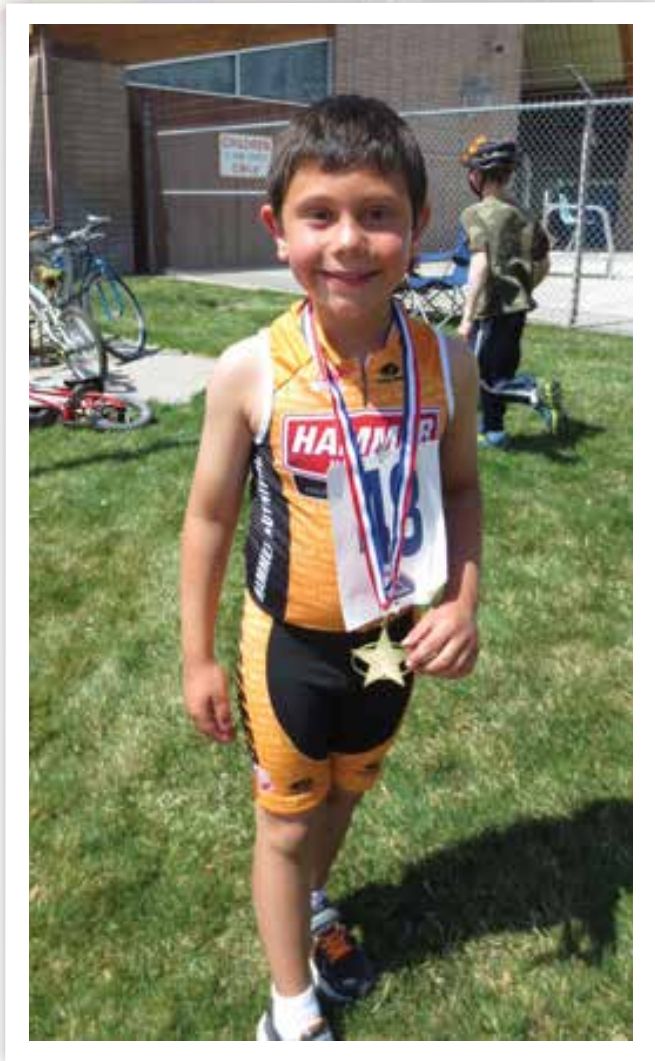




## Kyra & Nathan Hawkins

Kyra (9) and Nathan (7) represent Hammer Nutrition at the Stirling Triathlon, finishing 16th overall and 14th overall respectively. HEED and Hammer Bars fueled them to a strong finish.

Residing in Canada, triathlon is not their go-to sport, however. Nathan prefers hockey, while Kyra is a swimmer. HEED is their fuel of choice for all activities.



## Carlo DeLong

Carlo, son of long-time Hammer friends and ambassadors Troy and Jana DeLong, shows off his medal (and Hammer-pride) at the Elko Triathlon.

*"I added Premium Insurance Caps to my diet about halfway through my latest training cycle . . .*

***I soon noticed shortened recovery times between workouts."*** - Zandy M.

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- Stay strong all year long
- Ultimate nutrition foundation

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# The long and gravelly road

A rookie's experience riding Trans Iowa  
*(if you think Iowa is flat, it's not!)*

BY BRAD LAMSON

ABOVE: 4 a.m. Trans Iowa start in downtown Grinnell.  
BELOW: "Rust never sleeps" - Brad.  
Photos : wally.kilburg@studio46west.com



**T**rans Iowa V10 was 336 miles, even with the re-route, and in my considered opinion was the most difficult mix of course and conditions ever in Trans Iowa's history. Yes . . . V2 was horrendous and V6 was terrible, but neither of those years went the full distance and this one did. With the exception of snow (and some riders thought they saw some!), this event had it all in one helping. A big, enormous smorgasbord of pain and suffering mixed with fun and adventure. – Guitar Ted, aka Mark Stevenson, RD

I really thought I had miscalculated my aspirations on this one, the 10th-anniversary Trans Iowa race. Lack of preparation was my biggest concern. With minimal miles on my bike in March (335) and April (342)—and now about to increase my 2014 mileage by 34%—I was worried about how much suffering my arse could endure. Aside from that, I figured my winter ski touring and powder skiing would help carry me through fitness wise.

I was well prepared for the logistical part of the race, which is entirely unsupported. At the prerace meeting

you receive cue cards for the first 53 miles. To find your way along the rest of the route, you receive new sets of cue sheets at predetermined "checkpoints." Race director Guitar Ted routes the race to pass or come close to numerous convenience stores, giving you the opportunity to resupply with liquids and calories.

There were three unofficial groups of riders in the race—previous finishers, veterans (who started TI before but did not finish), and rookies. I overheard several of them discussing their fueling strategies, which included pizza, fried cheese sticks, and even corn dogs from the convenience stores along the route! In a pinch I might eat a few of those items, but I was positive my stomach would violently disagree with any of those choices during this ride.

## Fueled right to the finish

My fueling plan entailed pre-bagged 1.25 servings of Perpetuem (15 total) and 40 or so Endurolytes Extreme electrolyte capsules. I carried three 26-oz. bottles on my bike and an extra one in my jersey.

- continued on page 89





Riding into the sunset at mile 200.  
Photo : Paul LaCava

- continued from page 88

started out with three full bottles of Perpetuem, and planned to consume one bottle every 1.5 hours. I figured that three bottles would fuel me for roughly four hours; four bottles would keep me going for a little longer than five hours of ride time. My regimen also included one Endurolytes Extreme capsule per hour. This new Hammer Nutrition product

More race info at <http://g-tedproductions.blogspot.com/> and <http://transiowa.blogspot.com/>

## Brad's Race Recap

- 336.75 miles, 16,000' of climbing and descending, 98% gravel roads, 104 starters, 18 finishers, 5th overall, my first Trans Iowa
- Rode the first 231 miles with a great group of folks hunting down the two leaders, flatted, and then rode the last 105 miles mostly solo. Somewhere in there I crossed wheels with Mark and enjoyed some prime time relaxation in his wake, while listening to some KEXP podcast. Thanks Mark for the wind break!
- 31:08 saddle time
- 19 servings Perpetuem
- 26 Endurolytes Extreme caps
- Three rear flats, one front
- Took shelter in a barn with a bunch of cows, waiting out a massive electrical storm at 1:30 a.m.
- Hung out in a shed during the second electrical storm at 8:30 a.m.
- Walked 3 miles of B Roads
- Going back in 2015. Thanks to Mark Stevenson (aka Guitar Ted) and Paul LaCava (technical advisor)

Photo : Brad gets a personal finishing welcome from Guitar Ted-Race Director.  
Photo : Emily Judd



I differs from standard Endurolytes in that each capsule contains 300 mg of sodium (vs. 100 mg of sodium in regular Endurolytes) and 12 mg of ginger root to help calm the stomach.

I stuck to this fueling plan throughout my ride, and I believe it was of the main reasons I was one of just 18 riders who made it to the finish line. I did supplement at one point with some Fig Newtons, and a lack of convenience stores during the last 160 miles made it difficult to mix my Perpetuem as I had planned. I had only one bottle left and couldn't find a spigot. At 4:00 a.m. I finally found a vending machine in a small town, so I broke down, bought a Sierra Mist, and added a bag of Perpetuem to it. (I also broke down and had a Coke since I couldn't find a ride-through coffee kiosk for a quad Americano and was having a hard time staying awake in those pre-dawn hours.)

The rest was pretty simple: I just had to pedal for 336.75 miles in less than 34 hours. **HN**

**"Taking Tissue Rejuvenator has enabled me to reduce my intake of NSAIDs for inflammation."**

- Jen R



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# FROM OUR ATHLETES

## Mark Gorris

"It's been two years since I raced anything that would be considered remotely short. The WoodDu Wooster Duathlon was a 1.8/13.5/3.2 Hammer-fest. One hour+ of lung-searing, quad-burning racing. I ran with the leaders going through the first mile in 5:41, a little faster than I would have liked. Exited T1 and quickly reeled in the few cyclists ahead of me. I was all alone and built a nice lead coming into T2. Set a bike course record. On run 2 I just wanted to keep the lead and not cramp. Thanks to HEED, I was successful. I finished 1st OA, shattered the course record by five minutes, and had a blast going fast once again!"



## Taylor Ames

"Ironman 70.3 St. George was the first race that I tested Endurolytes Extreme. I've struggled with cramping issues during hot weather races in the past, and Endurolytes Extreme removed that problem! I never felt even the slightest twinge in my legs during the run, which is when I always run into trouble. Endurolytes Extreme has given me added confidence to push the pace on the run. Even with a flat on the bike course, I finished in 4:43:25, good enough for 136 out of 2653 overall, and 8th out of 161 in my age group."

Send us your news today at  
[athleteupdates@hammernutrition.com](mailto:athleteupdates@hammernutrition.com)

## Johnny Matthews



"I hammered my first full marathon (St. Jude Country Music Marathon) with Hammer Gel and Perpetuem Solids!"

## Amber Reece-Young

"The Assault on Black Rock mountain race went well! I had one Hammer Bar with some Melon HEED before the race, used two Huckleberry Hammer Gels during the race, and Chocolate Recoverite afterward. I won 1st female and 5th overall and set a new course record by nine minutes! The race gained 2,800 feet elevation in 3.5 miles and came back down. Thanks for all the awesome Hammer products to fuel me!"



## Shelley Koenig

"For all of my training hikes, I use Hammer Gel, Perpetuem, and Hammer Bars. My children also love Hammer Gels, and can summit some pretty impressive peaks using them as fuel."

"On this particular hike, we ran into a few hikers who had skinned over from the lift service of the resort (Sugarloaf, ME). One of the hikers was in trouble from not fueling properly and was struggling tremendously. I was proud to be representing Hammer and gave him fuel and water to get him off the mountain without needing to call in Ski Patrol from the resort. Another day saved by Hammer! Thank you."



## Gus Ellison

"I placed 1st overall with a repeat win from last year at the Greenwich Half Marathon. With almost 800 competitors, I was thrilled with my finish. A regimen of Hammer Nutrition supplements throughout my training keeps me strong and healthy. My prerace fueling includes a Hammer Bar for breakfast as well as HEED leading up to the start. Apparently, the mix is working! A small group including myself started as a pack of five, and I tried to stay consistent. A steady pacing strategy worked as the others dropped off by the halfway point. I held them off to finish by over a minute. Great way to kick off the season!"

## Erik Thiele Orberg

"While I am an avid fan of Hammer Gel, I realized that I rarely follow their consumption with enough water at races. Racing the Caesar Rodney Half Marathon with a bottle of HEED was an experiment, testing the weight penalty versus hydration and carbohydrate benefit. I think this strategy paid off, and I will continue to use it especially at hot races."



## Cole Jaquette

"It's starting to get hot in the Phoenix area, making the endurance dirt bike races here tough (we pretty much sprint for two hours while throwing around 250-lb bikes in full gear over very rough terrain). Endurolytes were key to staying hydrated and preventing cramping during the AMRA Off-Road Championship Series Round 7 Hare Scrambles event. I used Hammer Gel to maintain my energy level and it helped me finish the race strong and with a win. Recoverite at the finish line helped my body to start the recovery process."

# FROM OUR ATHLETES

## Blake Passmore

"I seriously could not do this if it weren't for Hammer Nutrition. Even training this off-season has been greatly enhanced by using the supplements and Recoverite. I am really digging the Race Caps Supreme and Chromemate. They have made a noticeable difference in my training. Once again I will be on the trails touting your products, not because of the sponsorship but because I truly believe they are the best. Period."

Photo : Jake Bramante



## Jack Finucan

"As I passed my 60th birthday last May, I had fully resigned myself to running a bit slower from stories I had heard about older runners and triathletes. In the fall, I decided to make an effort to attain a PR in the marathon. I increased my speed on my long training runs and using a combination of Perpetuem, Hammer Gel, Endurolytes, Anti-Fatigue caps, and Recoverite, I felt I was in my best shape ever as we entered the new year.

"At my first race, Town of Celebration Marathon, I posted a new PR of 4:29:21, almost three minutes faster despite losing five minutes at a rest stop. My next event was the Real Florida 10K Off Road race at Wekiwa Springs State Park. This sandy and technical course rewarded me with a new PR of 53:22, 3:10 faster than my previous best. This was also good for 7th overall and 1st in my age group.

"My last running race this spring was the Swamp House Half Marathon in Debarry, FL. I used my Hammer products wisely throughout the race and they provided me with a PR of 1:53:31, beating my previous PR set 10 years earlier by 1:31. I was happy to discover I finished 3rd out of 18 in 60-64.

"Hammer Nutrition has given me the edge to continue to excel as I enter the autumn of my years."



## Don Fella

"Hammer products and apparel aren't just for warm-weather activities. I followed the Hammer Nutrition guidelines that I use in my MTB racing for a day of backcountry skiing in Utah. Starting the day with Perpetuem, Sustained Energy, and a Hammer Bar, I then hit the backcountry with HEED in my hydration pack, Hammer Gels, and an assortment of Hammer Bars. It's a convenient, proven method to stay energized and the dress layering gives me the familiar pockets and access I have come to rely on."



## David Tatum

“I just raced Ironman 70.3 Oceanside with my brother. I was able to go sub-five hours for the first time which was my goal! I was SO happy. I was two minutes faster than my brother on the swim and six faster on the bike. He made up the entire eight minutes on me on the run and caught up to me in the finish chute. I beat him by one second.

“When I first started the sport of triathlon I was naive to say the least about the nutrition side of endurance sports. I had previously been a fast twitch muscle fiber athlete playing sports that did not require much endurance. As I began to dive into the sport I began to learn the hard way through trial and many errors that nutrition was a very important factor. I learned how important it is to have the proper hydration, nutrition, and electrolytes to fuel my body properly.

“After trying many things that resulted in bonks, bloating, and stomach rot from other gels, I found Hammer Nutrition’s Perpetuem which has now become my go-to for fueling!”

## Anissa Parra



“Hammer Gel and a Hammer Bar helped me feel great throughout the entire Rock the Parkway run. I’ve never felt this awesome before.”

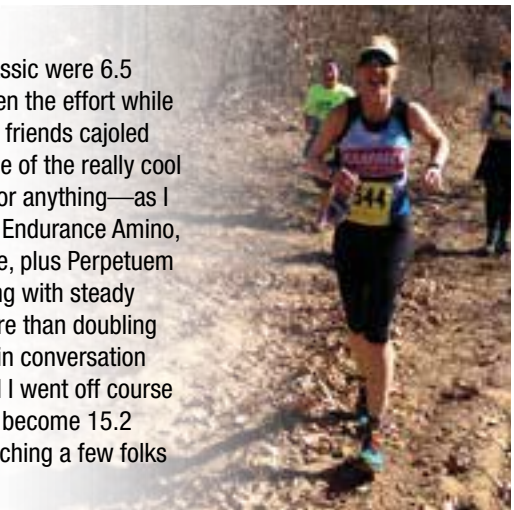
## Beverly Enslow

“My long runs leading up to the Cactus Classic were 6.5 miles, so I thought a trail 10K would toughen the effort while not increasing the distance. At the race my friends cajoled me into the half marathon distance because of the really cool hoodies for race entrants. I was prepared for anything—as I had packed hourly packets of Endurolytes, Endurance Amino, Anti-Fatigue Caps, and Race Caps Supreme, plus Perpetuem Solids. These kept me going long and strong with steady energy and no cramping even as I was more than doubling my long run of the season. I was engaged in conversation around the 4-mile mark and my buddy and I went off course for about 2 miles. So my long run has now become 15.2 miles! Back on course I motored along, catching a few folks and still managing to win my age group!”



## Hannah Stedge

“I raced the ORRRC Marathon in Xenia, OH, and placed 1st overall for women (1/86) and 13th overall (total finishers were 266). My time was 3:15:22. I had Hammer Gel and 2 Anti-Fatigue Caps 15 minutes prior to the start, sipped on Perpetuem mixed with Endurolytes Fizz every 15 minutes, had 1-2 servings of Gel every 40 minutes, and had 2 Anti-Fatigue Caps every hour. Then of course, I had Recoverite after. I felt good nutrition-wise the whole race and never bonked. Thanks for your support!”



FROM OUR ATHLETES

# Back to BOSTON



Photo: Kelly Agnew

## MAGGIE RETIÈRE

**Results:** AG 199, women 1,604, OA 8,202. **Time:** 3:26:30.

**Recipe:** Prerace four-day load of Race Day Boost; Endurolytes Fizz two days before and on race day; Endurance Aminos and Tropical Hammer Gel during the race

*"This was my first Boston Marathon, and it won't be my last! Hammer Nutrition fuels were the key to handling the hilly, tough course and unseasonable heat. I finished the final stretch down Boylston Street hearing the roar of thousands of fans, some yelling 'Hammer it!' as they read my shirt—a moment I will remember forever."* - Maggie



Maggie with fellow Hammer athlete Jason LaFave. Photo: Kevin Frazier

## KELLY AGNEW

**Time:** 3:48:17 ("My only regret is that I didn't take more time on the course to thank the crowds and volunteers along the way.")

Trail runner Kelly Agnew ran the 2014 Boston not as a competitor but to commemorate his last road race.

*"I chose to line up at the 2014 Boston Marathon to show my support and respect for the 2013 victims, the sport, and the amazing city of Boston . . . I was in awe of the massive turnout and I loved the enthusiasm of the spectators. If I had a dime for every high-five I gave out, I could retire today! It was unreal. I let out a laugh every time a spectator yelled, 'GO HAM-UH!!!' or 'YOU GOT DIS HAM-UH!!!' Without my name being visible, they could only address me by acknowledging my sponsors name, HAMMER. It took me a while to realize that's what they were trying to say."* - Kelly

Photo: Erik Meyers



## JANNINE MYERS

**Results:** AG 561; OA 12,111. **Time:** 3:39

**Formula:** Prerace four-day load of Race Day Boost; Hammer Bar three hours before race; Hammer Gels and Perpetuem during the race; post-race Recoverite

*"Race Day Boost enabled me to resist fatigue halfway through the race, and I was able to keep running at a reasonable pace, finishing only nine minutes off my goal time . . . the next morning I felt only a tiny bit of muscle tightness. Even after a long 24-hour trip home, I got off the plane and my legs felt fine. I'm so impressed by the quality of Hammer products!"* - Jannine

Photo: MarathonFoto.com



## LARRY GROGN

Time: 4:19:52

Larry ran the 224 miles from his home in New Jersey to Boston for the Hole in the Wall Gang Camp, a charity for seriously ill children. Immediately after his charity run, he ran the Boston Marathon—essentially running approximately 32 miles a day for seven straight days!

**Formula:** Supplements Premium Insurance Caps, Race Caps Supreme, Mito Caps, AO Booster, and Super Antioxidant; racing fuels Perpetuem, Hammer Gels, and Endurolytes; post-run Recoverite

*"The nutrition regimen suggested by Steve Born worked like a charm! In my 28 ironman/300+ marathons, I've never felt as strong, healthy, and rested as I did completing Boston and those 250 miles last week. THANK YOU! We raised over \$100,000 and so much more."* - Larry

## TRISHA DROBECK

**Results:** G 38; AG 34; OA 677. **Time:** 2:46:28 (ran with elite women)

Rigorous training, proper fueling, and outstanding finishes in qualifying races earned Trisha a place among the elite women at the 2014 Boston Marathon!

### Training formula:

Daily Premium Insurance Caps; Hammer Bar two hours pre-workout, Anti-Fatigue Cap one hour pre-workout; Hammer Gels during run, Anti-Fatigue Cap halfway through run; post-run Recoverite with extra scoop of Whey



*"Hammer fuels keep me on point and help me recover and train harder!"* - Trisha

# "I use Hammer Whey as an HGH boost before bed, when I really need to recover well!"

- Mike B.



- Minimize workout soreness
- Protect lean muscle tissue
- Immune system support

**MSRP**  
\$3.50 - Single Serving  
\$2.95 - 6 or more  
\$39.95 - 24 Servings  
\$37.95 - 3 or more

Tip: Just before bed, mix one scoop of Hammer Whey in 4-6 ounces of water and consume. This practice may safely raise HGH levels while you sleep by as much as 400% compared to the usual nightly spike. That's enough to enhance muscle building and benefit health and performance.

**ORDER TODAY!**

1.800.336.1977  
www.hammernutrition.com



# FROM OUR ATHLETES

## Matt Galluzzo

"Like most Hammer athletes, I work a full-time job and have a very busy schedule. Getting a quality workout in when I have the time is crucial, and over this past winter the best time for me has been in the mornings before work. Although it's great to get a workout done before most people get out of bed, the early morning start and rush to get into work on time make it difficult to recover properly.

"That's where Recoverite has helped me so much over these past few months. It's really difficult for me to eat a quality breakfast immediately after my morning workouts, but it is incredibly easy to mix up some Recoverite for my commute into work. I've even left a few servings in my desk at work, just in case I forget. Recoverite gives me everything I need to get the recovery process started until I have time to eat a proper meal. I've noticed a big difference since I started using it, and I would recommend it to any time-crunched athlete. It works, and it tastes way better than any other recovery drink I've had!"

*Matt is a member of "November Project," a grassroots group that meets three times a week in the early morning at different locations throughout the city (Boston) to do a running/strength workout. Here he is after a stair workout at Harvard Stadium.*



## Hillary Allen

1st female, course record, and 4th overall at the Cheyenne Mountain 50K

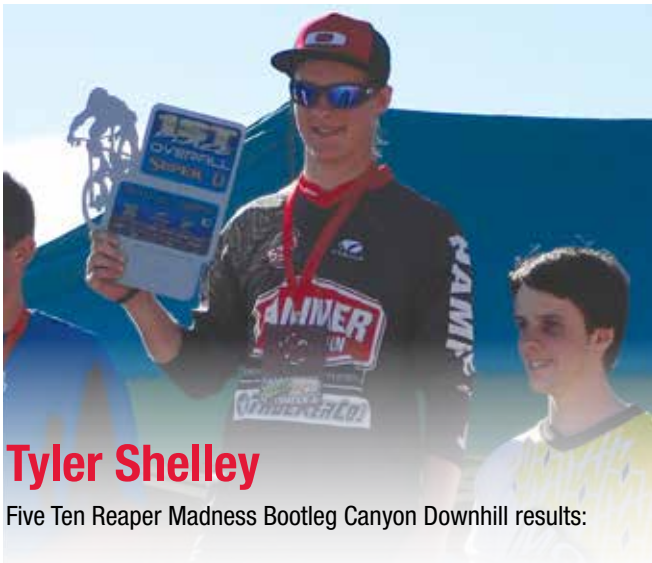
"I primarily use Hammer Gels in racing for the fast-energy my body needs. The Espresso Gels are a great boost when I need a bit of caffeine. Endurolytes Fizz are great during races and long training runs to boost my electrolytes and prevent cramping and imbalances."



## Luke Stahlberg

"I hiked the northern Crazy Mtns. toward Lebo Peak. There were some epic turns made in the Cold Smoke and my Hammer Gel and Hammer Bars gave me the energy to make it there. After a beautiful 12-hour day of skinning in and out on my splitboard, I drank a serving of Strawberry Recoverite with a serving of Chocolate Hammer Whey mixed in. It makes for a great treat after a hard day's work in the backcountry and allows me to recover so I can do it again the next day. Thanks Hammer Nutrition!"





## Tyler Shelley

Five Ten Reaper Madness Bootleg Canyon Downhill results:

- 3rd in the Super D (after a crash and losing a chain)
- 1st overall for the entire series in the Super D
- 6th in the Downhill
- 6th out of 13 for the series in the Downhill

“Although it’s for a different discipline from road cycling, nutrition is still very important for my mountain biking. I use Perpetuem, Recoverite, HEED, and Hammer Gel as well as Premium Insurance Caps and Tissue Rejuvenator. I have used these products since beginning to race bicycles in 2008.”



## Dale Glover

“With water and air temperatures at 38-41°F, the winds began to blow hard with reported 30 mph gusts during the 40th Cameron County Canoe and Kayak Classic. I started off strong, but a gust of wind blew me into another boat and into an eddy where time was lost negotiating a strainer and putting me into 3rd place. I regained 2nd place rather quickly but it took seven miles to catch and pass the 1st-place kayak. A prerace dose of Perpetuem coupled with HEED, Anti-Fatigue Caps, and Race Caps Supreme were just what I needed to keep my muscles feeling fresh after that hard push. With three miles to go, I was able to continue my hard pace thanks to top-notch nutrition on board.”



# “I love Race Caps Supreme!”



***I use Race Caps Supreme everyday. I take them an hour before any run. If the run is two hours or more I take one more at one hour and another at two hours. It seems to keep up my energy level and my focus.***

- Alice K.

- Reduce muscle fatigue
- Enhance energy and endurance
- Increase workload capacity



MSRP  
\$48.95 - 90 Capsules  
\$44.95 - 3 or more



**ORDER TODAY!**

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Alice Kassani (@RunningEconomist) after cranking a track workout in Lexington, VA. Photo: Michael Enz



Giorgio Casorati is crowned king of the 104K 4th stage of the 2013 Giro Calabrese.

***“I have been a loyal VIP Customer for over three years now . . .***

*I use Recoverite every time I finish a hard work out and race and Hammer Whey Protein every night before bedtime to provide the HGH boost and recovery. Hammer Gel is staple for my workouts and races, and at the firehouse during fires and long trainings. I use Boron during the summer when I am peaking in my training, and Race Day Boost before my A-races. Hammer Balm was a gift with a VIP shipment.*

*Now it is always with me for after-workout massages. And, of course, HEED is what I use in my bottles!”*

*- Zachary Hilton, VIP Customer*



# Get the **ROYAL** treatment

Join the **Hammer VIP Program** today!

***“You’ve done a great job making us VIPs feel like VIPs.”***

*- Curt Lyman, VIP Customer*

***“Thank you for the awesome gift you included with my last order . . .***

*It’s a travel mug and it’s great! I love it and have been using it on the cold Ohio mornings to keep my coffee warm on my way to the gym.”*

*- Colleen Linn, VIP Customer*

# "I have been a member of the Hammer Nutrition VIP program for over ten years . . .

*The convenience of having your favorite Hammer Nutrition products shipped to you on a regular basis can't be beat. It's easy to modify your quarterly shipments too. I simply respond to the email I receive prior to shipping and modify my order as necessary. I love the discounted prices! As an added bonus, every month I receive a cool free gift for being a VIP athlete. These are not cheesy goods either; they're high-quality items such as socks, visors, water bottles, or Hammer Bars (to name just a few). Do yourself a favor and join the VIP program. It's a no-brainer way to foolproof your nutritional plan."*

*- Jeff Cuddeback, VIP customer*

*Three-time Ironman AG world record holder*

*Five-time World Champion (ITU, 70.3, and Ironman)*



## Take it to the next level

### Join the Hammer Nutrition VIP Program today!



#### What is it?

The HAMMER VIP Program offers the ultimate in convenience and VIP treatment with scheduled shipments and discounted pricing.



#### FREE clothing!

Receive a free Hammer Nutrition clothing kit with your first order! Select one of our sport-specific kits: cycling jersey and shorts, tri jersey and shorts, running top and shorts, or swimwear with a swim cap and a large towel. Ask a Client Advisor for more information.

#### How does it work?

Call our 800# to have one of our friendly Client Advisors help you select the correct Hammer Nutrition fuels and supplements to meet your needs and goals. We'll then ship your products every 90 days (free ground shipping!) without you ever having to pick up the phone again.

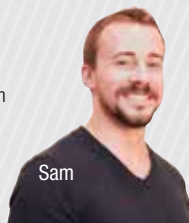
An advisor will also call or email you approximately ten days before your scheduled ship date to see if you'd like to add anything to your order to take further advantage of free shipping and discounted pricing.

\*Sorry, international clients are not eligible for these programs; only valid for U.S. residents.

\*\*You are free to cancel your participation in this program at any time, however some limitations on the free gifts apply. Monthly shipments must be > \$50, quarterly shipments > \$150. VIP program pricing and benefits cannot be combined with ANY other offers, promotions or discounts. See website or ask your Client Advisor for complete details.

#### What do you get?

- 1 - A special team of advisors assigned to your account and special access to our experts.
- 2 - Automatic resupply of products every 90 days.
- 3 - On your first VIP order, we'll send you a clothing kit for FREE. Ask your advisor for details.
- 4 - On your second VIP order, you'll receive a FREE Hammer tee shirt.
- 5 - FREE goodies on every future shipment as well (our choice).
- 6 - Discounted pricing, exclusive offers, and much, much more!
- 7 - FREE ground shipping on all automatic shipments and one fill-in order per quarter.



Sam

Call a Client Advisor to sign up for the Hammer VIP Program and start saving today!

**Don't wait any longer, become a VIP today!**

**Call 1.800.336.1977**

## ENDURANCE NEWS

4952 Whitefish Stage Road  
Whitefish, Montana 59937



# Race season is **RECOVERY SEASON!**

Matthew Kucharski opens the season with a 3rd overall and 1st age group finish at the Around the Mount Triathlon. Photo: Lauren Kucharski



How well you perform tomorrow depends on how well you recover today. Don't cut corners when it comes to your post-workout fueling! Use Recoverite to:

- Reduce muscle soreness
- Rebuild muscle tissue
- Restore muscle glycogen



#### MSRP

\$3.50 - Single Serving

\$32.95 - 16 Servings

\$2.95 - 6 or more\*

\$55.95 - 32 Servings

\*Mix and match flavors

Flavors: Vanilla, Orange-Vanilla, Chocolate, Strawberry



### FREE RECOVERY BAR!

Order a 16- or 32-serving container of Recoverite and receive a FREE Hammer Whey or Vegan Recovery Bar. Ad code EN90RR. Offer expires 7/10/14. Valid while supplies last.

**ORDER TODAY!** 1.800.336.1977 / [www.hammernutrition.com](http://www.hammernutrition.com)

