NEW PRODUCTS IN THE SPOTLIGHT:
Essential Mg and Fully Charged

COLD BREW COFFEE
Chill out with a simple to make recipe

NEW GUIDELINES ON SALT
Proposal to make healthy choices easier

ELECTROLYTES 101
Replenish right to finish strong

PLUS ...
HAMMERING IN HAWAII

Enjoying a victory lap after a first place finish at Salt Pond, located on the Garden Island of Kauai. “Our crew was fueled with Hammer Gel, Endurolytes Fizz, and because of the higher humidity and heat, we took advantage of the benefits that Endurolytes Extreme provide! We recovered properly with strawberry Recoverite so we can live to paddle stronger another day. Thank you Hammer Nutrition for proven products that provided us with success in this grueling 12 mile outrigger race!”

PHOTO: COURTESY VIC ANTHONY ALLEN
LEAD OUTEN

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PHOTO: COURTESY VIC ANTHONY ALLEN
Welcome to the 101st issue!

Or is it the first? I say this because I feel as passionate about my mission today as I did when I wrote the first issue of Endurance News back in 1992. A lot has changed since then, but my singular focus of providing the most effective, cutting edge products, superlative customer service and all the information you need to succeed at your chosen activity is just as intense today as it was when I started in 1987!

One way we maintain our advantage over the competition is constant innovation. Not only do we introduce brand new products on a regular basis, we regularly go back to the drawing board to look for ways to improve our existing products. Besides introducing two new products this year, we have already reformulated our vegan protein powder and have completely re-vamped the entire range of Hammer Bars – they taste much better, and have improved ingredient profiles. You can read more about the new bars on page 34.

Also, be sure to take a good look at our revolutionary new “pre-exercise” product, Fully Charged. While there are other products on the market that claim to help up workout intensity, a little scrutiny shows them to be filled with copious amounts of stimulants, artificial colors, flavors and sweeteners. Certainly not anything I’d want to take before a hard workout or competition. As is usual, we took the concept and “Hammerized” it. We started with a clean slate and assembled a group of exceedingly effective, well researched ingredients that act synergistically to massively boost energy, increase circulation and mental focus. All of these ingredients are combined with a tapioca base and natural cherry flavor to create a tasty “Pre-Exercise Ignitor.” Read all about it on page 18.

The next new product for 2016 is our Essential Mg – a potent new magnesium supplement that includes all 5 elemental forms of magnesium. The product comes on the heels of a recent and growing body of research showing the need for supplemental magnesium. Although a magnesium supplement may not sound sexy or exciting, it’s an essential mineral that we should have more of in our diets. Essential Mg is the answer! Read more about it on page 46.

We rely heavily on feedback from our customers to make sure we are doing everything we can to meet your needs. We meticulously compile and read ALL the feedback we receive by phone, email, in reviews and through social media. We want your feedback and appreciate the time you take to give it to us. In addition to these methods for submitting feedback, suggestions@hammernutrition.com comes directly to my computer. I read and respond to all the emails sent to this address. I invite you to use it.

Enjoy the read and be sure share this issue with a friend!

Brian Frank
Hammer Nutrition Owner

On the cover: In preparation for the national championship sprint triathlon in Amsterdam, Sandra Wassink works on her swimming while vacationing in Grimaud, France.
Secrets for Hot Weather Fueling
These four secrets won’t let summer conditions cramp your style.
BY RACHEL PELC/HAMMER STAFF NUTRITIONIST

Q & A with Tony Schiller
For more than two decades, Hammer has fueled this athlete’s achievements.
BY TONY SCHILLER

Ironman Boulder
Hammer’s fuels and supplements power new personal record.
BY JESSICA CULVER-TAPP

New Guidelines on Salt
New proposal helps consumers make healthy choices.
BY STEVE BORN

Hammer Helps Put Out Fires
Wild-land firefighters use Hammer to fuel for the fight.
BY ENDURANCE NEWS STAFF

Successful Fueling
Learn how to fuel successfully for a half or full marathon.
BY STEVE BORN

The Hammer Bar Unwrapped
With a new formula, Hammer’s protein bars are better than ever.
BY STEVE BORN

Electrolytes 101
Replenish right to finish strong.
BY ENDURANCE NEWS STAFF

Be ECO-nomical, Use a Flask
Refill, re-use and re-fuel with a Hammer flask.
BY BRIAN FRANK

Find the Right EMS Devise
A comprehensive guide to the similarities, differences between leading brands, models.
BY BRIAN FRANK

Avoiding Sugar is Good For Your Health
Studies link dietary sugar to health problems.
BY VICKI HACKMAN

Water VS Drinks
Replenish right to finish strong.
BY BRIAN FRANK

24 hours 2 Ways in Germany
Race car drivers and mountain bikers fuel with Hammer for success.
BY BRIAN FRANK

3 days in Holland, 1 in Belgium
Bringing the Hammer message to life in Holland and Belgium.
BY BRIAN FRANK

Provisions: Racing Essentials
BY STEVE BORN

Coffee: Chill Out with Cold Brew
BY BRIAN FRANK

Aid Station: News and Tips
BY ENDURANCE NEWS STAFF

International: South Africa
BY BRIAN FRANK

Teams
BY BRIAN FRANK

Events
BY BRIAN FRANK

Expert Advice: Honey: Bee Aware
BY VICKI HACKMAN

FROM OUR ATHLETES
BY RACHEL PELC/HAMMER STAFF NUTRITIONIST

HQ hammernews.com August/September 2016
Running with HEED

Being an avid outdoor athlete and endurance freak, I had always thought of myself as a better than average athlete but I had never used anything to supplement my running, aside from gels. In my sponsorship package, I received a product called Heed. I had read about it a few times but never paid it any attention.

I decided I wanted to run 13.1 miles on the treadmill at work (I am a firefighter and don’t have a choice but to run on the mill at work). I needed something to drink during the run so I pulled out a packet of Heed Mandarin Orange and mixed it up. Four miles into the run I took my first taste and I knew from that point on, this product will be with me on every single run.

I felt great, I was never sore, I never cramped and I never wanted to stop (until we had a call). On the call my legs were not sore or heavy like they usually were before I used Heed. I love it so much I have two tubs in my cart right now waiting for me to pay for it. It works, flat out, bottom line. I will never run without it again.

BRYAN SENN / FIRE FIGHTER

Compex keeps running streak alive

I have been using the Compex Edge unit for three months and I love it! Along with Tissue Rejuvenator, it has helped me recover from my hamstring injury and helped me keep my running streak of 6,784 days (and counting).

Now that the injury has healed, I am using the Compex Edge unit to help strengthen my legs. I also use it for recovery after tough workouts and races. I ran a 50k recently and was back to full speed on my runs three days after my race. It would normally have taken a week or more to recover.

I have also shared the Compex Edge with members of my track team to help them through the aches and strains of training.

GRANT WOODMAN / CLIENT

REM Caps for a 3rd shift triathlete

I am a full time police officer in Wisconsin. I have been relying on REM Caps since the start of my career not only to help my body adjust to the life of working third shift, but also to optimize my sleep and recovery from training. In 2013 I finished my first Ironman and thanks to REM Caps, I am able to train and perform my best, all while working a rigorous third shift work schedule!

MATT KOHL / ATHLETE

Cramp free!

Endurolytes Extreme electrolyte caps have been keeping me cramp-free in mountain bike enduro races and long, demanding rides for over a year now. The Hammer Nutrition guide book has been insightful as well, helping me balance my fuel, water, and electrolyte intake for better performance and more fun on the bike.

DOUGLAS THAYER / CLIENT

First in class thanks to Hammer fueling advice!

My brother and I entered the “Kenda Northeast 24 Hour Challenge” off-road race last year as a Duo team. I was a little nervous having never done anything like this for 24 hours. Before I emailed Hammer Nutrition for some advice and Steve Born himself gave me more than enough of his time and info on what to take and when.

We used Endurolytes, Endurance Amino and Anti-Fatigue Caps with some Heed and Hammer Gel mixed in. We were very successful and won our class as well as the “Duo Team” overall, not to mention making it through the whole day in great shape with the help of the Hammer Nutrition. I can’t thank Steve and the Hammer crew enough for the help and the great products that really do work.

KEVIN HUBBARD / CLIENT
The tastiest way to recover right

I cannot stress how much Recoverite helps my aching muscles and joints! After a three hour bike ride - I cannot wait to down my vanilla Recoverite - it tastes like a milkshake and has all the necessary ingredients to help your body recover and do it all over again the next day! So glad I discovered Recoverite!! It’s the jewel in the Hammer crown.

MICHELLE COHAN / CLIENT
#howihammer

HAMMER HAPPENINGS ON FACEBOOK, INSTAGRAM & TWITTER

@dan0_beresford

Great day on the trails
Had a blast today racing the Albury six hour with @seb_jayne from @marathonmtb. We had a great fight with @torqustralia all day and it come down to the last lap. Happy to come away with second! Thanks for a great day and thanks for so much pain!

@titaniumtriathlete

Bright sunny day
“Wherever you go, no matter what the weather, always bring your own sunshine.” -Anthony J. D’Angelo #howihammer

@michco

That finish line feeling
#tbt those post race feels last month at my favorite 10K. I know running isn’t everyone’s thing, but for me, there’s nothing quite like the finish line. It’s my fit fix. Fueled by @hannernutrition.

@trailrunaddict

Running in the rockies
“While working in Loveland, Colorado, I finally managed to get away and spend an evening in the #Rockies. All I can say is: amazing! Wish I could’ve run for hours. #Colorado is beautiful. #howihammer
Hammer Nutrition Athlete Brian Brothers en-route to a 3rd place overall at the Rattlesnake Rampage, Glendo State Park Wyoming. Photo: Milissa Mele

**RACE RECIPE**

**NIGHT BEFORE:** Endurolytes

**BEFORE:** Coffee, Race Caps Supreme, Endurance Amino, Anti-Fatigue Caps and a Nocciola Hammer Gel.

**DURING:** Strawberry HEED

**RESULTS**

3rd place overall, incredible, as only a year ago I thought I would never ride competitively again. So fun to be performing well. Thanks to Hammer Nutrition for the support.

-Brian Brothers

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**Swimming smiles**
Recovery swim this morning after Raleigh. I’m hoping this will get that last bit of soreness out. I’m feeling surprisingly good it being a post race week! #teambetty2016 #howihammer

**Tall trees and trails**
Running on the trails on a sunny day makes me happy :-)

**Bar envy**
Staying fueled as we conquer summit after summit. #hammerlove #thisishowhammer #howihammer #hammerfamily #summiting #wejustsummitted #adventure

**Stars, stripes and summits**
What better way to celebrate this weekend than with a couple of flag shorts on a mountaintop?!? #glaciernps #running #trailrunning #ultrarunning #mountainrunning
#howihammer
PHOTOS, FEATS, AND WORD ON THE STREET

@ivebeen_framed

Hammering ahead
ivebeen_framed@framedbikes and @hammernutrition leading the pack at the #barryroubaix2016 killer #gravelroadrace #limegreen debut and landed an 8th place finish, just twelve seconds back from second place despite a 25mph crash. The Alaskan #carbon #fatbike climbed like a feather and descended the hills of #barrycounty like a missile.

@montanaskylineyoga

Downward + dog
doglove #montana #mountains #mountainyoga #yogaoutdoors #yogawithdogs #yogaforrunners #bridgers #howihammer

@k__pat

Mountain views
No better way to recover than going slow and easy with good views in the mountains. #Pedraforca #Catalonia #howihammer

Overheard …

“Thank you @hammernutrition for making the things you make that gets me thru my mornings!”

“I use the multi-hour bottle on every ride. I mix in some HEED with the Perpetuem. It works great for me!”

“Emergency lunch! @hammernutrition to the rescue. As a bonus, it’s totally delicious. #Recoverybar”

“I rely on @hammernutrition’s Recoverite to recover right today so I can hammer tmrw! #howihammer #fuelrightfeelgreat”

“After my exercise, my body craves Recoverite!”

“@hammernutrition helped us handle a Rim 2 Rim crossing of the Grand Canyon with ease! #WhatsNext #howihammer”

“Pre Workout”? Love Hammer Nutrition’s Big Ring coffee to start our mornings.”

Keep the social media conversation going...

Use #howihammer for a chance to be featured on Hammer Nutrition’s social media pages or right here in Endurance News
ATHLETE POSTS

SOCIAL MEDIA EN

#howihammer

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@k__pat

Wherever you go, show us how you Hammer.

Join the Conversation

Inspiration • Community • Knowledge

#howihammer
Most athletes know that training and racing in hot weather requires far more than drinking an extra bottle of water. To maximize the benefits of your hard work, remember these performance-boosting tips as the temperatures rise.

**Secret #1: Replenish electrolytes completely.** Sodium isn’t the only electrolyte your body loses when training in hot weather. Calcium, magnesium, and potassium must also be replenished for the body to function properly. In the heat, your body must sweat more to keep your internal temperature at a normal level. According to Chantal A. Vella, M.S. and Len Kravitz Ph.D. of the UNM, “during moderate to high-intensity exercise of greater than one hour, the electrolyte loss in sweat becomes significant, and the sweat rate is too fast for re-absorption of electrolytes,” hence the need to supplement the lost nutrients.

**Secret #2: Don’t skimp on nutrition; supplement wisely.** When temperatures rise, appetite often goes down. Diet alone cannot provide your body with all of the nutrients it needs, especially now, as intense exercise demands even higher levels of nutrients. Consuming quality supplements is critical for strong athletic performance and health. When reviewing supplement labels, keep in mind the difference between RDI (Recommended Daily Intake, shown on most labels) and ODI (Optimal Daily Intake). ODI represents a higher level of nutrients recommended for daily consumption. ODI is more in-line with what an endurance athlete requires. Consider RDI amounts as minimal requirement for proper body functioning.

**Secret #3: Maintain your H2O-Zone.** Most athletes, under most conditions, can satisfy their hydration needs with a fluid intake of 20-25-ounces/hour. Lighter athletes and/or athletes exercising in cool weather conditions may only require 16-18 ounces/hour. Larger athletes and/or athletes exercising under very hot and humid conditions can consider a fluid intake of 28 ounces/hour, and perhaps up to 30 ounces/hour in extreme conditions. Remember that regular fluid intake of more than 30-34 ounces hourly significantly increases the potential for serious performance and health problems.

**Secret #4: Steer clear of heat-generating foods.** Your body digests foods differently, depending on the content of the specific food. Some foods can actually raise or lower your internal body temperature. Cooling foods include fresh produce with a high water content, such as cucumber or watermelon. Watermelon, for example, consists of nearly 90% water, making it easy to digest and cooling to the body. Warming foods include high fat foods and root vegetables. These foods require more energy to digest and raise your internal temperature. Spicy foods can be viewed as both heating and cooling. Hot peppers, for instance, stimulate your circulatory system and raise your body temperature. Very spicy foods also can cause you to sweat; but as sweat evaporates, it cools the skin, helping to decrease your internal temperature.
EXPERT ADVICE
KNOWLEDGE

4 Secrets for Hot Weather Fueling

BY RACHEL PELC / HAMMER NUTRITION STAFF NUTRITIONIST

Most athletes know that training and racing in hot weather requires far more than drinking an extra bottle of water. To maximize the benefits of your hard work, remember these performance-boosting tips as the temperatures rise.

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Chill! Don’t let summer conditions cramp your style.

Many people live in a state of perpetual dehydration which will negatively affect their athletic performance and health.

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**CamelBak Elixir**

Active ingredients: Electrolytes (Sodium, Potassium) Vitamin C, Riboflavin, Niacin, Vitamin B6, Vitamin B12, Biotin, Pantothenic Acid, Caffeine, Inositol, Panax Ginseng Root Extract, Glucuronolactone, Guarana Seed Extract

Other ingredients: Citric Acid, Sorbitol, Natural and Artificial Flavors, Polyethylene Glycol, Tartaric Acid, Acesulfame Potassium, Sacralose, Vegetable Juice Color, Magnesium Oxide

- Contains only two electrolytes
- Polyethylene Glycol is a petroleum-derivative compound sometimes used in antifreeze, laxatives
- Acesulfame Potassium and Sacralose are artificial sweeteners

**Hammer Nutrition Endurolytes Fizz**

Active ingredients: Electrolytes (Sodium, Potassium, Magnesium, Calcium, Chloride) Manganese, Vitamin B6, L-Tyrosine

Other ingredients: Citric Acid, Natural Flavors, Sorbitol, Stevia, Wheat Germ Oil

- Contains a full spectrum of electrolytes
- Wheat Germ Oil is a gluten-free*, unrefined, natural oil that is obtained from the germ of the wheat kernel
- Stevia is a natural sweetener extracted from plant leaves

*There are less than 5 ppm (parts per million) gluten in wheat germ oil; the FDA defines gluten-free as a gluten concentration of 20 ppm or less.

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**IT’S WHAT’S INSIDE THAT COUNTS!**

You read labels at the grocery store, and you should do the same when it comes to sports nutrition. What you consume before, during, and after exercise is just as important as what’s on the dinner table. Skip the simple sugars, excess sodium, and questionable additives found in other products. With Hammer Nutrition you can rest assured you are putting only the finest endurance fuels and supplements into your body. Fuel Right, Feel Great!

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**ORDER TODAY!**

Use promo code EN101 and receive a FREE tube of Endurolyte Fizz, value $4.95. Expires 9/12/16

800.336.1977 / www.hammernutrition.com
Q & A with Tony Schiller, Hammer athlete and 2015 USAT Master’s Triathlete of the Year.

Q: This is your 5th decade in racing. How are you feeling?
A: Great. I’m a little slower and myaches and pains last a little longer than they used to, but I’m injury-free and enjoying racing and training more than ever.

Q: While you had a nice pro career way back when, we’re more interested in what you’re doing now to keep turning in such great results (two national titles and a 7th world title in 2015) well into your late 50’s. How has your training approach changed in recent years?
A: The key is frequency. I keep doing shorter workouts and more of them. I do over 100 additional sessions a year and many are only 15 minutes long.

Q: Not all your workouts are 15 minutes though, right?
A: Of course not. But I do more short workouts than you might think. For example, I have a pool in my office building and I jump in. I jump in several times a week for only 1,000 yards. Many swimmers would think that’s hardly worth getting wet for, but that’s the exact thinking that will get you in trouble. They usually swim to fatigue, while I swim for quickness and often leave craving more. The longer sessions happen too, naturally, so the endurance is still there. It’s counter-intuitive but...
creating a new mantra that less is more will keep you fresh, loose and hungry. At least for me, it’s a far better recipe than my old approach.

Q: Let’s break this down. What does a typical training week look like during the race season?
A: For one-sport athletes, replace a couple medium one-a-days with short two-a-days. As a triathlete, I used to max at 10-12 workouts a week. Now I aim for five sessions in each sport, plus a day off, so that’s 15 sessions in six days of the week. Of the 15, probably half are 15-20 minutes or so. The other half go longer, ranging from 30 minute runs up to 3-hour rides.

Q: Any other benefits to the frequency model?
A: It fits the way our aging bodies crave to move. Here’s a metaphor. The old dog that struggles to do one long walk a day will thrive and be excited to walk if he’s given five or six quick jaunts around the block daily. We’re like that old dog. You’ll be shocked at how much your body responds and wants to train when you send it out for brief sessions more often.

Q: How does the frequency model impact the mental part of your training?
A: When your next few days include expectations for long or difficult sessions, it has a wearing effect on your spirit. It adds anxiety if you then blow off one of those sessions. When your fatigue is high, knowing that you can change your expectation to a brief workout instead of blowing it off will free you from all of that. It significantly reduces the burnout effect.

Q: It’s August. Can frequency be added now in the peak of a season?
A: Definitely, just sprinkle in more short sessions. Try replacing a 30-60 minute session one day this week with a 15-minute morning and a 15-minute evening session. You’ll notice immediate gains in your tempo and recovery from those sessions that may give your season a big boost.

Q: You’ve been a Hammer athlete for a long time. What keeps you coming back?
A: It works. I’ve been loyal to Hammer since E-Caps (now Race Caps Supreme) turned my season around in 1988. I had another major breakthrough in 1998 the first time I used Endurolytes and won a major race at 40. It’s now a trust factor. So many nutritional companies have come and gone after claiming to be the new wave. Hammer has just stayed true... gimmicks, just pure products and knowledge that endurance athletes can trust. I love that the team is trained to help customers get the best advice without pressure to buy. I feel better and am absolutely faster when I use Hammer products. That sums it up.

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**Hammer Athletes Named Triathletes of the year**
Athletes named athletes of the year by USA Triathlon

**Tony Schiller**
2015 masters triathlete of the year

Tony Schiller is an accomplished Triathlete, speaker and the founder of a childrens charity. He has four Hawaii Ironman Finishes, 79 Duathlon wins, seven U.S. National age group titles, six age group world titles and has been honored as the USA triathlete of the year twice. He won his first triathlon in 1987. Even at 51 years old he remains competitive with the top younger athletes.

**Greg Taylor**
2015 grand masters triathlete of the year

Gregory Taylor has qualified for 25 Ironman World Championships over his career and continues to push his limits at the Grand Masters level. Taylor is passionate about the triathlete community and has been active in mentoring younger triathletes; helping them become better athletes and better people. He was the Kona age group champion for 2014 and 2015, and the Olympic distance national champion for his age group for 2014 and 2015.
I seem to attract crazy weather wherever I race. After finishing Ironman Coeur d’Alene last year (2015) with record temps in the 110+ degree range, you would think I would be ready for anything. Nearly a year later, history seemed to repeat itself as I watched weather reports for IM 70.3 Boulder. Forecasts put the highs for race day in the 90’s.

The difference this time was that I knew how my body would react and what I needed to do differently. Race week I loaded up on water and electrolytes, (my favorite is to sip on Mango Endurolytes Fizz all day). I was driving from Missoula, Montana, to Boulder, Colorado, so I made sure I packed all my Hammer essentials.

My group started at 8:08 a.m. Temps were already in the high 70’s. I guzzled down an Espresso Hammer Gel, and off I went. The swim was a bit choppy, even with the age group wave start. I started off strong, but by the half way mark I was being tossed around and battling though the masses. All in all, I swam conservatively knowing the heat would affect my energy later in the day.

My first transition was flawless. Wetsuit off, Tropical Gel in, socks and biking shoes on, helmet clipped and off I went.

Coming out of transition, the run was lined with cheering fans all shouting words of encouragement. I got caught up in the moment and ran a 7:30 first mile. Oops, too fast! I slowed it down to my comfortable half marathon pace. I was feeling great at mile two, three and four. I was still religious with my hourly baggie of capsules; every hour on the hour. I took two Race Caps Supreme, two Endurolytes Extreme, two Anti-Fatigue Caps, and two Endurance Aminos. I also drank water and had a Hammer Gel every four miles.

I knew it was going to be hot, I knew it was going to be painful, but I also knew I had been through much worse. My past experience and proper planning led me to my 70.3 PR. I had many moments of doubt as we all do during long races, but by the last few miles I was running faster than expected and feeling pretty good. My final time of 5:40:32 placed me 13th out of 110 in my age group. No land speed records for me, but a solid performance in tough conditions. Thanks Hammer for all the support!
had 13.1 miles to run on mostly dirt roads. My second transition seemed to be even smoother: rack bike, change shoes, clip race belt and off I went.

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Fully Charged is a revolutionary, pre-exercise formula. Hammer Nutrition’s new Fully Charged blows the doors off existing pre-exercise formulas because it isn’t about getting you amped up on copious amounts of caffeine or other central nervous system stimulants, which is what other pre-exercise products do. Instead, Fully Charged supplies a plethora of true performance-enhancing benefits, including:

- Boosting nitric oxide levels
- Increasing mental alertness
- Enhancing fat utilization
- Buffering acidity
- Stimulating the production of ATP
- Alleviating muscular soreness

... and more. It’s completely complementary to Race Caps Supreme, Anti-Fatigue Caps, Endurance Amino, and any other pre-exercise Hammer Nutrition supplements you may currently take. To use Fully Charged, mix one to two servings of this powerful new formula in 6-8 ounces of water and consume 15-30 minutes prior to exercise. “Good to go” has now taken on a whole new meaning!

The NEW Fully Charged peak performance formula

**Taurine**—A sulfur-containing amino acid that is found throughout the body, but especially in muscle and nerve tissue, taurine assists in regulating heartbeat and muscle contractions, and levels of neurotransmitters in the brain. It is essential for the proper functioning of the electrolytic minerals calcium, magnesium, potassium, and sodium, helping to protect against muscle cramping. Among its many benefits, taurine is suggested to increase concentration and mental alertness, and it possesses antioxidant properties. Perhaps most important to athletes, taurine supplementation is correlated with increases in VO2 max and time to exhaustion. Along with carnosine, taurine helps reduce lactic acid buildup and assists in maintaining optimal blood pH.

**Beta-alanine**—This amino acid increases muscle concentrations of the dipeptide carnosine, which helps alleviate fatigue by acting as a buffer against increased acidity.

**L-Carnitine Fumarate**—L-carnitine is an amino acid that primarily functions as a transporter of fatty acids into the mitochondria for conversion to energy. Fumaric acid (fumarate) is a Krebs Cycle Intermediate and plays a vital role in energy production.

**Spectra™**—A proprietary blend of 29 vegetable, fruit, and herbal ingredients, Spectra™ has been shown in a crossover, double-blind, placebo-controlled study to increase nitric oxide (NO) levels by 64%. Increasing NO levels results in increased blood flow to muscles, enhancing delivery of nutrients and oxygen to working muscles, thus supporting increases in endurance and

---

**Product Spotlight: Fully Charged**

A pre-workout supplement that takes performance to the next level.
strength. That same study showed that Spectra™ also provides powerful antioxidant support, reducing free-radical production.

Green Tea Extract (standardized to 50% polyphenols) – A natural source of caffeine, green tea also contains polyphenols such as catechins—including an especially important one known as epigallocatechin gallate (EGCG)—which provides antioxidant and cardiovascular health support.

elevATP™ – A proprietary, clinically-researched blend of plant-derived trace minerals and polyphenol-rich apple extracts, elevATP™ works with the body’s natural energy-producing mechanisms to stimulate production of adenosine triphosphate (ATP), the energy currency of the body.

Beet Juice Powder – A rich source of nitrates, which help boost nitric oxide (NO) levels.

Tyrosine – This amino acid is the precursor for several important neurotransmitters that are involved in alleviating stress and fatigue, while helping to increase mental alertness.

Tart Cherry Extract (standardized to 6.5% anthocyanins) – Cherries contain naturally occurring compounds (anthocyanins) that research has shown helps block pro-inflammatory COX-1 and COX-2 enzymes. This helps maintain normal muscle function during exercise, while alleviating muscle aches and promoting rapid muscle recovery after exercise.

The search for a truly beneficial pre-exercise formula is over! No other pre-exercise product provides the wide-ranging benefits that the new Fully Charged does, without subjecting you to the unpleasant, overly wired effect associated with other products. Several months in the making, this extraordinary new product can be used prior to any workout or race. We have thoroughly tested Fully Charged and were absolutely PSYCHED with the results we experienced. We know that you will be too. If you’re ready to be mentally and physically prepped to take your workouts and races to another level, you’re ready for Fully Charged.
Cyclist Tackles the Hills

Hammer products prime cyclist for hilly 202-mile race

By John Cox

Sometimes at the start of rides you don’t know what to expect. However, when the ride is listed as a 202-mile race with 15,500-feet of climbing, (half of which is in the first 70 miles), you can be confident what you’re getting yourself into.

As my group and I leave the city of Palmdale, California, the race starts out with a gradual climb up several rolling hills. About 15 miles into the ride, we make our first turn and, after a few more miles of rolling hills, we begin to encounter longer and steeper climbs. I settle into a rhythm as we head up a long climb, remembering the thousands of vertical feet yet to come. There are a few short, steep descents in between the long climbs, just enough to let the legs take a little break, but no real opportunity for recovery. I’m in a group of seven riders, and by the time we arrive at the first rest stop, there are only a handful of riders ahead of us.

We leave the first rest stop at different times but quickly regroup as we begin another ascent. Everyone takes the hills at their own speed, but we regroup on the downhill sections. The only advantage of being in the cold hills is that there isn’t much wind. About eight miles before the second rest stop there’s a nice two-mile descent followed by a flat stretch where we catch a breather before hitting a really long climb.
After the second rest stop, at mile 50, it’s uphill for what seems like forever. We take a right turn and get a break as we enjoy a fast downhill. We finally reach the summit at the 70-mile mark, which is the third rest stop and 9,000’ above sea level.

The next 20 miles are mostly downhill with a few pitches to climb. Things really open up here, and we can see just how much we’ve climbed. I drop off the back of the group so I can take the downhill at my own speed and enjoy the view. This is also a good time to take some supplements and give the brain a break from drafting. I really don’t like drafting on fast downhill portions with riders that I haven’t ridden with before, so this is a perfect opportunity to take Hammer Nutrition fuels and supplements while I stretch on the bike.

The seven of us are still together when we reach the lunch stop at mile 102. The advantage of using Hammer products really shows up at this point. Everyone else in the group is grabbing a sandwich while I only have to refill my bottles of Sustained Energy and HEED. I’m ready to go in no time. After about a 10 mile warm-up, the climbing starts again, and doesn’t stop, except for a short stretch, until we arrive at the top of Heartbreak Hill. From this point, until the next rest stop, there are some nice downhill sections and a few easy climbs. The next rest stop is the same stop (2nd) we made earlier in the day, but this time it’s at the 150 mile point.

The last 50 miles travel over the same roads that we covered earlier in the day. The short descents we encountered earlier in the day now seem much steeper and longer now that we’re headed in the opposite direction, but after an hour and a half almost all of the climbing is over.

It’s been a long tough day, and I’m glad the last 20 miles are mostly downhill. With a nice tailwind I quickly travel the last 15 miles as my buddy yells out that we’re going about 26 mph. As I cross the finish line almost 14.5 hour after the start, I’m still feeling good, but glad it’s over at the same time.

My first priority is to get to my car where my Recoverite shake and Hammer supplements are waiting. Talking to some of the riders after the event, the 15,500’ may have been an understatement. The highest total I heard was 19,100’ and the lowest was 18,300,’ so I feel confident saying that the ride is actually 202 miles with 18,000’ of elevation gain. The following day, I look at the results and I’m pleased with my 9th place finish. It was an epic and wonderful event.

**The ultra endurance fuel formulated for the long haul!**

- Reliable, long-lasting energy
- Maximizes fat utilization
- Prevents muscle fatigue

“Perpetuem has never let me down in the heat or cold, and ensures that I get enough quick and sustaining energy to get me through a hard day.”

– online reviewer

**Sponsored athlete Coul Hill hammers to the finish at the Independence Valley Road Race. Photo: Colene Hill**

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The U.S. Food and Drug Administration — in a major breakthrough — has drafted guidelines for reducing the amount of salt added to processed and prepared foods by about one-third.

Susan Mayne, the director of the FDA’s Center for Food Safety and Applied Nutrition, states “The totality of the scientific evidence supports sodium reduction from current intake levels. Experts at the Institute of Medicine have concluded that reducing sodium intake to 2,300 mg per day can significantly help Americans reduce their blood pressure and ultimately prevent hundreds of thousands of premature illnesses and deaths. Because the majority of sodium in our diets comes from processed and prepared foods, consumers are challenged in lowering their sodium intake themselves.”

In Endurance News #99 (April/May), Hammer Nutrition shared information reported in the Journal of the American College of Cardiology regarding the deleterious effects that sodium has on the brain, heart, kidneys, and blood vessels. Specifically regarding the blood vessels and the heart, the U.S. Food and Drug Administration states that one in three individuals has high blood pressure, which has been linked to diets high in sodium and is a major risk factor in causing heart disease and stroke.

The Centers for Disease Control and Prevention has compiled a number of key studies, which continue to support the benefits of sodium reduction in lowering blood pressure. The conclusion of one study summarizes, “High quality evidence in non-acute illness adults shows that reduced sodium intake reduces blood pressure and has no adverse effect on blood lipids. Lower sodium intake is also associated with a reduced risk of stroke and fatal coronary heart disease in adults. The totality of evidence suggests that most people will likely benefit from reducing sodium intake.”

While you alone are responsible for making wise dietary choices—limiting packaged/processed food as much as possible and being cognizant of the food you eat when dining out—it appears that the FDA is working to make things easier for us when it comes to making healthy decisions.

Tips to shake the salt habit

- Adopt a low-sodium diet, keeping in the recommended range of 2300 mg or less.
- Avoid all processed foods. More than 70% of the salt we consume comes from processed and prepared foods.
- Don’t pre-load sodium in the days leading up to a race.
- Employ the “less is best” fueling philosophy during exercise, especially when it comes to sodium intake.
- Use Endurolytes, a full-spectrum electrolyte supplement; don’t rely solely on salt (sodium chloride) for electrolyte replenishment.

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EXPERT ADVICE

KNOWLEDGE

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"The heat was a big factor in this race and thanks to Endurolytes Fizz, I had no heat-related issues."

- Monique

Monique Jacques dring the 135 Miles to the House. Photo: Marie Jacques-Delion

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Putting out fires with Hammer Nutrition

Wild-land firefighters use Hammer to fuel for the fight

BY ENDURANCE NEWS STAFF

Hammer Nutrition has teamed up with wild-land fire fighters this fire season in order to bring the highest quality fuels to firefighters. Perhaps even more than any endurance sport, firefighters need proper nutrition in order to combat fatigue caused by the harsh conditions in which they work. Here is a list of the fuels that keep these men and women hydrated, energized, and focused in the most brutal conditions:

- **HEED**: provides consistent, long-lasting energy and the electrolytes needed to prevent cramping, essential for firefighters working in hot conditions.

- **Endurolytes Fizz**: a full-spectrum effervescent electrolyte drink to help replace what these firefighters lose during intense physical exertion.

- **Whey Protein Bar**: enhances recovery with nutrients, high-quality protein, and complex carbohydrates. In addition, it contains eight generous grams of fiber and no refined sugar or trans fat, which can lead to “crashing.”

- **Hammer Bar**: a healthy, convenient snack made from whole food sources. Hammer Bars provide the highest quality, easy-to-digest carbohydrates for consistent, reliable, long-lasting energy.

Hammer is proud to provide quality nutrition for these men and women who help preserve our wild-lands and keep our homes safe.
FIRE FIGHTER FUEL
KNOWLEDGEEN

Putting out fires with Hammer Nutrition

Wild-land fire fighters use Hammer to fuel for the fight.

The Gila Smoke Jumpers, wildfire fire fighters.

Photo: Courtesy Katja Steenkamp

The wild-fire Unimog at Hammer Headquarters stocking up on Hammer products.

Photo: Luke Ourslend

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- Exclusive fueling knowledge
- Reads quick and the info sticks
- Free to our customers

Nearly 30 years ago, we literally began writing the book on endurance fueling, and here it is! Get the exclusive Hammer Nutrition knowledge you need to succeed, distilled into an easy-to-read, FREE guide that will change the way you train and compete.

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800.366.1977 / hammernutrition.com
The **Atypical Hammer Athlete**

In each issue of *Endurance News*, we highlight some of the less conventional ways athletes use our products. From firefighting professionals 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!

**What is rugby?** Baltimore football legend, Henry Blaha once described it as “a beastly sport played by gentlemen.” It is a beautifully orchestrated brutal war, and a bond of respect that goes beyond individual squads and clubs. It is also a game of speed, power and endurance. The egg-shaped ball is passed backwards to your teammates as you try to get it into the opponent’s territory and touch the it to the ground. After the match, both teams sit down and have a meal together. I define it as a family; you settle your battles but always meet up for dinner afterwards.

I ran track for 10 years starting in 7th grade as a distance runner and shifted to the grueling 400-meter and 200-meter races in high school. I received a scholarship to Bethel, a small Christian college in Indiana, but rugby was not offered at the time. I have always watched rugby, but never thought I had the size to take so many hits, especially without any pads. After graduation, I got the opportunity to become the strength and conditioning trainer for the newly formed Bethel rugby team.

Recently, my wife Elizabeth and I moved to Colorado so I could attend Colorado State University for my Master’s in Toxicology. This move opened the door for me to practice and play a few games with the CSU rugby team. With my college athletic eligibility

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**Beautiful and Brutal**

Rugby: a game of skill, speed, and endurance

**By Calvin Lewis**
diminished, I decided to join the Marauders Rugby Club in Superior, Colorado to see how far I could take my rugby dream.

This summer I will be playing in the Denver 7’s tournament as a starter; the tournament attracts over 1500 people.

My position in rugby is winger; which requires sprint endurance and knowledge of great tackling form and strategy. Tackling high, around the chest area and above, lands you on the referee’s bad side. My job is to score, and if I am not in a position to score, I have to create space for my teammates to do so.

Due to the demanding aspects of the game, fueling the right way is a necessity or you will not be able to make it through the match. However it’s tricky, with over 80 minutes of game play and just 10 minutes between halves. Hammer products have made a huge difference and the “less is best” plan is extremely helpful. Hammer is my final choice because I know exactly what I am putting into my body - no proprietary blends. All I need is those 10 minutes to grab my Hammer Gel and my Anti-Fatigue Caps, and I’m able to “Hammer On” tackle after tackle.

HOW A RUGBY PLAYER HAMMERS

TRAINING (Less than 3 hours)

- **Pre-training:** Hammer Gel, Race Caps Supreme, Anti-Fatigue Caps
- **Warm-up:** Energy Surge
- **During training:** Endurolytes, Anti-Fatigue Caps, Hammer Gel
- **Post training:** Recoverite, HEED

MATCHES (80 minutes)

- **Evening before:** Half a gallon of water with rice and chicken, Race Caps Supreme
- **Morning:** Cup of tea, scrambled eggs, Energy Surge, Race Caps Supreme, 3 glasses of water
- **Warm-up:** Hammer Gel, Anti-Fatigue Caps, peppermint chewing gum
- **Half-time:** Hammer Gel, 6 oz of water, Anti-Fatigue Caps, Endurolytes, Energy Surge
- **Post-match:** Recoverite, Tissue Rejuvenator, HEED, Anti-Fatigue Caps

STAY AHEAD OF FATIGUE

**Anti-Fatigue Caps**
Clean up fatigue-causing ammonia

- Greatly increased endurance
- Counteract everyday fatigue
- Boost energy production

Fueled by Hammer, Eric Bruce stays ahead of fatigue and his competition during Ironman Louisville.

Photo: Philip Rogers

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Proper fueling is essential for running a successful marathon.

Successful Fueling
for a Half or Full Marathon

BY STEVE BORN

We receive a lot of questions from runners looking for fueling advice. Understanding your options will help remove the guesswork so that you can achieve more — possibly even finishing with a personal best — without fear of bonking or suffering GI issues.

The weeks before the race
Successful fueling starts weeks before the race. This is when you “refill the tank” with quality fuel ASAP after all of your workouts. Within 60 minutes of the finish of each workout, replenish your body with Recoverite, which is ideally formulated to help build lean muscle tissue, boost immune system functioning, and increase muscle glycogen — the first fuel your body will use when you resume exercise. With smart training and recovery fueling, you can accrue up to 90 minutes of this ready-to-use fuel.

Days leading up to the race
Don’t make big changes to the daily diet that you’ve been following while in training. Attempting to “front load” water, carbs, and/or sodium is ineffective and counterproductive. Continue to consume roughly 0.5-0.6 ounces per pound of your body weight, daily. If you haven’t been drinking this much, don’t start now — you will overwhelm your body with fluid too soon. Also do not consume extra sodium (salt) before your race. Taking in too much sodium can disrupt your body’s natural ability to regulate and conserve this mineral — resulting in cramping, weakness, or worse on race day.

Night before
Very simple: Eat clean until you’re satisfied, and then call it a night. You can’t positively affect muscle glycogen storage the night before the race. Consume complex carbohydrates, some high-quality protein, and little or no saturated fat. Make sure your meal is low in sodium, and drink a sufficient amount of water. Skip alcohol, fatty foods, and dessert. Save those “rewards” for after the race.

Morning of the race
Do not consume significant calories three hours prior to the race. Remember, the first fuel your body will use when the race begins is the muscle glycogen you’ve stored up in training through your post-workout refueling. Eating a pre-race meal at the wrong time will cause your body
to burn through its finite stores of glycogen more rapidly, while also negatively impacting how well your body uses body fats for fuel.

Instead of eating anything 1-2 hours prior to your race, consume 1 serving of Hammer Gel approximately 5 minutes prior to the start. This will top off liver glycogen stores nicely and provide some calories to augment muscle glycogen stores. In addition, drink 24-34 total ounces of water in the 2 hours prior to the start, ceasing about 30 minutes before the race.

**30-45 Minutes before:**

**Endurolytes time!**
Taking a “pre-emptive strike” dose of Endurolytes (with water) before the race will provide electrolytes for at least the first hour of the race. If you are taking additional supplements, such as Endurance Amino or Anti-Fatigue Caps, take them now too.

**Fueling for your race**
If your race is in the 2-2.5 hour range (perhaps even slightly longer), you can go with carbs only, meaning “regular” (no protein-containing) Hammer Gel or HEED. If your race will be closer to 3 hours (or longer), you have several fueling options available. You can use:
1) Sustained Energy or Perpetuem as your primary-to-sole fuel
2) “ultra” Hammer Gels — Peanut Butter, Peanut Butter-Chocolate, or Nocciola, which contain complex carbohydrates and a small amount of protein — as your sole fuel
3) a combination of a “carb only” fuel (regular Hammer Gel or HEED) plus Perpetuem Solids.

**How to choose**
In addition to race duration, your fuel choice — and the amounts you use — should also be based on how well you digest a particular fuel during a higher-impact activity (like running), the intensity of the effort, the weather and your acclimation, and the terrain.

To determine your best race day fueling plan, consider these variables, then thoroughly test your plan in training. Testing a variety of these fueling options under a variety of conditions will give you the greatest potential for success come race day. Also, please remember that we have a skilled team of client advisors ready to help you dial in your fuel and supplement program. We’re just a phone call or email away!

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**NEED TO KNOW**
The ideal product amounts to take before, during, and after exercise can vary individually, based on body weight and activity level.

For suggested product amounts, please refer to our product pages or the How to Hammer/Product Usage Manual (a free PDF download) on www.hammernutrition.com

For “digestively challenging” forms of exercise, such as running, I suggest starting slowly and gradually increasing the number of products, and the amounts, you take. You’ll find a much more in-depth version of this article, “Epic Sessions,” under the “Advanced Knowledge” heading.
I got into trail running while coming off an injury. I had been road running up to that point, but in December 2012 my love of running took a huge turn. I was invited by friends who used to be road runners to join them on the trail, but I didn’t go. However, when I was recovering from an abductor tear the doctor said I should try to stick to soft surfaces for a while and the trail fit that description.

My first trail run was a five mile loop at Oil Creek State Park and I fell in love with the trails. I then watched Unbreakable, Western States 100 and decided I wanted to be an ultra runner. In 2013, I ran my first 50K, and in 2015 I stepped up to 100-mile events.

What I love most about ultra and trail running is the community and friendships that develop on the trail; it truly is as close as family. We laugh, we suffer, we fail, we succeed, and we all support each other.

Another thing I love about this sport is that we get to see things most people will never see with their own eyes. We see breathtaking views, relics of bygone times and Mother Nature in her purest form.

The demands of ultra running are very high. We usually have to take a full day from our families to go on long runs or lose tons of sleep to get the miles in. The logistics of getting yourself, your gear, and crew to races or events can prove to be very tough and takes some careful planning. The sport can be very expensive between gear, fuel, travel and race fees.

This year my progress in ultra running is better than I could have hoped. I have been coached by fellow Hammer Nutrition athlete Damian Stoy for about a year now, and I am using many more Hammer Nutrition products to aid in fuel and recovery. I have run two 50Ks, a half marathon, one 5K, one 25K and I just finished the Mohican 100 which I didn’t finish last year. I am more fit than ever, and that is something I am very proud of as a 42-year-old.

In closing, I just want to remind athletes to not take training too seriously. Take time to enjoy the trail or road, whichever you prefer. Whether it is for just a couple miles or 100 miles, don’t lose sight of what interests you in the sport you enjoy. Keep your goal in focus and don’t peak too soon. Most importantly... HAVE FUN!
ATHLETE FEATURE

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• Spirulina - a microscopic alga, this superfood is rich with protein, vitamins, and minerals.
• Chlorella - loaded with chlorophyll and essential fatty acids and abundant in beneficial beta-carotene.

When I walk into any health food store, nutrition store, or supermarket there is often a dizzying array of whey protein options. What sets Hammer Whey apart from the competition?

Most of these whey protein powders are similarly formulated with cheap casein (milk) proteins, whey protein concentrates, or a combination of both. Most also contain carbohydrates (often as refined sugar), artificial flavors or sweeteners, and preservatives. Some also contain auxiliary nutrients in amounts so small that they have little to no benefit. If you want pure protein, you'll have to look elsewhere.

That’s precisely why Hammer Whey Protein exists. Hammer Whey contains 100% grass-fed whey protein isolate; no antibiotics or hormones; protein for promoting recovery and immune system health. It’s completely devoid of unnecessary and unhealthy ingredients. For these reasons and more, Hammer Whey protein is the best whey protein powder available.

1) Purest protein available – Whey protein isolate contains 90-97% protein or more; whey protein concentrate contains just 70-80% protein or less. Whey protein isolate contains more protein per-gram, and has significantly less fat and sugar (lactose) than whey concentrate.

2) Superior availability – The whey protein isolate used in Hammer Whey has an outstanding Biological Value (BV) rating of 154 — the highest of all protein sources. (BV is a measure of how well the body absorbs and utilizes a protein.) In comparison, whey protein concentrate has a 104 BV rating; whole eggs have a BV rating of 100.

3) Fortified with 6,000 mg glutamine – Each serving of Hammer Whey contains a whopping 6,000 mg of the amino acid glutamine. For athletes, perhaps the most significant role of glutamine is its contribution to hGH (human growth hormone) release, stimulating muscle growth and maintenance.

4) Powerful immune-boosting nutrients – Hammer Whey delivers a unique profile of highly bioavailable protein with immune-enhancing factors, including beta-lactoalbumins and alpha-lactalbumins. In addition, your body uses the amino acids in whey to produce glutathione, arguably the most important antioxidant. At least one study has shown that whey elevates glutathione levels more than any other protein source.

I saw that Hammer recently reformulated Vegan Protein. What is in the new formula?

Now Certified Organic and formulated with 100% organic ingredients, including Pumpkin Protein and Sacha Inchi, Hammer Vegan Protein is even better than before. Our delicious, five-star plant-based powerhouse contains:

• Pumpkin Protein (NEW!) - derived from the nutrient-rich seeds; contains all amino acids making it a complete protein source.
• Sacha Inchi (NEW!) - the seeds of this South American plant are incredibly rich in protein and beneficial omega-3s.
• Pea Protein - an abundant source of muscle-building BCAAs.

Reformulated Hammer Vegan Protein includes protein derived from pumpkin seeds among its new ingredients.
Plant-based protein:
Now new and improved

Optimize protein intake with this potent plant-based blend

**Hammer Vegan**
Plant-powered boost

Revised formula contains:
- **Pumpkin Protein (NEW!)** - derived from the nutrient-rich seeds; contains all amino acids making it a complete protein source
- **Sacha Inchi (NEW!)** - the seeds of this South American plant are incredibly rich in protein and beneficial omega-3s
- **Pea Protein** - an abundant source of muscle-building BCAAs
- **Spirulina** - a microscopic alga, this superfood is rich with protein, vitamins, and minerals
- **Chlorella** - loaded with chlorophyll, essential fatty acids and abundant in beneficial beta-carotene

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We’ve done a bit of tweaking on the Hammer Bar formula and while the original product was exceptional, we’ve no doubt that the updated version is even better! Here’s why:

1. In all five flavors of Hammer Bars and the Whey Protein Bar, we’ve swapped out the organic agave nectar for organic tapioca. We believe this change alone makes the Hammer Bar even better. In the world of carbohydrates and sweeteners—the right balance of which is important in an energy bar—agave nectar is really not a bad option. Tapioca, however, is definitely an upgrade. Tapioca, a starchy tuber from South America, is a complex carbohydrate with an 8:2 Amylopectin: a-Amylose ratio, which is very similar to muscle-stored glycogen. It’s simply an outstanding carbohydrate source.

2. We’ve replaced the organic brown rice protein with organic pea protein in the Almond Raisin, Cranberry, Cashew Coconut Chocolate Chip, and Chocolate Chip Hammer Bars, as well as in the Whey Protein Bar. While brown rice protein has a good amino acid profile, we believe that pea protein is even better. Organic pea protein is easily digested and rich in the amino acids leucine, isoleucine, valine (the three branched-chain amino acids), lysine, arginine, and glutamine.

3. We’ve added organic sacha inchi protein to the Chocolate Chip and Cashew Coconut Chocolate Chip bars. Sacha inchi, also appearing in our new Vegan Protein powder formula, is derived from the seeds of a South American plant and, because it contains all nine essential amino acids, it’s considered a complete protein source. Sacha inchi is also an excellent source of the essential omega-3 and omega-6 fatty acids.
4. Even more organic coconut has been added to the Cashew Coconut Chocolate Chip flavor.
5. The Cranberry flavor now has even more organic cranberries than before.
6. In both flavors of Vegan Protein Bars–Peanut Butter Chocolate and Almond Cacao—the sacha inchi protein has replaced the brown rice protein.
7. Both flavors of Vegan Protein Bars are USDA Certified Organic by EcoCert, as are all 5 flavors of Hammer Bar, and the organic ingredients in the Whey Protein Bar. Try all of our new and improved Hammer Bars and Protein Bars! You just might find a new favorite.

WHOEVER SAID HEALTHY FOOD DOESN'T TASTE GREAT
NEVER TRIED A HAMMER BAR!

Available in five flavors, organic Hammer Bars are totally wholesome and awesomely delicious! You won’t find a higher quality energy/food bar at any price: 70-100% raw, 100% vegetarian, and NO preservatives, gluten or GMOs.

Enjoy Hammer Bars as a pre-race meal, post-workout recovery food bar, or healthy snack anytime. Or use them to complement your liquid fueling regimen during extended exercise. Sample each flavor; we guarantee Hammer Bars will be your new favorite.

Hammer Protein Bar
Like the Hammer Bar, Hammer Whey and Vegan Protein Bars are made purely with real foods, like peanuts, cacao, and nut butters. They also contain only wholesome, naturally occurring carbohydrates, like tapioca, and NO refined sugars. What sets Hammer Protein Bars apart—and makes them ideal for post-exercise recovery—is their protein content.

Hammer Whey Protein Bar contains 11 grams of a cold-processed whey protein blend derived from grass-fed cows. Whey has the highest biological value (meaning it is the most available form) of any protein source. The Hammer Vegan Protein Bar gives you 14-15 grams of the highest quality plant proteins (pea and sacha inchi proteins, as well as nut butters).

All incredibly delicious, our recovery bars are perfect after a workout, or as a convenient and healthy snack, whenever a craving strikes.

Pictured, From top to bottom: Vegan Protein Bar Flavors: Chocolate Peanut, Almond Cacao Whey Protein Bar Flavor: Chewy Peanut Butter-Chocolate
Recovering thoroughly between ALL your workouts — even the easier ones — is undeniably important. But what about those ridiculously hard workouts, the ones where you tell yourself, “Oh, am I going to be sore tomorrow. I doubt I’ll be able to function.” After those kinds of training sessions, do you simply resign yourself to the possibility that even getting out of bed may be difficult? It doesn’t have to be that way! Apply these six simple steps and you’ll wake up the next day feeling a whole lot better than you ever thought you would!

1) Consume a double serving (4 scoops) of Recoverite right away after your workout. After a grueling training session you may find that you’re just too tired to whip up a high-quality meal, and that your stomach really isn’t ready for solid food. You still have to refill the tank though, especially after such a brute of a workout, and that’s where a double serving of Recoverite is in order. Your body will receive the fuel and nutrients needed to kick start its rebuilding process — a most-generous 66 grams of complex carbs, 20 grams of whey protein isolate, and 6 grams of glutamine. Recovery has now begun in superb fashion!

2) Take one capsule of Chromemate with your Recoverite. This is an inexpensive, yet powerful way to enhance glycogen synthesis and storage capabilities. Paraphrasing Dr. Bill Misner, the anabolic response for converting carbohydrates to muscle glycogen will not completely take place in the absence of GTF chromium (Chromemate). If only a minute amount of GTF chromium is available, only a third of the amount of muscle cell refueling will occur. Consuming a sufficient amount of carbohydrates along with Chromemate will result in a 300% increase in the rate of glycogen synthesis compared to no supplementation.
3) Take 1 capsule of boron on a daily basis is an excellent idea as this trace mineral plays numerous roles in many general health areas. Boron is also vital for restoring exercise-depleted hormone levels to normal, so it’s a must take nutrient after a super arduous, hormone-depleting training session.

4) Resupply! After an “I’m not sure how I’m going to recover” workout, your body is begging for nutrient support; vitamins, minerals and antioxidants are in high need. Premium Insurance Caps (4-7 capsules) will take care of resupplying the vitamins and minerals (some antioxidants as well), and Hammer Nutrition’s arsenal of potent antioxidant supplements—including Mito Caps (2 capsules), Super Antioxidant (2 capsules), and AO Booster (1 capsule now, 1 capsule with a later meal)—will supply widespread protection against the damaging effects of free radicals.

5) Take this trio to help put the fire out! Tissue Rejuvenator is a great product for alleviating both muscle and joint soreness, and it really shines when used after those super hard training sessions. Take 2-4 capsules with your Recoverite, and another 2 capsules with a later meal to supply your body with a wide range of anti-inflammatory nutrients. AO Booster is not only a potent antioxidant supplement; everything in the product has anti-inflammatory properties ... it’s an ideal complement to Tissue Rejuvenator. Take 1 capsule with Recoverite and another capsule with a later meal. Lastly, among their many benefits, the omega-3 fatty acids in EndurOmega are well-known for their anti-inflammatory effects. 2 capsules with your post-workout meal, plus another 2 capsules at another time during the day, is my recommendation.

6) Consume 1 scoop of Hammer Whey prior to bedtime. You don’t necessarily need to do this after every workout, but definitely make it a habit prior to hitting the sack after your toughest training sessions... you’ll definitely feel so much better the next morning. Mix 1 scoop of Hammer Whey in 6-8 ounces of water and drink, then brush your teeth and go to bed. Simple! The body now has an excellent dose of amino acids, which it will use during a time (sleep) when it does many of its reparation/recuperative processes, and the 6 grams of glutamine will elevate serum human growth hormone (HGH) levels, which has anabolic (muscle building) effects. Whey protein is also the best protein source for alleviating muscle soreness, so you’ll receive that benefit as well.

Continued From Previous Page

RELY YOUR RECOVERY

“I fantasize about an icy-cold, refreshing Recoverite at the end of any workout or race. It’s delicious and it works.”

- online reviewer

- Restores muscle glycogen
- Rebuilds muscle tissue
- Reduces post-exercise soreness

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Think 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. Without the proper levels of these minerals, your body can’t carry out critical functions, including muscle contractions and the transmission of nerve impulses. The consequences can include not only muscle cramps, but also fatigue, swelling, digestive distress, and even bonking.

Here’s what you need to know to replenish electrolytes right:

1. **Start early.** Don’t wait for a muscle cramp to tell you to replenish electrolytes. By then, your electrolyte levels have already dropped far too low. We suggest taking a “pre-emptive strike” dose of Endurolytes about 30 minutes prior to the start of your workout or race. This will provide electrolytic support for at least the first hour of the race. After that, replenish electrolytes consistently every hour.

2. **Salt tablets are not the answer!** Salt tablets are an unacceptable choice for electrolyte replenishment for two important reasons: 1) They can oversupply sodium and overwhelm your body’s complex mechanisms for regulating this electrolyte; and 2) They provide only two of the electrolytes your body requires—sodium and chloride.

   Your body has very effective mechanisms for monitoring and conserving sodium. If you take in too much of it (as salt tablets, excessively high-sodium electrolyte products, or food), your kidneys will excrete the sodium, and the hormone vasopressin will cause you to retain fluids. The effects can include swollen hands and feet, elevated blood pressure, and increased sodium excretion, which will inhibit performance.

3. **Skip the salty foods.** Limit your dietary sodium intake to no more than 2,300 milligrams per day. If you consume a high sodium diet, you can expect to lose more sodium during exercise. In addition, sodium drives thirst, and thirst often drives drinking until excess. Over-hydration is definitely not performance enhancing. In fact, it can have life-threatening and even fatal consequences.
4. **Replenish electrolytes completely.** Proper electrolyte replenishment during endurance exercise requires a consistent approach that incorporates all of the electrolytes, not just one or two of them. The levels should be potent enough to support body functions and prevent heat-related issues like cramping — without overriding your body’s natural mechanisms for regulating these minerals.

**Electrolytes done right**
Hammer Nutrition’s Endurolytes, Endurolytes Extreme, and Endurolytes Fizz are formulated to help your body perform better under the demands of exercise by providing a full complement of minerals in the proper balance and levels:
- **Five electrolytic minerals** — calcium, magnesium, potassium, sodium, and chloride;
- **Manganese** to help convert fatty acids and protein into energy;

**HEED**, Hammer Nutrition’s complex carbohydrate powdered sports drink, also contains a complete electrolyte profile. 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 and Endurolytes product of their choice.

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**NOT JUST FLAVORS, INGREDIENTS**

**HAMMER GEL**

Hammer Gel out performs all others, made with:
- Rock solid energy, no refined sugars • Easy to digest • Real, wholesome ingredients

“Hammer Gel tastes great and doesn’t cause any GI issues like other brands I’ve tried. I recommend it to all my friends.” -Online Reviewer

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Expires 9/12/16
Be ECO-nomical, Use a Flask
Refill, re-use and re-fuel with a Hammer flask

Despite the fact that most of our clients have an earnest desire to be “green” and less wasteful, we are seeing an ever-increasing number of athletes using disposable single-serving gel packets in the name of convenience. Meanwhile, jug, and therefore flask, usage has remained flat or declined during the same period. Having originated the refillable flask and jug concept in 1995 as a highly favorable alternative to single-use, mylar foil pouches, I find this to be more than a little troubling. Finding discarded gel pouches, Hammer Nutrition and other brands alike, on the side of the road everywhere I go is the most bothersome of all. Getting phone calls and emails from irate people complaining about it being our fault that someone dropped an empty pouch on the trail is no fun either.

With certainty, this trend is not good for the environment. However, the preference for pouches is formidable. When pressed for a reason why they use the single-serving packets rather than the more economical, reusable flask, gel users cite a variety of reasons: They say that they don’t want to waste gel by filling the flask and only using a portion of it during their workout. Only putting one or two servings in the flask is a problem too, because the gel does not come out easily. Then there are the logistical reasons: “I have nowhere to put the flask”, “I don’t want to carry it while running,” etc.

But the reasons don’t hold up to critical analysis. I’ll posit that flasks are actually more convenient, if given some serious thought. If you are exercising for less than one hour, there’s not much need to bring calories with you; just take a good serving of gel before you leave and then drink water, maybe with an Endurolytes Fizz or two. For exercise over one hour, the flask is actually easier to use than having to retrieve, open, dispose of the tab, consume, replace the spent gel pouch somewhere, etc.
Flask use made easy - no matter the duration of your workout or event

All one has to do is pour in the desired number of servings for the next workout. A one-hour workout would require one or a bit more servings (as shown below); top off with water, shake a couple of times, and then consume the entire contents during that hour workout. As shown below, the same goes for two-hour or three-hour workouts as well.

When purchased in a 26 serving jug, Hammer Gel is only 77 cents per serving! The reality is that using a jug and flask is more economical, better for the environment and, ultimately, even simpler than single-serve pouches. If you must use single-servings PLEASE dispose of your empty pouch properly. Hammer trash is not our idea of good advertising.

How to use your Hammer flask

1. The first step is to fill your flask with Hammer Gel. Serving sizes are marked on the outside of the flask. Adjust serving size based on duration of your workout. The flask can hold a maximum of 5 servings.

2. Top off your Hammer flask with water and give it a good shake. The water gives the gel an easy to sip consistency and makes for a refreshing energy boost.

Check out the Hammer flask for an economical and earth-friendly way to fuel your workouts.
RACING ESSENTIALS

Check out this assortment of our best selling products to help take you from the starting line to the podium.

**RECOVERITE**
Recoverite supplies your body with exactly what it craves after a workout or race: an ideal 3:1 ratio of complex carbohydrates and the highest quality grass-fed whey protein isolate, along with L-glutamine, and L-carnosine resulting in rapid recovery so you can hit the ground running after your big race.

<table>
<thead>
<tr>
<th>Servings</th>
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</tr>
<tr>
<td>32</td>
<td>$58.95</td>
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**HAMMER WHEY**
Protein supplementation is absolutely essential for any hard-training athlete to maintain, repair, and grow lean muscle mass. Hammer Whey Protein is now made with hormone-free antibiotic-free whey!

$39.95

Photo: Timothy Metcalf Photography
MORE RACING ESSENTIALS

1. REM Caps
Quality sleep is essential to proper recovery. Try REM Caps for all-natural way to get a good night’s rest the night before race day.
60 Capsules $19.95

2. Tissue Rejuvenator
Promotes rapid tissue repair so you can go more miles with less pain.
60 Capsules $17.95
120 Capsules $29.95

3. Hammer T’s
Take a break in one of our Hammer T’s. Lightweight, moisture-wicking microfiber polyester feels like cotton. Men’s and women’s styles available.
$19.95 S-XL | GRAY

4. Compex Sport Elite
EMS is the ultimate tool for recovery. Come back fast after injuries and tough workouts with RecoveryPlus and massage settings.
$849.99 $649.00

Shop our website or catalog for more recovery options!

NEW! Faster Shipping!

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City, State, Zip: _____________________
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Finding the right EMS device for you

BY BRIAN FRANK

A comprehensive guide to the similarities, differences between leading brands, models

If you are like many athletes who have been hearing about EMS devices with increasing interest, but have been stymied by the various models that are offered, this article should help. It will explain some of the differences between the models and the two brands.

Starting at the top

The top end Globus model, the Sport +, is a great unit. What sets it apart from its junior models, the Sport and the Fitness, are the two programs that I wrote back in 2008. One of them is the Ultra Endurance program, for ultrarunners and cyclists. This 55-minute program simulates about 8-10 hours on the bike, 5-6 hours of running! It works in the 30-50 hertz range, which is the very upper limit of the slow twitch muscle fibers. The other unique program is called Stretch/Relax. It’s a specific program for low back tightness that results from sitting on the bike for very long periods of time. It’s a "feel good" program that focuses solely on muscle decontracture and endorphin release. Just what I need after a long day in the saddle.

Aside from these two programs, the Compex Sport Elite and the Globus Premium Sport share the same eight key programs: Endurance, Resistance, Strength, Explosive Strength, Active Recovery, Massage, Pre-Warm-up (actually the best for enhancing circulation, thus also the best for injury rehab), and Potentiation. Each model has a couple more programs that I won’t go into here. These two models represent about 80% of the units we sell and work best for most athletes because of their wide range of programs.

Moving down the range, the Compex Performance does not have the Massage program, but the Globus Fitness model does, which is one of my favorites. Neither model has the Explosive Strength program, which is akin to plyometrics and works at 150 hertz, the very top end of fast twitch muscle fibers, and is essential for any sprint training or speed work replication. They also do not have the Potentiation program, which is a 3:47 program used just prior to an all out sprint — think 5K run, cycling time trial.

Globus vs. Compex

As for the functional differences between the machines, it’s kind of like Ford and Chevy. They both employ the same patented, self-cancelling square wave technology, but the Globus is made in Italy by a family-owned company. It’s a heavier, metal box, very durable, but uses the old style pin cable adaptors — not as flashy as the Compex snap pads, but the replacement pads are less expensive ($10 per set of pads vs. $15). On the other hand, the Compex machines are lighter and feature a slicker user interface, complete with a pictogram-animated character to show you body location and type of activity being performed.

A big plus for the Globus is the cable splitters. They effectively allow you to turn the unit into an eight-channel machine. With its high power output, this is not a problem because each channel will still go up to 60 MA, which is more than most people can handle (120/2 per channel). On top of this, it has the 2 + 2 program, which is really cool. You can run Active Recovery on your legs while running massage on your lower back, etc. for example. Or, do a strength workout on your abs while doing active recovery on your quads -- the options are limited only by your imagination.

The Compex is made in China and we have a regular problem with the snaps on the end of the cables coming apart when you try to pull them off of the pad nipples. Battery life and charging are about the same on both machines. You can expect to run 20-30 programs per charge and it takes about 2-3 hours to recharge the battery after the initial peak charge.

As always, if you have any questions that would help you decide which brand and model you want, just give us a call. Steve, Casey, Miles or I will be happy to help you.
DISCOVER THE POWER

Electronic Muscle Stimulation technology is one of the most powerful tools you can use as an endurance athlete. Benefits include:

- Much better recovery
- Increased endurance
- Faster training results

Order an EMS unit from Hammer and enjoy FREE Shipping & a FREE expert consultation. 6 models available. See website for details.

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After spending weeks tirelessly working on the formula, it’s time to unveil the ultimate magnesium product—Essential Mg. Once you read more about the importance of magnesium, as well as the superiority of this new Hammer Nutrition product, we know that it will be an essential addition to your daily supplement program.

Magnesium Shines in Recent Research
Without taking anything away from the importance of all minerals, it very much appears that magnesium has earned its status as arguably the most important one of all. Two exciting pieces of research illustrate the health-benefiting effects of magnesium.

One study, which was reported in the Journal of the American Heart Association, showed a lowered risk of coronary heart disease (CHD) and sudden cardiac death (SCD) with higher serum levels of magnesium. Researchers in The Netherlands evaluated the data from nearly 10,000 participants—men and women ages 55 and older. Compared to subjects whose serum levels of magnesium were categorized as medium, subjects with low levels of magnesium had a 36% greater risk of CHD death and a 54% higher risk of SCD. The authors of the study state “The results from this and previous studies may provide a rationale to design intervention studies to analyze whether magnesium supplementation could prove to be effective in lowering the burden of CHD mortality and SCD.”

The second piece of research, published in Biomedical and Environmental Sciences, is a meta-analysis of 15 articles that discuss the results of 19 studies involving nearly 540,000 men and women. These studies examine the effect of dietary or dietary plus supplemental magnesium on the incidence of type II diabetes. After comparing magnesium intake in each of the studies, a high intake of the mineral was associated with a 23% decreased risk of diabetes, with a mere 100 mg/day amount correlating to an average of 16% lower diabetes risk. These studies show that magnesium supplementation helps improve insulin resistance and fasting glucose levels in both diabetics and nondiabetics.

Magnesium: Mineral Superstar
The importance of magnesium is hard to overstate; in fact, one nutritional expert calls it “the key to health and life.” According to the National Institutes of Health, “Magnesium is a cofactor in more than 300 enzyme systems that regulate diverse biochemical reactions in the body.”

Muscle contraction, nerve function, carbohydrate metabolism, ATP activation, protein synthesis, blood pressure normalization, and blood sugar level regulation are just a few of the processes this mineral is crucial for. In addition, magnesium supports the increase in HDL (good) cholesterol levels and can help lower serum LDL (bad) cholesterol levels while inhibiting the oxidation of LDL cholesterol. Additionally, a deficiency in magnesium may also be associated with the progression of many ailments such as cardiovascular disease, hypertension, hypoglycemia and insulin resistance, to name a few.

How much magnesium do you need?
The (Daily Value) DV for magnesium is 400 mg. However, Optimal Daily Intake (ODI) of magnesium is 500 - 750 mg, with even higher amounts (upwards of 1200 mg/day) being used, primarily to address the earlier-listed conditions. Unfortunately, while magnesium is contained in a variety of foods, the overall degradation of our food supply has caused the average American intake to decline to amounts significantly below DV levels and ODI levels. Magnesium deficiencies are common; research shows
that approximately 75% of Americans are not obtaining sufficient amounts of this essential mineral. Magnesium toxicity is rare because, unless there are problems with kidney function, the body eliminates excess amounts.

The Essential Mg formula (100 mg of elemental magnesium per capsule)
1. Magnesium bisglycinate is magnesium chelated (bonded) to the amino acid glycine and is touted for its high absorption rates. It’s also the form of magnesium considered to have the least amount of potential to cause a laxative effect which is common with forms such as oxide.

2. Magnesium succinate is magnesium chelated to succinic acid. This compound yields one the highest amounts of elemental magnesium while also providing the body with a Krebs cycle intermediate that not only plays a role in energy production but is also involved (along with protein) in the rebuilding of muscle fiber and nerve endings.

3. Magnesium citrate is magnesium chelated to citric acid, a key Krebs cycle intermediate, noted for its ability to help alleviate fatigue as well as playing a role in relieving symptoms of asthma and hypertension.

4. Magnesium malate is magnesium chelated to malic acid and is the most common form of magnesium used for alleviating fibromyalgia. Malic acid (malate) is a Krebs cycle intermediate touted for its energy enhancing, fatigue-alleviating effects. Malic acid also supports enhanced exercise performance by counteracting the buildup of lactic acid.

5. Magnesium taurinate is magnesium bonded to the amino acid taurine. Because both magnesium and taurine are associated with cardiovascular health, magnesium taurate is often referred to as the “heart health” form. Among its many benefits (and like magnesium) taurine assists in regulating heartbeat and muscle contractions.

Now that you know about the myriad benefits of magnesium, incorporate NEW Essential Mg into your supplement regimen. When you ensure you’re getting enough of this truly ‘essential’ mineral, you’ll enjoy better athletic performance and better overall health.
According to population studies, there’s a good chance you are not getting as much magnesium as your body needs. Less than 30% of U.S. adults get the Recommended Daily Allowance (RDA) of magnesium and nearly 20% only get half of what they need to remain healthy.

Some key signs of deficiency are cramping, poor sleep, high blood pressure, poor kidney function and chronic pain. Most notably, many of these conditions can become serious if left unaddressed, and for an athlete, these symptoms can contribute to poor and reduced performance.

As a cofactor for more than 300 enzyme systems and biomechanical reactions, magnesium is necessary for the production of energy and the regulation of many bodily systems. As such it is fundamental in protein synthesis, muscle and nerve function, blood sugar regulation and control, energy metabolism as well as the production of the antioxidant glutathione.
Though it’s found naturally in many foods, there are several contributing factors as to why we are not getting sufficient magnesium.

With the industrial revolution and the rise of factory farming, we have seen our food’s nutritional value fall by almost 80% since the 1950’s. Our reduced magnesium consumption is a result of over-farmed soil, over-processed food, and changes in our diets like the excessive consumption of sugar and high fructose corn syrup.

Also worth consideration is the consumption of carbonated drinks which may contain phosphates that bind with magnesium and render it unavailable to the body. If your diet contains a high amount of processed sugar and/or caffeinated beverages, you are causing your kidneys to excrete extra magnesium. Other factors that lead to magnesium depletion can be stress, excessive alcohol consumption and even the use of calcium supplements that do not include magnesium for optimal calcium absorption.

Despite these challenges, there are solutions: couple quality supplementation to balance magnesium levels while eating whole, non-processed organic foods that are rich in magnesium. The top ten magnesium rich foods include: spinach, chard, pumpkin seeds, yogurt, almonds, black beans, avocado, dark chocolate and bananas.

Warm Spinach Salad

This simple warm spinach salad is ready to go in no time. The mushrooms not only add extra flavor but are also a great source of magnesium.

**Ingredients**

- 10 ounce bag fresh spinach leaves ready to serve spinach or (cleaned and dried)
- 5 TBS olive oil, divided
- 1 cup sliced mushrooms
- 1 7-ounce package feta cheese, coarsely crumbled
- 2 TBS seasoned rice vinegar
- 1 TBS Dijon
- 3 hard boiled eggs
- Salt and pepper to taste

Place spinach in a serving bowl. In a medium saute pan put in 2 Tbs oil and saute shallots and mushrooms. When mushrooms and shallots are soft and cooked through add mustard, vinegar, salt and pepper and remaining oil. Warm for a minute and pour over spinach. Toss salad and garnish with feta cheese and quartered eggs.

Optional garnish with seasoned pumpkin seeds

Seasoned Pumpkin Seeds

*Seasoned pumpkin seeds add a flavor boost and crunch kick to salads and soups or make a great snack on their own.*

**Ingredients**

- 12 oz raw pumpkin seeds
- 2 TBS lime juice
- 1 TBS olive oil
- 2 tsp fine pink Himalayan salt
- 1 tsp garlic powder
- 1 tsp turmeric
- 1 tsp cumin
- 1/2 tsp cayenne pepper

Preheat oven to 325 degrees. Rub oil all over the top of a cookie sheet. In a bowl mix all other ingredients. Spread on the cookie sheet and toast till golden. Cool and serve.
Banana Snack

Spice up this lunch box staple with almond butter, coco nibs, and golden flax for added flavor and magnesium.

**Ingredients**

- 1 large banana
- 2 TBS raw almond butter
- 1 TBS coco nibs
- 2 tsp golden flax

Peel banana and place on a plate, slather with almond butter, sprinkle with coco nibs and flax and enjoy.

---

Apple Avocado Salad

**Ingredients:**

- 1 head butter lettuce, shredded
- 3 Belgian endives, cut crosswise into ribbons
- 1 large crisp apple, peeled and cubed
- 1 avocado, peeled, pitted, and cubed
- 1 teaspoon fresh dill, minced (or dried dill)

**Dressing:**

- Juice of one large lemon
- 1/4 cup extra virgin olive oil
- Salt and pepper to taste

Combine ingredients in a small bowl (or Hammer Blender Bottle) and mix well.

**Preparation:**

Combine salad ingredients in a large bowl.
Add dressing, gently toss, and serve.

---

Black Bean Salad

**Ingredients**

- (2) 15-oz. cans black beans, drained and rinsed
- 1 cup chopped tomatoes
- 2/3 cup chopped white onion
- 1 cup chopped cilantro
- 2 cloves garlic, minced (or as desired)
- 3 TBS olive oil (preferably extra virgin)
- 1 TBS cumin
- 1 jalapeno pepper, finely chopped (optional)
- Salt and pepper to taste

**Preparation:**

Mix all ingredients in a bowl and refrigerate for at least 2-3 hours before serving.

---

Bananas are packed with nutrients and are good for your heart, your eyes, your diet and your mood.

Dress up the table with these fast summer salads rich in magnesium.
healthy recipe inspiration

Strawberry Ginger Vinaigrette
From the Kitchen of Ty Brooks
Makes about 12 ounces

Ingredients:
1/2 cup frozen strawberries
1 tablespoon fresh minced ginger
1/2 teaspoon of 1/2 lemon
1/2 teaspoon white vinegar
1/2 teaspoon balsamic vinegar
1/2 to 1/4 cup raw honey (to taste)
1 tablespoon fresh mixed let
Black pepper to taste
1/2 cup walnut, grape seed, or currant oil

Preparation:
Add strawberries, ginger, lemon juice, honey, black pepper, and oil.

Tip: To add body and thickness, add the other ingredients with 1/2 cup

Kale & Quinoa Frittata
From the Kitchen of Laura Lee Lavelle
Makes 4 servings

Ingredients:
2 cups cooked quinoa (see package directions)
3/4 cup chopped onion
1/2 teaspoon ground cumin
1/2 teaspoon ground coriander
1/4 teaspoon ground turmeric
1 egg
1/2 cup finely chopped fresh cilantro
1/4 cup chopped fresh mint
1/4 cup chopped fresh parsley
1/4 cup grated Parmesan cheese

Preparation:
In a medium bowl, add 1/2 cup of quinoa, 1/2 cup chopped onion, 1/2 teaspoon ground cumin, 1/2 teaspoon ground coriander, 1/4 teaspoon ground turmeric, 1 egg, 1/2 cup finely chopped fresh cilantro, 1/4 cup chopped fresh mint, 1/4 cup chopped fresh parsley, and 1/4 cup grated Parmesan cheese. Mix until well combined.

Tip: To add body and thickness, add the other ingredients with 1/2 cup

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During the dog-days of summer when temperatures often climb into the triple digits, a piping-hot cup of coffee doesn’t have the appeal it does during the brisk bite of spring, the cool cast of autumn, or those frozen months of winter.

That’s why instead of brewing hot coffee, I prefer cold brew. Sure, it can be slightly more labor-intensive than traditional hot coffee, but believe me, it is well worth the extra effort.

I fell in love with cold brew coffee in high school when I worked at Montana Coffee Traders in downtown Whitefish, Montana. The smell of the freshly ground coffee beans soaking in the cool water was something I will never forget!

One of the biggest misconceptions about cold brew is that it is the same as iced coffee. Let me tell you, these are two very different things. Iced coffee is made by pouring a hot shot of espresso over ice and then adding milk and other flavors to the mixture.

Cold brew is made by pouring cold water over freshly ground coffee, letting it sit, and then pouring over cold ice. Because cold brew sits in water for 12-24 hours it creates a bold taste that is nothing like iced coffee. If you’ve never tried cold brew, here’s my personal recipe:

• 1 large 2-quart pitcher with a lid
• 8 cups of cold water
• 1 cup of 53 x 11 coffee
• mesh strainer
• cheesecloth
• large bowl
• a wooden spoon
• Optional: Organic soy or coconut milk, stevia or organic cane sugar (for added sweetness)

**Directions:**
1. Add coffee to the pitcher.
2. Slowly add the cold water to the pitcher stirring briefly to wet all the grounds. Put the lid over the pitcher.
3. Let the coffee steep for 12-24 hours either in your fridge or on your countertop.
During the dog-days of summer when temperatures often climb into the triple digits, a piping-hot cup of coffee doesn't have the appeal it does during the brisk bite of spring, the cool cast of autumn, or those frozen months of winter. That's why instead of brewing hot coffee, I prefer cold brew. Sure, it can be slightly more labor-intensive than traditional hot coffee, but believe me, it is well worth the extra effort.

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1. Add coffee to the pitcher.
2. Slowly add the cold water to the pitcher stirring briefly to wet all the grounds. Put the lid over the pitcher.
3. Let the coffee steep for 12-24 hours either in your fridge or on your countertop.
4. Take the lid off your pitcher and stir the coffee/water mixture.
5. Place the strainer lined with the cheesecloth in the large bowl.
6. Pour the coffee/water mixture over the strainer, separating the grounds from the water.
7. Repeat if you don't get all the grounds out the first time.
8. Pour the cold brew into a pitcher.
9. Serve over crushed or cubed ice.

I like putting a few ice cubes in my mug, filling it half way up with my cold brew the other half with milk.

**Helpful Hints:**
1. Be sure to use freshly ground, 53x11 coffee beans for the best flavor. Fresh is best.
2. Ground your beans to a course grind. Using finely-ground coffee will produce cloudy, grimy-tasting coffee. Yuck!
3. You can also make this in a French Press.

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Our organic, fair-trade coffee is guaranteed fresh and delicious, no matter which of our palette-pleasing blends you choose. Our beans are roasted in micro-batches to order and shipped within one to two weeks of roasting.

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Avoiding sugar is good for your health

Studies link dietary sugar to a host of health problems

You work out routinely, supplement daily, and load up on leafy greens twice a day. But if you’re eating and drinking sugar at the rate most Americans are (an estimated 150 pounds per year!), you’re sabotaging all of those healthy behaviors.

Consuming lots of sugar – especially the refined, simple sugars used in processed foods and many endurance fuels – has been linked to a host of health problems, including many forms of cancer, diabetes, liver disease, tooth and gum disease, and arthritis. The American Heart Association (AHA) also warns of dangers to the heart and cardiovascular system. Check out these recent study results:

Coronary heart disease – A report from the Nurses Health Study showed that women who consumed diets with a high glycemic load (such as from desserts and other sweets, white bread, and white rice) had an increased coronary heart disease risk. Those in the highest 20 percent had a more than a two-fold increase in risk during 10 years of follow-up.

High fructose corn syrup (HFCS) may be the deadliest of all sugars when in comes to CHD. In one clinical trial, those who consumed HFCS developed higher risk factors for cardiovascular disease in just two weeks!

Studies show the estimated 150 pounds of sugar most Americans consume per year increases heart disease risk.

Cholesterol – Several studies have linked increased dietary intake of sucrose with decreased levels of high-density lipoprotein (HDL, the “protective”) cholesterol. Diets high in sucrose also are associated with elevated triglyceride levels. High-sucrose foods include baked goods, sugary sodas, sugar-sweetened coffees and teas, and sucrose-containing energy drinks.

Hypertension – Many animal studies have shown an association between sugar consumption and hypertension. For humans, one report suggested that increased sugar intake boosted the risk of coronary heart disease among diabetics who used diuretics.

WHAT YOU CAN DO

Eat whole foods – According to Laura Schmidt, Ph.D., a scientist at the University of California-San Francisco, sugar is added to 74 percent of all

NEED TO KNOW

Read more about the health problems linked to sugar consumption in the book Suicide by Sugar by Nancy Appleton, Ph.D. and G. N. Jacobs, available for sale on the Hammer Nutrition website. The “Advanced Knowledge” section of our site also contains numerous articles about the dangers of refined sugar.
packaged foods! Make natural, unprocessed foods the foundation of your daily diet. Fill your shopping basket with fresh foods from the produce section, lean meats, nuts, plain yogurt, and a few non-wheat whole-grain foods (like brown rice or quinoa). Keep dairy products and fruit drinks/juices to a minimum.

Learn to love unsweetened drinks – Just say “no” to sugary sodas, sweetened teas, and flavored coffees. A single soda contains eight-nine teaspoons of added sugar. Instead, reach often for pure water, the very best way to hydrate, or water with a squeeze of lemon.

Read the label of your endurance fuels – If your fuel contains sucrose, dextrose, fructose, or glucose, you are fueling with a simple sugar (the equivalent of candy!) – and increasing your risk for all of the above mentioned health problems. Hammer Nutrition’s Hammer Gel, HEED, Perpetuem, Sustained Energy, Hammer Bar, and Recoverite contain no refined, simple sugars—only complex carbohydrates guaranteed to deliver sustained energy, without the adverse health effects of simple sugars.

Hammer Bars: Real Food, Kid Approved

There’s no need to give kids unhealthy, sugar-laden granola bars as a between-meal snack or lunchtime addition. All Hammer Bars are perfect for kids! Compare the labels of the bars and snacks on the supermarket and convenience store shelves to Hammer Bars. Made with wholesome, organic ingredients, Hammer Bars are the smart, healthy choice.

- Delicious taste
- No preservatives
- No added sugars, trans fats, or cholesterol

1.76 oz bar—$2.50
12 or more—$2.40 ea.

Flavors: Oatmeal Apple, Almond Raisin, Coconut Chocolate Chip, Chocolate Chip, Cashew Coconut Chocoate Chip, Cranberry

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Study: Insufficient sleep linked to altered brain chemistry, food cravings, and overeating.

Do you have an incessant sweet tooth or constant cravings for salty, fatty snacks? New research suggests there may be an underlying cause for your chronic case of the munchies: sleep deprivation.

Scientists at the University of Chicago have found that skimping on sleep alters brain chemicals — chemicals nearly identical to ones found in cannabis, which is widely known to influence junk food cravings.

According to the findings published in the journal *Sleep*, sleep-deprived study participants on average choose snacks containing 300 more calories and much higher fat content than their well-rested counterparts.

“We know that marijuana activates the endocannabinoid system and causes people to overeat when they are not hungry, and they normally eat yummy sweet and fatty foods,” the study’s lead researcher Erin Halon reports in a news release. “Sleep restriction may cause overeating by acting in the same manner.”

**HAMMER QUICK TIPS**

We can help you get the quality sleep that researchers say can help curb unhealthy food cravings. Hammer Nutrition’s *REM Caps* includes melatonin, the same natural hormone your body uses to regulate its biological sleep rhythms. Count on it to improve sleep quality and duration, enhance growth hormone release, and support immune system function.

Adding whey protein source to breakfast boosts weight loss and may help prevent Type-2 diabetes.

Researchers at Tel Aviv University have found that consuming a high-quality whey protein source at breakfast may help weight loss and prevent Type-2 diabetes. The study, published in Diabetologia, showed participants consuming whey protein lost 12% more weight than those eating other protein and 60% more weight than those consuming carbohydrates.

“A high-calorie protein breakfast, medium-sized lunch and small dinner is a proven successful strategy for weight loss, improved satiety and reduced glucose spikes throughout the day in people with obesity and Type 2 diabetes,” states lead study author Daniela Jakubowicz, professor of medicine at Tel Aviv University.

“However, the benefits of high protein content at breakfast also depend on the protein source and quality. Whey protein powder, which is a byproduct of milk during cheese production, induces greater satiety and reduction of glucose spikes after meals compared to other protein sources such as eggs, soy or tuna.”

The whey protein group also showed measurable insulin response improvements. These improvements are “in the same range or even higher than that produced by novel anti-diabetic drugs,” Jakubowicz claims.

**HAMMER QUICK TIPS**

If you are looking for a superior source of whey protein to add to your breakfast, look no further. Hammer Whey contains 100% grass-fed whey protein isolate. With no antibiotics or hormones, this protein is ideal for promoting recovery and immune system health. It’s completely devoid of unnecessary and unhealthy ingredients. For these reasons and more, Hammer Whey protein is the best whey protein powder available. Whey protein isolate contains 90-97% protein or more; the whey protein concentrate offered by competing brands contains 70-80% protein or less. Hammer Whey Protein contains more protein per gram and has significantly less fat and sugar (lactose) than whey concentrate.
SOUNDER SLEEP SAFELY AND NATURALLY

REM Caps
Reap the health and performance benefits of sound, restful and productive sleep ...

- Improves quality of sleep
- Enhances growth hormone release
- Supports immune function

MSRP
60 Capsules - $19.95
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When you are exercising do you prefer to drink water or some type of flavored drink? Determining which camp you fall into is fundamental to successful fueling for short and long events. Surprisingly, it’s a question that many athletes have never really addressed. So, let’s ponder this topic a bit so you can decide which paradigm fits you best. Once you’ve determined your innate preference in this area, you can be sure to use fuels and products that suit you.

For this discussion, let’s be clear that neither style is better than the other, it’s just a case of determining which you prefer. The exception being when logistics override your natural preference, i.e. you are in a self-supported situation and need to carry as many calories in as little space/weight possible. In this case, carrying concentrated calories and picking up water as you go is going to be necessary, if not preferred.

Personally, I’m a water drinker. Absent the need for calories, I always prefer to drink plain water, especially in extreme heat conditions. However, when helping athletes with their fueling plans, I find that nearly 50% say they prefer some flavor/taste in their bottle to encourage them to stay hydrated. They tend to be averse to drinking plain water, especially when warm. These athletes typically have trouble with multi-hour concentrated fuel mixtures, such as gel, because they tend to also go for the flavored drinks rather than water. This leads to over-consuming calories while under-consuming fluids/water.

Water Drinkers
For exercise lasting between two and three hours I take a sip of Hammer Gel diluted with water every twenty or thirty minutes and occasional sips from a multi hour bottle of Perpetuem. This system works really well for me. HEED and Fizz are products I do not use. Instead, I carry a capsule dispenser full of Endurolytes and take two to four, or more, per hour, depending on heat stress levels. This allows me to drink 20-25 ounces per hour of plain water, while still getting all of the calories and electrolytes I need to feel

Fueling products best suited for the “water drinker” athlete: Hammer Gel, concentrated multi hour bottles of Perpetuem and or Sustained Energy, Endurolytes/Endurolytes extreme.

Water VS Drinks
Replenish right to finish strong

BY BRIAN FRANK
good. However, this scenario would be problematic for someone who does not prefer to drink plain water.

**Drink Drinkers**
The drink drinkers fueling protocol for exercise lasting up to two hours looks like this: 1-2 Fizz tabs in one bottle and one to two scoops of HEED in a second bottle. Endurolytes/Endurolytes Extreme can be added every hour or two if heat stress is very high. When exercising beyond two hours it is best to use “hourly” combos of HEED or Fizz in one bottle and a light mixture of Perpetuem or Sustained Energy in another bottle. Another option is to use one or two Fizz tabs in one bottle accompanied by a thicker mixture of fuel, like two to three scoops of Perptuem, in the other.

Depending on your hourly caloric goal and heat levels, these two bottles would last between two and three hours, at which point more bottles would need to be mixed up from carried bags/single serving pouches. It’s a bit more complicated logistically, but necessary to keep you drinking the proper amount of fluid and getting the calories/electrolytes you need at the same time.

Hopefully, this article will give you occasion to decide whether you are a “water drinker” or a “drink drinker”. Of course, if you are not sure, give us a call, one of my staff or I will be happy to discuss it with you further.

---

**STEADY ENERGY, NO CRASH**

“HEED is my sports drink of choice. I’ve always hated the taste of sugary sports drinks. I love the light taste of HEED and how it doesn’t negatively affect my stomach like other drinks.”

-Emily Reed

**HEED Sports Drink**

- Provides steady energy
- Reduces cramps
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Katja Steenkamp takes in the scenery on the Tour D’Afrique. Photo: Courtesy Katja Steenkamp

Tour D’Afrique

Winning the world’s longest bike race

BY KATJA STEENKAMP

Winning the Tour D’Afrique, the longest cycle race in the world, not just in the women’s category but overall, was beyond my imagination. Never before has a woman won this race. Many factors contributed to the win, but one very notable factor was my daily consumption of Hammer Nutrition products.

Tour D’Afrique Race/Expedition

Over a duration of four months (Jan-May), participants from all over the world raced through 10 African countries. The event started in Cairo, Egypt, at the Pyramids and finished in Cape Town, South Africa, near Table Mountain.

We rode through the most arid and deserted regions in Egypt and Sudan, climbed to breathtakingly heights in the Ethiopian Highlands, and enjoyed lush green valleys in Zambia and Malawi. Elephants crossed our route in Botswana while the stunning Namib desert in Namibia and later the Cederberg in South Africa left us speechless owing to its natural beauty.

Crossing the African continent from north to south means that the climate changed constantly. We began our journey in the Egyptian winter, a very dry but mild climate. The temperatures picked up in Sudan where it rose to over 104 degrees (40 degrees Celsius) during the day. The weather turned increasingly tropical the

KEY FACTS: TOUR D’AFRIQUE

- **Distance**: 12,000 km
- **Time**: 90 riding days | 29 rest days
- **Places**: Egypt, Sudan, Ethiopia, Kenya, Tanzania, Malawi, Zambia, Botswana, Namibia, South Africa
Katja Steenkamp meets new people and explores new places on her way to a winning the Tour D' Afrique

Photo: Courtesy Katja Steenkamp

Closer we moved to the equator and changed back to a drier semi-desert climate from Botswana onwards until South Africa. The constantly changing weather conditions and different organisms and bacteria unique to each country, most notably in the tropical areas, were a challenge to our bodies before we even made a pedal stroke.

Racing and riding my bicycle for 90 days required much determination, stamina, rest, and above all, the correct nutrition and supplements.

**Hammer Nutrition**

My goal was to ride every kilometer of the tour and reach EFI status on my arrival in Cape Town. With that in mind, I rode consistently between 70-85% max heart rate to preserve my energy, stay strong and healthy. I raced hard once every five to seven days, typically before a rest day. I carried my four-hour Perpetuem bottle with me every day and started drinking two hours into the ride. If I felt the need, I would start drinking earlier. After a few weeks I could predict quite accurately how long I would ride and could dose the Perpetuem perfectly to keep me fueled four to seven hours without wasting or overeating. I never needed to stop at any of the lunch stops, which provided me with a little advantage on days where I wanted to push hard and race. Another benefit was that I could fuel my body consistently over the course of my ride, which sometimes lasted up to eight hours, never feeling hungry or weak because of the lack of food.

Following each day’s ride, I immediately prepared my Recoverite shake. I drank it together with two Mito Caps and two Premium Insurance Caps in order to help my body recover as quickly as possible and strengthen my immune system. I was one of the very few riders that was not sick throughout the tour.

Since we rode through very arid areas as well as extremely humid areas we were constantly thirsty. To replenish the lost electrolytes and minerals, I consumed one Endurolytes Extreme each hour. Off the bike I continued drinking litres of water containing Endurolytes Fizz.

The dosage of the nutrition and supplements were determined by the space I had available in my luggage. Since I had to bring along enough for four months I had to portion the daily consumption according to what I could carry.

The Tour D’Afrique was an experience of a lifetime. Though the terrain was tough and the weather was extreme, thanks to Hammer Nutrition, I not only crossed the continent and performed well, but I crossed the finish line and won the race, making unforgettable memories the whole way. Hammer on!
I was fortunate to be able to travel to Germany to attend two very different 24 hour endurance events. The first event, held over the Memorial Day Weekend, was the ADAC Zurich 24 hours of Nurburgring auto race in the forests of Germany about two hours from Frankfurt. The second event was the German 24 hour National Mountain Bike Championship in Alfsee, a small lake resort area about three hours north of Frankfurt. I attended the first event as an invited guest of the Scuderia Cameron Glickenhaus (SCG) team to assist their drivers with their fueling, nutrition and hydration during the race. Hammer Nutrition was the hydration sponsor for the 24 hour mountain bike race, so we had product on course and an expo booth for rider education and sampling.

Although the activities are very different, fueling for a four athlete team competing in any type of 24 hour event is pretty much the same. Each driver/rider is on for one hour and then rests for three hours. Each consumes a good size meal three hours prior to their first outing. They consume a Hammer Gel, and one or two Endurolytes Extreme capsules five to ten minutes before beginning each “stint” or lap. HEED or Perpetuem are consumed during each lap, at a rate of about 150-180 calories per hour. As soon as they finish each lap, they consume a serving of Recoverite and a small meal, then get horizontal for two hours before resuming prep for the next lap.

All of the drivers and riders following this protocol reported and exhibited peak energy levels and performance during their stints/laps, with no GI distress, cramping or excessive fatigue.

SCG driver Andrea Simonsen takes his recoverite after finishing a driving stint

Hammer sponsored driver Jeff Westphal waits in the pits for the next driver change

Photo: Brian Frank

Photo: Brian Frank

Photo: Brian Frank
My first German camping trip! Water, phone, beer, check!

Buddy and Jerry ready the Hammer booth for 1,000+ hungry German mountain bike racers at the 24 hour National Mountain Bike Championship in Alfsee.

Left to right - Malta (ultra runner), Buddy van Vugt, me and Jerry (uber triathlete). Malta and Jerry are two of Buddy’s EU ambassadors and expo staff.

Awards stage and entrance to “feed tent”. Besides Hammer HEED, racers were given many German fueling options including fruit bread with butter and ham. Yum.

My first German camping trip! Water, phone, beer, check!
What do you when you have five days between two 24 hour events in Germany? Go to Holland and Belgium! After the conclusion of the 24 hours of Nurburgring, I drove to Frankfurt and took a short flight to Amsterdam. Buddy van Vugt, Hammer’s distributor for several EU countries and his wife Lisbeth, met me in Amsterdam for a day of sightseeing and great food. Then, we drove to their home town of Breda, about 90 minutes south of Amsterdam.

The weather did not cooperate. Three days of riding turned into one very wet day riding bikes in the rain through Holland and Belgium. Buddy had a full itinerary planned with meetings, a tour of his operation and warehouse, and a day trip to Bruges.

Also on the itinerary was an evening fueling seminar with about 30 European sponsored athletes and brand ambassadors. It was a pleasure to be presenting to such an engaged and enthusiastic crowd. I was preaching to the choir because they had all read the “5 Secrets of Success” and much of our other literature.

They were thrilled to hear it in person, which helped it really sink in. It was awesome to hear their stories about how they became Hammer advocates and adherents to our “less is best” fueling philosophy, and how their training and racing have changed for the better since finding Hammer.

Three days in Holland, 1 in Belgium

Bringing the Hammer message to life in Holland and Belgium

BY BRIAN FRANK
Supercharge your cells’ powerplant

The mitochondria are the power plants of your cells. Mito Caps gives them the nutrition they need to stay stoked

- Improves energy production
- Superior antioxidant support
- Improves fat metabolism

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The Hagens Berman Cycling Team

The Hagens Berman/Society Consulting cycling team began in 1997 as Lake Washington Velo and over the years we’ve had numerous athletes graduate to the Tour de France, the podium at the World & National Championships and, in a few months, the Olympic games in Rio (Megan Fisher was featured in Endurance News in 2015). Hammer Nutrition has been our only nutrition and recovery partner for what must be close to a delicious decade.

Our team is comprised of all amateurs who are as accomplished outside of sport as they are in the cycling world – it’s impossible to be under our team tent without meeting a doctor, lawyer, software engineer, business executive, financial analyst, broker or one of our amazing podium-owning middle school students. We have athletes competing in triathlon, mountain bike, cyclocross, road and track racing disciplines nearly every weekend throughout the year. In 2016 we’ve surpassed our expectations with podiums at nearly every race we attend. In fact, we have more team members who have been on the podium in 2016 than have not. We find amazing athletes and turn them into cyclists. For example, we found Dr. Alicia Jones commuting on our local trails. After just one year, she is already winning races in both road and track all the while earning her PhD.

As a long-time Hammer sponsored squad, we all have our favorite go-to products; everything from Endurolytes Fizz, to Recoverite, Premium Insurance Caps (which nearly everyone lives by) to the greatest pairing in recovery: Chewy Peanut-Butter Chocolate Whey Protein Bar and the Compex Sport Elite. Our team starts each year with a camp where we hand out Hammer products to sample and to discuss what works for each of us – onboarding new members with Hammer best practices, clothing, take home bags of products and a lot of Hammer water bottles.
Let Kids Tri enters third season of racing to do good.

Triathlete and Coach Nick Castellano founded team Let Kids Tri (LKT) in 2014 with a goal to make a difference in the lives of children. Each year, the team races in Long Island's MightyMan Montauk to generate awareness and raise funds for charities that help children in the community.

In its first year, the team raised $6000 for the John Theissen Children's Foundation, which fulfills the wishes of critically ill children. Nick took the team's fundraiser to the next level in 2015 and partnered with Sunrise Day Camp—raising $25,500 in scholarship funds for children with cancer. This year the team is excited to race for Sunrise Day Camp again.

In addition to a whole food nutrition plan, Nick recommends a specific fueling regimen using Hammer products during training and races. Nick supplies the team with Hammer Gels and HEED, Endurolytes, Race Caps Supreme and Recoverite. He also recommends Appestat just after New Year to kick-start the metabolism and Tissue Rejuvenator to prevent injury.

LKT achieved impressive results in 2014 at its first MightyMan Montauk, winning first place in the Sprint mixed relay. Last year, despite the challenging weather conditions—frigid water temperature and wind gusts up to 40 mph—twelve racers took home four podium finishes. This year, the team is training to be even more competitive in the Sprint and Olympic Distance races. Hammer Athletes: Consider racing with team LKT in Montauk on Oct. 2 in one of the birth places of triathlon, and show Long Islanders how you Hammer!

To learn more, go to www.letkidstri.org or contact Nick at letkidstri@gmail.com or 386-562-4552.
Whatever your sport, you’ll find plenty of challenging Hammer Nutrition-sponsored events to choose from this summer. We’ve already got more than 275 events on our calendar for the upcoming months — covering pretty much everything associated with endurance — and more requests for sponsorship support are pouring in daily. Here’s just a sampling of the great summer events that we are honored to support:

COEUR D’ALENE TRIATHLON AND DUATHLON
COEUR D’ALENE, IDAHO
The Coeur d’Alene Triathlon and Duathlon has been one of the most scenic races in the Northwest since 1984, hence the nickname, “The Scenic Challenge.” This year marks the 33rd anniversary of the race.

cdatriathlon.com
AUGUST 13

TOKENEKE CLASSIC ROAD RACE
(ROAD CYCLING)
EAST HARTLAND, CONNECTICUT
The Tokeneke Classic is a challenging USA Cycling sanctioned, multi-loop bicycle road race around the Barkhamsted reservoir in central Connecticut. The 22-mile loop was chosen for the terrain and spectacular beauty.

tokenekeclassic.com
AUGUST 14

LEAN HORSE ULTRA MARATHON
CUSTER, SOUTH DAKOTA
The Lean Horse Ultra Marathon is an annual run in August through in the Black Hills of South Dakota. It was the 33rd sanctioned 100-mile race in the United States and is known as one of the easiest hundred mile races in the country.

leanhorse100.com
AUGUST 27

X100 (MOUNTAIN BIKING)
TRAVERSE CITY, MICHIGAN
The X100 is the Ultimate Mountain Bike Race and Fat Tire Festival! Race events to choose from include a 100 mile individual, 100 mile relay style 3-person team, 50 mile, and 25 mile races consisting of mostly a twisting technical single track that winds in and out of county gravel roads, two tracks, and several fire roads. Bikers roll through the most beautiful terrain Michigan has to offer: deep woods and steep hills dotted with pristine lakes, streams and ponds. The X100 has some of the most challenging sections of raw organic terrain and killer cross-country riding built by mountain bikers who have a passion for adventure.

x100race.com
AUGUST 20
WE SUPPORT:
YOUR SPORT
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leanhorse100.com  
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**X100 (MOUNTAIN BIKING)**  
TRAVERSE CITY, MICHIGAN  
The X100 is the Ultimate Mountain Bike Race and Fat Tire Festival! Race events to choose from include a 100 mile individual, 100 mile relay style 3-person team, 50 mile, and 25 mile races consisting of mostly a twisting technical single track that winds in and out of county gravel roads, two tracks, and several fire roads. Bikers roll through the most beautiful terrain Michigan has to offer: deep woods and steep hills dotted with pristine lakes, streams and ponds. The X100 has some of the most challenging sections of raw organic terrain and killer cross-country riding built by mountain bikers who have a passion for adventure.  
x100race.com  
SEPTEMBER 3

**LAST MAN STANDING ULTRA MARATHON**  
NEW GLOUCESTER, MAINE  
The Last Man Standing Ultramarathon is a different type of event with a new “race” starting every hour on the hour. There will be no male, female, or age group awards, only the Last Man (athlete) Standing.  
lastmanultra.back40timing.com  
SEPTEMBER 3

**DAKOTA FIVE-O (MOUNTAIN BIKING)**  
SPEARFISH, SOUTH DAKOTA  
In its 15th year, the Dakota Five-O continues to entice riders from across the country. From the pristine, hand-built single-track that graces much of the course, to the high-spirited after party, riders are impressed with the event and the beautiful town of Spearfish in which it is held.  
savoywinterchallenge.com/dakotafiveo/welcome  
SEPTEMBER 4

**AMERICAN ENDURANCE RIDE CONFERENCENATIONAL CHAMPIONSHIP (EQUESTRIAN)**  
ANTELOPE ISLAND, UTAH  
AERC’s premier event is the annual National Championships which celebrates the sport of endurance riding.  
aerc.org/static/National_Championship_Ride.aspx  
SEPTEMBER 8

**INCREDOUBLEMAN TRIATHLON**  
SACKETS HARBOR, NEW YORK  
Two days of triathlons / aquabikes with the only back to back 70.3 distance races in the world!  
incredoubleman.com  
SEPTEMBER 10
**IMTUF100 (ULTRA RUNNING)**  
**MCCALL, IDAHO**

Expect some very steep climbs and descents with TUF footing, beautiful summits and ridges, deep canyons with pristine rivers and lots of wildlife. The peak elk rut is usually on during this weekend, so bugling bulls are frequently heard and seen.  
imtuf100.com  
**SEPTEMBER 17**

**PORTLAND TRIATHLON**  
**PORTLAND, OREGON**

The only major triathlon held in Portland, Oregon city limits: the ninth annual Portland Triathlon. Set in Cathedral Park, under the iconic St. Johns Bridge in North Portland. The course is accessible, scenic, and fast.  
portlandtri.com  
**SEPTEMBER 18**

**12 HOURS OF ALBUQUERQUE (MOUNTAIN BIKING)**  
**TJERAS, NEW MEXICO**

The course for the 12 Hours of Albuquerque is 11+ miles of fast, fun, occasionally technical, but mostly flowing singletrack in the beautiful pine forests above Albuquerque.  
ziarides.com  
**SEPTEMBER 24**

**BORDER WARS TRIATHLON**  
**ALTON, ILLINOIS**

Athletes looking for an end-of-the-season half distance triathlon in the Midwest must check out Border Wars Triathlon. The course is flat as a pancake on each leg, which means it is very fast.  
borderwarstri.com  
**SEPTEMBER 25**

**HEADWATERS TRAIL RUN (ULTRA RUNNING)**  
**MT. SHASTA, CALIFORNIA**

The 50K and 30K races are scenic, mountainous loop courses. They are run entirely on single-track trails and dirt forest roads that wind up, down, around, and through the rugged mountains that claim host to the crystal-clear headwaters of California’s longest river.  
headwatersultra.com  
**OCTOBER 1**

**MIGHTY MAN HALF IRON DISTANCE (TRIATHLON)**  
**MONTAUK, NEW YORK**

Athletes enjoy this course for its beauty and small town atmosphere. Montauk is a quaint fishing and surfing town on the eastern most tip of Long Island, known for its natural beauty and sports enthusiastic visitors.  
eventpowerli.com/mightyman-montauk-half-iron  
**OCTOBER 2**

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**HAVE A FAVORITE EVENT YOU WOULD LIKE HAMMER TO SPONSOR?**

For nearly three decades, Hammer Nutrition has been sponsoring endurance events of all kinds — from ultrarunning and ultracycling to marathons, triathlons, adventure races, and much more. In fact, sponsoring grassroots events is one of our favorite ways to help new and experienced athletes, who don’t already know the benefits of “Fueling right, and feeling great” with Hammer.

Do you have a favorite grassroots event that you would like to see us sponsor? We can help! Race directors who partner with Hammer Nutrition receive on-course HEED, our healthy and highly effective sports drink, to ensure participants’ success; free goody bags packed with out top fuels and educational brochures; Hammer Nutrition banners; and ongoing support from our team of experts. For more information, email sborn@hammernutrition.com
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-Online Reviewer

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www.hammernutrition.com
Honey has been an ingredient of certain energy fuels for some time, and lately we’ve even heard from athletes touting honey as an addition to their race day fueling regimen.

We aren’t sure where or how this notion originated. Yes, honey is natural. Yes, it is unrefined. But please understand: honey makes a very poor energy fuel for endurance athletes, particularly in comparison to maltodextrin (complex carbohydrates). Here are the “highs” and “lows” of honey, and why you should save it for sweetening your tea or cornbread:

**HIGH simple sugar content = LOW calorie donation**

Nearly 80% of honey’s makeup is in the form of simple sugars such as fructose (a.k.a. levulose), glucose, and sucrose. In order to match body fluid osmolality parameters (280-302 mOsm), simple sugars must be mixed in calorie-weak concentrations of only 6-8%. Any higher than that and the potential for stomach distress increases dramatically.

In comparison, maltodextrin (the complex carbohydrate used in Hammer Gel, HEED, and other Hammer Nutrition fuels) can be mixed in 15-18% solutions and still be digested efficiently, providing significantly more calories for energy production.

**LOW Glycemic Index GI rating**

LOW Glycemic Index (GI) rating – When you’re exercising you don’t want to wait for the energy provided by your fuel to kick in. Unfortunately, with a GI rating ranging as low as a paltry 58 to a mediocre-at-best high of 78, honey will make you wait longer for that energy kick than you might like to on race day.

On the other end of the spectrum is maltodextrin. When you want energy, you want it as quickly as possible. And that’s exactly what you’ll get from maltodextrin, which has an ideal-for-exercise GI rating that ranges from 100-136.

**HIGH acidity**

During exercise, you’re already producing a fair amount of acid—both stomach acid and systemic acid from muscle metabolism. The last thing you want to do is consume a fuel that adds to that acid “burden.” But with the pH of honey being an extremely acidic 3.9, that’s exactly what you’ll be doing when you consume it. The results? A much greater likelihood of stomach distress, nausea, cramping—and bonking. Maltodextrin, however, has an ideal, close-to-neutral pH of 6.5 for smooth and easy digestion, dependable energy, and the best possible results during workouts and races.

**Bottom line**

If you’re looking for quick-acting, high-quality, long-lasting energy during exercise, maltodextrin beats honey, hands down!

“Yes, honey is natural. Yes, it is unrefined. But please understand: Honey makes a very poor energy fuel for endurance athletes, particularly in comparison to maltodextrin (complex carbohydrates).”
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- low calorie donation

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- Glycemic Index GI rating
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Our athletes are the heart and soul of Hammer Nutrition. They include elite pros who have been competing for decades as well as amateurs training for their very first race. We love to celebrate your achievements, large and small, whatever your sport. The athletes we feature on these pages are just a small sample of the thousands of Hammer clients who are “fueling right, and feeling great.” Cheers to all!
A Jessica Culver-Tapp
Fit to Fight Tri / 1st Female
“A great hometown race in Missoula Mt. The PEAK Fit to Fight trip features a 500-meter pool swim, a 12-mile scenic bike along the Bitterroot River, and a fast run course through local neighborhoods.”
Photo: Jillian Culver Photography and Design

B Evan Perperis
BattleFrog Xtreme Charlotte / 3rd OA
“With ultra-OCR, nutrition is one of the keys to success. By training my body to eat and fuel on the move, it allows me to maintain a consistent but strong pace throughout the entire event.”
Photo: Amy Perperis

C Justin Holt
Charleston Sprint Series Race #1
“I started the morning off with a banana, water, and a Oatmeal Apple Hammer Bar. Just prior to the race I took three Hammer Endurolytes and a Apple Cinnamon Hammer Gel.”
Photo: Brian Fancher Photography

D Jen Reiter
Run to the Pub Half Marathon / 1st AG
Jen Reiter, first in the women’s 40-49 age group in the Run to the Pub Half Marathon, celebrates with her award
Photo: Cecil Pegram

E Matthew Kohl
Oshkosh Marathon / 3rd AG
“I used various products, but foremost, I relied on Tissue Rejuvenator to help me get through a minor strain in my calf just three weeks out from my race. I upped my dosage, I was ready to go by race day, and had absolutely no issues throughout the race!”
Photo: Mary Jo Kohl
A Shalini Kovach
Ice Age 50
“The Ice Age Trail 50 was my 11th ultra since January 2014, when I first embarked on my ultra journey. There is so much to learn, mistakes to be made, fine-tuning training and nutrition.”
Photo: Pat Graves

B Albert Wimer
The Whiskey Off-Road 50
“The Whiskey 50 is part of the Epic Rides series which draws in a lot of national talent. Weeks leading up to this I had felt great in my workouts so I had confidence that I would put a great race together.”
Photo: Sportograf

VICTOR SHELDON’S
USAC XC NATIONALS
RACE RECIPE

NIGHT BEFORE: Beet salad with chicken and a side of veggies and one glass of wine
BREAKFAST: Three eggs, hash browns, toast, a banana and several cups of coffee
BEFORE: One Hammer Gel, and three Endurolytes Extreme
DURING: HEED, Hammer Gel, water and two Endurolytes Extreme.

RESULTS
This race was 22 miles long with 3500 feet of climbing, peaking at an altitude of 8500 ft. with temperatures rising to 88 degrees. Correct fueling was essential to get through the heat to a first place finish in over a four minute margin of victory.
A Travis McWhorter
Monument Valley 50K / 1st AG
“Hammer products (HEED, Gel, Endurolytes, and Race Caps Supreme) help me to keep pushing forward while my body screams and begs to stop.”
Photo: Howie Stern

B Michelle Cohan
Ironman 70.3 Chattanooga
“I only use Hammer Nutrition on my runs, bikes and swims. It doesn’t irritate my stomach and it keeps me going for miles!”
Photo: Courtesy Michelle Cohan

C Stephen Armes
Spring Sprint Duathlon / 2nd OA
“This was my fourth race this season and third time landing on the overall podium. This race was used by a lot of folks that are headed to Spain for the duathlon World Championships. The race started off fast and only got faster as it went on.”
Photo: Karla Armes
FROM OUR ATHLETES

A Chelsey Sands
Hiking in Sedona, Arizona
“I made sure to bring Hammer Gels on all of my hikes. Hammer Gel gave me the energy needed to climb the large, red rocks in the area!”
Photo: Jeanne Williams

B Gia Madole
Cruel Jewel / 2nd Female
Gia Madole after finishing 2nd female in the Cruel Jewel 100 mile run.
Photo: Daniel Reyes

C Kris Kolstad (pictured on left)
Heart of the Lakes Triathlon (Minnesota State Championships)/1st AG
“Thunderstorms and strong winds just prior to the race, but by the time the gun went off it was beautiful! It was typical Minnesota weather. The course was fast and flat. I always use the same system: Hammer Gel before and during the race, and then Recoverite afterwards. This is a great combo!”
Photo: Marcus McCleery
FROM OUR ATHLETES
UPDATESEN

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Photo: Marcus McCleery

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A Tonya Keyes
Adrenaline Night Series 54k / 2nd Female
“I PR’d in the 54K distance with a time of 5:14. I was able to power through to become the 2nd female finisher.”
Photo: SweetMImages

B Natalie Larson
Western States 100
Natalie Larson after pacing fellow Hammer athlete Pete Kostelnick for the last 20 miles of the 100 mile Western States race.
Photo: Pete Kostelnick

C Jim Scott
70.3 Hawaii 2016 / 1st AG
Jim Scott won his age group at 70.3 Hawaii 2016 fueled with Hammer Perpetueum, Gel and Endurolytes! “Thank you Hammer! On to Mooloolaba and the 2016 World Championship 70.3.”
Photo: James Scott
**A Jason LaFave**  
Bayshore Half Marathon / 1st AG  
“The temps were upwards of 80 degrees halfway through the race. I was able to move from 11th at the 5K mark, all the way up to 6th.”  
Photo: Steve Orsini

**B Mowdy Ranch Mustang 50K**  
Carol Tatom / 2st AG  
Carol shows her Hammer spirit after placing 2nd in her age group at the Mowdy Ranch Mustang 50K Trail Run in Coalgate, Oklahoma.  
Photo: Courtesy Carol Tatam

**C Xterra Deuces Wild**  
Mike Orin / 1st AG  
Mike Orin on his way to a 1st place age-group finish at the Xterra Deuces Wild Off-road triathlon in Show Low, Arizona.  
Photo: Kim Orin
Crossing Africa
Katja Steenkamp on her way to becoming the first woman ever to win the Tour D’Afrique.

Photo: Courtesy Katja Steenkamp
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“Since I started using Recoverite my soreness has gone away. I use Recoverite after each of my workouts and runs. I feel like my whole body recovers much faster. Thank you Hammer Nutrition for providing great products for athletes!”
- Online Reviewer

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