

ENDURANCE NEWS

BY HAMMER NUTRITION
ISSUE 100- JUNE/JULY 2016
\$3.95

NEWS

100



IN THIS ISSUE ...

PLUS ...



100 ISSUES! BEST OF EN

Selection of top articles from our archives

QUITTING SUGAR

6 health benefits of eliminating added sugars

- Everesting: Elevation addicts simulate cycling to summit
- 10 tips to beat the heat as mercury rises
- Rubs and sauces to spice up summer grilling
- ... AND MORE!

SKYLINE STRIDES

Aussie runner Wes Gibson nears the finish of the Buffalo Stampede Skymarathon in Bright Victoria, Australia — a comeback race after injury. “It’s an epic event that took me so many places, physically and mentally. I always use Hammer Nutrition products, and as usual I wasn’t let down.” Follow Wes at wesgibsonfortherunofit.blogspot.com/

PHOTO: STEVE HARRIS / AURORA IMAGES





WELCOME



Welcome to the 100th issue of Endurance News

Sometimes you have to toot your own horn and this is one of those times. This issue is a milestone, and it highlights the consistency of our message over the past 23 years. Since I wrote the first several issues of the blue “newsletter” back in 1993, our position on diet, nutrition, and fueling for endurance has not changed. In that time, our positions in these areas have been further confirmed by research and the experience of untold thousands of athletes.

For all of you who did not read *Endurance News* in those early years, note that several of these “blast from the past” articles appear in the following pages — and they are actually still current, entirely relevant, and carry the same unwavering message!

Our unchanging message

Through this and our other educational publications, you can count on us to continue advocating a healthy diet composed mainly of whole foods, sourced locally when possible, supported by prudent supplementation. We always have and always will continue to promote severe moderation of sugar, wheat, dairy, artificial sweeteners, chemicals, additives, and preservatives.

Without exception, all of our products are in keeping with this enlightened approach to achieving and maintaining optimum health and performance. Combining this dietary approach together with our products and our original fueling protocols is a recipe for success that simply cannot be denied. It may not be as sexy or as fun as what you see from other brands that promote sugar, salt, bacon, and beer — but I’m ok with that.

Consumer trends continue to move in our direction. The ever-growing demand for organic produce, locally grown food, sustainably produced protein, holistic health alternatives, and the avoidance of chemicals, preservatives, and the like affirm the principles that this publication and Hammer Nutrition embody.

With new brands and products popping up on a regular basis, how does a brand that is nearly 30 years old stay at the forefront of the market? Simple: constant innovation. From our flagship supplement Race Caps Supreme (reformulated three times since 1987) to one of our newest products, the Vegan Protein (introduced in 2014, reformulated in 2016), we never rest on our laurels. In fact, we continuously and simultaneously develop new groundbreaking products, while also evaluating every one of our existing products for improvement based on available new research and new ingredients.

History of innovation

With Hammer, you get the best of both worlds — tried and true, proven effective products that also are state of the art and on the leading edge. As they have since 1987, Hammer products continue to outperform all of the “new” products flooding the market.

I’m not going to let the cat out of the bag, but suffice it to say the next issue of *Endurance News* will announce a couple of brand new products and the reformulating and enhancing of some of our most popular products. In the following months, you will also start to see our new “trade dress” (which is fancy speak for product labels and packaging), appearing now on our new and improved Vegan Protein powder, with the rest of the Hammer product line following close behind. We’d love to hear your feedback on our new packaging!

So, enjoy the read and recycle this issue by sharing it with a friend.

Brian Frank
Hammer Nutrition Owner

On the cover: 100 issues of *Endurance News*.
Endurance News has been the informed athlete’s
advantage since 1993.

AN EXCLUSIVE PUBLICATION OF:



STAFF

Publisher and Editor in Chief

Brian Frank

Content Manager

Vicki Hackman

Writer/Fueling Expert

Steve Born

Designers

Jake Grilley, McKenna Newton, Luke Oursland

MISSION

Endurance News provides informative, inspirational content to help endurance athletes like you achieve peak performance and health. The views expressed favor a healthy diet, hard training that emphasizes quality over quantity, and prudent supplementation to improve health and performance. Back issues are available at: www.hammernutrition.com

OUR GUIDING PRINCIPLES

Service: From day one, we’ve strived to treat each client fairly, honestly, & individually. Your trust is our top priority.

Education: We educate and empower athletes with free, easily accessible information on health and performance.

Principles before Profits: Profits never take priority over our values. If it says “Hammer Nutrition,” it’s good for you.

OUR CORE VALUES

Innovation: Our development of new, cutting-edge products and categories has led the field since 1987.

Product Integrity: Our consumables are researched, tested, and USA-made to the strictest standards.

Read more at www.hammernutrition.com “Mission”



Legal Disclaimer: The contents of *Endurance News* are not intended to provide medical advice to individuals. For medical advice, please consult a licensed health care specialist.

©2016 Endurance Marketing Group. This information is copyright protected. Please feel free to distribute this information as long as the copyright notice, phone number, and/or URL are included. Content must remain unchanged and original authorship acknowledged.

4952 Whitefish Stage Road
Whitefish, MT 59937

1.800.366.1977

www.hammernutrition.com

ISSUE ONE HUNDRED

BEST OF ENDURANCE NEWS

18 / Good carb, or bad carb?

Truth about the carbohydrates in your food and exercise fuels

BY BRIAN FRANK

20 / Longevity unlocked?

Decreasing sodium, increasing potassium intake linked to longer life

BY STEVE BORN

23 / The balanced diet myth

Food alone cannot provide all nutrients, supplementation needed

BY STEVE BORN

24 / Wheat: dietary danger

Ubiquitous grain can have serious effects on health

BY WILLIAM DAVIS, M.D.

EN FEATURES

Endurance News: Issue 100 | June/July 2016

10 / From fueling wrong to “Fueling Right, Feeling Great”

Ill-conceived nutrition plan falls flat; Hammer conversion propels success

BY ZANDY MANGOLD

14 / Dick West: Hammering strong since 1993

For more than two decades, Hammer has fueled this athlete's achievements

BY VICKI HACKMAN

30 / Fueling hope

100-mile trek through the jungles of Southeast Asia requires stamina

BY ERIC KEENER

32 / Beat the heat

10 strategies to stay stong as summertime temperatures rise

BY ENDURANCE NEWS STAFF

38 / Everesting: the search for up

Bike climbing the elevation of Mount Everest demands proper fueling

BY CHAD EDER

40 / Fueling on the bike

Seven simple strategies to refine your on-bike nutrition.

BY HOWIE NORDSTRÖM

44 / EMS, essential for recovery

An athlete's comeback journey and his tips for success

BY MARTIN CRIMINALE

50 / Say goodbye to sugar

Removing refined sugars from your diet will lead to very sweet results

BY RACHEL PELC

52 / Understanding Nutrition Facts

Make informed choices; take a closer look at what is inside your food.

BY RACHEL PELC

64 / Flèche: point-to-point ride

Cyclists cover nearly 230 miles of mixed terrain in Northern California.

BY KARIN S. WELLER

4 / Publisher's Note

6 / Starting Lines: Hammer is kid friendly

8 / #howihammer

12, 28, 36 / Provisions: Product news;

Spotlight: Digest Caps, Anti-Fatigue Caps

34 / Ask Hammer: Endurolytes FAQ

42 / Provisions: Cycling Apparel & Gear

46 / Laura's Kitchen: Summertime grilling sauces and rubs

56 / Aid Station: News and Tips

58 / Coffee: Beverage benefits the brain

60 / Hammer International

66 / Teams

68 / Ambassador Spotlight: Cynthia Salazar

70 / Events

74 / From Our Athletes

82 / Finish Chute





Hammer: not for adults only!

My 7-year-old son Matthew (widely known as “Worm”) has followed me around since he has been able to walk. Last year he showed some interest in racing triathlons, saying, “Dad I want to be a Hammer like you.” I surprised him with a Hammer kids’ tri kit and a bag of his favorite Hammer Gels and Recovery Bars (he often takes them to school for his snack). So, fast-forward to the summer months for his first race. We both raced in our Hammer kits that day, looking good and feeling great!

Competing in triathlon allows Worm to do what he likes to do best — go fast! On my training runs, he’s my designated hydration specialist. He tags along on his new kid’s-size road-racing bike, carrying my HEED and Hammer Gels. He loves Hammer Gel (especially Tropical) and Hammer Bars, and I’ve found they make great healthy snacks anytime.

Worm is a great Hammer Ambassador and mascot, and his fun-loving attitude is contagious. I couldn’t be more proud as a Hammer Dad. Worm is hooked on being active and on fueling right for school and racing!

BOB MILLER / ATHLETE

Fueling experts at your service

Hammer fuels are the go-to products for diabetic athletes, like me. I need my workouts to be tough, but I also must obtain adequate hydration and calories without sugar or artificial sweeteners. Hammer Nutrition products do that. A Hammer fueling expert worked with me to develop a plan that follows all guidelines from both my doctor and coach. She finished by saying, “Please let me know how it goes with your hydration, and we will adjust accordingly.”

She also assisted my husband, who is training for daylong CrossFit competitions. The fueling plan she provided keeps his muscles working at optimum capacity. Quality customer service and quality products at affordable prices: Go team Hammer!

REGAN MCCLUNG / CLIENT

Hammer’s fueling advice made all the difference!

I wanted to tell you how much I appreciated the advice I received from Steve, a Hammer Nutrition fueling expert who shared his personal knowledge and experience. I had been struggling with different methods and brands, but since I began following Steve’s suggestions, I’ve had a great month of running. I feel soooo much better during and after my runs — what a difference!

The biggest change has been in my recovery. Recoverite has been a true gift; I had no idea I didn’t have to hurt. And Endurolytes is amazing. No more constant bathroom breaks because I don’t have to drink as much liquid during my runs. I still hydrate, but nowhere near what I did before. I love it. I have a half marathon coming up, and I am hoping for a new PR!

LAURA MARTINEZ / CLIENT

Hammer Vegan Protein, nutritionist approved

While on vacation at an Arizona resort recently, I consulted with a nutritionist and mentioned Hammer Vegan Protein. She looked up its ingredients, then went on to say, “this is one of the best protein powders I have seen” and wrote down its name. I thought it was a nice endorsement of the product. Great job.

JEFF JOHNSTON / CLIENT

New clients welcome

I recently ordered online from you for the first time, and I wanted to thank you for the great welcome kit! You have made me a Hammer Nutrition customer for life. I look forward to fueling up with your products during my rides. Thank you very much.

TRENT BABIN / CLIENT





Hammer powered Bataan Memorial Death Marchers (from left) Dustin Greene, Craig Skorich, Thurston Webb, Noel Matthews, and Mike Skorich. Photo: marathonFoto

A little help from friends

On March 20, 2016, with a little help from Hammer Gel (Montana Huckleberry is my favorite) and Perpetuem, we completed the Bataan Memorial Death March at White Sands Missile Range in New Mexico — 26.2 miles in the desert sand with a 40 pound back pack — and we were still smiling at the end. Thank you Hammer!

CRAIG SKORICH / CLIENT

SEND US YOUR LETTERS!

WE LOVE HEARING FROM OUR CLIENTS & ATHLETES:

Drop us a line and share a tip or tell us about your latest adventure. You can also stay in touch with us and other Hammerheads via social media. Send letters and comments to letters@hamnurnutrition.com.



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, Cranberry



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hamnurnutrition.com

#howihammer

HAMMER HAPPENINGS ON FACEBOOK, INSTAGRAM & TWITTER



@wyoracerx



Smiles and miles

After a training ride of 26+ miles on the amazing trails of Glendo State Park, Wyoming, friends and Hammer Nutrition nuts Mike Reams and Tim and Barbara Shultz are all smiles.



@nicky.freymond



Scenic switchbacks

“This photo so perfectly sums up everything that I love about this sport...I mean... seriously!! Who wouldn't love running on 33 miles of trails like this!?” – Nicky Freymond

Photo: Glenn Tachiyama



@CRBryan



Banner year

Hammer Nutrition sponsored athlete Craig Bryan's picture was chosen as one of 26 to be on a street banner at this year's Boston Marathon!



Montana Governor's Cup



Cover runner

Look for Hammer athlete Laura Holien, featured by the Montana Governor's Cup road race, on the race's Facebook homepage and other social media marketing campaigns.

Overheard ...

“The temps are heating up outside — use @hammernutrition’s HEED and Endurolytes to keep up electrolyte levels and train cramp-free!”

“Fuel for running across the country! Love me some @hammernutrition.”

“Gonna be pacing at the IT100. Thank you @hammernutrition for the quick shipping! #hammertime”

“Thanks @hammernutrition. My 50-mile ride was a piece of cake thanks to you.”

“Prepping for my bike-run today. Thanks @hammernutrition for keeping me fueled.”

“It’s #HammerTime! — @HammerNutrition #53x11Coffee”

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

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**

Wherever you go, show us how you Hammer.

Join the Conversation



Inspiration • Community • Knowledge



#howihammer



RUNNING IN THE AGE OF HAMMER

From fueling wrong, to Fueling Right, Feeling Great

BY ZANDY MANGOLD



Hammer athlete Zandy Mangold scrambles across a rock field during a training run on location at a 2016 4Deserts race in Namibia. **Photos** Courtesy Zandy Mangold



2010: Running on empty

Due to improper fueling, Zandy Mangold required an IV on day one of his first ultramarathon, a 155-mile stage race through the Australian outback. 4Deserts. **Photo:** Courtesy Zandy Mangold

My running life can be divided into two eras — before and after I discovered Hammer. In 2010, at age 35, I had jogged a couple of NYC marathons and wasn't sure if I should admire or be skeptical of the ultramarathoners I had met via photo assignments for the 4Deserts race series. Eventually, I overcame my doubts about ultrarunners and attempted one myself: the 155-mile 4Deserts race in the Australian outback. The event was a complete debacle for me. Not only did I barely finish the race, requiring two intravenous drips after just the first-stage, but I also put my life in danger with my ill-conceived nutrition “plan.”

Plan, what plan?

Well, to be honest, I didn't have a plan. If anything, I tended to eat food high in sugar, fat, and sodium, assuming I needed the energy. I also thought drinking plain water was adequate, unaware of the need to maintain a balanced electrolyte profile. And recovery — wait . . . what is that? Beer? Looking back, I also ate too much for breakfast and too close to the start of races. Breakfast typically included sugary granola or oatmeal, orange juice, and a generic bagel.

Once my body recovered from the 155-mile race in Australia, I endeavored to improve my fueling. I tested a range of products and Hammer Nutrition's were clearly the most effective for me.

**“And recovery —
wait . . . what is that?
Beer?”**



2016: Running on Hammer

Above: Feeling strong, Zandy squeezes in some Hammer-fueled training runs while shooting on location at a 2016 4Deserts race in Namibia. **Photos** Courtesy Zandy Mangold


Zandy's fueling formula

I also changed my nutrition strategies for training and races. If I don't have time to digest a meal a few hours before exercise, I simply have a Hammer Gel a few minutes before starting. Time permitting, my favorite prerace meal is a pour-over coffee blended with coconut oil, organic raw honey, cinnamon, and a raw egg or two. An hour later I'll follow that with two Anti-Fatigue Caps and Race Caps Supreme, then a Nocciola Hammer Gel and Endurolytes capsule a few minutes prior to the start. Recoverite always follows. It may sound complicated, but I've done it often enough that it is now rote.

Hammer time

A few months after the wake-up call in Australia I achieved my lifelong dream of qualifying for the Boston Marathon! Since then I have BQ'd five times and improved my ultrarunning results:

- 2012 – 4th overall in the seven-day self-supported Atacama Crossing
- 2015 – 2nd overall in the Atacama Crossing
- 2015 – Won Masters Division in the Keys 100
- 2015 – Ran 119 miles in my only 24-hour race

It is no exaggeration to say that Hammer Nutrition has fueled every single step in recent years. Races longer than three hours are fueled exclusively with a mix of Hammer Gel, Sustained Energy, Endurolytes Extreme or Fizz, Anti-Fatigue Caps, Endurance Aminos (and occasionally a banana). With this strategy I don't hit the wall or experience gastro trauma. I also supplement my regular diet with Mito Caps, Race Caps Supreme, Premium Insurance Caps, Enduromega and Xobaline, and Vegan Recovery Bars or Vegan Protein powder. This is #howihammer 



Hammer Nutrition stays ahead of the pack with constant product improvements and innovations. We've now revamped our Vegan Protein formula with 100% organic ingredients. More exciting products and updates are on the horizon.

Photo: Courtesy Daniel Beresford/Instagram

Hammer product updates: Vegan Protein reformulated

Plus, more exciting releases on the horizon


BY ENDURANCE NEWS STAFF

Even the best endurance athletes always strive to improve, and so does Hammer Nutrition! 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, 5-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

- **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

Arguably the cleanest vegan protein on the market, Hammer Vegan Protein is perfect as a post-workout/race recovery drink, or as a delicious pick-me-up, anytime. Enjoy it shaken with water, juice, or a non-dairy beverage — or blend it into a healthy and delicious, vegan high-protein treat. If you seek the highest-quality alternative to dairy or soy protein powders, Hammer Vegan Protein is the ideal choice. Choose from three delicious flavors: Vanilla, Strawberry, or Chocolate. 

COMING SOON! Pre-workout/race supplement – While many pre-exercise products focus on caffeine or other nervous system stimulants, our new product supplies true benefits for performance: increased nitric oxide levels, mental alertness, and fat utilization, as well as buffered acidity, ATP stimulation, and more. We are absolutely psyched by our test results. We know you will be too!

NEW! Hormone-Free Whey Protein - Our reformulated Whey Protein and Recoverite contain 100% grass-fed whey protein isolate; no antibiotics or hormones. The purest whey available!

UPDATED! Digest Caps - Now with the potent DDS-1 strain. See p. 28.

Plant-based protein: Now new and improved



Optimize protein intake with this potent plant-based blend

• Hammer Vegan Plant-powered boost

MSRP

Single Serving - \$3.50
6 or more - \$2.95 ea.

24 Servings - \$39.95
3 or more - \$37.95 ea.

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 and essential fatty acids and abundant in beneficial beta-carotene



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



A Few of Dick West's Most Memorable Events

- 6 Boston Marathons
- Badwater 135 ultrarun, Death Valley
- 5-day adventure race, British Columbia
- 33 100-milers, including Hardrock and Western States
- 6 Barkley Marathons (legendary 100+-miler); finished two 60-mile "fun runs"
- National Short Course Triathlon at Hilton Head
- Climbed 42 high points in Wyoming, Montana, Idaho, and Oregon
- Renaissance Center stair race: 73 stories, 18 times, 3 hours

Richard West, Hammer hero since 1993

An endurance athlete for more than three decades, West hammers on

BY VICKI HACKMAN

Dick West has rarely met an athletic challenge he wasn't up for. His athletic resume spans 34 years of competition in everything from 5Ks to 100-milers (33 of them), numerous biathlons and triathlons, adventure races, orienteering, skyscraper stair racing, and mountain climbing.

"I began running in 1983, and I'm still shuffling along," says Dick, now 74, healthy, and still competitive. For that first decade or so, Dick (like many athletes in the 1980s) didn't give much thought to fueling. An occasional banana or orange and sheer willpower propelled him to the finish line, despite frequent stomach problems and cramping — all just part of the game, he figured.

Around 1993, he discovered Hammer Nutrition and never looked back. "I believe I read a Hammer brochure that was in one of my race bags," he recalls, "and I'm sure glad I did." Sustained Energy, Hammer's original endurance fuel, became Dick's go-to energy source for training and competition, and GI issues and cramping became part of the past. Over time, he added Perpetuem, Endurolytes, Hammer Gel,



Above: Dick West running the Detroit Free Press Marathon in 2004. West will run his 34th consecutive Detroit Free Press Marathon this year. **Top:** West participating in the legendary Barkley Marathon in Tennessee.

Photos: Courtesy Dick West

and Recoverite to his regimen, along with various Hammer supplements. He also boosted his nutrition knowledge by diving into Hammer publications including *Endurance News*. "The information was really helpful and very scientific. I especially liked the advice and articles from Dr. Bill Misner — it just made good sense."

Dick West's long list of achievements (see "A Few of Dick West's Most Memorable Achievements") includes a few atypical endurance events, most

notably racing up the stairs of high-rise buildings. He was overall champ after 8 hours of racing up Detroit's 26-story Fisher Building and 2nd overall climbing the 73-story Renaissance Center 18 times in 3 hours! "I refueled with Sustained Energy at the top each time, while waiting for the down elevator," he explains.

As a member of Detroit's Downtown Runners Club and the Northville Road Runners, Dick still makes hard training part of his weekly routine. The methods vary, but usually include speed work; stair climbing, with and without weights; aerobics and step aerobics with ankle weights; running and hill climbing with a weighted backpack; cycling; and using a lung trainer (snorkel-like device for breathing lower-oxygen air). "Thankfully, my wife has been supportive — she has even crewed for me on the longer races. I'm also thankful for having had the opportunity to meet so many great athletes over my years of competition."

Next up: Dick West will run his 34th consecutive Detroit Free Press Marathon in October. **EN**

When it Comes to Endurance Fueling,

We Wrote the Book!



"Thanks to 'Secrets of Success' I FINALLY figured out my fueling. Now I am dialed in!" -Online Reviewer



5 SECRETS OF SUCCESS

FOR ENDURANCE FUELING

- 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.



GET YOUR FREE COPY TODAY!

800.336.1977 / hammernutrition.com

100 Issues

Launched by Hammer Nutrition founder Brian Frank in July 1993, *Endurance News* was created to be "thought provoking, informative, educational, and helpful in your ongoing pursuit of optimum performance and health."

From our very first 4-page, newsletter to the 84-page full-color magazine you hold today, that mission has never changed. We've expanded our content, however, to now include more articles (many of them written by Hammer athletes), inspirational photos, team and international reports, and more. To mark our 100th issue, we've put together this special selection of articles from over the years. Enjoy!



Smarter is better, less is best

The right way to fuel for summer training and racing

BY ENDURANCE NEWS STAFF

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

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

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

You can realize dramatic benefits by fueling with less: just follow these simple guidelines. (For more detailed info,

read "Less is Best" in *The 5 Secrets for Endurance Fueling*, found on the Hammer Nutrition website.)

- For most athletes under most conditions, the hourly replenishment ranges we suggest are **20-25 ounces of fluids; 100-600 milligrams sodium chloride; and 150-180 calories.**
- Dial in your fueling within these parameters, with the realization that **"one size does not fit all."**
- With regard to calories, **err on the side of under-consumption** — it's an easier problem to fix than overconsumption. Simply consume a bit more if you feel you need more energy.
- **Think in terms of replenishing, not replacing.** Fuel your body in a way that works with it, and not against it, by providing it with what it can effectively assimilate.



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



Ask Dr. Bill

From the archives of Bill Misner, Ph.D.

QUESTION

What are the best foods to boost athletic performance, and help prevent cardiovascular disease and hypertension?

ANSWER

Researchers advocate the consumption of a diet high in nitrates — a natural strategy — to help treat hypertension (high blood pressure) and pre-hypertension, and to protect individuals at risk of adverse vascular events like heart attacks.



Additionally, there's been a lot of talk recently about the benefits of beets and beet juice for naturally raising nitrate levels, thereby boosting athletic performance. True, beets and or beet juice have been shown to boost performance; however, when researchers analyzed and ranked the top 10 nitrate-rich foods, beets barely made the list:

1. Arugula
2. Rhubarb
3. Cilantro
4. Butter leaf lettuce
5. Spring greens [mesclin mix]
6. Basil
7. Beet greens
8. Oak leaf lettuce
9. Swiss Chard
10. Beets

More than 10 years ago, two Harvard studies found that the more fruits and vegetables you eat, the lower your risk of heart disease. The most powerful protector was green leafy vegetables, and now perhaps we know why! **EN**

TINY TABLET BIG BENEFITS



“Xobaline has eliminated my fatigue problems!”

- Paul B.

Easy-to-take sublingual tablets containing vitamin B12 plus folic acid



Xobaline

Increase your aerobic capacity

- Reduces fatigue
- Enhances muscle repair/recovery
- Increases oxygen utilization

MSRP

30 Tablets- \$9.95
3 or more - \$7.95 each



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977

hammernutrition.com



Good carb, bad carb

Straight talk on carbohydrates

BY BRIAN FRANK

Q: Do endurance athletes really need as many carbohydrates as we've previously been told?



Consuming the right carbs in the correct volume, before and during exercise as well on a daily basis, is beneficial for both health and fitness. Athletes do NOT need wheat or sugar, and they should avoid consuming these carbs in their daily diet and especially during exercise. The only time I recommend consuming low fiber, high-glycemic index complex carbs (such as maltodextrin) is immediately before and during endurance exercise. The volume should be between 120 and 180 calories per hour, depending on your size and the intensity of your exertion. Hammer's endurance fuels — HEED, Hammer Gel, Perpetuem, and Sustained Energy are made with the complex carbohydrate maltodextrin. They contain no added simple sugars, such as sucrose, dextrose, or fructose.

Q: Is carb loading still relevant advice for athletes?

A: In the strict sense of the term "carb loading" to increase glycogen stores before an anticipated depletion effort, the answer is a resounding NO! Not only is it not a good idea, but it will actually hinder your athletic performance. You can't positively affect muscle glycogen storage capabilities at this time, and consuming excess calories will only cause bloating and other stomach issues.

The enzyme that controls glycogen synthesis and storage, glycogen synthase, is active only for a short time after your workouts. True "carb loading" is what you did for the first 60 minutes after your workouts in the weeks and months before a race. In the few days leading up to a race, and especially the night before (a period when you shouldn't be training) glycogen synthase is on "sleep mode."

Instead of "carb loading," maintain a steady intake of the good carbs described earlier, along with lean protein, and good fats — mostly omega-3s from fish and vegetable sources — during the "taper" leading up to an event. The night before a race, don't go overboard with one of those prerace pasta feeds. Consume complex carbohydrates, some high quality protein, and low-to-no saturated fat. Drink sufficient amounts of water. Skip the alcohol, fatty foods, and dessert. Eat until

A: First, let's clarify the term "carbohydrates." Not all carbs are the same. There are some very good carb sources, some very bad carb sources, and some carbs that should be consumed only in moderation.

Most athletes need more good carbs. Good carbs include leafy greens (such as lettuce and spinach),

cruciferous vegetables (like broccoli, kale, and bok choy), and vegetables with a high water content (like zucchini). These foods are more than adequate for post-workout replenishment and they are not associated with inflammatory and/or degenerative diseases.

"Bad" carbs include wheat and sugar; you should eliminate them from your diet, both for optimal health and peak athletic performance. The third group of carbs — starches and low-gluten grains like rice and potatoes — can be bad when consumed in excess, but in moderation can be helpful for controlling one's weight. The key is to eat them only after you have met all other dietary requirements by consuming an abundance of "good carbs," along with lean protein and high quality fats.

Q: What is Hammer's position on low carb diets?

A: Many who follow "low carb" diets use them as an excuse to avoid eating healthy carb vegetables, yet they still manage to consume refined sugar and wheat. In fact, the average American eats over 150 pounds of refined sugar each year, and several times that amount of wheat. This is precisely why we face epidemic levels of obesity, diabetes, and inflammatory/degenerative diseases including cancer. Meanwhile, many companies continue to sell sugary sports drinks, gummy candies, and jelly beans, touting them as the best energy source for athletes.




Continued From Previous Page

you're satisfied, and then call it a night. You will be more than prepared for an endurance event lasting from an hour to several days.

Q: If the real aim for endurance athletes is to burn their fat stores more efficiently, is there any way or product to help achieve that?

A: Yes! Endurance athletes should aim to do all they can to access and utilize their body's fat stores as their primary source of energy while preserving glycogen levels: 60-70% of total

caloric expenditures during exercise will come from fat stores, if you allow it. The way to achieve this is to practice correct calorie timing before exercise and to consume the correct type of calories during exercise.

This means not eating for 3 hours prior to exercise and then (during exercise that lasts longer than 2 hours) consuming a mixture of complex carbs with small amounts of protein and fat mixed in. Perpetuem, Hammer Nutrition's "ultra fuel," provides these components in very precise ratios to allow the body to maximize fat utilization while still maintaining adequate glycogen synthesis to keep liver and muscle glycogen levels from being depleted. 



Processed simple sugar consumption

How it can hurt your health and performance

BY BILL MISNER, PH.D

In the last 100 years, sugar consumption in the United States has increased from a slightly modest 20 pounds per person to somewhere between 120-150 pounds of processed simple sugar each year. W.B. Grant's summarized review implicated this annual increase of dietary processed sugar with ischemic and cardiovascular heart disease rate reported in sedentary human consumers:

"The mechanism linking sugar to heart disease seems primarily to be the production of triglycerides. Excess sugar, in the form of fructose directly or from sucrose, metabolizes to triglycerides, leading to large increases in serum triglycerides and is incorporated predominantly into very low density lipoprotein (VLDL) cholesterol. Both elevated triglycerides and VLDLs are risk factors for CHD.

Simple sugars also cause a host of other problems, such as hyperglycemia, hypoglycemia, hypoxia, and impaired immune system response, all of which can lead to cardiovascular problems. Simple sugars also replace foods rich in vitamins and minerals, and sugar metabolism involves several B vitamins. A deficiency in three B vitamins is linked to elevated plasma Homocysteine levels.

Sucrose, in particular the fructose moiety of the sucrose molecule, as well as fructose itself, may induce oxidative damage through increased glycation of proteins (associated with complications of diabetes) and cross-linking of tissue proteins [1]."

Consuming 120 lbs. of processed simple sugar annually calculates to eating 149 grams (5.2 ounces) or 600 calories


of sugar each day. What is the impact of 149 grams of processed sugar once it traverses the gut and imposes a presence on blood glucose profile?

A single gram of sugar raises blood sugar significantly. Blood Glucose Rises @ Constant Rate Per Gram Sugar (Norms = 65-110 mg/dL) In my opinion, responsible health care should direct their patients toward consuming natural food fibers, healthy omega-3/omega-6 fatty acids, to accompany any form of simple sugar in order to reduce blood glucose levels from peaking excessively high. Both dietary fat and fiber reduce simple sugar absorption rate. The sweet tooth, comfort-food craving resolution should be to substitute whole fiber-rich, calorie-sparse natural fruit in place of calorie-dense processed sugar.

That a food processor or professional dietetic organizations would promote or permit sugar as an additive for enhancing taste pleasures is akin to promulgating cigarette smoking in children and adults. No?

Armstrong et al., (2) associated sugar consumption's Correlation Coefficients (CCr) related to Ischemic Heart Disease and mortality in 30 countries as 0.76 for men and 0.69 for women, while the condemned cigarette's CCr was a mere 0.41 for men and 0.55 for women.[3].

References

- [1] "Milk and other dietary influences on coronary heart disease," William B. Grant, Ph.D. *Alternative Medicine Review*, Volume 3, Number 4, August 1998.
- [2] Armstrong BK, Mann JI, Adelstein AM, Eskin F. "Commodity consumption and ischemic heart disease mortality, with special reference to dietary practices." *J Chron Dis* 1975; 28:455-469.
- [3] "Processed sugar intake negatively influences health," Bill D. Misner Ph.D. *bmj.com*, 26 Mar 2004. 



The key to a longer life may be . . .

Decrease sodium, increase potassium

BY STEVE BORN

A lower sodium diet in tandem with a potassium-rich diet is associated with a reduced risk of death from all causes, according to a group of researchers from the Center for Disease Control (CDC) in Atlanta and the Harvard School of Public Health. Findings from this study, headed by Quanhe Yang, Ph.D., were reported in the July 11 edition of the American Medical Association (AMA) journal, *Archives of Internal Medicine*.

Data gathered from over 12,000 participants in the study, entitled the “Third National Health and Nutrition Examination Survey Linked Mortality File,” was analyzed to determine:

- The participants’ consumption of sodium and potassium
- The sodium-potassium ratio of the participants’ diets
- The relationship between these two variables and the risk of death from cardiovascular disease and ischemic heart disease, as well as death from any cause

After a follow-up period of nearly 15 years, a total of 2,270 of the 12,000+ participants had died, including 825 from cardiovascular disease and 433 from ischemic heart disease. After adjusting for other variables, the researchers determined that a higher sodium intake was related to greater risk of dying from any cause, while a higher potassium intake was associated with a lower mortality risk. Of all the study participants, the top 25% of those whose diet’s sodium-to-potassium ratio were the highest had a 46% greater risk of dying from any cause, including cardiovascular disease. This same group had an even greater risk of dying of ischemic heart disease compared with those whose sodium-to-potassium

ratio was lowest. (A low ratio indicates roughly equal amounts of these two minerals.)

Dr. Yang and the other researchers stated, “Public health recommendations should emphasize simultaneous reduction in sodium intake and increase in potassium intake.” After reviewing the research and its conclusions, Drs. Lynn D. Silver and Thomas A. Farley from the New York City Department of Health and Mental Hygiene concurred, stating, “This article strengthens the already compelling evidence of the relationship between sodium intake and mortality.”

The Bottom Line

For nearly 25 years, we at Hammer Nutrition have been zealously advocating a low-sodium diet, not just for enhancing athletic performance, but even more importantly, for optimizing health. The eye-opening results of this study further solidify our longstanding position on dietary sodium, and the necessity of maintaining a better sodium-to-potassium balance to decrease risk of death from ALL causes.

The USDA recommends a daily consumption of no more than 2,300 mg of sodium. The American Heart Association recommends even less, stating that “most people strive to lower the amount of sodium consumed daily to less than 1,500 mg, to prevent or manage high blood pressure, a major but modifiable risk factor for heart attack and stroke.”

Unfortunately, it is currently estimated that the average American adult consumes about 12 to 15 grams of salt daily, equaling 4,800 to 6,000 mg of elemental sodium, which is obviously far too much. Conversely, the USDA recommends a potassium intake of 4,700 mg for anyone over 13 years of age. But it appears most-to-all of us are



falling short of the mark; on average, most men consume approximately 3,100 mg of potassium per day; most women are consuming only 2,300 mg.

To achieve an ideal sodium-to-potassium balance, we need to reduce the amount of sodium and increase the amount of potassium in our diets. The good news? It’s not that hard to do:

- 1. Avoid processed foods.** A whopping 77% of sodium in the American diet comes courtesy of processed foods.
- 2. Put down the salt shaker.** Approximately 11% of sodium comes from adding salt during cooking and at the table.
- 3. Increase your intake of whole foods.** The remaining 12% of sodium that we obtain in our diet is what occurs naturally from non-processed food sources.
- 4. Consume plenty of potassium-rich foods** such as beet greens, sweet potato, chard, and avocado.

While it’s not an option to stop the aging process and live forever, it is possible to increase longevity and quality of life by making simple changes to your daily diet.

Perhaps the modern-day fountain of youth has been found . . . and it’s overflowing with potassium-rich fresh vegetables and fruits!

FUEL FOR THOUGHT

WHAT'S IN YOUR ELECTROLYTE TABLET?



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, Sucralose, Vegetable Juice Color, Magnesium Oxide**

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

CamelBak Elixir is a trademark of CamelBak Products, LLC.
Red text used for emphasis.

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.

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!®



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Brian's Original Diet Theory

BY BRIAN FRANK

The issue of what and how to eat is a complex one that will never see total agreement by all parties. One thing is for sure, however; the uniqueness of each individual's physiology guarantees that any one specific diet will never work for everyone. The idea is to take some foundational principals and, using a process of trial and error, determine what works best for you personally.

Please keep in mind that I have espoused this "theory" of mine for over a decade — I just didn't write a book or make a candy bar to promote it. It began with the holistic foundation my mother gave me and grew through education and my own trial and error experiences. Here are the principals:

Balance and variety

Your body craves and desperately needs these to be present in your diet. Anytime you find yourself eating the same thing all the time, you are not eating optimally.

Sugar, salt, dairy, & refined wheat

The less you eat, the better you will feel and the healthier your body will be.

Protein is key

Carbs and fat are also important, but your diet should be built around your protein needs.

Carbohydrates

Carbohydrates can be both good and bad. Since most people tend to lean toward bad carbs instead of good, this area might take some work. Sugar and refined wheat-based carbohydrates are the enemies.

Fresh, whole foods are good. Packaged, processed foods are bad

Whenever possible, even at extra expense and time, seek out good foods and avoid the bad.

Fat is ok

The right kind of fats are critical to optimal health. The wrong kinds should be minimized or avoided altogether. Since most of us get way too much omega 6 fats and not nearly enough omega 3 fats, that should be your area of focus. Fish and fish oils are the best, but good vegetable sources include flax seeds, raw nuts, olives, and olive oil. The remainder of your dietary fat intake will come naturally along with your protein sources.

Building your diet

Start with protein. You want a minimum of 1/2 gram per pound of body weight each day to maintain your current level of lean muscle mass. If you are trying to add lean muscle mass and doing the necessary resistance training, your protein needs will increase to 3/4 to 1 full gram of protein per pound of body weight. So, if you weigh 150 pounds, 75 grams is your daily minimum and 150 would be a maximum. To accomplish this you will need to eat a variety of proteins three times each day and possibly a protein-rich snack in between meals. Protein supplements can help you reach your daily goal.



Next, add your carbohydrates. The goal is at least 6-9 servings per day of high-quality fresh fruits and vegetables (organic whenever possible). The next group of carbohydrates includes whole grains and rice. Oats and more esoteric grains, along with potatoes, sweet potatoes, and yams should be the bulk of your starchy carbohydrates. (Please notice that refined wheat products such as bread and pasta are not included.)

Lastly, you have your "treats." These are the goodies that you allow yourself in extreme moderation as a reward for being such a good eater. It might be something truly wicked like a piece of chocolate or a bowl of ice cream, or it might be something that may be a staple in your current diet like a big bowl of wheat pasta or a sandwich made with sourdough bread. These treats can be consumed once or twice a week.

Total caloric intake

The more you exercise, the more calories you will burn and thus the more calories you will need to consume. However, don't let your appetite determine your caloric intake. It's far better to use the scale. Measure your weight at the same time each day and record it in your training diary. Achieving a constant weight is the obvious goal. Counting calories is a distraction that most of us don't need in our lives.

Weight loss

The only way to lose weight is to burn more calories than you consume. That is easy to say and harder to actually live. However, in addition to this axiomatic truth, the type of calories and the time of day at which you consume them can contribute to weight loss or weight gain. I have found that

Continued From Previous Page

the best way to lose weight, especially while training, is to eliminate some or all of the starchy carbohydrates from your diet. You may feel hungry all the time for the first 7-14 days, but you will lose fat weight without sacrificing a lot of lean muscle mass. Above all, don't be a slave to your appetite.

Miscellaneous

Ideally, it is better to consume the majority of your calories

in the morning and midday/early afternoon hours. You should try to avoid eating after 7 p.m. You should never skip breakfast because it gets your metabolism fired up for the day; it really is the most important meal of the day. Likewise, eating your last meal before 7 p.m. and doing some light exercise afterward, even a 20-minute walk, will give your body time to metabolize those calories before going into a resting state when excess calories are more likely to be stored as fat. **EN**



The myth of the balanced diet

Why you must supplement to perform better, stay healthier, live longer

BY STEVE BORN

Editor's Note: This article has appeared in various forms in Endurance News throughout the years. This is the most recent version.

You've read it in magazines, books, and online, and have heard it repeatedly on TV. It's been the mantra of many so-called "experts" for decades: "Eating a balanced diet will provide all the nutrients you need — supplements aren't necessary."

Unfortunately, it's simply NOT true. The fact is, no research exists to support the claim that a "balanced diet" will supply all the nutrition you need for optimal health and athletic performance. That's right, not a single study or published article has documented what constitutes a balanced diet.

For sure, we've always been vocal advocates of eating a whole food based diet to achieve peak athletic performance and overall health. But even if you strive to eat a broad assortment of vegetables, fruits, grains, and healthy proteins and fats — what many nutritionists would consider a "balanced diet" — you won't get all of the vitamins, minerals, enzymes, and nutrients your body requires. In our modern world, food alone simply can't fulfill all of our nutrient needs.

Here are just a few reasons why:

- **Decline in soil quality** - Because of a decline in soil quality over the years, the nutrient content of today's food supply is greatly diminished. According to Bill Misner, Ph.D., "In the past 50 years, chemoagricultural farming has depleted 90% of the soil's original minerals."
- **Fresh? Not likely** - Very few of us have regular access to feesh, locally grown foods. Much of our diet comes from foods grown far away, picked when unripe, and then sent packing. By the time it reaches the market, it's already several days old; and by the time you buy and consume it, it's older still—and nutritionally depleted.



• **Lifestyle challenges** - Even if we could obtain all the nutrients we need from our diet, very few of us are able to follow that ideal diet consistently. It requires time and effort. On days when time is short (probably at least several days a week), processed convenience foods and not-so-healthy restaurant selections often are the dietary

default. In fact, several studies have shown that many people do not eat enough quality food to meet the minimal Reference Daily Intake (RDI) micronutrient requirements for preventing deficiency-related disorders.

Bottom line: Eating fresh, whole foods is the ideal way to supply your body with the plant-derived, health-benefiting phytochemicals you need for good health. But today's food supply can't provide all the vitamins, minerals, antioxidants, and essential fatty acids we need. That's why taking supplements, especially multivitamin/mineral supplements, is a wise strategy. **EN**





Wheat: An everyday dietary danger

BY WILLIAM DAVIS, MD.

What food can...

- Cause devastating inflammatory intestinal destruction that, if unrecognized, can lead to disability and death?
- Increase blood sugar higher and faster than table sugar?
- Trigger autoimmune inflammation in the thyroid?
- Create intestinal bloating, cramps, and alternating diarrhea and constipation, often labeled as irritable bowel syndrome?
- Weaken the muscle controlling food exit from the esophagus to the stomach, resulting in reflux esophagitis (heartburn)?
- Worsen schizophrenia in susceptible individuals?
- Contribute to behavioral outbursts in children with autism?
- Increase the risk of or worsen various inflammatory diseases such as rheumatoid arthritis, ulcerative colitis, dermatitis herpetiformis, systemic lupus, pancreatitis, and increase measures of inflammation?
- Cause unexplained anemia, mood swings, fatigue, fibromyalgia, eczema, and osteoporosis?


That food is wheat. Yes, the ubiquitous grain we are urged to eat more and more by the USDA, the American Heart Association, the American Dietetic Association, and the American Diabetes Association. Wheat is among the most destructive ingredients in the modern diet, worse than sugar, worse than high-fructose corn syrup, worse than any fat. What other common food can result in such an extensive list of diseases, even death?

Few foods occupy the exalted position that wheat has gained, earning over 20,000 research publications in the medical literature over the past 30 years, many studies detailing the destructive and sometimes fatal nature of this common

dietary product. Celiac disease affects more than 2 million Americans. The medical literature is filled with case reports of deaths from this disease, often after years of struggle with incapacitating intestinal dysfunction and encephalopathy (brain inflammation).

What happens when you remove wheat from the diet? Experience at our clinic has shown that the majority of people quickly shed 20-30 lbs. in the first few weeks, selectively lost from the abdomen (what I call “wheat belly”); blood sugar plummets; triglycerides drop up to several hundred milligrams, HDL increases, LDL drops (yes, wheat elimination is a means of achieving marked reduction in LDL, especially the small, heart disease-causing variety); and C-reactive protein plummets. In addition, intestinal complaints like pain, gas, and bloating improve or disappear; gastroesophageal reflux often disappears; rashes improve; inflammatory conditions like rheumatoid arthritis improve; diabetes (adult or type 2) is more easily controlled; and behavioral disorders and mood improve.

In people who have celiac disease, the meticulous avoidance of wheat gluten and gluten from other sources, including rye, spelt, and barley, will be necessary. But there are millions of Americans who are suffering wheat-intolerance in some form, from skin rashes to arthritis to depression, who are wheat sensitive but remain unaware.

Beware of the food industry’s efforts to capitalize on wheat intolerance with products known as “gluten free.” These are generally foods that don’t trigger the inflammatory response of wheat, but still cause high blood sugar, weight gain, and other abnormalities. 



Our entire *Endurance News* archive is available for you to browse on our website.

From a simple newsletter to a full-color glossy magazine, Endurance News has always endeavored to be “thought-provoking, informative, educational, and helpful in your ongoing pursuit of optimum performance and health” (Brian Frank, Issue #1). All 100 issues can be found at hammernutrition.com/knowledge/endurance-news

THE 'HOLE' TRUTH



Even the most balanced diet has holes

For optimal health and athletic performance, daily supplementation with a high-quality vitamin and mineral supplement is critical. Fill in the holes in your diet with a premium quality supplement designed for athletes!

High-potency
multivitamin

Premium Insurance Caps

- Supports optimum performance
- Increases energy all day
- Benefits digestion

120 Capsules **\$19.95** 210 Capsules **\$34.95**



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Megan Biller hits her stride after making the switch to Hammer Nutrition. Hammer helped her solve her digestive struggles.
Photos: Hadley Humphries

Hitting her stride

A runner plagued by digestive problems finds her ideal fueling formula

BY MEGAN BILLER

If you had asked me six years ago if I would ever be a runner, let alone a long-distance runner, I probably would have laughed. Running wasn't my thing. But a stressful job changed all of that. I signed up for a 10K, and my view of running changed forever.

Yet there is more to the story. As my love for running increased, so did my goals. During training for a half marathon, I realized something important — you get hungry on a long run! Suddenly I had to focus not only on how to increase my mileage, but also how to properly fuel my body during those miles.

PROBLEM: Fueling with digestive conditions

Truthfully, I struggled with fueling the most. I could power through the longer mileage, but I could not figure out that magic formula for nutrition. My situation was a little different than most. In 2004, I was diagnosed with gastroparesis (a condition that affects the muscles and nerves of the stomach) and irritable bowel syndrome. In other words, my digestive system was out of whack.

While I was able to adjust my dietary nutrition (most notably, going gluten free), fueling a run was difficult. I tried the trendy gels. I tried gummies. Nothing seemed to work the way I felt it should. Bananas rescued me during marathons, but that only works for so long. I never felt like my tank was even half full for a race.

SOLUTION: Megan's Hammer formula


A friend of mine suggested I try Hammer Nutrition. Admittedly, I was skeptical because I had already tried so many other products. But she had completed two Ironmans, so I figured she knew what she was talking about! I looked

at the Hammer website, and being a math and science geek, I immersed myself in the research. I ordered a sampler kit and went on a long run with a Hammer Gel in hand. I cautiously took it in, then realized a half mile later that my stomach didn't hurt like it had with other gels!

Since then, my nutrition and fueling have done a complete 180. Now I fuel my runs with Hammer Gel, Endurolytes, Anti-Fatigue Caps, and Endurance Amino. After every run, I drink Chocolate Recoverite mixed with almond milk. After strength training sessions, I mix Hammer Whey Protein with my smoothies. If I have a run scheduled after work, I munch on a Hammer Bar for my afternoon snack. Needless to say, I am most definitely powered by Hammer. I also appreciate that all Hammer products are gluten-free.

RESULT: More energy, less soreness, no GI distress

In addition to the changes I've noticed in my performance, I've noticed a difference in the way I feel between runs. My legs aren't as sore, and I find myself pushing harder during weekday runs. Taking the supplements during a race allows me to keep fighting when I normally would hit a wall. As an added bonus, my clothes fit better!

While Hammer Nutrition is excellent for any endurance athlete, I specifically recommend it to those with digestive issues. Give it a try, and hopefully, like me, you will see a major improvement to your running game! 

Megan Biller is a runner, travelista, and higher education professional from Michigan. She is the author of *Magical Miles: The Runner's Guide to Walt Disney World*, a guide book that combines two of her passions, running and Disney.



120 Capsules – \$29.95
240 Capsules - \$54.95

Endurance Amino: **Targeted Muscle Repair**

The foundation of Endurance Amino is the three Branched Chain Amino Acids: L-leucine, L-isoleucine, L-valine, helping to delay exercise-induced or central nervous system-induced fatigue, improve immune system reaction, and enhance recovery.

- Assists energy production
- Protects lean muscle
- Supports immune system



“Endurance Amino gives my endurance a boost.”

-Online Reviewer

ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Karen Chequer-Pfeiffer's **HITS 70.3 + SPRINT TRIATHLON** Race Recipe

Night Before: Endurolytes Fizz and a good night's sleep

Before Race: HEED

On the Bike: HEED, Hammer Gel

During the Run: Perpetuem Solids, HEED, Hammer Gel

Results

“The HITS triathlon was a test for me because I've never raced a 70.3 followed by a sprint. I was pleasantly surprised to race the second day with very little muscle fatigue. No cramping issues whatsoever! Nothing else has ever kept my legs from cramping like Hammer.”

-Karen Chequer-Pfeiffer



Karen Chequer-Pfeiffer during the ride portion of a triathlon. Photo: Courtesy Karen Chequer-Pfeiffer.

Product Spotlight: Digest Caps

A daily probiotic for a healthy
digestive system



BY STEVE BORN

Many modern nutritionists agree with Hippocrates (the “father of modern medicine,” 460-377 BC) that “all disease begins in the gut.” If your gut is unhealthy, your entire body will be negatively affected.


A primary aspect of intestinal health is the battle between “good” and “bad” bacteria for colonization of the digestive system. Good bacteria fill important roles in digestion, while bad bacteria contribute to illness and disease. Infections, poor diet, stress, overuse of anti-inflammatory medications (NSAIDs), antibiotic use, and even chlorinated water can deplete or destroy the healthy bacteria living in the human digestive system. This can allow undesirable bacteria to flourish and compromise digestive system function, nutrient absorption, intestinal health, and immunity.

Digest Caps is your ticket back to digestive stability after any bout of intestinal distress. Daily use of Digest Caps also can help maintain high populations of beneficial bacteria to keep your intestines healthy and prevent the growth of unhealthy intestinal flora.

Healthy intestinal flora — a top priority for athletes

Dr. Bill Misner writes, “Poor diet, stress, antibiotics, and aging can tend to increase the ‘bad’ (pathogenic) bacteria, which may be blamed for several gastrointestinal problems endurance athletes suffer from during extreme events. Probiotics are ‘good’ bacteria that are healthful for normal intestinal function that prevents harmful bacteria from causing stomach problems or worse, disease.” A well-known nutritionist writes, “Unhealthy flora can result in the liberation of abnormally high levels of ammonia as protein-

containing foods are digested. This irritates the intestinal membranes. In addition, the ammonia is absorbed into the bloodstream and must be detoxified by the liver...”

High blood levels of ammonia are linked to fatigue, so it simply makes sense to do all that you can to minimize ammonia production: For this reason, and many others, the wise athlete will make sure the “gut is healthy.” 

DIGEST CAPS: BETTER THAN EVER

Digest Caps now includes the even more potent DDS-1 strain of *L. acidophilus*. Daily use of Digest Caps will help maintain high populations of beneficial bacteria to keep your intestines healthy and working properly.

Dr. Khem Shahani, renowned expert in the world of probiotics, discovered the DDS-1 strain of *L. acidophilus*. Compared to all other forms of acidophilus, it is without peer in terms of quality and stability. The DDS-1 strain has been shown by Dr. Shahani and others to:

- Stimulate the immune system, benefiting the skin and combating yeast and fungal infections
- Aid in the alleviation of “traveler’s diarrhea” and constipation
- Help inhibit stomach ulcer- and cancer-causing *Helicobacter pylori*
- Reduce lactose intolerance

... and much more. Here’s another bonus — we’ve kept the price steady! That’s right, an already outstanding product, one that has received multiple 5-star ratings, gets a significant upgrade and you pay the same low price.

GOOD

BACTERIA HELP YOU FEEL

BETTER

SO YOU CAN PERFORM YOUR

BEST



NEW AND
IMPROVED
FORMULA

60 Capsules – \$16.95

Hammer staffer Loren Mason-Gere uses Digest Caps to promote intestinal balance and nutrient absorption. **Photo:** Mike Hahn



NOT ALL BACTERIA ARE CREATED EQUAL

Containing substantial amounts of four potent strains of healthy bacteria, **Digest Caps** tilts the balance of intestinal flora in favor of the "good guys."

The good bacteria found in **Digest Caps** help protect you against the negative effects of intestinal imbalance, ammonia excess, and nutrient malabsorption.



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com

AROUND THE WORLD
WITH
HAMMER



Eric Keener
Southeast Asia



A guide leads the group along a trail in the jungles of Southeast Asia. **Photo:** Courtesy of Eric Keener

Fueling hope

Grueling 100-mile trek in the heart of the jungle brings help

BY ERIC KEENER

Imagine growing up in a jungle ravaged by war, always living in fear of the next bullet or land mine. To make things worse, there is no electricity, no transportation, no potable water and no doctor. You would have to hike several days over treacherous terrain, through hordes of deadly creatures, just to get to a medical facility — providing you could walk. How much would you hope someone would come to help you and your community? In my estimation, sympathy is not a substitute for action.

2013 Expedition: “grueling, eventful, and fun”

In the summer of 2013, I learned first-hand how difficult and dangerous it is to not only live in the jungle, but to get there at all. We knew that hiking with 70 pounds of teaching and medical supplies for up to 16 hours a day, in 100-degree heat with 100% humidity, over 100 miles, into the remote jungles of Southeast Asia would be one gnarly trip.

We fought exhaustion. We were attacked by poisonous snakes, leeches, scorpions, spiders of all sizes, centipedes, and even a wild elephant; and were always on edge due to active land mines left from previous wars. Just getting to the village was a feat,

and one team member nearly didn't survive the hike. With all of the training supplies, there was not much room in our packs to bring food, and the locals ate only boiled, foraged vines with plain rice. We ate the occasional rain beetle when we could catch one, but the pickings were slim. It was on this expedition, over many weeks, that I learned the true value of nutrition. The trip was so grueling, so eventful, and so fun, that in February 2016 we did it again.

2016 Return: Preparation matters

Along with a master electrician and three rifle-wielding native guides, I put on my heavy rucksack and began the journey over many, many mountains. Fortunately, this time I was better prepared. Thanks to improved physical training, nutrition, and study, our trek didn't take the toll it did in 2013. I had increased lean muscle mass before the trip, knowing I would be catabolic much of the time, and also spent more time on intense cardio and flexibility. We also did our homework and brought just the right combination of Hammer products to give us what we needed, when we needed it. We stuffed Hammer Gel singles into every nook, cranny, and pocket, filled one bottle with Perpetuem,




Above and right: During a recent aid expedition in Southeast Asia, Eric Keener took a rare day off to explore a nearby waterfall. **Top right:** Sunset view, just feet away from “where I hung my hammock.” **Bottom right:** Trail blazing through a bamboo thicket. **Photos:** Courtesy of Eric Keener

Continued From Previous Page

and another one with Endurolytes. We timed and measured our intake of Race Caps Supreme. At night, before bathing in a dirty river and crawling into our hammocks, we took Tissue Rejuvenator. Grateful for the Hammer team who helped us assemble an amazing fueling and recovery kit, we were able to weather the harshness of the voyage and maintain our fitness for the trip back.

Calling on my background in outdoor survival, construction, and backpacking, we built rough, medical buildings and wired electrical from hydroelectric generators and solar panels — finally setting up the community with the training and equipment needed to provide villages near and far with accessible health care.

It is one thing to advocate for those in the world who know nothing other than injustice and oppression; it is another to join them in their struggle for basic human rights and freedom. Thank you Hammer Nutrition for being the fuel we needed to be active in spreading hope and love! 



Coming from the technology hub of Northern California's Bay Area, Eric Keener (28) is a marketing professional, extreme sports athlete, and a seasoned outdoorsman.

10 TIPS TO BEAT THE HEAT



If you're exercising in weather that you're not yet acclimated to, your electrolyte losses will be higher than normal. Either increase your intake of Endurolytes, or use Endurolytes Extreme.

Simple strategies to hammer strong in rising temperatures

BY ENDURANCE NEWS STAFF

Summer weather extremes can make a tough race even tougher. Not only can the heat put a damper on your finish time, but it also can result in serious medical problems if you do not prepare and respond properly. Take these simple but important precautions to beat the heat and finish strong.

1) Train in the heat. Heat acclimatization and fitness reduce fluid and electrolyte losses by up to 50%.

2) Stay properly hydrated all day long. Since approximately 60% of your body is comprised of water, it's vitally important to maintain optimal hydration status all day long, especially if you're going to be exercising in hot weather. Unfortunately, many people live in a state of perpetual dehydration, and that negatively affects their athletic performance and health. Starting now, gradually increase your fluid intake — primarily from pure, clean water — so that the total number of ounces you're drinking on a daily basis equals half your body weight in pounds (e.g., a 150-lb athlete should consume 75 ounces of fluids daily, in addition to what she/he consumes during exercise).

3) Drink appropriate amount of fluids during exercise. Don't assume that you can drink unlimited amounts of water or fluid during exercise and that all of it will be absorbed, with the excess excreted in sweat or urine. You will instead bloat, overly dilute your blood, urinate excessively, and develop water intoxication. Keep fluid intake between 20-25 ounces per hour, plus or minus 3-4 ounces, depending on your weight and the weather. If you feel you need more fluids than what you normally consume, experiment in training, keeping in mind that you will require additional Endurolytes.

4) Increase your Endurolytes dose or use Endurolytes Extreme. If you're exercising in weather that you're not yet acclimated to, your electrolyte losses will be higher than normal, so you will either have to increase your intake

of Endurolytes, or use Endurolytes Extreme. The same applies if you have unusually high sweat rates, often due to high dietary sodium intake.


5) Avoid foods and fuels that contain short-chain carbohydrates. Simple-sugar-based fuels require more fluids and electrolytes for digestive purposes. Stick with the complex carbohydrates (maltodextrin) in Hammer Nutrition's fuels. Also, remember that in hot weather, your ability to process calories will diminish; adjust your caloric intake accordingly.

6) Wear the lightest, most evaporation-friendly clothing you can. Lightweight, loose-fitting, clothing helps sweat evaporate, which keeps you cooler.

7) Pace yourself accordingly. If the weather is hot, and especially if you're not acclimated, it can't be "business as usual" when it comes to your pace. Until your body adjusts to the heat, slow down in deference to the weather.

8) Use caffeine with caution. Used properly and sparingly, caffeine has ergogenic benefits. However, it is believed to have diuretic properties, which may deplete fluid stores more rapidly. Caffeine is also a central nervous stimulant, which may increase your heart rate, making it work even harder in the heat.

9) Get wet. During the hottest weather conditions, sponge yourself off with cold water, while taking short periodic breaks from race pace.

10) Know the symptoms of over-hydration and dehydration. Stop immediately if you feel lightheaded or queasy or get the dry chills. No race or training is worth compromising your health. 

FUEL FOR THOUGHT

WHAT'S IN YOUR ELECTROLYTE CAPSULES?



GU Roctane Electrolyte Capsules

Ingredients: Sodium Citrate, Cellulose, Sodium Chloride, Ginger Root Powder, Magnesium Chloride, Magnesium Citrate, Magnesium Stearate, Vitamin B6, Vitamin D

- Contains just three electrolytes (sodium, chloride, and magnesium)
- One serving contains 9 mg of magnesium

GU and GU Roctane are registered trademarks of Advanced Food Concepts, Inc.

Red text used for emphasis.



Hammer Endurolytes

Active ingredients: Sodium, Chloride, Calcium (as chelate), Magnesium (as chelate), Potassium (as chelate), Manganese, Ginger Root

Other ingredients: Stabilized Rice Bran, Vegetable Capsules (plant cellulose and water)

- Contains a full spectrum of electrolytes (sodium, potassium, magnesium, calcium, and chloride)
- One serving contains 50 mg of magnesium; magnesium is essential for energy production
- Certified to be free of banned substances

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!®



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



ASK **HAMMER** **NUTRITION**

Answers to frequently asked questions about *Endurolytes*

BY ENDURANCE NEWS STAFF

? I recently noticed that my Endurolytes have an odd smell. Is the product spoiled?


Over the past several months, the Endurolytes and Endurolytes Extreme formulas have changed slightly, and the scent and taste you're probably picking up is that of stabilized rice bran. This ingredient is not only nutritive (natural fiber, protein, fats, carbs, vitamins, minerals) but it also contains the tocotrienol complex (alpha, beta, delta, and gamma) that is only available in a few foods. Even though the amount is small, this vitamin E matrix is very unique and valuable as a supplemental nutrient. It is in the product to round up the capsule and make it full and is used due to its nutritional values in place of the previous ingredients that were used as fillers (rice flour and magnesium stearate).

We've come to find that when exposed to hotter temperatures, the scent of the rice bran that our original manufacturer was using in Endurolytes and Endurolytes Extreme became more pungent, to the point of possibly even smelling a bit rancid. This abnormally strong smell was allocated to only a couple of batches, however, and we've since corrected this slight problem, using a different manufacturer and an even more stable form of rice bran. Endurolytes and Endurolytes Extreme still have a rice bran scent to them; however, it is significantly less odorous than before (it's actually quite pleasant) and it's significantly more stable in even the hottest temperatures.

? I began my workout early in the morning and the temperature was already quite warm. As the day progressed the temperatures rose even higher, topping off above 100 degrees F. I drank plenty of water and supplemented with Endurolytes every hour. But I still had salt stains everywhere. Is this just what happens, or should I do something different?

According to Dr. Bill Misner, salt stains generally are an indication of (1) profuse fluid loss in response to extreme heat (2) excessive dietary sodium intake above needs, or (3) a combination of 1 and 2. "If you notice in a race early on, some riders tend to sweat heavily while others seem relatively dry. The more profuse one perspires, the higher the rate of sodium excreted. Hence, salt stains are relative to diet [high sodium intake] or rate of fluid loss. There are other mineral salts lost in sweat, but sodium and chloride are the two lost the most, with magnesium and potassium in lesser amounts."

Dr. Misner adds that "when the heat is above 70 degrees F and 70% humidity, physiological adaptations occur within 8-14 days exposure at an aerobic pace for 90 minutes or more each day. . . . During adaptation to heat, the fluid and electrolyte loss may be at such a high rate that the deficiency is too much for the body to overcome."

For these situations — 1) when the temperature and/or humidity is very high, or 2) if you consume a high-sodium diet, or 3) it is early in the season and you are not acclimated to conditions — we recommend Endurolytes Extreme. Formulated with 3 times the sodium and potassium as our original Endurolytes formula, Endurolytes Extreme will help you finish strong, without cramping, in even the harshest conditions. 



As the mercury rises, choose Endurolytes Extreme for electrolyte replenishment. Formulated with 3 times the sodium and potassium as the original Endurolytes formula, Endurolytes Extreme will help you finish strong, without cramping, in even the harshest conditions.

ENDUROLYTES OR ENDUROLYTES EXTREME?

SELECT BASED ON THE CONDITIONS AND YOUR DIET



Hammer athlete Pete Kostelnick en route to winning the Badwater 135. To help combat the grueling heat, Kostelnick fueled with Endurolytes Extreme.

Photo: Gabriel Elizondo

Extreme Heat and/or a High-Sodium Diet will require more sodium replenishment



Endurolytes Extreme

- Prevents cramping in harsh conditions
- Full-spectrum, balanced formula
- 3x the sodium and potassium as original Endurolytes

120 Capsules - **\$19.95**
3 or more - **\$17.95 ea**



Hammer athlete Jessica Garcia on her way to a 3rd place female finish at the Door County Fall 50. When temperatures are cooler, replenish electrolytes with Endurolytes.

Photo: Karim Scislowicz

Cooler Temperatures and/or a Low-Sodium Diet will require less sodium replenishment



Endurolytes

- Superior cramp prevention
- Complete electrolyte replenishment
- Rapidly assimilated

60 Capsules **\$ 17.95** 3 or more **\$ 16.25 ea**
120 Capsules **\$24.95** 3 or more **\$22.45 ea**



ORDER TODAY!

Receive a FREE tube of Endurolytes Fizz with any order of Endurolytes or Endurolytes Extreme. Use promo code: EN100Fizz.

Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com

Product Spotlight: Anti-Fatigue Caps

Stop fatigue-causing ammonia with this powerful nutrient combo



BY STEVE BORN

Enemy #1 of endurance athletes very well might be excess ammonia. If you've never given much concern to this issue, the words of renowned sports scientist Michael Colgan could change your mind:

“A second inhibitor of exercise, happening simultaneously with the accumulation of acidity, is accumulation of ammonia. All anaerobic and endurance exercise produces oodles of the stuff. Bad news! Ammonia is toxic to all cells, reduces the formation of glycogen, and inhibits the energy cycle. It has devastating effects on brain function. We still don't know how much it contributes to fatigue, but we do know that the higher your blood ammonia, the poorer your performance.”

(Colgan, Michael. *Optimum Sports Nutrition*. New York: *Advanced Research Press*, 1993, pp. 282-3)

You can't avoid producing some level of ammonia during exercise, but



Hammer Nutrition adds beet juice powder to Anti-Fatigue caps to give the capsule contents a pinkish hue, helping to differentiate them from similar-looking capsules such as Endurolytes. There's more to that, however, as beet juice powder is rich in nitrates, which also help boost NO levels.

you can minimize excess ammonia accumulation and its negative effects on athletic performance.

The unique nutrient combination in Anti-Fatigue Caps helps reduce ammonia accumulation and aids in the removal of performance-robbing ammonia accumulation.

Whether the workout or race is short

and intense, or long and aerobic, Anti-Fatigue Caps is your ammonia-neutralizing, endurance-extending ally.

The Anti-Fatigue Caps Formula

Every two-capsule dose contains this powerful nutrient combination:

500 mg Potassium/Magnesium Aspartate - A well-known nutritionist says it best regarding aspartic acid, “Because aspartic acid increases stamina, it is good for fatigue and plays a vital role in metabolism.

It is good for athletes and helps to protect the liver by aiding in the removal of excess ammonia.” Studies (Agersborg and Shaw 1962, Hicks 1964, Gaby 1982) show this combination provides substantial benefit for the prevention of fatigue.

Aspartic acid also combines with other amino acids to form molecules that absorb toxins and remove them from the bloodstream, aids the function of RNA and DNA, and helps to protect the liver.

Continued From Previous Page

Additionally, the potassium/magnesium aspartate compound increases production of a key substrate, oxaloacetate, which is involved in energy production. Lastly, the compound provides the minerals potassium and magnesium to help provide protection against cramping.


350 mg L-Citrulline – L-Citrulline is an amino acid that is found plant foods such as watermelon, onions, and garlic. Citrulline helps in the removal of ammonia in the muscles and liver, and, like aspartic acid, is beneficial in alleviating fatigue.

L-citrulline is a precursor for the endogenous production of l-arginine. Increased blood levels of arginine significantly boost nitric oxide (NO) content. NO acts as a potent vasodilator, relaxing the arteries, and allowing them to widen. Vasodilation is responsible for increased blood flow to tissues such as muscle fibers, which supports enhanced athletic performance and cardiovascular health.

350 mg OKG - Both ornithine and alpha-ketoglutarate (OKG) provide a readily available, non-ammonia-producing source of glutamine in the body. Glutamine is depleted at high rates during exercise but cannot be replaced with regular glutamine as it produces ammonia on its own. OKG increases the amount of glutamine in the muscle and also helps prevent muscle catabolism. Colgan writes, "Both ornithine and alpha-ketoglutarate act in the body as an ammonia scavenger."

80 mg Beet Juice Powder – We use it to give the capsule contents some color, helping to differentiate them from similar-looking capsules such as Endurolytes. There's more to that, however, as beet juice powder is rich in nitrates, which also help boost NO levels.

Rice bran- Used as a flow agent during manufacture, rice bran is a healthy nutrient-rich alternative to processing agents like stearic acid and silicon dioxide.

For dosing, we recommend taking two capsules 30 minutes prior to all workouts and races. If you go beyond 2 hours, take 1-2 capsules every hour. 



STAY AHEAD OF FATIGUE

“Anti-Fatigue Caps are second-to-none!”

While others are getting sore, fatigued, and are fading quickly, I feel as fresh as when I had just started!”

-Eric B.

*Fueled by Hammer, Eric Bruce stays ahead of fatigue and his competition during Ironman Louisville.
Photo: Phillip Rogers*



Anti-Fatigue Caps

Clean up fatigue-causing ammonia

- Massively prolong exercise endurance
- Counteract everyday fatigue
- Boost energy production

MSRP

90 Capsules - \$22.95
3 or more - \$20 each



ORDER TODAY!

Use promo code EN 100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977

www.hammernutrition.com

Everesting: The search for up

Mount Everest is the tallest mountain on Earth, making the feat of climbing all 29,029-feet of it in one day, on one bike on one hill all the more daunting.

Like climbing?
Add this challenging event
to your cycling bucket list

BY CHAD EDER

The rules are simple: Climb the elevation of Mt. Everest (29,029') on a bike, on one hill, in one day . . .

Hells 500 is a group of crazy cyclists centered in Australia who like to climb their bikes, a lot. A few years back they issued the challenge and Everesting quickly became a worldwide affair.

When I first heard of Everesting on a bike, I remember thinking, "Is this even possible?!" But after a short and inspirational investigation, my thoughts turned to "right on, this is for me!"

I began to imagine wearing the Everesting gray stripe — a privilege extended only to those who have successfully completed the feat. I started to share the idea with my friends, all of whom just gave me a blank stare as if to ask, "why?!" . . . but I knew why.

Endurance sports is about reaching deep inside to attempt what most others might not even consider. Pushing my



Chad Eder (center) leads friends Michael Mealer (left) and Damion Miller (right) during an Everesting climb.
Photos: Evan Halladay Photos

body and mind to their limits comes with great personal reward. I spent the next 12 months studying those who were already in the Everesting Hall of Fame and gave special consideration to their routes and equipment.

The experience taught me that there are four keys to a successful Everesting: help from good friends, careful route selection, proper training, and calculated nutrition.

Good people

Although more than 50 friends and family members supported me through the Chinook Cycling Club and 3R Tri Club, four people had essential roles:

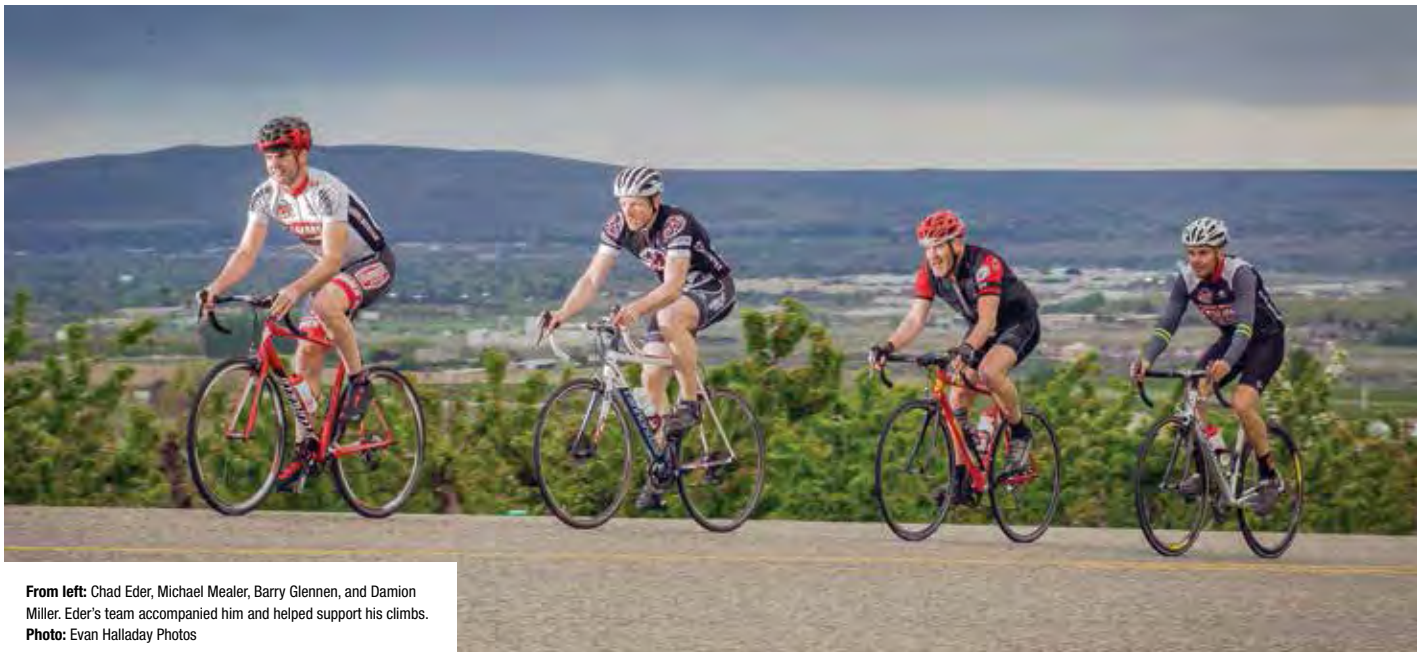
- Mike, my Domestique - solid moral

support and dependable for any need

- Barry, my closest Training Partner – the life of every ride (and party)
- Preston, the Nutritional Sherpa – paid meticulous attention to details and kept the fueling on schedule
- Damion, the Elite Athlete – kept us humble and was instrumental in route selection

Careful route analysis

The route has to be with the prevailing winds, steep enough to keep the miles low and in an area that can safely handle you and your support. I very much wanted to make the attempt in my hometown (Tri-Cities, Washington) and chose Sagemoor Hill as the route.



From left: Chad Eder, Michael Mealer, Barry Glennen, and Damion Miller. Eder's team accompanied him and helped support his climbs.
Photo: Evan Halladay Photos

Continued From Previous Page

Proper training


I was already preparing to complete my third Ironman 140.6 triathlon so I knew my endurance would be pretty good. But climbing on my bike for up to 24 hours straight was completely new territory. As a mountaineer myself, I know that the folks who actually climb Mt Everest do it by making partial attempts as training. I followed that as a template and scheduled two major practice runs on Sagemoor. The first was to be 15,000 ft. and at just over half of the distance, this would give me a good idea of what we were in for. I quickly learned that my bike was not geared low enough and that nutritional choices were

going to be a major factor. A month later, we made a second test run, this time reaching 18,000 ft. This gave me a good idea of the pace I could sustain.

Calculated nutrition

Knowing that it would take more than 10,000 calories to fuel the climb, I naturally turned to Hammer Nutrition. From my years of training and racing, I know that my body performs best with Hammer's broad range of specialized products. Perpetuem is my staple. With a single bottle I can consume 1000 calories over the course of several hours and rehydrate without slowing down. We also planned for Hammer Gel, HEED, Fizz, and Energy Surge on a regimented

schedule. Without these products, I could not have made it.

After a year of planning, the day had arrived. The four of us rolled out at 2:30 a.m. and climbed for over 20 hours. We were blessed with zero mechanical issues, no injuries, and an overall strong performance. We made exactly 100 climbs and 200 miles on Sagemoor Hill, reaching the summit a little after 11:00 p.m. I became the 74th American and 740th Worldwide to complete an Everesting and earn the grey stripe. 

Chad Eder is a triathlete, mountaineer, and adventurer who lives in the Tri-Cities area of Washington.



From left: Chad Eder, Barry Glennen, Damion Miller, and Michael Mealer climb Sagemoor Hill near the Tri Cities area of Washington.
Photo: Evan Halladay Photos



Eder sports the Everesting gray stripe he earned as a result of his completed climb.
Photo: Courtesy Chad Eder



Howie Nordström hammering on the bike to an impressive 10:27 finish at the 2015 Ironman Boulder.
Photo: Shera Warde

7 tips to better fueling on the bike

Simplify race day nutrition and storage with these expert ideas

BY HOWIE NORDSTRÖM

For maximum athletic performance on the bike, proper fueling and calorie intake are essential. (Read more in *Secrets for Endurance Success* available on the Hammer website.) Carrying your nutrition on the bike doesn't have to be complicated. Here's what works well for me. With practice, it could work well for you, too.

1. Calorie intake – During training and racing, the body functions best with small amounts of fuel taken over time. The maximum that your body can use efficiently while on the move is around 150-200 calories per hour. Save your complete refueling for post-exercise. Be sure to test and fine-tune your nutrition strategy in training, before race day!

I've had great success with HEED, Sustained Energy, and Hammer Gel. For 70.3 and 140.6 Ironman distances, I mix HEED and Sustained Energy in a ratio of 1:3 — 1/4 scoop HEED + 3/4 scoop Sustained Energy per hour provides 105 calories. A serving of Hammer Gel adds another 90 calories (80 for Chocolate, 100 for Nocciola), so I usually take only 3/4 of a serving (68 calories) for an hourly total of 172 calories per hour on the bike.

2. Fuel storage – I mix HEED and Sustained Energy powders in a water bottle and add 90 ml (about 3 oz.) of water for each hour. Conveniently a Hammer Flask filled to the fourth line is the perfect hourly amount of water for this concentrated solution. It's important to drink plain water before and after each swig of the mixture for optimal

absorption. I keep the prepared water bottle with fuel on the downtube of my bike.

I carry Hammer Gel from a 26-serving container in a Hammer Flask. (The jugs are the most economical, eco-friendly, and easy way to use Hammer Gel.) This flask goes in my Bike Mount Tri-Box on the top tube right behind the steering tube and stem.

3. Fuel pacing – While on the go, I take in some nutrition every 15 minutes. Over time the proper amount to sip has become second nature to me. Until you become comfortable with it, I recommend marking your concentration bottle with a line for each hour. Fill your flask to number 4 with water, pour it in, mark a line with a Sharpie, and repeat. As you can see in the picture, 6 hours of nutrition easily fits in a Hammer water bottle. In the beginning, don't worry about not getting it spot on. That's why you do this in training before a race!

Each hour at 15, 30, and 45 minutes I sip from the HEED/Sustained Energy concentration. On the hour I take my allotted amount of Hammer Gel.

4. Proper hydration – I drink plain water at a rate of 750 ml (about 25 oz.) per hour (a bit less in colder weather). I know that even in the heat my body cannot absorb water any faster than this: any more would just sit in the stomach, causing problems. In training I fill the water bottle mounted




Above: Howie's concentration bottle marked for hourly use.

Photo: Howie Nordström

on the aerobars between my arms (BTA) with plain water and have 1-2 full water bottles behind the saddle. This means I can bike for 3 hours without stopping. In a race I store my tire repair kit in a Hammer Keg behind the saddle and refill my BTA with water from the aid stations. With this setup I can go 6 hours without stopping.

5. Special needs bottle – In a full distance Ironman, you can use the bike special needs bag to store an extra water bottle with another powder mixture. When you retrieve this bottle, add water from the aid station, which ensures that no nutrition leaks out inadvertently ahead of time. This bottle is either a backup source of nutrition in case you drop your primary bottle or an additional source of nutrition for rides longer than 6 hours. Note: at some events, the contents of this bag may not be returned to you, so it could cost you a water bottle if you don't retrieve it. But this is a minor expenditure.

6. Electrolyte support/storage – I use Endurolytes to get a full-spectrum, balanced formula of electrolytes. You can store them either in dispensers that fit inside the aerobar extension tubes, or in a Hammer Capsule Dispenser that you tuck under a leg of your bike shorts or in a pocket in your biking jersey.

7. Recovery essentials – After your activity, start the recovery process by replenishing your body with the nutrition it needs. I've had great success with Recoverite (or Hammer Vegan Protein Powder for a non-dairy option), in combination with Race Caps Supreme, Mito Caps, Super Antioxidant, AO Booster, Tissue Rejuvenator, and Endurance Aminos. 

Howie Nordström is a Hammer Nutrition sponsored triathlete and Hammer Brand Ambassador. He competed in the 2015 Ironman World Championships in Austria.

Howie's Recipe

for cycling success



SUSTAINED ENERGY

Single Serving - \$3.25
15 Servings - \$34.95
30 Servings - \$56.95

HEED

Single Serving - \$1.95
16 Servings - \$19.95
32 Servings - \$29.95
80 Servings - \$58.95

HEED FLAVORS

Melon, Strawberry, Mandarin
Orange, Lemon Lime, Unflavored
(32 Servings only)

Sustained Energy+HEED = Success

"Sustained Energy, combined with HEED, gives me long-lasting energy. Adding just enough HEED to the unflavored Sustained Energy allows me to vary the flavor and still have a low sweetness drink, which I prefer." -Howie Nordström



ORDER TODAY!

Use promo code EN100SE and receive a two FREE packets of HEED with a purchase of a 15-serving or 30-serving container of Sustained Energy.

Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com

BICYCLE BASICS

Getting your nutrition dialed in is critical, but there are still more ways Hammer helps you succeed on the bike. We've worked closely with manufacturers to perfect top-quality athletic gear at a reasonable price featuring exceptional fabrics and construction, plus custom graphics that make you look like a pro. From head to toe, Hammer has the best clothing and accessories for a comfortable ride.

Whether you take your bike on pavement or off the beaten path, here are just a few of our favorite items for your adventures on two wheels.

Hammer staffers Loren Mason-Gere and Miles Frank enjoy a summer training ride near Hammer headquarters in Whitefish, Montana.
Photo: Jake Grilley



BEAT THE HEAT WITH BERGAMO!

1. Men's Bergamo Hot Weather Short Sleeve Jersey

A premium, highly ventilated jersey with short raglan sleeves, three back pockets, full-length hidden zipper, and gel gripper on waist.

\$54.95 | S-XL | Slim Fit

COLORS: WHITE, 53X11 BLACK

2. Men's Bergamo Hot Weather Long Sleeve Jersey

Protect your arms while keeping your cool in the heat! Meticulously made, highly ventilated; raglan sleeves, three back pockets, full zipper.

\$64.95 | S-XL | Slim Fit

COLORS: WHITE, 53X11 BLACK

3. Men's Bergamo Premium Bibs

Double layer, flat-leg cuff has no elastic or silicone gripper for greater comfort and style. If you want the most comfortable bib for riding 6, 12, 24 hours or more, this is it!

\$94.95 | S-XL | Slim Fit

COLORS: WHITE, 53X11 BLACK

MORE COOL CYCLING GEAR

2. Pace® Mesh Helmet Liner

Wicks sweat, keeping your noggin cool and sweat out of your eyes.

\$12.95 | COLORS: BLACK, 53X11 BLACK



3. Voler Arm Warmers

Silicone gripper around upper arm.

Fabric: Artico thermal spandex

\$29.95

S-XL | COLORS: BLUE, BLACK, PINK, 53x11 BLACK



4. Giordana Cycling Gloves

Get a good grip with Giordana cycling gloves, perfectly padded.

\$24.95 S-XL | COLORS: BLACK, 53X11 BLACK

5. DeFeet Multisport Socks

Nylon-Lycra blend with wicking uppers. Won't bunch or bind; cycling specific. **\$6.95**

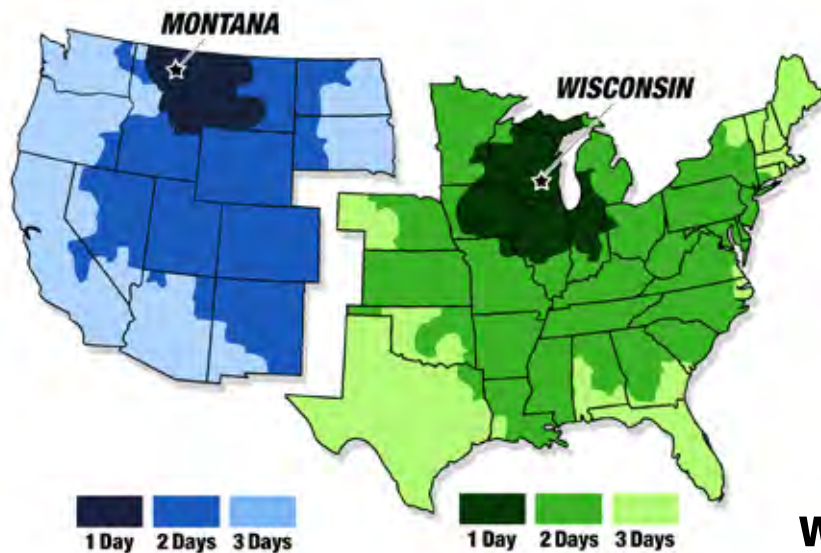
S-XL | COLORS: 53X11 BLACK, WHITE, PINK

Shop our website or catalog for more cycling apparel and accessories!

NEW! Faster Shipping!

Client # : _____
 Name : _____
 Address : _____
 City, State, Zip : _____
 Phone : _____ Email : _____

Product	Flavor/Color	Size	Price	Quantity	Amount



ORDER TODAY!

Shipping rates:

Order Total	Ground FedEx
\$0 to \$39.99	\$4.95
\$40 to \$99.99	\$7.95
\$100+	FREE!
Shopping Local	NONE!

Subtotal _____

Shipping _____
See chart at left

TOTAL _____

Method of Payment (circle one)

Check / MO • Visa • MC • Discover • AmEx

Card # : _____

Exp. : _____ Verification # : _____

Signature : _____

1.800.336.1977

www.hammernutrition.com



Martin Crimiale after finishing 2nd in his age group at Hammer Nutrition-sponsored The Rut 50K at Big Sky, Montana. **Photo:** Courtesy Martin Crimiale

EMS integral to recovery

Right attitude and right tools keep athlete moving ahead

BY MARTIN CRIMIALE

Sometimes lemonade isn't so bad. Especially when you have the right ingredients to make it. Thanks to Hammer Nutrition for providing me with those ingredients. I'm an ultra runner in the midst of Comeback 3.0, which is really just a prelude to Comeback 4.0 that will start shortly. But having been through this before, I am 100% confident that I can do it again. Here is some history.

Year of physical challenges

Fourteen months ago I had surgery to repair a hernia. That shut me down for three weeks. I also developed a mysterious, lingering hip injury. This January I had another surgery to repair a second hernia. That was supposed to be another three weeks off, but a week later I had another surgery to stop internal bleeding. That extended my time off by another two weeks. Three days later my heart freaked out so I had cardio-version to restore a normal rhythm.

When I finally got running again I discovered I had torn the labrum in my left hip which resulted in another six weeks off from running. When I started back up it was to the tune of 1 mile/day the first week, 2 miles/day the second week... you get the picture. During all my scans and tests my doctors discovered a spot on my kidney that must be removed. More surgery is coming up.

Attitude check

Being a very active person I naturally went through all of the classic stages of denial and self-pity when I couldn't run. But in the end I learned some valuable life lessons:

1. Do something. Just because you can't do what you most want to do (for me, running), you usually can do SOMETHING. I learned cycling didn't bother my hip at all.

Continued From Previous Page

2. Keep things in perspective. Being around elite athletes can skew your perspective. My athletic career started with road bike racing and then 100-mile MTB events. Now it's all about ultra trail running. When faced with several weeks of relative inactivity, I felt out of shape in no time. But when I compared my activity level to that of the average person, I realized that it's still pretty darn good. My doctors are jealous of my numbers and fitness even now. It forced me to be grateful for what I can do.

3. Use all the tools in your kit. You have a lot more tools at your disposal for recovery than you might think; this is where Hammer Nutrition enters the picture.

Recovery kit: EMS, Tissue Rejuvenator, and Mito Caps
After my first hernia operation I got a Compex Performance EMS (Electrical Muscle Stimulation) unit to help maintain and build strength. After my second surgery, and because of all the other things that kept me from running, my Compex now has a permanent home on our coffee table.

I regularly use the Strength, Endurance, and Recovery programs and have been blown away by how well they work! I sometimes do two Strength sessions back-to-back, and I'm genuinely sore and tired afterwards. Wow!

I am also a huge proponent of Tissue Rejuvenator and Mito Caps. My doctors were amazed by how quickly I tolerated physical activity post-surgery. I was walking in two days,



Criminale using EMS at his Seattle home.
Photo: Courtesy Martin Criminale

cycling in a week, jogging at two weeks, and running by three. Both supplements are now part of my daily routine. Last summer (post-surgery and with my hip problem), I still placed 2nd in my age group at the U.S. Sky Running event The Rut 50K and won my age group at the Crystal Mountain Marathon, another U.S. Sky Running event. **EN**

Seattle-based Martin Criminale loves to run, ride, ski, snowshoe, and hike: "If I could choose between exercising in the city or the mountains I would choose the mountains every time."

EMS: Your tool for increased strength and faster recovery!

"I got a Compex Performance EMS unit to help maintain and even build strength while I couldn't run."

— Martin Criminale

• Free Shipping • Free Consultation • Free Extra Pads

Model shown: Compex Performance U.S.

MSRP: \$579 **Sale Price: \$449.00**

See website details and additional models.



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Martin Criminale uses the Compex Performance U.S. Model and its 5 varied programs to boost recovery and increase strength.

Photo: Courtesy Martin Criminale

FROM THE KITCHEN OF **LAURA LABELLE**

Laura Labelle, who studied at *Ecole De Cordon Bleu* in Paris, is an acclaimed California-based chef. She opened the popular *Cafe Luna*, was in-house chef for *Mix This* music studio, and operated her own catering company.

Summertime and the grillin' is easy

Simple dry rubs and sauces can make grilled meats extraordinary

BY LAURA LEE LABELLE

As the weather warms, many of us move our cooking outdoors. Outdoor grilling is fast, fun, easy, and doesn't heat up the kitchen. Plus, the lean meats you prepare on the grill provide healthy protein, essential for fast recovery and building muscle. Be sure to make extra to use on salads and in sandwiches.

With a simple dry rub or sauce, ordinary grilled chicken, beef, or pork becomes something truly special. Here are a couple of my favorite quick and easy rubs, as well as a barbecue sauce for whatever your palate craves. These recipes make a large enough quantity for several meals. (Store them in a tightly covered container in your spice cabinet, for up to 2 months.) You can make them ahead of time, or as needed. Try all three and enjoy!



Barbecue Coffee Rub

This goes amazingly well with pork, beef, or chicken! I like to rub it on the meat, and then let it rest for a couple of hours before putting it on the grill. Don't make the grill temperature too hot, or the coconut sugar can burn.

Ingredients

1/4 cup finely ground **53x11 Coffee**
 1/4 cup coconut sugar
 2 Tablespoons chili powder
 1 Tablespoon freshly ground black pepper
 1 Tablespoon paprika
 2 Tablespoons fine ground Himalayan salt
 1 Tablespoon garlic powder
 1 Tablespoon onion powder
 1/2 Tablespoon cayenne



Lemon Oregano Rub

This is especially tasty on chicken or pork, but it also can be used for beef. I like to rub the meat with it the night before grilling, and then refrigerate it overnight. The mixture becomes a sort of marinade overnight.

Ingredients

1/2 cup chopped fresh oregano (or 2 Tablespoons dried oregano leaves)
 4 Tablespoons freshly grated lemon peel
 8 cloves garlic, minced
 1 Tablespoon ground Himalayan salt
 2 teaspoons black pepper





Kentucky Barbecue Sauce

A delicious thick sauce for chicken or ribs: Mix all ingredients together in a saucepan and simmer on low heat to reduce liquid to about half. Brush on meat, or use it as a condiment.

Ingredients

2 cups strong brewed **53x11 Chainbreaker Coffee**
 1 cup Bourbon whiskey
 1 1/2 cups coconut sugar
 1 cup soy sauce
 1/4 cup cider vinegar
 2 Tablespoons Worcestershire sauce
 1/4 teaspoon cayenne pepper



Dress up vegetables with these delicious vinaigrettes



Basil Vinaigrette

Ingredients

5 cloves garlic
 1/2 shallot
 2-3 anchovies
 3/4 cup balsamic vinegar
 2 tablespoons Dijon mustard
 Pinch of cayenne
 Fresh (or dried) thyme and oregano (pinch of both)
 Juice of one lemon
 6-10 fresh basil leaves
 Olive oil

Preparation:

Add all ingredients except olive oil to a food processor. Blend until fairly uniform. Gradually add olive oil until the dressing thickens, but be careful not to let the olive oil overpower the dressing.

Tip: To add a little sweetness to the overall taste, add a splash of agave nectar or honey.

Strawberry Ginger Vinaigrette

Ingredients

1/2 cup frozen strawberries
 1 tablespoon fresh minced ginger
 Juice of 1/2 lemon
 1/8 cup apple cider vinegar
 1/8 cup balsamic vinegar
 1/8 to 1/4 cup raw honey (to taste, depending on the sweetness of the strawberries and balsamic)
 1 tablespoon fresh minced lemon thyme or mint
 Black pepper to taste
 1/8 cup walnut, grape seed, or olive oil (if desired)*

Preparation:

Add strawberries, ginger, lemon juice, and vinegars to a food processor or blender. Blend until smooth. Add honey, herbs, and black pepper while blending. *For thicker dressing or to increase calories, add oil.

Tip: To add body and thicken the dressing without using oil, blend the other ingredients with raw walnuts.

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 gin-
ger
Juice of 1/2 lemon
1/8 cup apple cider vinegar
1/8 cup balsamic vinegar
1/8 to 1/4 cup raw honey (to taste)
1 tablespoon fresh minced leu-
kicon
Black pepper to taste
1/8 cup walnut, grape seed, or

Preparation:

Add strawberries, ginger, lemon
juice, and vinegars to a blender. Blend until
smooth. Add honey and black pepper while blending.
Taste, adjust seasonings, and add oil.

Tip: To add body and thicken
the vinaigrette, add a splash of

Kale & Quinoa Frittata

From the Kitchen of Laura Lee Labelle
Makes 4 servings

Ingredients:

1 bunch of kale, cleaned
1 large sweet onion, chopped
1 tablespoon ghee
2 cups cooked quinoa
(I use red for its color, but any will do)
4 whole eggs (or substitute 6 whites)
2 tablespoons Parmesan cheese (optional)

Preparation:

Prepare quinoa according to package directions.
Chop the kale by removing the thick center ribs; cut the rest
into thin ribbons. Place the kale into a medium-size bowl.

In a pan over medium heat, heat 1 teaspoon of
the ghee for about 5 minutes or until it is transparent.
Add the onion and cook until translucent, about 5 minutes.

Add the cooked onions, hot cooked quinoa, and
kale to the bowl. Mix together. In a large non-stick pan, heat
over medium. Add the entire mixture and cook. When
the frittata has set, use a large spatula to turn the
frittata. (Use a plate if necessary to turn the frittata
and then slide it back into the pan.) Cook through
the center, and then serve.

107

1.800.336.1977 / www.hamnernutrition.com

IN THE
KITCHEN
with



FRESHLY UPDATED:

100+ pages of healthy, wholesome, and fresh ideas you'll love!



DOWNLOAD YOUR FREE COPY TODAY

www.hamnernutrition.com/cookbook

800.336.1977 / hamnernutrition.com



Swapping sugar for more fresh vegetables has been linked to better mental health and overall happiness.

Saying goodbye to sugar

What happens to your body when you give up sugar? Some very sweet results

BY RACHEL PELC / HAMMER NUTRITION STAFF NUTRITIONIST

As we reported in *Endurance News 98*, the FDA recently proposed changing the Nutrition Facts Panel to require that “added sugars” be listed separately from those that occur naturally in products. Many processed foods (and sports fuels) contain large amounts of added sugar, so changing the label this way would help consumers make better buying decisions.

So, what exactly would happen if one were to give up those “added sugars?” It’s no secret that obesity runs rampant in our modern American culture, but giving up added sugars would also have other major benefits both for overall health and for athletic performance.

• **Cardiovascular benefits** - By giving up added sugars for as little as 10 days, LDL (Low Density Lipoproteins) levels could decrease by up to 10%, according to James J. DiNicolantonio, PharmD, a cardiovascular research scientist at St. Luke’s Mid-Atlantic Heart Institute in Kansas City, Missouri. Elevated levels of LDL cholesterol can increase risk for heart attack, stroke, and atherosclerosis, a buildup of plaque in the arteries. Reducing added sugars can also lower triglyceride levels and have a positive effect on overall

blood pressure (BP) numbers. Lowering BP means not having to work as hard during endurance training and events, and delaying the onset of fatigue.

• **Decreased risk for Type II diabetes** – Excess sugar promotes the buildup of fatty deposits around the liver, contributing to insulin resistance.

• **Improved mood** - Although some sugar addicts might experience temporary anxiety, restlessness, and depression upon going cold turkey, these symptoms decrease over time and may disappear entirely, leading to better mental health and happiness.

• **Better sleep/cognition** - No more mid-day crashes from sugary breakfasts like processed cereals, baked goods, and even the sneaky sugars added to yogurts, dairy products, and condiments such as ketchups and dressings. You’ll feel more awake and ready to power through until 5 o’clock. Less sugar also means better sleep at night. More sleep = more time for your body to rebuild and rest.


• **Weight loss** - Cutting out added sugars typically results in better dietary choices that include more fresh fruits and vegetables to fulfill daily calorie requirements.

• **Improved athletic performance** – The added sugars found in many sports “fuels” can lead to stomach distress, sugar crash, and decreased performance.

Cutting the sugar

So how do you do it? Read the nutrition labels on everything! Be wary of packaged and processed foods. Many food items that you wouldn’t think have added sugars usually do.

If a product label lists sugar on the nutrition panel (generally after carbohydrates) but does not list sugar as an ingredient, this means the sugar is naturally occurring and not added by the manufacturer.

“Added Sugars” go by many names, including: high fructose corn syrup, cane sugar, corn sweetener, fructose, glucose, evaporated cane juice, and sucrose to name a few! Some added sweeteners, including xylitol and stevia, are deemed okay when eaten in moderation. Hint: the farther down the ingredient it’s listed, the less of it is present in the product (the first item listed makes up the greatest percent). You owe it to yourself to fuel right and feel great! 

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



GET 2 FREE POUCHES!

Purchase 1 or more jugs or 12 or more pouches of Hammer Gel and get 2 FREE pouches of Hammer Gel, one Peanut Butter-Chocolate and one Nocciola. Use Promo Code EN100HG. Valid while supplies last. Offer expires 7/15/16.



"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

Single Serving - **\$1.40** 3 or more - **\$1.25** ea
26 Servings - **\$19.95** 3 or more - **\$17.95**



ORDER TODAY!
800.336.1977
hammernutrition.com





To evaluate what's inside that packaging — and whether it's truly good for you your family — take time to read the nutrition label!

Understanding Nutrition Facts

Reading between the lines on labels

Nutrition Facts

Serving Size 1 cup
Servings Per Container 2

Amount Per Serving
Calories 100 Calories from Fat 20

% Daily Values

Total Fat 6g 9%
Saturated Fat 0g 0%
Trans Fat 0g

Cholesterol 10mg 3%
Sodium 750mg 31%

Total Carbohydrate 0g 0%
Dietary Fiber 3g 12%
Sugars 4g

Protein 2g 4%

Vitamin A 5% ● Vitamin C 50%
Iron 15% ● Vitamin D 15%

Zinc 5%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

BY RACHEL PELC

Your daily diet is the foundation for your overall health, athletic performance, energy level, appearance, and much more. While a diet of fresh whole foods is certainly the ideal, nearly everyone occasionally purchases packaged foods. To evaluate what's inside that packaging — and whether it's truly good for you and your family — take time to read the label! Here's a guide to the label lingo.

Serving size - influences the number of calories and nutrient amounts listed on the top part of the label. Pay attention, especially to how many total servings are in the package. Then ask yourself, "How many servings am I consuming?"

Calories - provide a measure of how much energy you get from the food you are eating. Many Americans consume more calories than needed, without meeting recommended intake for nutrients. This section of the label can help you manage your weight (i.e., gain, lose, or maintain.)

Fats - a major source of energy for your body, fats aid in the absorption of

vitamins A, D, E, and K, and carotenoids. Both animal- and plant-derived foods contain fat. Eating moderate amounts benefits health, but consuming too much saturated fat, trans fat, or cholesterol may increase your risk of heart disease, some cancers, and high blood pressure.

Sodium - often found in excessive amounts in processed foods. Most people consume too much of this mineral. For optimum health and athletic performance, limit your total daily intake to 2,300 mg.

Total Carbohydrates - your body's most important source of energy. The digestive system changes carbs into glucose (blood sugar), which is then used as energy by cells, tissues, and organs. Carbs are classified by their structure as either simple or complex. Simple carbs are found either naturally or are added to foods; they lack vitamins, minerals, and fiber. Complex carbs provide vitamins, minerals, and fiber.

Dietary Fiber - Most Americans don't get enough dietary fiber (found in fruits,

vegetables, and grain products). Dietary fiber promotes healthy bowel function and may help reduce the risk of heart disease.

Sugar - High dietary sugar intake has been linked to numerous chronic diseases. If you are concerned about sugar intake, be sure that added sugars are not among the first ingredients. Other names include: corn syrup, high-fructose corn syrup, fruit juice concentrate, maltose, dextrose, sucrose, honey, and maple syrup.

Protein - composed of building blocks called amino acids (AAs). Essential AAs cannot be made by the body; they must be supplied by food. Nonessential AAs are synthesized by the body. Workouts deplete these NEAAs.

Vitamins and Minerals - These nourishing micro-nutrients help heal wounds, boost immunity, help convert food into energy, and repair cellular damage.

Rachel Pelc is the Hammer Nutrition staff nutritionist. For a personal consultation, call 800.336.1977. EN

FUEL FOR THOUGHT

What's in your sports drink?



Skratch LABS Exercise Hydration Mix

Ingredients: Cane Sugar, Dextrose, Sodium Citrate, Citric Acid, Magnesium Lactate, Calcium Citrate, Lemon Juice, Lime Juice, Potassium Citrate, Ascorbic Acid

- 1 serving contains 20 grams (4 teaspoons) of refined sugar
 - 1 serving contains 360mg of sodium (16% Daily Value)
- Plus: Minerals chelated to citrate (citric acid)

Skratch LABS and Skratch LABS Exercise Hydration Mix are trademarks of Skratch LABS LLC.

Red text used for emphasis.



Hammer Nutrition HEED

Ingredients: Maltodextrin, Xylitol, Natural Flavor, Calcium Chelate, Potassium Chelate, Magnesium Chelate, Salt, L-Carnosine, Stevia, Glycine, Tyrosine, Manganese Chelate, Chromium Polynicotinate

- 1 serving contains 2 grams of naturally occurring sugar
 - Xylitol, a natural, plant-based sweetener, benefits oral health
 - Stevia is a natural sweetener extracted from plant leaves
 - 1 serving contains 45mg of sodium (2% Daily Value)
- Plus: A full spectrum of amino-acid chelated minerals

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!®



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Michael Shelver celebrates his ascent on the summit of Mt. Hood.
Photo: Courtesy Michael Shelver

Moving mountains

Hammer Nutrition's "no added sugar" fuels help this athlete reach new heights

BY MICHAEL SHELVER

At the age of 10, I was diagnosed with Type 1 Diabetes, an autoimmune disease in which the pancreas ceases production of insulin, a key hormone for the proper delivery of glucose to cells. To combat this disease I use a pump attached to my arm to deliver insulin, and I constantly monitor my blood glucose levels to avoid hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar). Although having diabetes can feel restricting, I didn't want it to limit me so I took up the sport of mountaineering. In mountaineering, you are constantly vigilant, whether it be to keep warm or to be sure you are secure on the snow or ice. For me, mountaineering also means monitoring my diabetes, which involves a complex balance of reducing insulin and eating the right amount of carbohydrates.

Steady energy, no sugar crash


In climbs with high-intensity sections such as ice pitches, I fuel using Hammer Gel (Montana Huckleberry is my favorite) as well as HEED. The maltodextrin in these fuels is a fast-absorbing carbohydrate that provides steady energy and keeps my blood glucose within a safe range. They also give me the perfect amount of calories to keep my energy level high. With altitude, I find my appetite disappears but I still love the taste of Hammer fuels.

For longer days I rely on Hammer Gel and HEED, as well as Chocolate Chip Hammer Bars and Orange-Vanilla Perpetuem. The added protein and fats provide sustained energy and keep me from becoming hungry.

Peak performance

A recent trip to the summit of Mount Hood involved a series of ice chutes, all full-intensity efforts. On the ascent,

I would grab a Hammer Gel from my pack, quickly fuel up, and start each pitch with confidence that my blood sugar would remain stable. The climb ended up taking 10 hours, longer than I expected. Luckily I had stashed some Hammer Bars in my pack, so I snacked on those before heading back down from the summit. While long and tough, the climb was a great success, thanks to my supply of quality fuel.

As I continue to pursue higher, more challenging, and more technical mountains, I also continue to learn about my disease, how to manage it, and how to help others face it. No one should feel limited from achieving his or her goals due to a disease. My goal is to help others with Type 1 diabetes discover the freedom that can be achieved through proper management and planning. Using a combination of Hammer fuels, I am able to lead by example, educating others and encouraging them to follow. Thanks Hammer! 



Shelver lays out his climbing essentials, including his packets Hammer Gel.
Photo: Courtesy Michael Shelver

STEADY ENERGY NO CRASH



HEED

- Provides steady energy
- Reduces cramps
- Buffers lactic acid



MSRP
Single Serving - \$1.95
6 or more* - \$1.80 ea
*Mix or match flavors
16 Servings - \$19.95
32 Servings - \$29.95
80 Servings - \$58.95

Mountaineers across the globe depend on HEED for its portability and steady energy.



"In climbs with high-intensity sections such as ice pitches, I fuel using HEED. It provides steady energy and keeps my energy level high."

-Michael Shelver



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



AID STATION



A ROUNDUP OF NUTRITION NEWS, TIPS, AND TIDBITS

Fructose alters brain genes, but DHA can reverse damage, study finds

A recent study examined how diet alters brain health, and its findings bring both good news and bad news.

First, the bad news: Researchers at the University of California Los Angeles, in a study published in April in *EBioMedicine*, a journal published jointly by *Cell* and *The Lancet*, found that a diet rich in fructose is linked to altered brain genes.

The research team was able to sequence, identify and map the damaged genes — among them those responsible for regulating metabolism, cell communication, and inflammation — altered by fructose consumption.

These damaged genes are linked to numerous diseases and disorders including: Parkinson's disease, depression, and bipolar disorder.

And now, the good news: Docosahexaenoic acid, or DHA, an omega-3 fatty acid found in fish, was shown to reverse and eliminate the damaging effects of fructose consumption, according to the same study.

“DHA changes not just one or two genes; it seems to push the entire gene pattern back to normal, which is remarkable. And



Docosahexaenoic acid, or DHA, an Omega-3 fatty acid found in fish and in Hammer's Enduromega, is shown to reverse and eliminate the damaging effects of fructose consumption upon the brain, study finds.

we can see why it has such a powerful effect,” states Xia Yang in a news release, a senior author of the study and a UCLA assistant professor of integrative biology and physiology.

The scientists say the levels of DHA needed to restore brain health cannot be created by the body naturally and must be supplemented.

“The brain and the body are deficient in the machinery to make DHA; it has to come through our diet,” states Fernando Gomez-Pinilla, a UCLA professor of neurosurgery and of integrative biology and physiology, and co-senior author of the paper.

HAMMER QUICK TIPS

Colas and fruit drinks aren't the only beverages that are loaded with sugar! Check the label of your sports drink: If it contains sucrose, dextrose, fructose or any of those other “-ose” ingredients, it contains sugar, often in extremely high amounts. For optimal health and athletic performance, avoid sugary beverages of all kinds — including sports drinks. **HEED**, **Perpetuem**, **Recoverite**, and other Hammer Nutrition fuels include NO added simple sugars. The complex carbohydrate maltodextrin in Hammer fuels provides rapid, sustained energy without the flash-and-crash of simple sugar-based fuels ... and without their associated health problems.

EndurOmega, Hammer's high-quality omega-3 supplement, is rich in DHA and EPA, two highly researched omega-3 fatty acids that provide a wide range of benefits for athletic performance and overall health. EndurOmega also contains DPA, an intermediate fatty acid that increases blood concentrations of both DHA and EPA, and provides its own unique benefits for heart, skeletal, muscle, and kidney health. EndurOmega is derived from distilled and deodorized Atlantic menhaden fish (no fishy odor or taste!). It's also tested by third-party, independent labs for potency and purity.

Over-the-counter allergy drugs linked to dementia risk, research reveals

Now that allergy season is hitting its full stride, you may be tempted to reach for an over-the-counter medication to combat your stuffy nose, sniffles, and watery eyes. Recent research, however, suggests you do otherwise.

The study, published in April's *JAMA Neurology*, found that the use of anticholinergics, of which popular allergy medication Benadryl is classified, cause increased brain



A study has found that the use of anticholinergics, of which popular allergy medication Benadryl is classified, cause increased brain atrophy, dysfunction, and cognitive decline. Hammer's Clear Day provides allergy relief, without the potential side effects of over-the-counter medications.

atrophy, dysfunction, and cognitive decline, especially among older adults.


Researchers at the Indiana School of Medicine conducted a similar study and reached similar conclusions. They conducted cognitive testing on participants with an average age in their mid-70s with no prior history of dementia. Brain scans revealed that the patients taking anticholinergics had higher rates of cognitive impairment.

“The takeaway here is that just because it’s over-the-counter does not necessarily mean it’s safe for you to use long term. I want everyone talking to their doctor if they’re using any of these medications on a regular basis,” Dr. Alexandra Sowa, an internist and clinical instructor at Weill Cornell Medical College told *CBS News*. “People need to know what’s in their medicines. They have side effects and there may be increased risk down the road of significant cognitive impairment. We can’t say that one causes the other, but we’re now starting to see increased rates of association.”

HAMMER QUICK TIP

When allergic reactions do occur, reach for a safe, effective solution. Instead of trading the misery of allergies for the drowsiness, blood pressure spikes, insomnia, and other side effects associated with prescription allergy medications, put **Clear Day** and **Nasol** to work for you.

Clear Day contains four natural “anti-allergy all-star” compounds — olive leaf extract, quercetin, bromelain, and resveratrol — that combat allergies on several fronts. The plant compounds in Clear Day have antihistamine, anti-inflammatory, antioxidant, antibacterial, and antiviral properties. Nasol’s natural formula includes a proprietary micro-dose amount of capsaicin, the compound that makes peppers hot. This convenient nasal spray safely and effectively clears nasal passages of dirt, dust, and pollen — all major causes of sinus congestion. Nasol also soothes and moisturizes nasal passages and sinus cavities.

Together, Clear Day and Nasol are guaranteed to relieve your toughest allergies to airborne substances quickly, safely, and naturally — without the dangerous side effects of pharmaceuticals. You can rely on them not just during allergy season, but anytime allergy symptoms arise, year-round. With allergy symptoms out of the way, you’ll be able to enjoy training, racing, and life, again — perhaps more than you have in years. 

Allergy and Sinus RELIEF



“I was skeptical at first, that Clear Day would work. I have been using OTC products for years due to allergies. After the first day, using up to 4 capsules, I could tell there was a difference. Highly recommend.”

— Online reviewer



Clear Day

Give airborne allergies the ax

- Helps reduce allergy symptom occurrences
- Helps relieve allergy discomfort
- Makes exercise more comfortable

MSRP

60 Capsules - \$22.95

3 or more - \$19.95 each



FREE NASOL WITH PURCHASE OF CLEAR DAY

Nasol

Sinus relief is a spray away

- Clears dirt, dust and pollen
- Soothes nasal passages
- Supports healthy sinus function

MSRP

30 ml/200 sprays - \$24.95



ORDER TODAY!

Receive Nasol FREE when you purchase Clear Day. Use promo code: EN100CD. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977

hammernutrition.com



New studies support coffee's neurological benefits

Growing evidence for coffee reaffirms as a health beverage

BY ENDURANCE NEWS STAFF

Two new case-control studies have shown that drinking coffee (at least four to six cups daily) is associated with a reduced risk of developing multiple sclerosis (MS). The studies were conducted in Sweden and California and reported together in a paper published in the *Journal of Neurology Neurosurgery & Psychiatry*.

The results support earlier studies, which suggested that coffee and caffeine are linked to a reduced risk for Parkinson's disease and MS.


The Swedish study included 1,620 adults with MS and a control group of 2,788; the California study included 1,159 patients with MS and 1,172 healthy controls. Both studies showed that the risk for MS was higher among those drinking fewer cups of coffee daily. In the Swedish study, drinking more than six cups of coffee each day was associated with a 30% lower risk for MS. In the California study, those who drank more than four cups of coffee daily had a 31% lower risk for MS compared with those who never drank coffee.

The researchers suggested possible explanations for their results, citing observations from earlier experimental studies that caffeine reduces inflammation. They caution that no firm conclusions can be drawn about cause and effect.

"Further studies are required to establish if it is in fact caffeine, or if there is another molecule in coffee underlying the findings, to longitudinally assess the association between consumption of coffee and disease activity in MS, and to evaluate the mechanisms by which coffee may be acting, which could thus lead to new therapeutic targets," they conclude.

Choose highest-quality, organic coffee

Drink up the multiple health benefits and savor rich, delicious flavor with 53x11 Coffee. 53x11 is 100% organic, Fair Trade Certified, and micro-roasted daily to exacting specifications. Available as whole beans or ground, 53x11 is delivered fresh to your door within a week or two of roasting, ensuring maximum health benefits and flavor.

Organic 53x11 Coffee is available in four savory varieties — the Big Ring (full-bodied Sumatra varietal), the Early Break (a bright morning blend), the Chain Breaker (a darker, more full-bodied roast), and the Down Shift (a smooth, water processed decaf). Compare 53x11 Coffee to supermarket beans or expensive coffees from trendy chains. You'll find that 53x11 is superior coffee at a terrific value. Enjoy it in good health! 

Great Coffee.

Plain and simple.

53x11 Coffee

- Fair-Trade
- 100% Organic
- Micro-batch roasted



MSRP
\$13.95 - 12 oz. bag
The Big Ring, The Chain Breaker, The Early Break, The Down Shift.

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 1-2 weeks of roasting.



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

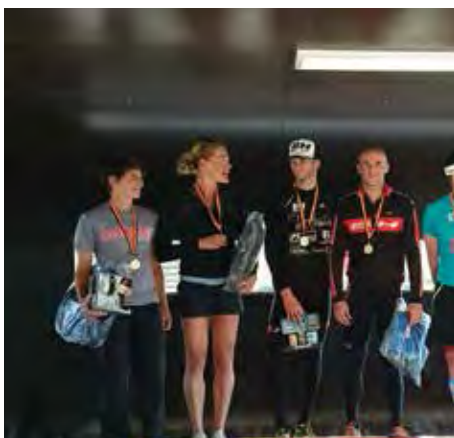
800.336.1977 / hammernutrition.com

EUROPEANS THROW DOWN THE HAMMER



After an impressive 2nd place finish on the 125 km TransGranCanaria trail run, Gediminas Grinius of Lithuania turned his attention to proper recovery. Now focused on the upcoming Lavaredo Ultra Trail, Gediminas has built a solid base through training and nutrition: "I really look forward to the upcoming challenge. With Hammer's help, I hope that it will be an easy piece to chew!"

All photos courtesy of Buddy Van Vugt and Hammer Europe



BELGIUM: Mariek Blomme and Janne van Hove (first and second from left) –1st place Women's Team, Amphiman (4.6 km swimming, 34 km trail running)



BELGIUM: Hammer-LavitaSports Beach Volley Project - 2nd place, National Team Competition in Mol



BELGIUM: Quentin Henquet – 2nd place, 50 km Trail des Bosses; Quentin looks forward to representing Hammer at the 2017 Ultra Trail du Mont-Blanc in Chamonix



SPAIN - Raquel Martinez –3rd place, Transvulcania; 1st place, mountain marathon in Valencia



NETHERLANDS: Ingrid Ernst recharges for triathlon season with a trip to Portal Point, Antarctica, fueled by Hammer Bars, Perpetuem, HEED, and Recoverite.



HUNGARY: Zoltán Csécséj wins a Bronze Medal at the 24-hour Ultrarunning Championship, qualifying him for the National Team.



NETHERLANDS: Steff Overmars trains for Ironman Lanzarote, using Race Caps Supreme, Perpetuem, Endurolytes Extreme, Hammer Gel, Anti-Fatigue Caps.



NETHERLANDS: Vincent Kalkman, focuses on the upcoming 100-mile Sint Annen invitation-only ultramarathon and qualifying for 2017 Texel 120km and Spartathlon.



SPAIN: Carlos Puche climbs the great rocks of Valencia, Spain.



BELGIUM: Luc Smits, Raser on the MTB trails of Gits. Luc will defend his title at the 12-hour MTB Worlds.



SPAIN: Club Triathlon Huracan –members include four regional and five national champions



NETHERLANDS: Mark van Dongen on the Hell of the North, Paris-Roubaix, a 172km ride with 53km of cobblestones



HUNGARY: Team Hammer-Hungary with a Hammer flask in hand before he start of the Vienna Marathon



BELGIUM: Sanne Swolfs back on the road after surgery and 8 months of recovery. Triathlete Sanne relies on the full spectrum of Hammer fuels and supplements



SPAIN: Martin Baca –1st place, trail running event at Vilafames, Spain

UPCOMING **HAMMER EUROPE** SPONSORED EVENTS

JULY

Gross Glockner Ultra Trail - Kaprun, Austria

AUGUST

Half distance Triathlon - Deinze, Belgium

SEPTEMBER

Full distance Triathlon - Cologne, Germany

Half distance triathlon - La Roche, Belgium

Full distance triathlon - Amsterdam, Netherlands

Trailmaniak - Woerthersee, Austria



Ryan carried his bike 21 miles through the Grand Canyon, beginning on the North Kaibab trail.
Photo: Courtesy Hammer Canada

Blazing trails

Hammer Canada

BY RYAN CORREY


This May I took on what many consider the “toughest bike-packing route in the world” — the relatively new Arizona National Scenic Trail, completed in 2011. It stretches 800 miles north from a remote barbed wire border at Mexico, across craggy mountain ranges and desert singletrack, through dry canyon washes, BLM ranchland, across the Kaibab plateau, and all the way to a remote spot on the Utah State line. “I’m off to find asphalt and an airport,” I promptly posted on social media upon finishing. The journey, which took four excruciating days longer than expected (due to soupy trails and an extensive hike-a-bike sections), was sufficiently challenging.

The adventure was an opportunity to put my fueling knowledge to the test. Here are some useful takeaway points for your next multi-day trip:

Backcountry fueling –In the backcountry, post office drops and Hammer retailers are far and few between. Instead of

grabbing mass-market food bars from convenience stores, a better option is nuts, fruits, and beef jerky. These fuels stick with you better, like the natural ingredients in Hammer Bars.

Take Seat Saver –Compared to being at home and thinking of the chamois cream as a luxury, I pack it as part of my medical kit on extended trips.

Endurolytes essential – Endurolyte capsules also are integral, especially in warm weather. Besides helping to prevent cramps, they can also help wean you from hydrating with sugary sport drinks. Hydrate with water, avoid the syrupy hummingbird juice, and replenish electrolytes with Endurolytes. 

Send your fueling and bike-packing questions to ryan@hammernutrition.ca.

BAAAH! An Eh-typical Hammer Canada Athlete

What does it take to shear 7,000 sheep a year in Eastern Canada? Besides skill, guts, and determination, it demands a fit body and a heart capable of sustaining 130-150 BPM for two to three hours straight.

“I shear at an average rate of 15 to 18 sheep per hour, and burn approx. 560-675 calories/hr. while doing it. Since an average sheep weighs 150 pounds, shearing 110 sheep per day means maneuvering 16,500 pounds in a day! Did I mention the heat and humidity we enjoy in Central Ontario — and that shearing is done inside barns?”

Without hesitation I can say that Perpetuem is the best I have found for replenishing the calories I burn and providing the energy I need to get the job done! I choose Hammer products because they contain complex carbohydrates and no added simple sugar. I don’t use sugar in my coffee or eat sweets; so I certainly did not want to consume sugar-heavy sports drinks or energy bars. I did my homework and investigated other products in the marketplace; then, I chose Hammer”. - Terry S





Hammer Chile



Geraldine Becerra visits the Hammer Nutrition Chile booth at the Maratón de Santiago 2016, and Turok Villacura, Hammer Chile partner. She finished 1st in the 10K track and 2nd 10K. Photo: Courtesy Hammer Chile



Above: Becerra is crushing her 2016 races, with multiple podium finishes. Photo: Courtesy Hammer Chile



Jason Brosseau takes 1st overall at the 2015 Air Force Marathon. Brosseau credits his win to fueling with Hammer products, including Race Caps Supreme. Photo: Joe Fanning

Start your supplement program with Race Caps Supreme, the first true endurance supplement.

RACE CAPS SUPREME

When it comes to endurance fueling, latest isn't necessarily the greatest. Since 1987, Race Caps Supreme has stood alone as a safe, comprehensive, and effective formula promoting higher energy levels, increased endurance, and improved recovery. But we haven't rested on our laurels, the formula has been updated several times to ensure you are getting the most potent endurance supplement on the market today!

90 Capsules: **\$49.95**
3 or more: **\$45.85 ea.**



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16. 800.336.1977 / hammernutrition.com



Hammer athlete Karin Weller's Flèche route was a mixed terrain of road, hard packed dirt, gravel, rutted roads, and bike paths through the mountains of Mendocino County in California.
Photos: Courtesy Karin Weller

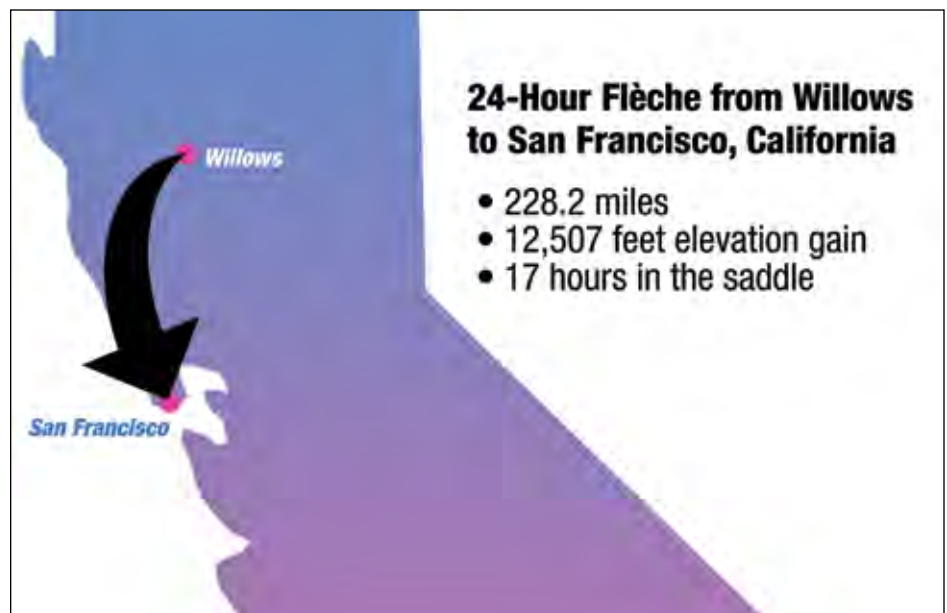
Flèche: 24-hour cycling challenge in Northern California

Trek covers varied terrain across a nearly 230-mile route

BY KARIN S. WELLER

For those not familiar with the term, Flèche is a 24-hour ACP-sanctioned event held on or around Easter weekend. A minimum of 360 km must be covered, and no rest stop may be longer than 2 hours. Each team designs its own route, and the traditional format is point-to-point, like an archer's arrow (flèche in French) flying toward its target. No control (stop) may be used more than once, and no road segment may be used more than once in the same direction.

I first read about Flèche on the RUSA Randonneuring site. I wasn't sure if I could stay awake 24 hours but I knew it would be a good challenge. I did stay awake and had a successful first Flèche. This year, I decided to join another randonneur, Brian Koss, who wanted to do a challenging mixed-terrain event.



Continued From Previous Page

We found two others to join our team, forming the Mendocino Forest Mud Splashers. The four of us were all very excited for our Easter weekend 2016 ride.

Enjoying the ups and downs

We began our 24-hour, nearly 230-mile cycling journey in the town of Willows, California, en route to San Francisco. Willows is an ideal location away from the rush of the big city. Our route was a mixed terrain of road, hard packed dirt, gravel, rutted roads, and bike paths through the mountains of beautiful Mendocino County.

The key to a good ride is to cooperate with nature, not battle it: Try to discover and accommodate the natural patterns of the landscape. I brought my CX bike, which turned out to be a good choice. I was with a new Flèche team and excited to try an awesome route.

We planned for no food or water stops for the first 50 miles, as we were out in a remote area of the mountains. I offered my Hammer Nutrition products to the team the night before, and they were excited to try the newer

Hammer Gel flavors. I also offered HEED and Perpetuem; these are my favorite fuels for endurance cycling.

We rolled out of town and headed into the hills, enjoying gorgeous views and the sounds of nature. Although we rode different bikes, we all shared the same passion for mixed terrain and adventure. The day passed quickly as we climbed and descended numerous winding roads that took us through half a million years of geological history.

Descending Bartlett Springs without suspension was tough, but in the end I smiled. Upon finishing a climb, I saw the most amazing view of the green valley below, alive with new spring growth. During the long descent, dropping toward Clear Lake, I tried to keep my focus on the rutted road but couldn't resist gazing at the lake and its surroundings.

As the sun dropped into the mountains, we were exactly where we had planned. With only one flat, we were doing very well. We stopped to add a layer, position our lights, add reflective gear, and have another Hammer Gel. I wondered what the night would hold. The moon was glorious and almost full.

We arrived at a control where we enjoyed delicious warm food and the company of other teams. We still had 85 miles to ride before the sun would come up. After refilling our water bottles, we headed back out into the night and the wind was for us. We met another team, and one of the members asked me where we had started. I said, "Willows," and he responded, "Oh, you're . . . that team." I took that as a compliment, and I smiled as we rode away.

We worked well as a team and pace-lined as needed. We had a last control to hit at 22 hours, and once we had our time receipt we were off to the Golden Gate Bridge to meet the other teams. On the climbs heading back, we paced ourselves and regrouped at the top. Crossing the Golden Gate Bridge at sunrise was breathtaking.

Minutes after the ride, I prepared my Recoverite and smiled as I drank it, remembering the past 24 hours and how beautiful our ride was: 228.2 miles, 12,507 feet of elevation gain, and 17 hours of saddle time. It was a ride I will never forget, with three awesome teammates. Hammer products played a huge role in it. **EN**



Perpetuem played an integral part of Karin Weller's fueling protocol during her 24-hour, nearly 230-mile Flèche ride in Northern California. **Photo:** Courtesy Karin Weller

The ultra endurance fuel formulated for the long haul!

- Reliable, long-lasting energy
- Maximizes fat utilization
- Helps prevent muscle fatigue

"I wasn't sure if I could cycle over 200 miles on my CX bike with mixed terrain. I was amazed at how Perpetuem aided my success on this 24-hour journey."

– Karin Weller



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16. **800.336.1977 / hammernutrition.com**



Flavors: Chocolate, Orange-Vanilla, Caffé Latte, Strawberry-Vanilla, Unflavored

Single Serving – \$3.25 6 or more – \$2.95 ea
16 Servings – \$29.95 32 Servings – \$49.95

Teams news and updates

Hammer- powered teams start 2016 strong

BY ENDURANCE NEWS STAFF

Hammer Nutrition/53x11 National Masters Team



Dan Shore approaches the finish line, well ahead of the pack, for the win!
Photo: Katie Truong



Hammer Nutrition National Masters Team turned in strong performances at the San Dimas Stage Race in early April.

Photo: Courtesy Hunter Ziesing

Wente Vineyards Classic Road Race

Team members and 55+ riders Dan Shore, Hunter Ziesing, and Jon Ornstil used their early spring races to prepare for the upcoming US Masters Nationals on May 25-26 in Winston-Salem, North Carolina (look for their results next issue). The team raced well at the Wente Vineyards Classic Road Race April 24, with Dan Shore taking 1st place in 55+, Hunter Ziesing placing 7th, and Jon Ornstil, a field finisher. Jon followed team plans exactly, sacrificing for the team win, by maintaining a fast pace on the climbs and attacking solo three times, forcing a rival team to chase. Winner Dan Shore sat back until he had to respond, and then easily took the win, comments Ziesing.

San Dimas Stage Race

Set with the San Gabriel Mountains as a backdrop, the San Dimas Stage Race (April 1-3, 2016) includes a Time Trial up Glendora Mountain Road, a fun rolling road race around Bonelli Park, and a fast six-corner criterium finish. The Hammer Nutrition/53x11 National Masters Team was out in force, competing in the 45+ and 55+ categories. Overall, the team took 2nd and 4th in GC in the 45+ race, with Canadian National Champ Ron Amos in 2nd and Southern California's Todd Parks taking 4th. Todd also won the KOM jersey. Dan Shore and team captain Hunter Ziesing also took 2nd and 4th in Stage 3.



Hammer Nutrition Super Masters Team

Wente Vineyards Classic Road Race

“Although conditions were very cold and windy, Hammer Nutrition Super Masters had an excellent showing at the Hammer sponsored Wente Classic. Team member Richard Shields took 2nd and I placed 3rd in the Masters 70+ race.” – **Mike Freeman, team captain**

Mike Freeman (front) pushes the pace at the Wente Vineyards Classic
Photo: Katie Truong

Tieni Duro Junior Team



Top: Tieni Duro Junior Team members take a break during a Death Valley training ride. **Above:** Tieni Duro Junior Team members kick off the 2016 race season
 Photo: Courtesy Tieni Duro Junior Team



Tieni Duro Junior Team members Grace Cunningham (left, 2nd place) and Kylie Alfaro (right, 3rd place) after a podium finish at the 2016 Cherry Pie Criterium in Napa, Calif.
 Photo: Courtesy Tieni Duro Junior Team

Pure Whey Protein



**Now made with 100 %
 Grass fed whey**

Single Serving – \$3.50 *Flavors: Vanilla, Chocolate,*
 6 or more – \$2.95 ea *Strawberry, , Unflavored*
 24 Servings - \$39.95
 3 or more – \$37.95 ea



ORDER TODAY!

Use Promo Code EN100 and get a FREE Blender Bottle. Expires 7/15/16.

800.336.1977

www.hammernutrition.com



Cynthia Salazar on her way to a Boston qualifying finish at the Arizona IMS Marathon.
Photos: Cynthia Salazar

Boston Qualifier the first try

An AG win and Boston qualifying time make this runner a true believer!

BY CYNTHIA SALAZAR


Just a year ago in February, I had run 10 half marathons but never a full marathon. Someone whispered in my ear that I should think about training for a full marathon. I decided to commit to run my first marathon in 2016, on the same course as I had run my last half. My goal was just to finish: I had never run farther than 13.25 miles in one shot!

I was unsure that I could meet my goal because I am cursed with rheumatoid arthritis, which affects my joints, and the medication makes me drowsy. I had tried many fuels off and on throughout my running journey, and experienced their side effects, including GI distress and sugar crashing. When I stumbled upon Hammer Nutrition in 2014, I decided it was only for “serious athletes” like elite runners or endurance athletes (which I had convinced myself I was not!). Although I wasn’t a full convert, I tried it along with everything else I was testing.

Diet and fueling changes

Fast-forward to 2015: I committed to a clean diet, mostly whole foods. Then when I revisited Hammer fuels, I found they were exactly what my body needed. In training, I felt fantastic and full of energy — no crashing, no tummy trouble! I decided to use it as my sole source of fueling. I tried many different combinations using the publication *How to Hammer* as a guide. I finally found my perfect

Hammer cocktail combination, which helped me not only complete my very first ever marathon, but also qualify for the 2017 BOSTON MARATHON!

On Valentine’s Day, 2016, fueled by Hammer Nutrition, I ran the 2016 Arizona IMS Marathon and finished with a Boston qualifying time for my age group. It was so much fun and I felt fantastic! Pure Hammer Nutrition fueled me all along the way! People ask me what I use and I proudly, without a doubt, endorse Hammer Nutrition. 

SAVE 15%
On Your First Order!



Use Referral Code:
254785

BRAND AMBASSADOR

Cynthia Salazar
Runner
Hammering since 2014

Fuel Right, Feel Great![®]
1.800.336.1977 / www.hammernutrition.com

CYNTHIA SALAZAR'S ARIZONA IMS MARATHON RACE RECIPE

PRERACE: Race Day Boost (starting 4 days prior)

PRERACE BREAKFAST 2 scoops Perpetuem mixed with 2 Tbsp. peanut butter powder

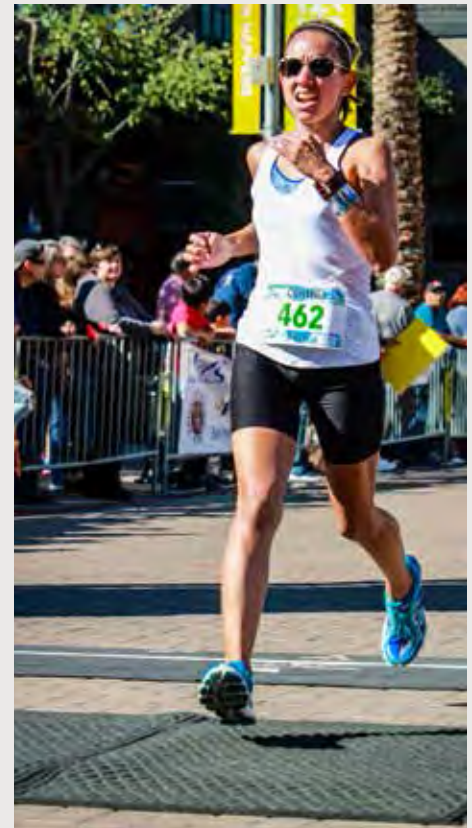
1 HOUR BEFORE: 2 Anti-Fatigue Caps

DURING: 5 Hammer Gels, starting approx. 45 minutes in, and every 30 minutes thereafter; 2 Endurolytes Fizz while hydrating throughout race; 2 Anti-Fatigue Caps (one at 2-hr. mark, another at 3 hours); Energy Surge tabs as needed for climbing gradual hills, over bridge, etc.

RESULTS

1st Age Group (3:41:45)

"I finally found my perfect Hammer Nutrition cocktail combination. It helped me not only complete my very first marathon, but also qualify for the 2017 Boston Marathon!"



Friends don't let friends fuel wrong



Hammer Referral Program: **SHARE THE LOVE**

- 1. You tell a friend** about Hammer Nutrition.
- 2. They get 15% off** their first order when they mention your name/client number.
- 3. You get 25%** of the value of their first order credited to your account!

Hammer Nutrition, America's Customized Sports and Fitness Nutrition.
Photo: Courtesy of Cynthia Salazar

FILL OUT & SHARE

You gotta try
Hammer Nutrition!

**SAVE 15% ON YOUR
FIRST ORDER!**

TELL THEM

Name _____

Client # _____

SENT YOU!



For complete details visit:
bit.ly/hammerlove



WE SUPPORT: YOUR SPORT

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:

ADVENTURE RACING
 PADDLE SPORTS
 RUNNING
 TRIATHLON
 CYCLING
 SWIMMING
 MOTOCROSS
 SKIING

TERRIBLE TWO (CYCLING/ULTRA CYCLING)

SANTA ROSA, CALIFORNIA

More challenge for 2016! According to the race directors the new, all-Sonoma section will be a bit harder and take 15-30 minutes longer than the traditional route through Napa County.

<http://srcc.memberlodge.com/Terrible-Two-and-200K>

JUNE 18

RUNNING WITH THE DEVIL (ULTRA RUNNING)

LAS VEGAS, NEVADA

Back by popular demand, and reincarnated at a new venue to bring a new challenge! Pure Mojave Desert running at its finest, this paved and scenic course which covers rolling terrain.

<http://calicoracing.com/events/running-with-the-devil/>

JUNE 25-26



The Bryce Canyon Ultra offers spectacular views and high-elevation challenge. **Photo:** Courtesy Bryce Canyon Ultras

BRYCE CANYON ULTRAS (ULTRA RUNNING)

ST. GEORGE, UTAH

This scenic, mountain course runs along the western edge of the Paunsaugunt Plateau, offering spectacular views above and below the hoodoos. The race is run at high elevation, with most of the miles on this rugged course between 8,000 – 9,000 ft.

<http://www.grandcircletrails.com/bryce-canyon-general-info/>

JUNE 17-18

WHEELS OF THUNDER CLASSIC (ROAD CYCLING)

COMMERCE CITY, COLORADO

Gear up for Independence Day with this challenging, 1.6-mile loop criterium on clean, smooth pavement. New course is “open, smooth, fast, and safe.” 22nd annual event includes races for the entire family. Spectator friendly course.

<https://christiancycling.com/>

Hammer athlete tops the podium at the Wheels of Thunder Classic.

Photo: Courtesy Wheels of Thunder Classic



BOULDER SUNRISE TRIATHLON

BOULDER, COLORADO

This is a contender for being the best and fastest triathlon course in Colorado. The Boulder Reservoir combined with a view of the Flatirons creates the perfect backdrop for this summer triathlon.

<http://www.bbsctri.com/#!boulder-sunrise/c1eu8>

JUNE 26

AFTON TRAIL RUN (ULTRA RUNNING)

HASTINGS, MINNESOTA

The race is held 100% off road, primarily on very runnable / not very technical single double and single track. There are 7 long climbs per loop, rising from the river valley and down again, with a good mix of rolling and flat terrain between the hills.

<http://www.aftontrailrun.com/>

JULY 2

TATANKA 100 (MOUNTAIN BIKING)

STURGIS, SOUTH DAKOTA

The Tatanka 100 point-to-point (“One Tough Race, No Bull”) is shaping up to be the Black Hills Trails best event yet. It is included in the new National Ultra Endurance (NUE) Marathon Series.

<https://christiancycling.com/>

JULY 9

NEWPORT PIER-TO-PIER OPEN WATER SWIM

NEWPORT BEACH, CALIFORNIA

Two-mile open ocean swim with no bottom or walls to hang onto; ocean conditions are always changing.

<http://www.newportoceanswims.com/>

JULY 9

DOOR COUNTY TRIATHLON

EGG HARBOR, WISCONSIN

The Door County Peninsula is often referred to as the “Cape Cod of the Midwest.” The sandy shorelines and majestic bluffs along Green Bay north of Sturgeon Bay provide an ideal setting for a triathlon.

<http://www.doorcountyclub.com/>

JULY 16

NEED A REASON TO WORK OUT?

HERE ARE THREE!



Chewy Peanut Butter-Chocolate



Vegan Almond Cacao



Vegan Chocolate Peanut

HAMMER PROTEIN BARS

The delicious way to minimize soreness and repair lean muscle tissue post-workout; available in 3 flavors and packed with protein.

PRICE: Whey Recovery Bar	PRICE: Vegan Recovery Bar
75g Bar \$3.50	57g Bar \$2.95
12 or more \$3.25 ea	12 or more \$2.75 ea



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977

www.hammernutrition.com

CASCADE CYCLING CLASSIC (ROAD CYCLING)

BEND, OREGON

The longest consecutively run elite stage race in the country, the Cascade has attracted most of North America's top cyclists and teams over the years. The quality of the race courses, the beauty of Central Oregon, and the fun atmosphere of the race have made it a perennial favorite. It's no wonder the competitors return year after year.

<http://www.cascade-classic.org/>

JULY 20-24

20TH ANNUAL HALIFAX SUMMER REGATTA (ROWING)

DAYTONA BEACH, FLORIDA

We expect 600+ rowers of all ages and abilities to participate in the 20th Annual Halifax Summer Regatta — an end-of-the-sprint-season two-day event with teams and rowers converging on the Halifax from around the state of Florida, Georgia, North Carolina, and beyond!

<http://www.halifaxrowing.org/events>

JULY 23-24

STONEMAN SPRINT, IRON ABE OLYMPIC, AND ROUTE 66 HALF IRON TRIATHLONS

SPRINGFIELD, ILLINOIS

Before you've entered the water, these races have been painstakingly planned, coordinated, and designed so you don't just have a race; you have a full triathlon experience

<http://triharderpromotions.com/iron-abe/>

JULY 30



Hammer Nutrition staffer Loren Mason-Gere at the start of last year's Butte 100, where he finished 4th overall. **Photo:** Courtesy Loren Mason-Gere

BUTTE 100 (MOUNTAIN BIKING)

BUTTE, MONTANA

Many consider this to be the most difficult 100 mile mountain bike race in the country. <http://butte100.com/>

JULY 30

SIERRA CREST ULTRA (ULTRA RUNNING)

TRUCKEE, CALIFORNIA

The Sierra Crest 30K and 50K is an exciting point-to-point trail run that takes advantage of some of the Truckee/Donner Summit region's best single track. Scenic views of some of the Northern Sierra, including the Euer Valley, Frog Lake Cliffs, Summit Lake, Castle Peak, and other incredible peaks.

<http://auburnskiclub.com/summer-fun-runs/sierra-crest-50k/>

AUGUST 6

RACE THE STATE (MULTI-SPORT)

RIVERTON, RHODE ISLAND

Five Legs – 53 Miles. Race the State includes five legs: a 3.8-mile run, 1-mile SUP, 12.3 mile run, 5.6 mile kayak & a 28.5 mile bike.

<http://race-the-state.com/>

AUGUST 7

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 our top fuels and educational brochures; Hammer Nutrition banners; and ongoing support from our team of experts. For more information, email sborn@hammernutrition.com



Hammer athlete Dirk Himley pushes ahead of the competition. **Photo:** Courtesy Dirk Himley

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

MSRP
\$24.95 - 90 Capsules



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle. Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com

FROM OUR ATHLETES

Here at Hammer Nutrition we know that qualifying for the Boston Marathon is no small feat. For that reason, we would like to congratulate and thank all our athletes who ran the Boston this year. Cheers to all!



A Jason LaFave

Boston Marathon

"I use nothing but Hammer products in my training and recovery."

Photo: Marathon Foto

A





B



C



D



E

A Nicolette Nordan

Boston Marathon

"Thank you Hammer for believing in us ordinary people, allowing us to wear your logo, and fueling us well enough to reach our stars."

Photo: Courtesy Nicolette Nordan

C Christopher Lancaster

Boston Marathon

"I ran as part of Team With A Vision. They raise money to support the Massachusetts Association for the Blind and Visually Impaired (MABVI). This awesome organization serves the blind/visually impaired community."

Photo: Courtesy Team With A Vision

D Matthew Sommer

Boston Marathon

"Amazing day! First time running the Boston Marathon and I set a new PR! Even sweeter, I requalified for next year!"

Photo: Eric Misenheimer

E Kris and Mindy Przeor

Boston Marathon

Husband and wife Hammer athletes Kris and Mindy Przeor prepare to take on the 2016 Boston Marathon.

Photo: Tara Collingwood



1ST PLACE



A

A Benjamin Proko

Texas Quest / 1st OA

“This picture was taken during the last leg of the 6-hour Texas Quest. After plotting the checkpoints I decided to leave on my running shoes since I would have to drop my bike and run to some of them.”

Photo: Butch Stephens/ So Fly

B Monique Jacques

Hensley Lake 10K / 2nd female

Sponsored athlete Monique Jacques after hammering to a strong finish at the Hensley Lake 10K

Photo: Joanna Bayardo

C Charlene Proctor

Michigan Dance Challenge / 1st AG

“We pounded Hammer Gel throughout the event and also took Anti-Fatigue Caps and Endurolytes. We had no cramping or fatigue, and our recovery time was escalated!”

Photo: Alex Rowan/ Dancesport Photography



B



C

TISSUE REJUVENATOR: **AMAZING RESULTS**



“

... (My doctor) was amazed.
She commented that she had
not seen that type of injury heal
that quickly before.

”

- GIA MADOLE

Joint health second to none

- Anti-inflammatory support
- Promotes joint integrity & mobility
- Aids in natural tissue repair

60 Capsules - \$17.95
120 Capsules - \$29.95
3 or more - \$27.50 ea

MADE IN
USA



ORDER TODAY!

Use promo code EN100 and receive a FREE Hammer Blender Bottle.
Valid while supplies last. Limit 1 per order. Expires 7/15/16.

800.336.1977 / hammernutrition.com



Just weeks after tearing three major ligaments in her ankle
Gia Madole places 1st female, 2nd overall at the Ouachita 50.
Photo: Daniel Reyes

A Jason Poole

Training Run

Jason Poole during a spring training run on Colorado trails

Photo: Courtesy Jason Poole

B Joel Kinnunen

Ron Jon Cocoa Beach Triathlon / 2nd OA

“In my first race after turning 50, I took second overall in the Ron Jon Cocoa Beach sprint triathlon. Over 500 competitors finished the race.”

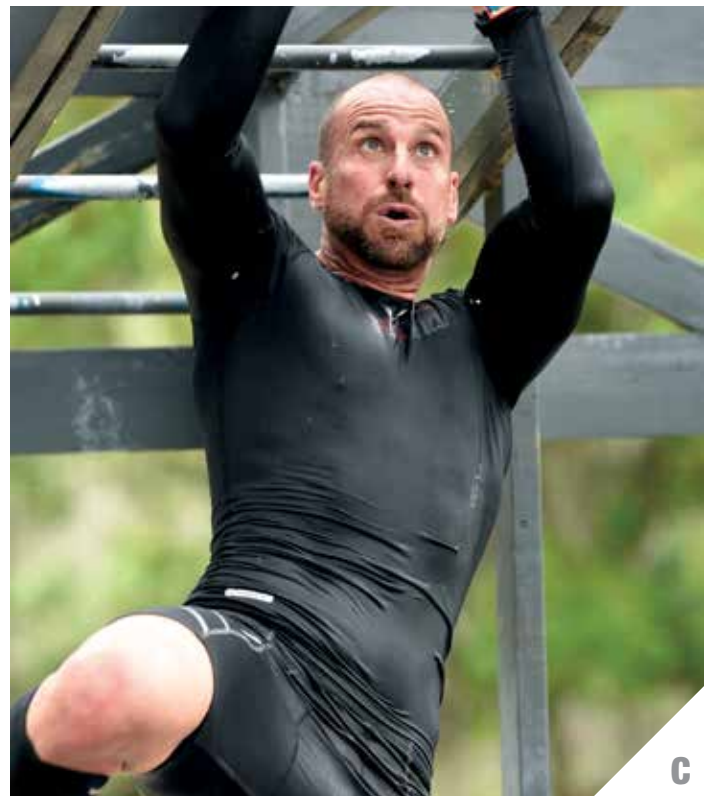
Photo: Doug Carrollt

C Heath Wagner

Savage Race / 5th AG

“The race started off fast and continued that way throughout the course. The 30+ obstacles were well placed, and there were a lot of new ones to conquer. Overall, this was an excellent event and I felt great, powered by Hammer the whole way.”

Photo: Gameface Media





A Linda Fusco

Ragnar Relay

"... ready to start the 200 mile Ragnar Relay in Fredericksburg, Texas. The race spans 24 hours for a 9-person team and snakes its way through the beautiful Texas Hill Country to its finish in Austin. I ran roughly 21 miles on three race legs with many 'kills' along the way!"

Photo: Paul Wildeman

B Traci Falbo

Mad City 100k National Championships / 1st female - National Champion

"I will always use Hammer Nutrition. Hammer is the only thing that is reliable for my stomach!"

Photo: Aaron Pratt

C Coul Hill

Independence Valley Road Race

Sponsored athlete Coul Hill hammers to the finish at the Independence Valley Road Race.

Photo: Collene Hill

A



B



C

KEN FURUTA'S SPARTAN RACE, LAS VEGAS RACE RECIPE



Spartan Masters Elite Racer Ken Furuta during the barbed wire crawl at the Spartan Race, Las Vegas.
Photo: Kelly Fajack Photography / Courtesy Spartan Race



- 1 HOUR PRIOR:** Race Caps Supreme, Endurance Amino, Anti-Fatigue Caps, Endurolytes
- 15 MINUTES PRIOR:** Energy Surge, Hammer Gel
- DURING:** Hammer Gel, HEED
- AFTER:** Recoverite, Tissue Rejuvenator, Xobaline

RESULTS

"Hammer Nutrition products keep me going. No cramps or GI issues; plus, reduced muscle fatigue!" - Ken Furuta



A

A Dylan Cunningham

U.S. Nationals

"I played this same tournament last year without Hammer products and struggled with cramps and muscle fatigue. This year, I felt extremely fresh. I am a lot stronger and fitter, but using Hammer products has really helped my in-game fueling and post-match recovery."

Photo: Andrea Dawson

B James Richman

Lilac Century / 1st OA

"The Lilac Century is a wonderful event with several great food/aid stations along the way, but I relied solely on Perpetuem, HEED, Hammer Gel, and a Hammer Bar."

Photo: Benjamin Bao Truyen Tran

C Jannine Myers

Camp Hansen Famous 10K Mud Run / 1st Female

"It was an extremely hot day so I made sure to sip on water with Endurolytes Fizz prior to the race; I'm certain that helped to keep me hydrated and able to maintain a strong pace."

Photo: Erin Turtle



B



C



A



B

A Jill Allardyce

Track Interval Training for 2016 Tri Season

Jill kicks up the run portion of her training in preparation for her season's first triathlon at Sanford Lake, Michigan, in June. She'll be defending her title as the Women's Sprint Series Champion for TTF!

Photo: Bob Miller

B Abril Esqueda

PCA Swim Meet / 1st place breast stroke and butterfly

Ten-year-old Abril, aka El Pescado, swam to a 1st place overall in her division, with two 1sts and two 3rds in events at a recent meet in Concord, California. She will be moving up in category based on her latest accomplishments. Like her father, Ceaser Esqueda of Team Hammer Nutrition Super Masters, Abril fuels with Hammer.

Photo: Nellie Freeman



PIT ROW

For many endurance athletes, racing cars, karts, or motorcycles might seem like a fun weekend diversion. Yet as any driver or rider will testify, motorsports requires the same dedicated training, sharp focus, and smart fueling as any other endurance sport.

JEFF WESTPHAL

VLN Endurance Championship Series Nürburgring

"The VLN Championship Series in Germany is a unique challenge, with races ranging from 4 - 24 hours. Imagine sliding the car at the limit with competitors just inches away. With the added pressure of my race car, the SCG003c GT3, being only one of two produced, I really don't want to screw up. Proper fueling of body and mind is crucial.

Typically, I eat a light protein-packed breakfast then begin prepping with HEED and/or a Hammer Gel close to race time. I stop my liquid intake 45 minutes before my drive in order not to overload my stomach/bladder. After a 1.25-hour stint, I typically lose 1-2 pounds of water weight. I have Recoverite within 30 minutes of leaving the car, and if I am due to drive again (6 or 24-hour distance), I'll have water with 1-2 Endurolytes Fizz tablets. It really helps me recover between stints.

I've noticed that although all my teammates are pro's, those who don't fuel as I do become lethargic and mistake-prone as the hours wear on. I still feel fresh even on my fourth stint in the car. Hammer Nutrition keeps me going strong for hours on end."

Follow Jeff on social media: [@WestphalRacing](#) on Twitter; [Jeff Westphal](#) on Facebook; [@westphalracing](#) on Instagram; [jeffwestphalracing.com](#)



Hammer athlete Jeff Westphal at the VLN Endurance Championship Series in Nürburgring, Germany. "With the added pressure of my race car, the SCG003c GT3, being only one of two produced, I really don't want to screw up. Proper fueling of body and mind is crucial."

Photos: FSMotorsportFotographie



Rugged Relay

Hammer Europe sponsored Florentin Gooris on the Grand Raid de Pyrenees Trailrun. Florentin fuels with HEED, Hammer Bars, and Endurance Amino. Before a big hill, he pops Energy Surge.


Photo: Courtesy Hammer Nutrition Europe

REAL ENDURANCE FUEL **NOT SUGAR!**



products • knowledge • service
100% Satisfaction
GUARANTEED
SINCE 1987



- Premium, natural ingredients
- Free of added sugars
- 100% Made in the USA 

If all of the latest sugar-based products haven't worked for you, make the switch to Hammer and enjoy sustained energy without the sugar crash or side effects.

Hammer Nutrition has the products, knowledge and experience to guarantee your fueling success at any distance.



**HELPING ENDURANCE ATHLETES
FUEL RIGHT AND FEEL GREAT®
SINCE 1987**

**Call, go online or go to your favorite
retailer and get started today!**

800.336.1977 / hammernutrition.com



ENDURANCE NEWS

4952 Whitefish Stage Road
Whitefish, MT 59937

PRSR STD
U.S. POSTAGE
PAID
HAMMER NUTRITION
DIRECT

RECOVER RIGHT TODAY HAMMER TOMORROW



"If I had to choose just one Hammer product to buy, it would be Recoverite. It helps to minimize muscle soreness, rebuild muscle tissue and replenish muscle glycogen stores."

-Hannah S.



*Hammer athlete Hannah Stedge hammers on during a race.
Photo: Courtesy Hannah Stedge.*



Glutamine-fortified Recoverite:

- Helps minimize post-exercise soreness
- Helps rebuild muscle tissue
- Helps restore muscle glycogen

MSRP

Single Serving - \$3.50

16 Servings - \$34.95

32 Servings - \$58.95



FLAVORS

Vanilla, Orange-Vanilla, Chocolate, Strawberry



FREE WHEY SINGLES

Order any size container of Recoverite and receive a 2 FREE Hammer Whey singles. Promo code EN100RR. Expires 7/15/16. While supplies last. Flavors may vary. Limit 1 per order.