

ENDURANCE

NEWS

BY HAMMER NUTRITION

#117 November/December 2019

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Bridging the Gap

Research reveals how to fill dietary holes

Tony Schiller Wins Again

Lessons from a decorated triathlete

PLUS...

- Rob Steger Attempts the Triple Crown
- Spotlight: Premium Insurance Caps



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NUTRITION®

60 YEARS RUNNING
135
TERRY SANDWICH



Winning the Heart of America

Terry Sandwith charges forward on his way to winning his age group at the Heart of America Marathon. Terry set a personal record by 33 minutes fueled on HEED, Perpetuem, Endurolytes Extreme, Hammer Gel, Vegan Recoverite, and Vegan Tissue Rejuvenator.

Photo: Mile 90 Photography



Welcome to the 117th issue of Endurance News!

As we put the wraps on our 32nd year in business, I'm reminded of all of the clients who support us faithfully, year after year, to make Hammer what it is today. I am so grateful that you put your trust in my products, people, service, and knowledge to fuel your body and mind! Whether you've been a client for 32 years or three days, I appreciate you and thank you for your patronage.

In business, trust can only be earned and is easily lost, a truism that I relish and place at the core of my business practices. It pains me to hear people articulating an increasingly common belief—"you can't trust companies

these days, they'll say anything, do anything to make a buck. Buyer beware!" Sadly, this belief is well-founded, especially in the nutrition category.

Hammer has never been and will never become that kind of company! I give you my solemn word on this.

We put principles before profits every day to ensure that we are doing the right thing for you! We don't cut corners or skimp on quality or potency, ever. Operating a business in this way can be challenging and reduce short term profitability. However, it's so worth it to be able put my head on my pillow each night knowing I have not compromised my core values. My first priority has always been to help people first, and know that good will come to me if I always do that. Honestly, if I would not take a product myself, or give it to my kids, I'd never try to sell it you.

The issue of trust has never been a bigger concern than with CBD. (My kids and son-in-law use it!) So much hype, so many bad actors selling inferior and/or overpriced products! Most people I talk to about CBD have not tried it yet for this very reason—they don't know who to trust or believe, and I absolutely do not blame them one bit. Even those that have bought from another source usually confess that they are not sure they are getting the real thing, taking the correct amount, or paying a fair price.

This is why I came out with Hammer CBD shortly after it was removed from the banned substance list and made legal—trust. Not because I wanted to cash in on the latest, greatest supplement, but because I wanted to ensure my clients had a source they could trust! Given the positive feedback that continues to pour in daily, I think we are on the right track.

Before I sign off for the year and wish you an extremely premature "season's greetings", I want to call your attention to the great content we've assembled for this issue—more championships, more great stories from you, doing what you do, fueled by Hammer! I might enjoy reading this issue more than you!

Thank you again for helping to make 2019 a great year!

Enjoy the read and pass it on to a friend.

Brian Frank

Brian

On the cover: Rob Steger runs along Lake Tahoe during the Tahoe 200, the second leg of his attempt at the Triple Crown of 200s. Read more on Rob's efforts and fundraising on pg 38 Photo: Hilary Matheson

ENDURANCE NEWS

The informed athlete's advantage since 1993

AN EXCLUSIVE PUBLICATION OF:



STAFF

Publisher and Editor-in-Chief

Brian Frank

Assistant Editor

Steve Born

Contributors

Devon Johnson, Alex Corbelli, Dr. Kirstin Lauritzen DC MS, Dr. Bayne French MD, Laura Labelle, Aryn Maznio, Mike Freeman, John Kelly, Miles Frank, Joseph Perry, Megan Gulbranson

Designers

Adrian Villanueva, Madison Apple

MISSION

Endurance News provides informative and 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 hammernutrition.com.

OUR GUIDING PRINCIPLES

Service: From day one, we've strived to treat each client fairly, honestly, and 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 hammernutrition.com/company/mission-statement.



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4952 Whitefish Stage Road
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In this issue, learn how athletes stay fit and healthy in the off-season.

Thomas Shahinian cruising over some summer single-track.
Photo: Thomas Shahinian

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Premium Insurance Caps is formulated with only highly absorbable nutrients, in optimal amounts, to powerfully fill in nutrient gaps that are prevalent in the modern diet.



With a 1,500 ft elevation gain, a trail along old train tracks, and a pathway under a rock hollow, this trail marathon is sure to fulfill your expectations. Photo: Janzow Photography
Learn more on pg. 50

Carbs over KETO

A LETTER FROM RUNNER AND HAMMERHEAD, DEVON JOHNSON

Like most people, especially athletes, I'm aware of being inundated from every direction with appeals to try a new diet, supplement, or "lifestyle" to feel, perform, and look better. As a tall, athletic mother of three, I'll admit that I've struggled to find what works best for my body as far as steady energy, athletic performance, and weight management are concerned.

I've tried clean eating, eating to balance my blood sugar, macro-counting, gluten-free, and veganism -all on a quest to tame my sugar cravings, maintain a training weight, and have enough energy to keep up with my active family.

I did notice steady energy throughout the day and effortless weight loss and management. But when it came to running, my heart rate was significantly higher, my blood pressure was on the low end of normal, my pace was slower, and my endurance was nonexistent. A body that carried me



"I added carbohydrates back in my diet; and within just one week, I saw my heart rate come down and my running pace pick up."

With every dietary change, save veganism, I committed to being diligent for six-to-12 weeks to allow enough time for my body to adapt. So when my husband told me he had heard about the keto diet and thought it would be a good fit for him, I decided to give it a try as well.

Most keto-ers experience an initial "keto flu" as their bodies adjust during the transition, but they bounce back within a few days. So I accepted it when my running took a hit at first. My heart rate was 15-20 bpm higher at my normal pace. Discouraged but determined, I continued to slog through runs at a much slower pace with an abnormally high heart rate. "I bet it's a combination of stress and keto," I told myself.

Having just started working full-time again (after a decade raising kids) and making my way through an intense master's degree program, I felt it was fitting that my body was taking the brunt of my added pressures. I stuck with keto for an entire year, enjoying my fill of nuts, avocados, grass-fed meats and cheeses, and, I'll admit . . . bacon.

across seven marathon finish lines in seven years, boasting a 3:23 personal best, with a 5'11" frame, was unable to complete even short runs without walking.



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[facebook.com/hammernutrition](https://www.facebook.com/hammernutrition)

NEW EDITION

Quitting KETO saved my training.

At the one-year mark, I decided I had to make a choice: keto, the lifestyle I was enjoying, or the running and training that I desperately missed. I chose to walk away from the bacon and replace it with bananas. I added carbohydrates back in my diet; and within just one week, I saw my heart rate come down and my running pace pick up.

My endurance quickly returned, as if my body was thanking me for giving it what it needed. Within four weeks of reintroducing carbohydrates, I saw so much improvement that I signed up for my eighth marathon.

I don't think I will ever fully know what happened to my body that year. If done correctly, keto is a life-changing way of eating that has a lot of benefits. In fact, my husband has sustained it successfully for 16 months, losing, and keeping off, 40 pounds. But my body—every body—is different. It took me a year, but I learned to listen to it and stick with what works best. And for me, that's a diet with carbohydrates. EN

~ *Good Health, Devon*

Essential knowledge, revised and updated!

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Hammer devotee Dean Karnaze running the Endurance Challenge Series Race.
Photo: Ultra Race Photos

#howihammer

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THANK YOU HAMMER FAMILY! #howihammer has over **50,000 posts** showcasing your training, races, and adventures with Hammer Nutrition. We value nothing above connecting with our Hammer family, and social media has been an amazing tool to help us connect. We NEVER buy likes or followers or fake our social status to look cool. We are, and will always be, 100% authentic with our customers, and we can't wait to see more from you!

50K⁺ of Your posts

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1,039 likes    

Rob Steger admires the beautiful morning view during the Bigfoot 200.

 Elakarcz • Follow



485 likes    

Liz Karcz and Megan Argubright prepare for Vegas to Reno – a 550 mile off-road race in which they placed 6th in-class.

 jussioksanen • Follow



439 likes    

Victor Sheldon finds some air during a training ride in the golden California sunset.

 suzie_cooney • Follow



314 likes    

Suzie Cooney catches a wave off the coast of Maui, HI.



aaronplessinger_7 • Follow



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Aaron Plessinger and Ethan Jaudas out for a training ride.



smooneyski • Follow



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Scott Mooney powers through some loose dirt outside of Big Sky, MT.
Photo: @fledger13



Proctorcharlene • Follow



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Charlene Proctor and her partner, Mikhail Zharinov, celebrate after winning the title of United States National Ballroom Showdance Champions



matty_healy09 • Follow



889 likes



@hammernutritionsa ambassador, Matthew Healy, hydrating during a hot, southern-hemisphere summer.

TONY'S ACCOLADES

- **1ST PLACE - 60-64 AG**
2019 USA Triathlon World Age Group Championship
- **1ST PLACE - 55-59 AG**
2015 ITU World Triathlon Grand Final Chicago Sprint
- **1ST PLACE - 50-54 AG**
2008 Vancouver BG Triathlon World Championships

TONY'S TOP 5 FUELS

1. Fully Charged
2. Hammer CBD
3. Premium Insurance Caps
4. Endurolytes
5. Endurolytes Fizz



DECADES OF SUCCESS

BY ALEX CORBELLI

TONY SCHILLER, former professional triathlete and experienced Age Group Champion, is an athlete for life.

According to Tony, being an athlete isn't a passing phase, but rather, "It's for Life." Not only does Tony still race, but he also remains competitive—even with the top athletes. For the past 31 years, Tony has worked personally with Brian Frank and the Hammer Nutrition team to stay fueled on his way to the podium, and this season was no different. As a

7-time World Champion and winner of 79 triathlons, Tony's results are directly correlated to consistent training, proper nutrition, and an unstoppable winning-mindset. In 2019, Tony added to his impressive collection of accolades with a double win at the 2019 USA Triathlon Age Group National Championships as well as a fourth-place finish at Heart of the Lakes Triathlon and an eighth-place OA finish at Lake Minnetonka Triathlon. With over five decades of racing under his belt, Tony will never allow his age to dictate his athletic performance. He continues to learn how to train hard, yet smart, allowing his body to recover so he is well rested and hungry to race.

Photo: Tony Schiller and Brian Frank at Hammer HQ in Whitefish, MT

TONY'S KEYS TO CONSTANT SUCCESS



1 Keep the Weight Off

Find something active to do in the winter! I steer away from Zwift and take the time to focus on strength building and fat biking. I take one month each year to cut out sugar, alcohol, and starch while concentrating on hydration and clean eating. This helped me cut 10 pounds off my weight. You'll be surprised; even a little bit makes a big difference on race day.

2 Don't Train Through the Pain

I humble myself and think about what I can work on to improve my performance. Injuries are a sign of imbalance—if it means taking a few weeks off, do it!

3 Love the Sport

Take time off to allow yourself to refocus. Doing this always makes me excited to race again. Think about it like this: On the last day of school, you're not thinking ahead to the first day of school of the next year; but at the end of the summer, you're always ready to go back!

4 Stick to What Works

Don't reinvent your nutrition plan—find what works, and stick to it.

2020 GOALS

Looking to the future, Tony finds it important to keep an end goal or concept in mind, and train accordingly. In the upcoming year, Tony hopes to defend his double win at the USAT AG National Championships as well as take the double win at World Triathlon Championship in Edmonton, Canada. In addition to racing, he also aims to experiment with more century rides, trail running, and team racing. **EN**



FULLY CHARGED Pre-exercise Ignitor

Brent Rouse, pro motocross racer, relies on Fully Charged to stay sharp as he squares off against the fastest motocross racers. Photo: Cycle Dump

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HIGH-QUALITY DIET AND INTELLIGENT SUPPLEMENTATION



The keys to optimizing your nutritional status

BY STEVE BORN

Given the amount of supplement-bashing press that captures front-page headlines, both online and in newspapers (“*supplements are a waste of money,*” etc.), some new research is quite interesting. And it’s even more so when you consider we’re constantly bombarded with the message that “*you can get all the vitamins and minerals you need from a balanced diet.*”

Here is the conclusion of a study that involved nearly 9,500 men and women ages 19 and older who participated in the National Health and Nutrition Examination Survey (NHANES) from 2011-2014:

“

Adherence to DRI recommendations for nutrient intake differs significantly by sex, race and other demographic characteristics. Dietary supplements substantially contribute to total intakes for several micronutrients among users; however, many population subgroups continue to be at risk for inadequacy for key nutrients.

”



The researchers found that men and women who took supplements made a significant contribution toward meeting the Dietary Reference Intake (DRI) recommendations for vitamin B6, folate (vitamin B9), vitamin C, vitamin D, and vitamin K, as well as the minerals calcium, magnesium and zinc.

The DRI (Daily Reference Intake) that is being referred to in the research is a formula that includes the Recommended Dietary Allowance (RDA), Adequate Intake (AI), Tolerable Upper Intake Level (UL), and Estimated Average Requirement (EAR).

As such, it’s a little better than the “bare-bones minimum” RDA or Daily Value (DV) standards, but it’s still a long way from the more-appropriate Optimal Daily Intake (ODI) standard that we at Hammer Nutrition recommend.

In an article I wrote for Endurance News #113 ("The Balanced Diet Myth and the Case for Supplementation" on pages 26-27), I pointed out the following:

“

If you want to look, feel, and perform your best, the first step is always a diet dominated by nutrient-dense whole foods. But that alone will no longer suffice—supplementation has become a part of modern life. To augment the minimal amounts of vitamins and minerals supplied in the daily diet, and to obtain ideal amounts of these vitally important nutrients, you must supplement. If you want to achieve your best performances in your exercise sessions and events—and, even more importantly, enjoy optimal health (not minimal, optimal!)—then daily supplementation is a necessity, not an option.

”

BOTTOM LINE: Consuming the best possible diet you can and augmenting that with sensible supplementation, beginning with **Premium Insurance Caps**, is an incredibly wise strategy to follow. Combining a high-quality diet with sensible supplementation ensures your body will receive optimal amounts of the nutrients it needs. **EN**



REFERENCE:

Cowan, Alexandra; Jun, Shinyoung; Bhadra, Anindya, et al. Dietary Supplements Contributed Substantially to Total Intakes and Nutritional Adequacy of Several Micronutrients Among U.S. Adults. Current Developments in Nutrition. Volume 3, Issue Supplement 1, June 2019, nzz039.OR14-07-19, <https://doi.org/10.1093/cdn/nzz039.OR14-07-19>.

REM Caps

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Hammer athlete, Colby Chapman, tackles his training at over 10,000 ft in the Beartooth Wilderness as he prepares to climb Mt. Rainier. Photo: Colby Chapman

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- Online Reviewer

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2019 RESULTS RECAP



2019 Has been a **BANNER YEAR** for all endurance sports worldwide.

As the year comes to a close, we would like to spotlight a few of our Hammer family and their many victorious accomplishments!



Tony Schiller's amazing performance at the 2019 USA Triathlon Age Group Championship in Cleveland, Ohio was enough for a double win! Tony was able to walk away with two gold medals in the Olympic and Sprint Distance (read more about Tony on page 10) Photo: FinisherPix

WELL DONE!

KEEP HAMMERING!



Adam Cianciarulo is your 2019 AMA Outdoor 250 Champion! Pictured with Hammer Nutrition Founder, Brian Frank, in Washougal, WA.

The Leader Board



After recovering from multiple knee surgeries, Hayley Benson's return to long-distance is well deserved! Her hard work paid off as she is the first woman across the finish line at the Breckenridge Trail Marathon by over 35 minutes. Photo: John Hanson



Chilean national and cold-water swimmer, Bárbara Hernández, made history as she became the first Chilean to complete the crossing of the Catalina Canal, completing the 33.7 KM swim in 10 hours and 11 minutes. Photo: Think Develop Lateral



At the young age of 20, Chase Sexton proves he can hang with the best of the best as he takes the top podium spot and becomes the 2019 250 SX East Champion! Photo courtesy of Chase Sexton

3:32:24



Keeping up with
the TIMES

TONY SCHILLER

JOHN KELLY

CHASE SEXTON

VICTOR SHELDON

ZACH MARTINEZ

ADAM
CIANCIARULO

DAVID GAZSI

BÁRBARA
HERNÁNDEZ

HAYLEY BENSON

EVAN PERPERIS

TROY DELONG

TIENI DURO

WENDY SKEAN

When Terry Sandwith toed the line at the Heart of America Marathon, his best marathon time was just over four hours. Fueled by a winning lineup of Hammer products, Terry ran the fastest marathon of his life in 3:32:24 – 33 minutes better than his previous best. To see Terry and his epic mustache in action, turn to page 2.



2019 RESULTS RECAP



Congrats! 2019 WINNERS from everyone at Hammer Nutrition!

At Hammer Nutrition, your goals are our goals!



Keep Fueling Right and Feeling Great in 2020!



David Gazsi places 1st in the Grand Prix Le Nordet, a Quebec Cup Road Race, finishing almost a minute ahead of a 10-man chase. Photo: David Gazsi



Wendy Skean flies over some single track on her way to a First place podium finish at MTB Nationals in Winter Park, CO. Photo: Jeff Wolfe



The Tieni Duro team put up another banner year. They competed in races across California and road tripped to compete in the Intelligentsia Cup in Chicago. Photo: Jason Kent

Wall of Champions 2019



Victor Sheldon and Zach Martinez at MTB USA National Championships in Winter Park, CO.
Photo: Jeff Martinez



Troy DeLong hammers the Silver State 508 course along with Jeff Eckert of Team 2X Ichthyosaurus. The team finished as the first duo and did exceptionally well despite the hot temperatures. Photo: Troy DeLong

KEEP HAMMERING!

WAY TO GO!



John Kelly battles the rough and unforgiving terrain of Franklins 200 at the southernmost tip of the Rocky Mountains in El Paso, Texas. With plenty of experience, John was able to stay ahead of the competition and finished First Overall! Photo: John Sharp



Evan Perperis celebrates an overseas win after the Kuwait Hannibal Race in Kazma, Kuwait.
Photo: Akl Yazbek



Photo: Drew Silvers

5 Tips for a Healthy and Fit Body in the Off-Season

BY DR. KIRSTIN LAURITZEN, DC, MS

It may be tempting to take a more casual attitude toward your nutrition plan in the off-season, but there are good reasons to keep avoiding processed and high-sugar foods throughout every season. You already know that limiting your exposure to certain foods like wheat, sugar, and highly processed foods is ideal during training season because it helps reduce aches and soreness while encouraging a healthy gut.

However, in the off-season, athletes tend to be a bit more relaxed about their nutrition. Whether your off-season is through the winter or over the summer, keeping up with your nutrition can keep you feeling healthy and fit all year long. Plus, getting back into training season will be easier.

Here's why: your immune system relies on a healthy gut. In fact, about 60% of your immune system surrounds your small and large intestines! Eating sugar, wheat, and processed foods can upset your digestive system and lead to issues with the immune system. This can result in more colds and flu, which commonly take athletes out of training. It can also lead to more overall aches, soreness, and even more serious health conditions if allowed to persist for too long.

LOAD UP! on greens & veggies

1. Load up on greens and vegetables. Foods like broccoli, kale, and Brussels sprouts can help support a healthy body, gut, and immune system.
2. Avoid sugar, gluten, and foods containing highly processed wheat. Look for whole grains when possible, and check labels for hidden sugars. Going through an elimination food plan can also help with identifying foods that could be causing unwanted digestive upset and other symptoms.
3. Reduce indigestion by paying attention to food combinations. Fruits digest differently than protein and starchy carbohydrates. Try eating fruits and starchy carbohydrates for snacks and eating protein, fat, and vegetables at main meals.
4. Fill in any nutrition gaps with Hammer Nutrition's Premium Insurance Caps, Digest Caps and/or EnduroZyme, EnduroOmega, and get in more healthy greens!
5. Consider taking a whole-body approach to your health and training nutrition program. Focus on the right foods, identify any underlying infections, address gut health, balance hormones, reduce stress, and evaluate for overall toxin exposure.

You can have a positive effect on your immune system, training, and overall well-being by following these simple tips to maximize the time you are spending training, even during the off-season.



Kirstin Lauritzen, DC, MS, is a Functional Medicine Practitioner in Portland, OR. She specializes in helping athletes overcome chronic illness, optimize their nutrition, and lower their risk of injury. She loves to educate athletes about nutrition and its importance in training and life. She holds a Doctor of Chiropractic, a Master of Science in Human Nutrition and Functional Medicine, two Bachelor of Arts degrees (one in Psychology and Neuroscience and one in Spanish) and a Bachelor of Science in Human Biology. She is a triathlete and CrossFit athlete. She has also been Hammering since 2011. She recently completed her first 70.3 Ironman in Whistler Canada and is training for a full Ironman next year in St. George, Utah.

For more information, check out her website: gymcall.com.



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Polish ultra-trail runner, Kamil Lesniak, focusing on speed work as he trains with Marcin Kesy
Photo: Andrzej Olszanowski



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You ask and we listen

BY STEVE BORN

Here are answers to some of our most frequently asked questions

ASK HAMMER NUTRITION

How do I stay lean in the off-season?

As your caloric needs change with less racing and training, it's important to adjust your habits accordingly. First, try using Phytolean when eating a starch-rich meal. Take Phytolean just before eating to take advantage of its starch-blocking properties. Second, eat seven to 11 servings of whole fruits and vegetables daily, while decreasing your intake of meat and dairy. This dietary practice is associated with lower Body Mass Index (BMI) ratings, according to T. Colin Campbell's comprehensive "China Study" research. Dr. Campbell's research showed that Americans, who were eating 50-70% of their 1,950 daily calories from animal sources, averaged a BMI of 27.0. The Chinese, who were eating 90% of their 2,740 calories per day from whole plant foods, averaged a BMI of 22.0.

Do I need to take electrolytes if I'm using Perpetuem?

We receive this question fairly frequently. The short answer is yes, but let's examine why.

Perpetuem contains some electrolytic minerals; however, unlike HEED, where the mineral content was intentionally added to the formula—each scoop of HEED contains the equivalent of one Endurolytes capsule—the mineral content in Perpetuem was not added intentionally or by design. The minerals in Perpetuem come from the components of the product, primarily the trisodium phosphate, soy protein, soy lecithin fat, and maltodextrin.

Comparison of mineral content in Perpetuem and Endurolytes

Mineral	Perpetuem (1 scoop)	Endurolytes (1 capsule)
Calcium	17.5 mg	50 mg
Magnesium	4 mg	25 mg
Potassium	40 mg	25 mg
Sodium	105 mg	40 mg
Chloride	0 mg	60 mg

As you can see, the electrolytic mineral "profile" in Perpetuem is both incomplete and not well balanced. Perpetuem is a complete calorie source—complex carbohydrates, soy protein, and healthy, soy-derived fat—and should be used in conjunction with Endurolytes, Endurolytes Fizz, Endurolytes Extreme, or Endurolytes Extreme Powder.

Bottom Line

Perpetuem = Calories
Endurolytes = Electrolytes



“**The Neuroscience Institute in Italy showed positive effects of magnesium on the knees of patients with osteoarthritis.**”

What can I do about sore and achy joints? My knees took a beating this year!

Rest and recovery are key parts of the off-season. Make sure you're maximizing this part of the year with the all-star recovery lineup of Hammer CBD, Tissue Rejuvenator, Super Antioxidant, AO Booster, and Recoverite. In addition, you will want to consider adding Essential Mg to your daily routine—your knees will love you for it. New research¹ from the Neuroscience Institute in Italy showed positive effects of magnesium on the knees of patients with osteoarthritis. The results showed that a higher magnesium intake (i.e., an increase of 100 mg/day) “corresponded to a significant increase in mean cartilage thickness, cartilage volume at medial tibia, cartilage volume and mean cartilage thickness at central medial femur, and cartilage volume and mean cartilage thickness in the central medial tibiofemoral compartment.” For all the known benefits of magnesium, this one—helping to increase cartilage volume, thickness, structural integrity, and strength—is especially exciting for us athletes, as we use (and sometimes abuse) our knees a lot.

REFERENCES:

(1) Veronese, N.; La Tegola, L.; Caruso, M.G.; Maggi, S.; Guglielmi, G. The Association between Dietary Magnesium Intake and Magnetic Resonance Parameters for Knee Osteoarthritis. *Nutrients*. 2019, Jun 20; 11(6), 1387; doi: 10.3390/nu11061387.

Essential MG



Leialoha Sousa-Sommo packs her bike into an inflatable raft as the experienced bikepacking group explores the Nancy Lake System in Willow, Alaska. Photo: Cameron Sanders

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- Aids superb bone health



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- Online Reviewer

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Premium Insurance Caps

Your strong nutrient foundation

I've often referred to **Premium Insurance Caps**, Hammer Nutrition's multivitamin/mineral product, as *"the most boringly beneficial supplement we make."* The reason for that unique distinction is it's not the most glamorous supplement you can take; there's nothing ultra-cool in the product as there is in, say, **Fully Charged** or **Anti-Fatigue Caps**, to name a couple of examples.



BY STEVE BORN

But while Fully Charged, Anti-Fatigue Caps, and other supplements in the Hammer Nutrition line may arguably have a more direct impact on improving athletic performance, to be quite honest, if you're not covering your basic nutrient needs (vitamins and minerals), those other products won't ever provide their full value.

In my nearly 20 years at Hammer Nutrition, I've found that most people don't take a multivitamin/mineral supplement for two main reasons:

1. They already eat a healthy diet.
2. Multivitamins are boring and won't do anything to boost athletic performance.

The first reason is incorrect; it is virtually impossible to obtain all the nutrients your body requires from your daily diet. There are three main reasons this is true:

1. Studies show that food alone may not supply all the micronutrients we need to prevent deficiency, let alone achieve optimal health.
2. Much of our diet comes from foods grown far away, picked when unripe and then shipped. Nutritional content is questionable and usually depleted.
3. Even if we could obtain all the nutrients we need from our diet, it's unlikely that any of us eats an ideal diet with much consistency.

The first point is of primary importance. Forget about providing enough nutrients to promote optimal health—many people do not eat enough quality food to meet the minimal Reference Daily Intake (RDI) micronutrient requirements for preventing deficiency-related disorders. **Dr. Bill Misner's** hallmark paper, *"Food May Not Provide Sufficient Micronutrients to Avoid Deficiency"*¹ is but one effort in pointing out this startling problem.

The research of distinguished nutritional scientist **Dr. Bruce Ames**, professor of biochemistry and molecular biology at the University of California, Berkeley, also presents a hypothesis that implies micronutrient deficiency may eventually deteriorate the quality of whole human cell health. A portion of Dr. Ames' abstract reads as follows:²

“

Inadequate dietary intakes of vitamins and minerals are widespread, most likely due to excessive consumption of energy-rich, micronutrient-poor, refined food. Inadequate intakes may result in chronic metabolic disruption, including mitochondrial decay. Deficiencies in many micronutrients cause DNA damage, such as chromosome breaks in cultured human cells or in vivo. Some of these deficiencies also cause mitochondrial decay with oxidant leakage and cellular aging and are associated with late onset diseases such as cancer.

”

So when you hear someone tell you that you can get all the nutrients you need from a healthy diet, keep in mind the sobering words of Dr. Misner and Dr. Ames.

As far as the second reason for not taking a multivitamin/mineral supplement (they're boring and won't improve athletic performance), think about it a bit more: If you're not covering your nutrient needs—and it's pretty clear that very few are, especially athletes—you increase the potential for a number of negative athletic performance and health issues to occur. At the very least, this means you won't get the full benefit of all the hard work you put into your training because your body won't have the nutrient support it needs to fully recover. It could also very well result in a compromised immune system, which is definitely something to avoid because that could translate into missed training days due to illness.

That's why, after hundreds upon hundreds of supplement program consultations I've done during my tenure at Hammer Nutrition, I unhesitatingly recommend beginning with **Premium Insurance Caps**. Along with your efforts to consume the healthiest diet possible, Premium Insurance Caps will ensure you're getting optimal amounts of vitamins, minerals, and key auxiliary nutrients. These aren't minimal and insignificant Daily Value or Recommended Daily Allowance amounts, but rather amounts that will have a noticeably positive impact on your health. That strong nutrient foundation is a primary key to your body being able to meet the challenge of increased training volume and workload, and that translates into improved athletic performance and better overall health. **EN**

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John Benham relies on steady energy to power him through the Ohio Backyard Ultra. This year alone, applying nutritional advice from Miles Frank, John has set 4 personal records for 50Ks! Photo: Winding Trails Photography



"Rarely do you notice a distinct effect from a multivitamin, but with this one, you can truly feel it!"
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EXPERT INSIGHT BY DR. BAYNE FRENCH, MD

on SUGAR

Although much has been written in EN over the years about sugar, I want to throw in my two cents. In my medical training, I was never taught about the detrimental health effects of sugar. But in defense of medical education, I was taught a lot about the human body, diseases, and medicine. What I know about health and nutrition, I learned from chiropractic school, my mother, and my own reading.

Nutritional science is tough. The crux being the difference between association and causality. As a case in point, American male meat eaters have a high rate of heart disease. But is it the meat? Or is it perhaps abdominal obesity, deconditioning, smoking, high sugar consumption, or a myriad of other influences and contributors to inflammation? Food questionnaires and other data-gathering tools are relatively easy, but a true medical experiment like randomized controlled trials is much more involved and expensive.

“ I say stop buying it, stop consuming it. But what is “it”? ”

What about bias and outright duplicity? The Sugar Research Foundation (SRF) funded “research” and Ancel Keys’ famous “research” in the ’50s and ’60s directed outcomes to meet their conclusions—not exactly the scientific method. The detrimental effects of sugar on cardiovascular health were minimized and fat was demonized. These results dramatically changed the landscape of nutritional advice and spawned the high-carb, low-fat dietary recommendations we are still reeling from today.

Dr. John Yudkin, a British physician, warned about sugar’s effects on cardiovascular disease. He wrote *Pure, White, and Deadly* in 1972 and urged public health campaigns to focus on sucrose. How many of you have even heard of him? He’s not alone.

There are numerous sources and studies as early as the ’50s focused on sugar’s health detriments. The emerging evidence led the SRF to construct its research and pay Harvard researchers to shift the focus from sugar to fat. That’s enough to raise my blood pressure.

“ I feel that sugar in all forms should be consumed next to never. ”

Tufts University performed research, compiling a massive amount of data on sugar-sweetened beverage (SSB) consumption that many feel reflects causality between sugar and obesity, heart disease, type 2 diabetes, and cancer. These findings were published in *Circulation* in 2015. They report that, worldwide, 184,000 DEATHS per year are directly attributable to SSB consumption: 133,000 from diabetes, 45,000 from cardiovascular disease, and 6,450 from cancer. They concluded the data was “indicating an urgent need for strong global prevention programs.”

I say stop buying it, stop consuming it. But what is “it”? Soda, of course, and most sports drinks, but I would include juice and milk too. Artificially sweetened beverages must certainly be better, right? Blood pressure going up. Well, maybe in a future article.

True sugar is sucrose, a disaccharide, which is 50/50 glucose and fructose. High fructose corn syrup is 75% fructose. Although all cells in the body can metabolize glucose, only the liver processes fructose, and there is no more potent driver of fat formation (lipogenesis) than fructose. What about fruit? Worry not! Just chew it, don’t drink it.

I enjoy endurance activities and have been accused of some outlandish pursuits replete with suffering and loss of sphincter tone.

“ I commonly see sugar-eating endurance freaks who think the rules of biochemistry don't apply to them because of their fitness. ”

Usually, I exercise on an empty stomach, but for races or longer training sessions, I fuel with a complex carb. I know of no head-to-head quality study comparing a more complex carb like maltodextrin to a refined carb like sugar in regard to performance, inflammatory markers, recovery, etc. What is known is that maltodextrin has significantly lower sugar content, and it makes intuitive sense to me that there would be less metabolic perturbation.

As a physician with a great interest in leanness, wellness, and disease prevention, I feel there is absolutely, no place for sugar in the achievement of these things. So often I see wiry, lean, high-sugar-consuming outdoor savages with their first heart attack in their 50's. I also commonly see sugar-eating endurance freaks who think the rules of biochemistry don't apply to them because of their fitness.

These individuals frequently exhibit the classic sugar-eating triad: insulin resistance/prediabetes, low HDL (an independent risk factor for heart disease), and high triglycerides. These are the same results found in obese patients with diabetes and heart disease. So I feel that sugar in all forms should be consumed next to never. **EN**

Dr. Bayne French, MD, Hammer Nutrition's medical advisor, competes in the Bigfork Spartan Beast. Along with an MD from the University of Washington, Dr. French brings over 20 years of health experience, with a focus on wellness, to the Hammer team. Dr. French currently works at Glacier Medical Associates and is double board certified in Family Medicine and Obesity Medicine. Bayne picked up obstacle course racing in 2013 and won the Masters division of the Bigfork, MT Spartan Beast (2016) and the Monterey, CA Spartan Super (2016).



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- Accelerates recovery



Chris Schmitt on his way to a first place overall finish at the 2018 Nacho Stand Classic!
Photo: Wingfoot Photos



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The Endocannabinoid System

BY STEVE BORN

ENDOCANNABINOID

We're all familiar with the immune system and the importance of maintaining its vitality so that we can enjoy optimal health. One system that you may not be familiar with yet is the endocannabinoid (pronounced: en-doh-kuh-NAB-in-oyd) system. With the increasing popularity of CBD and the plethora of benefits it provides, it's time to get to know this all-important bodily system.

Research has defined the endocannabinoid system (ECS), which is present in all vertebrates, as a complex cell-signaling system whose main function is to "maintain bodily homeostasis – biological harmony in response to changes in the environment."¹

Though the particulars involving the ECS are complex, it's safe to say that it plays a crucially important role in our health and well-being because it regulates many key aspects of our biology and helps maintain the stability of our internal environment. Research has shown that the ECS "is involved in a wide variety of processes, including pain, memory, mood, appetite, stress, sleep, metabolism, immune function, and reproductive function."^{2,3}

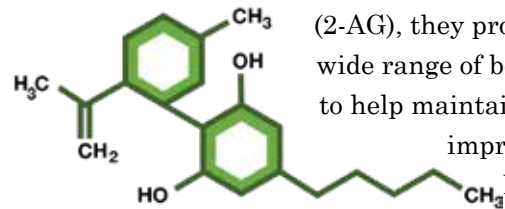
While it was once believed that endocannabinoid receptors were only present in the brain and nerves, we now know that receptors are present throughout the body, including our skin, bones, muscles, heart, and various other organs. Dr. Bayne French states that the ECS "consists of two endocannabinoids (AEA and 2-AG, which are produced in our bodies), two receptors on cells (CB1 and CB2, which AEA and 2-AG interact with), and the protein enzymes that produce and degrade AEA and 2-AG."⁴

Taking a broad-spectrum cannabinoid improves the functionality of the body's cannabinoid receptors.

What Is CBD? How Does It Work? Why Should I Take It?

CBD is short for cannabidiol (pronounced: can-uh-bih-DIE-all), one of over 100 compounds called cannabinoids that are found in the cannabis plant. These chemical compounds activate the cannabinoid receptors found throughout the body; and, along with the bodily-produced cannabinoids Anandamide (AEA) and

2-Arachido onolglycerol (2-AG), they provide a wide range of benefits to help maintain and improve our health.



There are two major cannabinoid receptors:

Cannabinoid Receptor Type 1 (CB1):

These receptors are found throughout the body, though primarily in the brain. As expected, these receptors are involved with mood, emotions, thinking, movement/coordination, appetite, and more.

Cannabinoid Receptor Type 2 (CB2):

These receptors are found mainly in the immune system throughout the body. When CB2 receptors are activated, they work to reduce aches and soreness.

and **CBD's** Beneficial Effects

When we take a broad-spectrum CBD product, those cannabinoids do not attach to or directly interact with CB1 or CB2. Instead, it is believed that the orally-dosed cannabinoids indirectly affect/influence signaling through CB1 and CB2, while also increasing levels of endocannabinoids and/or preventing them from being broken down, allowing them to have a greater effect on the body.

THE BOTTOM LINE:

Taking a broad-spectrum cannabinoid product supplies the body with numerous cannabinoids—headed up by CBD—that provide their own benefits for many aspects of health. This also improves the functionality of the body's cannabinoid receptors, permitting optimal amounts of endocannabinoids to be produced and helping extend their beneficial "life span."

EN



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Hammer CBD

The Gold Standard

- Sleep like a baby
- Boost recovery
- Soothe soreness



Karin Weller during Race Across the West. Competing with Suzy Maas as Team in our Prime, the duo crossed the finish line 40 minutes ahead of their competitors! The pair averaged 342 miles a day, finishing in a total of 65 hours and 5 minutes
Photo: Brian Sinclair



30 Softgels 25mg	\$69.95
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"... I sleep so much better and wake up refreshed. I actually feel my recovery is better ... Great Product!"
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EnduroZyme

Complete Digestion, Optimal Nutrient Absorption

We've got a couple of products in the Hammer Nutrition line with the word "enduro" in the name. (Merriam-Webster defines "enduro" as "a long race that stresses endurance rather than speed.") You're probably quite familiar with our line of Endurolytes products and our omega-3 fatty acid supplement, EndurOmega.



BY STEVE BORN

One you may not be familiar with yet is an important product that we introduced in the spring of 2018. It's called EnduroZyme.

While it may not directly (as an example) "take 10 minutes off your personal best time for the marathon," it will most definitely do the extremely important job of helping you efficiently digest and absorb the foods you're eating.

“Without a sufficient supply of enzymes, metabolism becomes sluggish-to-non-functioning.”

While the quality of the food you eat is undeniably important, so too is making sure you're efficiently digesting your food and absorbing the nutrients it contains. That's where enzymes come in; they're powerful catalysts that help maintain efficient digestion and maximize nutrient absorption, and they play a vital role in every chemical reaction that goes on in our bodies.

Unfortunately, the typical American diet contains a high volume of enzyme-devoid processed foods. Cooking also destroys the enzymes that naturally occur in food. Add to that the natural age-related decrease in bodily enzyme production, and it's no wonder so many people are dealing with numerous health issues, particularly GI health.

Without a sufficient supply of enzymes, metabolism becomes sluggish-to-non-functioning, greatly disrupting effective assimilation of carbohydrates, fats, and protein; healthy detoxification; immunity; and more. Without efficient metabolism, healthy cellular function becomes virtually impossible.

Well-known digestive health expert, Dr. Lane Lenard, states, "Many of the health complaints that plague aging adults—from impaired immunity to digestive distress and nutritional deficiencies—can be traced to a key underlying factor: poor digestive health. One common cause of impaired digestive health is an age-related decline in the digestive enzymes needed to extract essential nutrients from the foods we eat. Without these crucial enzymes, food passes through the gastrointestinal tract without yielding its beneficial constituents. The result is poor nutritional status, which can contribute to numerous disease processes."

“Unfortunately, the typical American diet contains a high volume of enzyme-devoid processed foods.”

To help resolve this problem, a digestive enzyme supplement that contains multiple enzymes to break down and digest a variety of foods and food substances is a vital necessity.

Hammer Nutrition's EnduroZyme is that supplement, supplying not only an impressive 14 different types of non-animal enzymes, but also an effective amount of each of these enzymes. In addition, EnduroZyme's Whole Leaf Blend—peppermint leaf, aloe vera leaf, and artichoke leaf—provides numerous benefits for many aspects of gastrointestinal health. Finally, EnduroZyme contains Bioperine™, a standardized black pepper extract that enhances the absorption of whole food and dietary supplements.

“Pop a couple of EnduroZyme and feel great—just the way nature intended.”

Did someone say "complete?" You bet! With EnduroZyme, you have—in one product—all the ammunition you need to ensure full breakdown and digestion of the food you eat. (Did we mention how extremely important that is?) With efficient metabolism, you will experience rapid improvement in your digestion, while helping alleviate numerous symptoms of indigestion and irritable bowel syndrome.

As your body consistently makes better use of the foods you eat, you will feel steady improvement in your health, energy levels, and athletic performance. Pop a couple of EnduroZyme capsules before a meal, enjoy your food, and feel great afterward—just the way nature intended. **EN**

Tissue Rejuvenator

Less pain, More gain



With his SpeedCup handy, Jeff Kozak conquers the difficult Arizona terrain during the 2019 Mogollon Monster 100. Photo: Jubilee Paige

- Targets muscle soreness
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- Assists maximum recovery



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DITCHING TRASH WITH SPEEDCUPS

2019 was the year of the SpeedCup. Hammer Nutrition introduced these cups after realizing how much waste is generated by disposable cups in the endurance sports community. With major marathons going through tens of thousands of paper cups in a matter of hours, it was common sense to promote a reusable alternative.

These SpeedCups are lightweight and easy to use. They're made by HydraPak from an ultra-durable rubber material, which makes them easy to crush and stash in a pocket or jersey on course. SpeedCups always return to their normal shape after being crushed. Use them with cold drinks for hydration or hot drinks for enjoyment. The SpeedCup does it all.

Only a year into rolling out Hammer SpeedCups, and we're already losing track of the difference they're making. One primary way we're using the cups to promote sustainability is through our Sustainable Event Sponsorship Program. We partner with certain events to provide SpeedCups so they can go cupless. The result is a drastic reduction in trash. One Hammer sponsored event, the Antelope Island Buffalo Run, used Hammer SpeedCups and reported this:

"We handed these reusable cups out to all the runners—everybody is on board with reducing trash. Since we eliminated disposable cups, we cut our trash from 20 bags last year to just 6 bags this year."

SpeedCups are just part of Hammer Nutrition's dedication to reducing waste and promoting sustainability. We're committed to making a difference through SpeedCups, Gel Jugs and Hammer Flasks, recycling, and sponsoring more sustainable events. If you think this is a marketing stunt to help make a profit, it's not. Hammer's SpeedCups are just \$3.95, which is 20% cheaper than any other cup on the market. We're in this to make a difference. EN

WANT TO TRY ONE OUT? Use promo code EN117SC with any order and we'll throw in a free Hammer SpeedCup. Let's make a difference together.



Jeff Kozak strides ahead of the pack through the brush and harsh terrain of the 2019 Mogol-Ion Monster 100. Photo: Jubilee Paige



International Hammer Athlete, Kamil Lesniak prepares for next season during a trail run in Poland. Photo: Andrzej Olszanowski

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- Improves immune function
- Accelerates exercise recovery
- Increases energy levels



"Since taking Hammer supplements I have noticed more energy, ... and better sleep." - Online Reviewer

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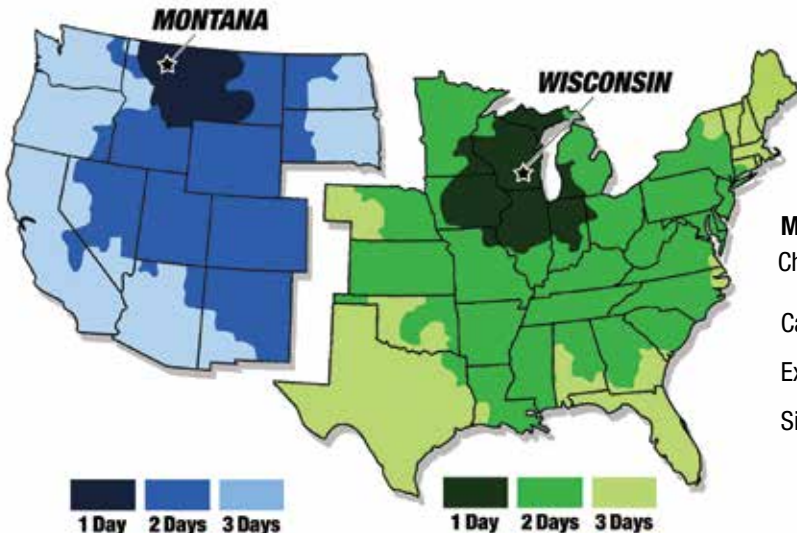
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SOS 5 Secrets of Success

Continued from
Endurance News #116
Aug/Sept/Oct 2019

#5 RECOVERY DONE RIGHT

In order to gain the most from your workout and prepare your body for better performance the next day, recovery cannot be ignored! Rehydration and the replenishment of macro- and micro-nutrients are key, but there are specific details to consider with each of these. To guarantee a strong performance again and again, make sure you address the following categories in their entirety after every workout.

“For better performance tomorrow, recover right today!”

REHYDRATION: Consume at least 16 oz. of water immediately after exercise. For strenuous workout sessions, aim for 16 oz. of water per pound of body weight lost.

MACRONUTRIENT REQUIREMENTS: The body relies on complex carbohydrates and protein to recover properly following exercise. Carbohydrates help the body replenish glycogen stores and assimilate protein. Since one's level of muscle glycogen is a key determinant of exercise performance, consistent carbohydrate replenishment will help maximize your glycogen storage capacity.

COMPLEX CARBOHYDRATES: Consuming 30 to 60 grams of complex carbohydrates immediately following exercise will raise your insulin levels, which promotes glycogen storage, stimulates protein synthesis, and decreases muscle breakdown.

PROTEIN: Protein provides raw materials the body needs to build, repair, and maintain muscles. Not only does protein maintain muscles, it also provides immune system support, preventing sickness and ailments related to overtraining.

WHEY PROTEIN: Hammer Whey Protein is the protein of choice for speeding recovery. Whey protein isolate has the highest biological value (absorbability) of all proteins with a value of 154. In comparison, soy protein has a biological value of 74, making whey a more effective choice. Hammer Whey Protein is derived from US-raised grass-fed cattle and is virtually free of fat and lactose.

MICRO-ESSENTIALS: Antioxidants, amino acids, and a full-spectrum vitamin and mineral supplement, like Premium Insurance Caps, enhance recovery by boosting the body's immune defenses, preserving and rebuilding muscle tissue, and neutralizing free radicals.

RECOVERITE: Make the most of your workout with Recoverite, a perfect recovery tool. It supplies a 3:1 carb-to-protein ratio with complex carbohydrates, whey protein isolate (or our Vegan Protein), and a full spectrum of electrolytes. The bottom line: Make it your number-one priority to consume Recoverite within 30 minutes of exercise. **EN**



A rider rests up after biking the Land Run 100. Photo: Salsa Cycles



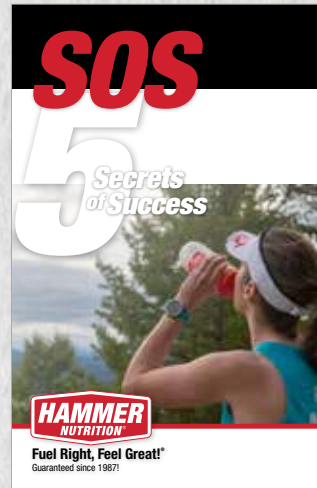
Our recovery recommendations:

Within 30 minutes after your finish, consume:

- 20 to 30 oz. of water
- 30 to 60 grams of high-glycemic carbohydrates
- 10 to 20 grams of protein, preferably whey isolate
- Hammer CBD Balm, tincture, or softgels



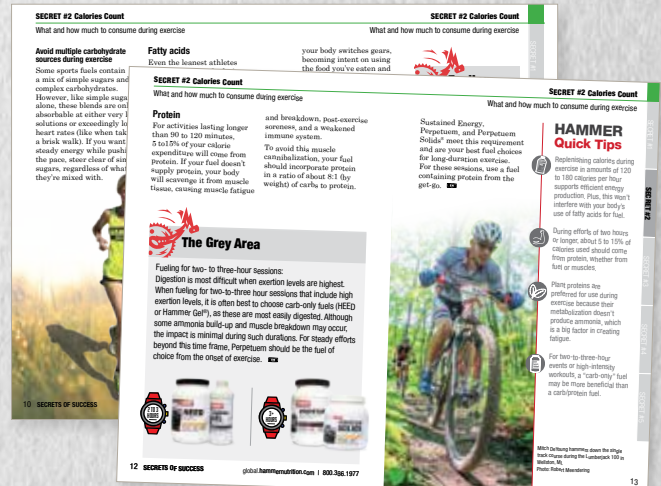
Hammer client advisor, Arynn Maznio and fellow ultra-runner Katie Gorby hold up their SpeedCups after the Spitfire Ultra Trail Challenge. This epic 50K takes place just north of Idaho Falls on top of one of the largest dormant, tuffed volcano. Arynn finished as the 2nd female OA behind Katie, the first female finisher. Photo: Jennifer Saunders



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FROM THE KITCHEN OF **LAURA LABELLE**

Fall and Winter Foods for the Holidays

Nothing says the holidays like the aroma of fall and winter foods.

Stews, roasted meats or veggies, and the slow cooker simmering away. Most root veggies are in season now, and they are fun to use in a variety of ways, such as purees, soups, roasted, and mashed. Many large squash are also available this time of year, including spaghetti, butternut, and banana.

With a chill in the air, it's nice to come home to the smell of a roast in the oven or stew on the stove. Now is the time of year to use the oregano, rosemary, sage, and thyme in your garden. Accent your dishes with dried fruits and nuts, and use spices like ginger, cinnamon, juniper, and cardamom to make richer meals with interesting flavors and textures.

Slow cooking is also a great idea for fall and winter.

It's nice to take 20 minutes for prep in the morning or even the night before (just stick it in the fridge), and then start the cooker when you leave for work. There's nothing like coming home to a dinner that smells great and is almost ready to eat. Just throw together a couple of side dishes, and in very little time, you can sit down to a delicious meal.

Be sure to make extra so that you can use the leftovers for your lunches the next day.

Here are some easy and fun side dishes to accompany your holiday dinners. Hope you enjoy our collection of recipes and tips on how to create a whole foods diet that is relatively easy and delicious.

"In The Kitchen with Hammer" has several slow options you should try. You can use them to be creative. I love making pulled chicken or short ribs in larger batches and using the leftovers to make other dishes.

For example, I might serve pulled chicken with mashed potatoes and a salad the first night. The next day I can use the chicken in a sandwich, lettuce wrap, or salad to make other new meals. Short ribs are good with veggies on the side, and then again as leftovers, I can make a hash, sandwiches, lettuce wraps, or a shepherd's pie. I always try to reuse different components of my meals so I'm not starting from the ground up every time I cook.

With the holidays upon us, it's always fun to try new recipes.

I like to dig out a bunch of new recipes I collect through the year and try them out in the weeks leading up to Thanksgiving and Christmas. I want to know I am serving my family and friends something delicious that I have had time to tweak or perfect. I know many families like to stick to traditional recipes, and there's nothing wrong with that. But maybe you could add in a couple of new favorites this year. Who knows, you might make a new tradition.

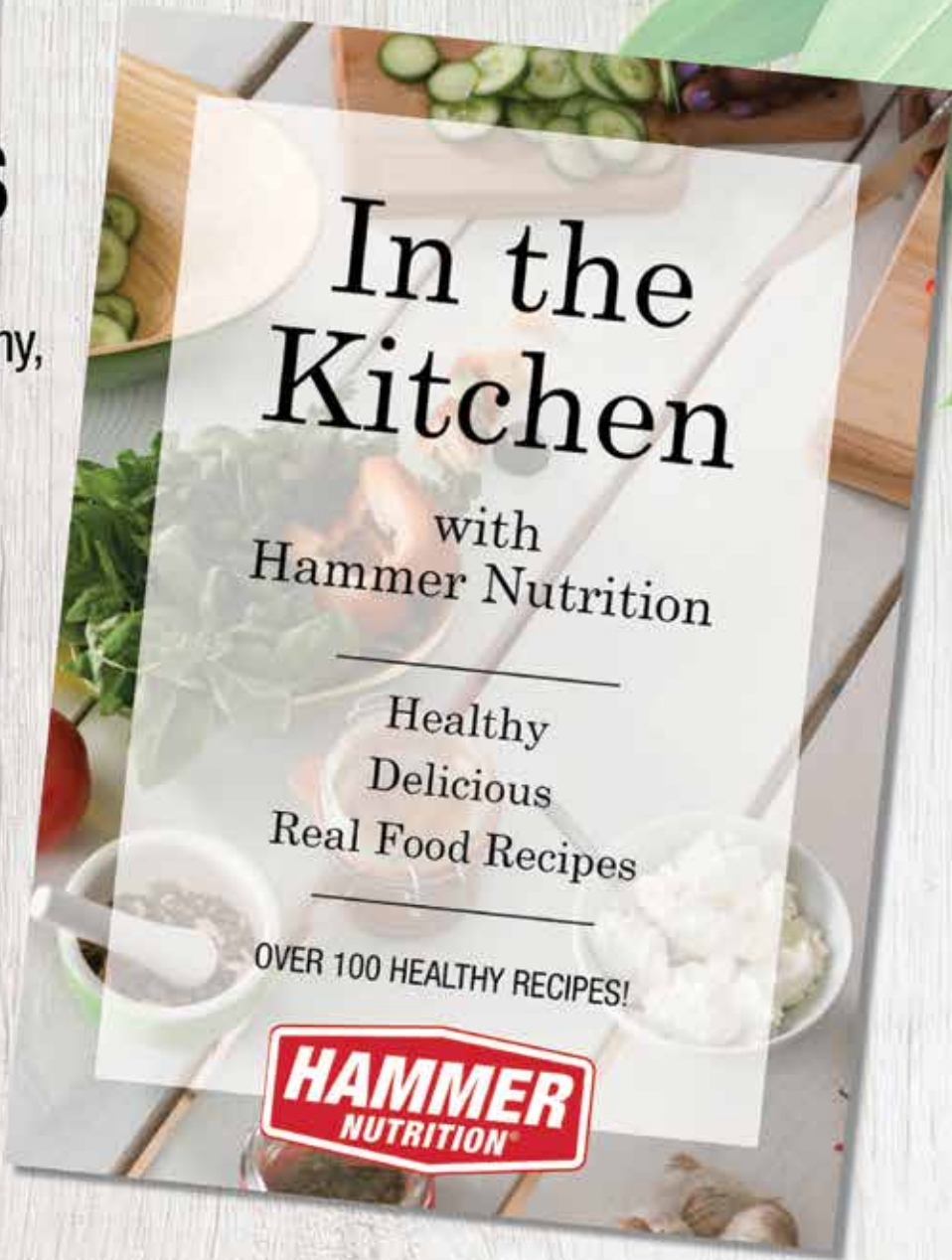


Acclaimed California-based chef Laura Labelle studied at *Ecole De Cordon Bleu* in Paris and received a "Grand Diplome" in cuisine and pastry. She has established two successful ventures, *Cafe Luna* and *Quality Food and Beverage* and also worked as a personal chef

for various celebrities and for *Mix This* music studio. Laura is an accomplished open water swimmer and enjoys practicing yoga and sharing her cooking with family and friends.

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FROM THE KITCHEN OF **LAURA LABELLE**



Slow Cooker Ratatouille

Slow Cooker Pot Roast

1 (3 to 3 ½ pound) boneless chuck roast
Kosher salt, to taste
Freshly ground black pepper, to taste
1 ½ Tbsp avocado oil
1 ½ cups beef broth
½ cup dry red wine
¼ cup all-purpose flour (or gluten-free)
2 Tbsp tomato paste
2 Tbsp Bragg Liquid Aminos
2 pounds small Yukon gold potatoes
3 large carrots, cut into 3-inch pieces
2 celery ribs, cut into 3-inch pieces
1 medium sweet onion, cut into 1-inch wedges
4 cloves garlic, minced
6 sprigs fresh thyme
1 bay leaf
2 Tbsp fresh parsley leaves, chopped

Makes about 8 servings.

Season the beef with 1½ tsp salt and 1 tsp black pepper.

In a large skillet, heat the avocado oil over medium heat. Add beef and cook until evenly browned, about 3-4 minutes per side.

Meanwhile, in a medium bowl, whisk together the beef broth, red wine, flour, tomato paste, and Bragg Liquid Aminos. Set aside.

Place potatoes, carrots, celery, onion, garlic, thyme, and the bay leaf into a 6-quart slow cooker. Stir in beef broth mixture and season with salt and pepper to taste. Place beef on top. Cover and cook on low heat for 7-8 hours, or until meat is fork-tender.

Transfer the beef, potatoes, carrots, celery, and onion from the slow cooker to a large platter. Shred the beef using two forks. Cover with aluminum foil to keep hot.

Strain cooking juices through a fine-mesh sieve into a small saucepan over medium heat, and then discard the solids. Skim any remaining fat from surface, and then discard. After bringing the juices to a boil, reduce the heat and simmer, whisking constantly, until desired thickness, about 5-10 minutes. Remove from heat and season with salt and pepper, to taste.

Serve the beef, potatoes, carrots, celery, and onion immediately, drizzling with juices, and garnished with parsley, if desired.

Slow Cooker Ratatouille

*Vegetarian, Vegan-Friendly

1 medium eggplant, peeled and cut into 1-inch cubes
1 Tbsp plus 1 tsp salt, divided
2 medium onions, halved and thinly sliced
4 medium tomatoes, chopped
3 medium zucchini, cut into ¾-inch slices
3 Tbsp olive oil
1 Tbsp dried oregano
4 cloves garlic, minced
½ tsp pepper
1 can (6 ounces) tomato paste
½ cup green olives, pitted
½ cup fresh basil, coarsely chopped

Makes about 6 servings.

Place eggplant in a colander over a plate; sprinkle with 1 Tbsp salt and gently toss. Let stand for 45 minutes. Rinse and drain well. Blot dry with paper towels.

Place eggplant and remaining vegetables in a 5- or 6-quart slow cooker. Add oil, dried oregano, garlic, pepper, tomato paste, and remaining salt; toss to combine.

Cook, covered, on low 5-6 hours or until onions are tender. Stir in olives and fresh basil; heat through.



Mushroom Yukon Potatoes



**Slow
Cooker
Pot Roast**

Arugula Salad

4 cups baby arugula, washed and dried
½ cup shaved Parmesan cheese
¼ cup dried cranberries
¼ cup toasted almond slivers

Dressing:

6 Tbsp extra virgin olive oil
2 Tbsp lemon juice
Salt, to taste
Fresh cracked black pepper, to taste

Makes about 4 servings.

In a small bowl, whisk dressing ingredients until well blended. In a large bowl, mix arugula and remaining ingredients. Toss lightly with dressing and serve.

Oyster Mushrooms and Yukon Potatoes

4 Tbsp avocado oil (divided)
2 pounds boiled Yukon Gold potatoes, skin-on
4 large shallots, peeled and minced
2 cups oyster mushrooms, washed and dried
2 large cloves garlic, minced
1 Tbsp fresh tarragon, minced
Salt, to taste
Pepper, to taste

Makes about 4 servings.

In a cast iron skillet, heat 2 Tbsp avocado oil and add sliced Yukon Gold potatoes until browned.

In another skillet, heat 2 Tbsp avocado oil and add shallots. Once the shallots have softened, add mushrooms; cook on high for a few minutes. Then add garlic and tarragon; cook for another 2 minutes. Mix with the potatoes.



**Arugula
Salad**



CONQUERING THE TRIPLE CROWN

BY JOSEPH PERRY

Three years ago, Rob Steger was ready to quit. He was training for the longest race of his life—a 30K called the Rocks and Roots 30K. His training was undermined by the nagging question, “Can I even do this?” As his confidence wavered, he applied to be a Hammer Nutrition brand ambassador. Our brand ambassador team happily added him to the team. It’s not every day you find someone as relatable as Rob who loves to run until they can’t run anymore! With Hammer in his pocket, Rob tackled the hardest race of his life.

“ I didn’t even believe in myself at that point, when I got that email from Hammer. At that point in time, Hammer was the only one that believed I was a runner. ”

-Rob Steger

These days, running a 30K is almost a warm-up jog for Rob. He moved to bigger challenges with high stakes. Hammer is vital to Rob’s success as a runner. Every run is fueled by Hammer Gel, Perpetuem, and Recoverite. After finishing the Moab 240 last year, Rob set his sights on a monumental goal: running the Triple Crown of 200s in 2019.

When Rob crosses the finish line at Moab 240, he will have covered 650.3 miles with over 110,000 feet of elevation gain and loss each. However, Rob won’t stop there. As soon as he completes the Moab 240, he will promptly run 10 more miles.

FEATURED ATHLETE

ROB STEGER

ROB’S TOP 5 FUELS

1. Perpetuem
2. Hammer Gels
3. Endurolytes Fizz
4. Recoverite
5. Whey Protein Bar



@TRAININGFORULTRA

Rob Steger during the Big Foot 200 of the Triple Crown of 200s. Photo: Ryan Clayton

TRIPLE CROWN



The Bigfoot 200

206.5 miles
42,506 feet of ascent
43,906 feet of descent



Tahoe 200

205.5 miles
40,200 feet of ascent
40,200 feet of descent



Moab 240

238.3 miles
29,467 feet of ascent
29,467 feet of descent

Rob is running to raise funds to research a rare form of cancer called histiocytosis. In partnership with Empower Retirement and the Texas Children's Hospital, Rob is raising money to fund first-of-its-kind research into histiocytosis. The extra 10 miles at Moab will make the final distance equal to 401 kilometers. This is Rob's 401K for cancer.

Rob was moved to run for histiocytosis after a co-worker's daughter was diagnosed with the rare form of cancer. After learning about the dearth of research on the subject, Rob decided to dedicate his Triple Crown of 200s in an attempt to change that. He is documenting the journey in an 8-part miniseries that will debut on Amazon Video this fall. Watch every triumph and setback as Rob attempts 650.3 miles of running. The Rocks and Roots 30K will be a distant memory to Rob when he runs 20 times that distance this fall. **EN**

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Real food,
Ready to Go!



- Long-lasting energy
- Easy to eat
- Delicious flavors

Max Gerston leaves his opponents in the dust at the 2019 Last Dog Standing. Despite the extreme heat and tough San Bernardino conditions, Gerston finished this extreme off-road race in 4th place. Photo: Beta Motorcycles



Single Bars \$2.50 ea. 12 or more \$2.25 ea.

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



"I always have Hammer Bars with me on my rides... perfect because they are easy to chew and taste great!"

- Online Reviewer

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AID STATION

HIGH SALT Diet

BY STEVE BORN

I'm sure we can all agree that GI tract bloating is a major discomfort. Up to one-third of the U.S. adult population is affected, with over 90% of those cases being in the form of irritable bowel syndrome. Bloating often occurs from a buildup of excess gas in the gut, courtesy of the gas-producing gut bacteria that break down fiber.

Bloating is one of the leading gastrointestinal complaints in the U.S.

Recent research from the Johns Hopkins Bloomberg School of Public Health found that individuals reported increased gastrointestinal bloating when they ate a diet high in salt. The study concluded that decreasing dietary sodium can be an effective way to reduce bloating, while still allowing people to maintain a healthy, high-fiber diet.

In a previous study, the Dietary Approaches to Stop Hypertension-Sodium (DASH-Sodium) clinical trial—DASH being a high-fiber diet that is relatively low in fat and high in fruits, nuts, and vegetables—researchers tested that particular diet compared with a low-fiber diet. While the purpose of the previous study was to determine the effect of dietary sodium and other factors on blood pressure, data on participants' reports of bloating was also included in the final results.

In this new study, using the bloating-specific data gathered from the previous one, the researchers found that, in addition to high-fiber diets, sodium played a significant role in bloating.

When they combined data from both the DASH diet and the low-fiber diet, and then compared that with data from those who consumed the highest amount of sodium and those who consumed the lowest amount, the researchers found that the high-sodium versions of both diets increased the risk of bloating by nearly 27% percent compared with the low-sodium diets.

Senior study author, Dr. Mowel Mueller, summarized, "Bloating is one of the leading gastrointestinal complaints in the U.S. and can be exacerbated in some people by a high-fiber diet; our results suggest that they might be able to reduce that bloating, without compromising on healthy fiber, by lowering their sodium intake."

Researchers found that high-sodium diets increased bloating by 27%

How sodium causes bloating is being studied further, according to Dr. Mueller. "Salt causes water retention, and that may be one factor. We hypothesize that sodium intake also alters the gut microbiome in a manner that modifies bacterial sulfide production."

There are already many reasons why reducing sodium in our diet helps us athletically and for overall health. Less bloating may not be on the top of the list of the most important health-benefiting reasons, but it's undoubtedly one of the most comfortable ones. EN

REFERENCE:

Allison W. Peng, Stephen P. Juraschek, Lawrence J. Appel, Edgar R. Miller, Noel T. Mueller. Effects of the DASH Diet and Sodium Intake on Bloating. *The American Journal of Gastroenterology*, 2019; 1 DOI: 10.14309/ajg.000000000000283.

REACH

for
EnduroZyme

Correlated with
Increased
Gastrointestinal
Bloating

In addition to excess sodium, another cause of bloating is incomplete digestion, especially of foods that are known to cause gas, such as legumes (beans, peas) and cruciferous vegetables (broccoli, cabbage, cauliflower, etc.). EnduroZyme, discussed on page 28, is a “must use” product to facilitate the thorough breakdown of these and other foods, ensuring enhanced digestion and nutrient absorption.



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from Voler

- Made in the USA
- Premium athletic fit
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Men's Voler Short Sleeved Jersey
\$54.95

*see website for Women's jerseys, more gear, and further details.



Professional Triathlete, Erik Arnes trains in the Pyrenes, France during his 2019 summer racing season in Europe. Photo Tony Smoragiewicz



“Fit is extremely important and this shirt stepped up. Cool, lightweight, and comfortable - it's just right!”
- Online Reviewer

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Great Coffee Isn't Really Great Unless It's Organic!

BY ENDURANCE NEWS STAFF

Friends don't let friends drink non-organic coffee!

At Hammer Nutrition, we recommend eating healthy, living happily, practicing a sustainable lifestyle, being your best self, and drinking only 100% Fair Trade, organic coffee!



In addition to improving your health, organic coffee has environmental benefits.



Virtually everyone starts the day with a cup of coffee at home or the local coffee shop, but many consumers are unaware that they may be poisoning themselves, one sip at a time! When it comes to food, mindful shoppers often spend a wealth of time selecting high-quality, certified organic, raw, sprouted, and/or gluten-free products. They are completely unaware that the non-organic coffee beans they are consuming each morning are among the most chemically treated agricultural products on the planet. Don't forget to ensure your coffee quality, too!



Although most fertilizers, pesticides, and chemicals are heavily regulated or banned in the United States, harmful petroleum-based products are legal and widely used in almost every coffee-producing country. These heavily-sprayed pesticides and chemicals are designed to kill agricultural pests and bacteria. If the process is extremely harmful to these living organisms, one might wonder how it could not be harmful to humans.



Non-organic coffee not only affects you and the quality of your morning drink, but it also harms the workers who tend these polluted crops. Environmentally, such methods also slowly destroy the soil's natural fertility and sustainability, distresses native animals, and leeches damaging chemicals into local water supplies.



In today's marketplace, we are left to make countless decisions about each item we come across in the grocery store. Do we select higher-priced organic products or pesticide- and chemical-treated products? These decisions might seem difficult, but doing your small part can make a huge difference. At Hammer Nutrition, we recommend eating healthy, living happily, practicing a sustainable lifestyle, being your best self, and drinking only 100% Fair Trade, organic coffee!

ALL 53XII COFFEE BLENDS ARE AVAILABLE IN GROUND AND WHOLE BEAN!



- Fair-trade
- 100% organic
- Micro-batch roasted

53XII COFFEE

Hammer life to the fullest—beginning with your morning cup of joe. If you've never tasted 53x11 Coffee, you'll be a fan after your first cup, guaranteed.

Each Fair Trade Certified, 100% organic 53x11 Coffee blend is micro-roasted daily to our exact specifications and delivered fresh to your door.

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- THE EARLY BREAK**
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- THE DOWN SHIFT**
Decaf 12 oz. \$13.95

Join the **Coffee of the Month Club** for discounts on monthly orders!

For more information, visit: hammernutrition.com/products/coffee/



"I love this coffee, I can not say enough about the richness combined with a smooth finish. It is like summiting a big climb and transitioning into a smooth and long downhill."

- Online Reviewer



OUR MOST POPULAR BLEND!

THE BIG RING - Sumatra

These beans come from Indonesia, where the climate and soil combine to produce a distinctively full-bodied yet smooth coffee. 100% Sumatra beans are medium-roasted to bring out all of the richness.

12 oz. \$13.95

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EVAN PERPERIS

5 Questions

1. Where are you from?

Garden City South in Long Island, New York.

2. How did you get into racing?

I started training for racing because I was planning on entering the U.S. Army, and I wanted to be physically fit. I wasn't very fast so I started training for longer distances as a challenge. When I realized I was pretty mediocre at that too, I tried some strength sports like powerlifting and natural bodybuilding. Since I wasn't very strong either, I bounced around among endurance and strength sports for several years. Little did I know I was training for a sport called Obstacle Course Racing, which was on the verge of going mainstream. The sport required my unique blend of endurance and strength, which had grown significantly after more than a decade of training. After my first Ultra-OCR, the 24-hour-long World's Toughest Mudder in 2014, where I finished 13th overall, I was hooked and haven't ever looked back.

3. How did you hear about Hammer?

At my very first triathlon back in 2004, I remember seeing people walking around in Hammer Nutrition jerseys/tri tops. When I started racing longer, Hammer seemed like a common brand so I used some of their gels. What sold me, though, was the more I learned about fitness, the more I understood that Hammer Nutrition bases their products on science that is proven to improve your racing performance. After that, I stopped using all other brands of endurance supplements, which allowed me to hit PRs like 90 miles at 2017's World's Toughest Mudder.

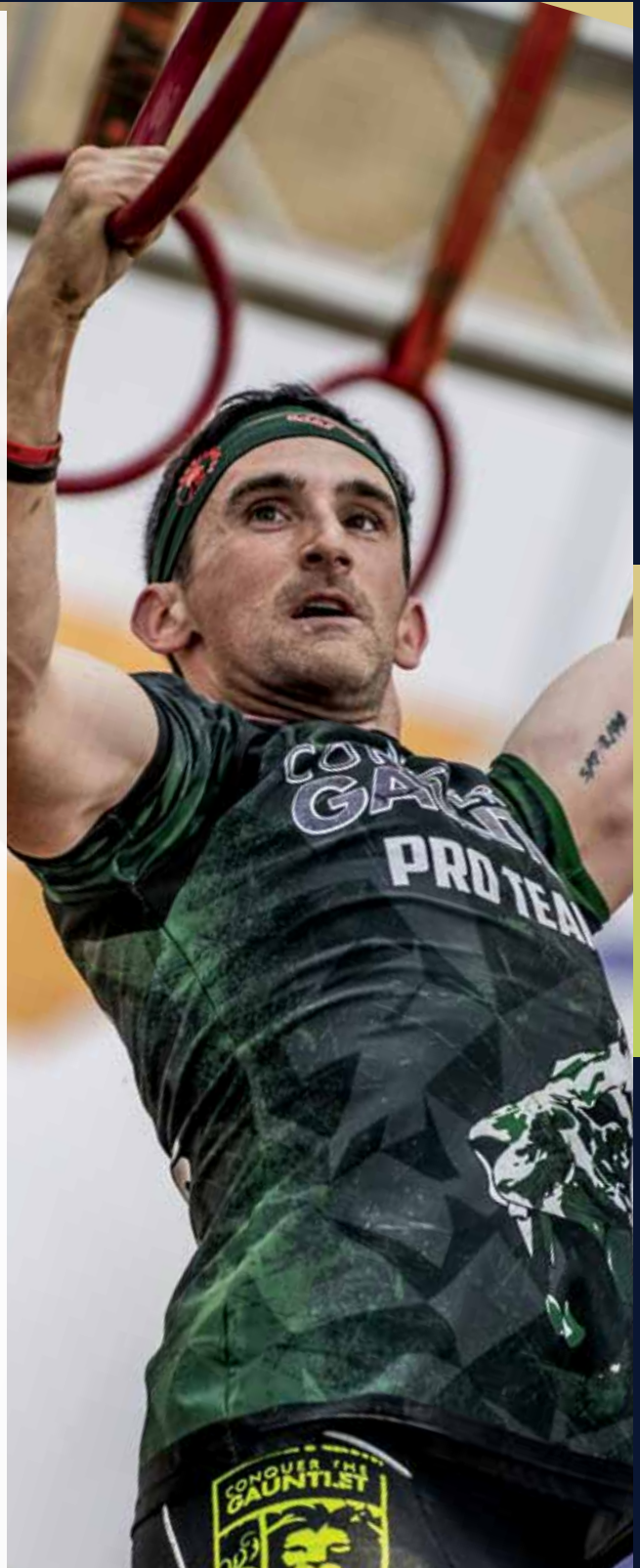
4. I can't leave for a race weekend without:

My family. While that sounds funny, I race a lot so I don't like to spend time away from them unless absolutely necessary. I even brought them on my seven-day long OCR America journey where we drove from permanent venue to permanent venue between Vermont and Oklahoma running OCR for 8-11 hours a day. Races are always more fun with my wife and kids, even though it may feel more stressful at times. Having them there to share in successes and failures while enjoying spending a weekend in a new location is one of the major aspects I love about racing.

5. Favorite Hammer Fuel?

It has to be Perpetuem. The carbohydrate/fat/protein blend is the only product of its kind on the market. It provides such a steady burn of fuel that my races have been remarkably consistent without ever having GI issues. The blend of macro-nutrients allows me to fuel off just Perpetuem for almost all of my Ultra-OCRs, including those that are 24 hours in length.

After being invited to compete overseas, Evan Perperis headed to Kuwait and competed in the 2019 Hannibal Race Kuwait. Evan's training and preparation paid off as he finished the 8KM obstacle course race first place overall! Photo: Aki Yazbek



5 Questions

BEVERLY ENSLOW



1. What sport do you participate in?

Currently I compete in mountain biking and XTERRA (off-road) triathlons. Previously I raced in track, cross country, road and trail racing, road triathlons, road cycling, cyclocross, and adventure racing. For fun now, I kayak and cross-country ski (when there's enough snow).

2. How did you get into racing?

My local park district had an after-school track program for girls in 1970, ahead of Title 9! I joined because it looked like the girls were having fun. Running put me through college and led me into road racing. As my body has aged, and new opportunities have arisen, I have chosen other sports to compete in.

3. Favorite Pre-Race meal?

Most of my races start early enough that my pre-race meal is not breakfast but dinner the night before. I choose salmon or chicken, broccoli and a sweet potato or rice pilaf. Pre-race, I sip a water bottle with Fizz.

4. Favorite Hammer Supplement?

It's so hard to pick one! They all work in concert with each other. I take the Daily Essentials (Premium Insurance Caps, Mito Caps, and Race Caps) and CBD. And I couldn't get through racing without my hourly packets containing Endurance BCAA+, Anti-Fatigue Caps, and Endurolytes. And then there's recovery: Tissue Rejuvenator, AO Booster, Super AO, and Xobaline with my Recoverite.

5. What keeps you motivated?

I want to be able to move through space and time on my own power for as long as I live on this Earth. Plus, I simply love competing. I enjoy learning about myself and the world around me through training, racing, and travel. I've made so many friends that I only get to see at races. So, I keep racing!

Beverly Enslow on her way to a 3rd place finish in the 60+ Women category at the UCI Masters World Mountain Bike Championships in Monte Sainte Anne, Canada. At the race, Beverly was able to meet and compete with fellow Hammer athlete, Margaret Thompson!

STRIDING FORWARD

7 STRATEGIES TO AVOID

How *Not* to Fuel during an Ultramarathon BY ARYNN MAZNIO

Ultramarathons are no joke, especially when it comes to fueling and nutrition. While they look like big picnics with some running thrown in, race day events require intensive planning, and there are some common assumptions about fueling on race day that are just plain trouble. Let's unpack seven typical fueling mistakes and find the best alternatives from Hammer Nutrition to make your first or fiftieth ultramarathon a success rather than a DNF.

ULTRAMARATHON STRATEGIES TO AVOID

1 Don't think: Eat ALL the calories—I'll need it! Unless you enjoy a wide variety of stomach distress issues that oftentimes end with you puking your guts out, be wise with your calorie consumption. Forget about trying to replace the calories you burn with equal or near-equal amounts from your fuel . . . that "strategy" will always fail! As our *Secrets of Success* manual explains, your body can efficiently handle an intake of 120 to 180 calories per hour, an amount that also permits your body to tap into the calories in its fatty acid reserves. Since fatty acids naturally satisfy nearly two-thirds of our energy requirements during exercise, you simply don't need to ingest too many calories from your fuel. Don't overdo it! The intestinal distress is not worth it.

2 Don't think: I only need a small hand-held bottle for hydration. It's what the elites use, so it's enough for me, too! Hydration is a big deal. What most pictures of elite runners don't show is (a) how much the athlete is actually consuming and (b) how often the runner is refilling the bottles. I can guarantee the race pictures are NOT showing how many times they refill! There are some fantastic hydration packs and waist belts available that provide ample carrying capacity for hydration, fuels, and gear. Aim to consume 20 to 25 ounces of water per hour to maintain proper hydration . . . and don't forget your electrolytes!

"It's no wonder most people... burn out way too soon."

3 Don't think: I can eat any and all of the aid station food while I race. It's there to help me. Have you seen some of the fare served at aid stations? Most of it is a sugar fest! As tempting as these snacks are, they absolutely do not sustain our bodies with the critical ingredients needed for energy, nor do they provide support to our lean muscle mass in long-duration efforts. The chance for increased muscle soreness and damage due to muscle cannibalization is greater when you use short-chain carbohydrates and junk food. Junk in = junk out, so pick your fuels wisely! If you need carbohydrates and muscle support for long-term effort, use Perpetuem, Perpetuem Solids, or Sustained Energy for your primary fuel source, augmenting that, if desired, with Hammer Gel.

"Do this first ... your body will thank you immensely!"

4 Don't think: I should load up on salt capsules to replace all the salt I'll sweat out during the race. I've said it before and I'll keep saying it: We sweat more than just salt. A salt capsule may provide some relief, albeit only temporarily, but to avoid cramps, a broad spectrum of electrolytes are needed. Endurolytes contain a well-balanced blend of sodium, chloride, calcium, magnesium, potassium, and manganese to more completely satisfy the body's electrolyte requirements during workouts or events. Take a dose of capsules hourly or drop an effervescent Endurolytes Fizz tablet in your water bottle for an electrolyte/hydration combination!

5 **Don't think: All gels are the same. Sugar is the best fuel for providing quick energy.**

Many popular gels market glucose, sucrose, and/or fructose as great ways to fuel up during races. Plenty of articles claim that “quick energy in novelty flavors” is the key to successful performance. But beneath the hype and popularity, these products aren't providing any long-lasting benefits. Take a look at their nutrition information. It's no wonder most people who use them either get GI distress or burn out way too soon. In fact, it would take excessive amounts of sugar gel to come close to sustaining energy for exercise. The effective solution is to fuel with Hammer Nutrition's gels. They contain maltodextrin, a long-chain complex carbohydrate that provides delicious and nutritious energy without causing GI distress or a strain on your wallet!

6 **Don't think: Taking “Vitamin I” will alleviate my soreness and discomfort.**

It's only really interacting with pain receptors, providing instant relief at a far worse cost. Discomfort should not be synthetically masked—discomfort is our body's way of letting us know there's a problem that needs attention. Give your body a break by addressing muscle and joint soreness with Tissue Rejuvenator or one of our CBD products for natural support without negative, health-affecting repercussions down the road.

7 **Don't think: When I finish racing, I can eat whatever I want—I just ran x-number of miles, after all!**

Just because we run endurance races doesn't mean we should be human garbage disposals after crossing the finish line! I'm not saying that a post-race beer or “reward” food is out, but we have to address recovery first with high-quality carbohydrates and protein. Get that in your system first to kick-start the all-important recovery process! Mix up a serving of Recoverite or Vegan Recoverite and consume it shortly after you finish. The sooner, the better. Doing so will provide your body exactly what it needs after a hard effort: complex carbohydrates, whey or pea protein, electrolytes, and key auxiliary nutrients. Do this first before you crack open that post-race beer or devour that cheeseburger . . . your body will thank you immensely! **EN**

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- Avoid cramping
- Maintain electrolyte balance
- Rapid assimilation

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

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“... the Palmerton Spartan 21K, 4600+ feet of elevation gain, and not even a hint of muscle cramps.”

- Online Reviewer

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Passing Zone

7 Bicycle Safety Tips

1. Be defensive.
2. Keep out of a driver's blind spot. This is usually to the right rear. If you can't see the driver, they probably can't see you.
3. Follow the rules of the road. They won't always keep you safe, but they will add to your safety.
4. Hand signal your intentions. Make eye contact with drivers.
5. Keep to the right as safely as possible. Don't ride in the middle of the road unless absolutely necessary. Give yourself an escape route when possible.
6. Try to anticipate a driver's intentions. When passing parked vehicles, scan inside for movement that would indicate a door opening or the vehicle moving into traffic.
7. This is a big one for me: Don't insist on the right of way even if you have it. I always say you can be DEAD right.

There are many good resources about bicycle safety on the internet, including numerous articles about how not to get hit by motor vehicles. The one I like is How Not To Get Hit by Cars by Michael Bluejay at bicyclesafe.com.



On the Road with Bicycle Safety

BY MIKE FREEMAN

Hammer Nutrition Sponsorship Coordinator, Anastasia Zhukova, training for the Whitefish Triathlon. Photo: Alex Corbelli

I have been riding a bicycle as an adult for the past 40+ years, 35 of which included countless hours of training and racing.

I have never been hit by a car. There were some close calls, but I was lucky enough to avoid any collisions. I did rear-end a car once, but that was my fault, caused by inattention and speed.

I have witnessed the aftermath of many auto vs bicycle accidents with either major injuries or death (to the cyclist).

Please wear a helmet, everyone. It will not prevent an accident but quite possibly will prevent head trauma.

The new LED lights that easily fasten to the rear of a bike are great. They make you a lot more visible for sure and are a must for riding at night. The flashing front white light makes you a lot more visible from the front during the day. A steady headlight is a must for riding at night. Reflective clothing works well also.

Your eyesight and hearing are two of your best friends while riding. You should always be scanning ahead for potentially hazardous conditions. Use your peripheral vision as much as possible. And if you don't use a mirror, certainly look over your shoulder from time to time.

Your hearing is essential for impending danger from behind, and from the front, too, for that matter. I don't recommend the use of earbuds. Some states prohibit the use of earbuds or limit their use to one ear. If I did use them, I would limit them to a rural environment. EN

~ Please be safe on the road,
Mike



Hammer Gel[®]

Real Endurance Fuel

- Reliable, sustained energy
- No sugar crash
- Easy to digest

As part of California-based Junior Cycling Developmental team, Tieni Duro, these young riders are taught the importance of proper fueling and hydration early in their careers.
Photo: Katie Miu



“Easy to use for a burst of energy. I don’t even look to see flavor I’m using because I enjoy the surprise almost as much as the energy it delivers.”
- Online Reviewer

26-Serving Jug | \$19.95

Single-serving packets | \$1.40 ea.



Available Flavors: ■ Huckleberry ■ Banana ■ Raspberry ■ Apple Cinnamon ■ Strawberry

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WE SUPPORT

Greg Gayman and Mike McGinn for Whiterock Ultra



"Our backgrounds are complementary," Greg said. "Mine is more marketing and communications oriented while Mike is more strategic and process-minded."



Greg Gayman and Michael McGinn of Des Moines, Iowa are a stellar race director duo who put on the Hammer Nutrition sponsored event, Whiterock Ultra 50K. The event was an inaugural success this past July. The duo met when they were both registered for a 100-mile mountain ultra in Colorado and have been friends ever since. Michael learned what it took to be a race director when he was on the board at the Capital Striders running club. While there for six years, he was never a race director but learned enough to become a race director for a triathlon a short while after. Michael also measures road races in Des Moines and is on the board for the Des Moines Marathon. With his experience, he knew he wanted to take on the Whiterock Ultra 50K but needed help. He invited Greg to direct the event with him and Greg agreed. While Greg didn't have any race director experience, he had plenty of ultra-experience through volunteering, crewing for other runners, and working trail maintenance.

McGinn agreed by adding, "We are both very easy-going and open-minded."

The two race directors fit so well together that it's nearly effortless for them to be a team. They both recognize the importance volunteers make in the success of an event and how supportive the endurance community is.

Mike said, "It's so great to see people lending a hand to pick another person up in the middle of an event." "They are more than willing to lend a hand; whether that be sharing water, a flashlight, or cold-weather gear."

Greg, added, "I've crossed the finish lines of multiple ultras, but being able to be at the finish line congratulating other athletes on their hard-fought finish was a true highlight for me."

We're proud to know race directors like Greg and Michael who find joy in giving back to a community they've been part of for so long. Make sure to keep a lookout for their events next year!

YOUR SPORT



BURPEE MILE : Hermosa Beach



No matter your skill level, the 6th Annual Burpee Mile in Hermosa Beach, CA., is one for the books. This event consists of one mile completed entirely while performing burpees. Race Director Nathan Luczynski gives instruction on the proper form of a burpee (along with other acceptable forms of the movement to suit every participant). With full support for everyone involved in the event, all experience levels are encouraged to participate, either solo or as a team, to fall down and get back up to success. For more details or to register, visit: theburpeemile.com

WILDWOOD TRAIL MARATHON

Wildwood, MO

Whether you're a novice or experienced runner, the Wildwood Trail Marathon is great for just about anyone.

In Wildwood, MO, this race starts at LaSalle Springs Middle School and leads runners to a handful of trails, one of which climbs a bluff.

With an elevation gain of approximately 1,500 feet, a trail along old train tracks, and a pathway under a rock hollow, this trail marathon is sure to fulfill your expectations.

Grab a friend or throw in those headphones; the Wildwood Trail Marathon is one you won't want to miss.



For more details or to register, visit: wildwoodtrailmarathon.weebly.com

UPCOMING EVENTS

Antelope Island Fall Classic 50K

Syracuse, Utah

11.16.19

www.buffalorunadventures.com

Regal Beagle

Akron, Ohio

11.23.19

runningforwardandgivingback.com

Conasauga Crusher Gravel Grinder

Old Fort, Tennessee

11.23.19

mountaingoatadventures.com/conasauga

Dawn to Dusk

Fountain Hills, Arizona

12.7.19

ziarides.com/event-register/

dawn-dusk-arizona

Palm Springs Tri

La Quinta, California

12.7.19

hitstriathlonseries.com/palm-springs-ca

Bigfoot 50 Vertical Runner

Hudson, Ohio

12.14.19

www.westernreserveracing.com/RACES/

ENDURANCE-SERIES

Pigtails Run

Ravensdale, Washington

12.14.19

ultrasignup.com/register.aspx?did=69692

Arches Ultra

Moab, Utah

1.25.20

www.madmooseevents.com/arches-ultra

Endurance Sports

TO EVERYTHING THERE IS A SEASON

Practical Thoughts for Down-Time Recovery and Relaxation

BY JOHN KELLY

I've never been able to give a consistent answer when asked which season is my favorite. I enjoy all of them, but most of all I enjoy the transitions. A race calendar should be quite similar, with the four seasons being build, peak, race, and recover. At the end of each one, I'm ready to move on and looking forward to the next.

Each season has its focus. I eschew the term off-season because it implies that there is no focus. For any athlete looking for longevity and continued growth in their sport, it is important to recover. This includes recharging after the race season, preparing for the coming build season, and critically, giving extra attention to other aspects of life.

The most obvious goal of the recovery season is to physically and mentally recharge. As endurance athletes, we put our bodies through a lot, and we all know countless stories of people who raced for a few years, sometimes quite successfully, and then either mentally or physically burned out.

Just as the frog in the pan of water doesn't perceive danger and is boiled to death if the heat is turned up gradually, there is a slow and sometimes imperceptible drain inflicted by a heavy training and racing schedule. So take the time to ease off training a bit, particularly structured training, and let the mind and body relax. I know that the fear of missing out (FOMO) is a real problem, but there's much more that can be done with proper recovery over many years than in a few years packed end to end.

The part that tends to get lost quite often with the off-season approach is the proper preparation for the next season. Take the time to plan out goals, the race calendar, and even a tentative focus for each training block. Don't "recover" so much that there's not enough time to get fitness back to where it needs to be for those goals. Having a clear idea of what those goals are and what they require will help put some definition and focus around when and how the build season should start.

Above all, dedicate extra time to the things that are important or enjoyable outside of the sport. Build the calendar around what friends or family want to do; much of their calendar the rest of the year was likely built around a race schedule.



John Kelly climbing Rat Jaw at 2019 Barkley Marathons. Photo: Josh Patton

**Take the time to ease off training a bit,
... and let the mind and body relax.**

Give time to other hobbies that get pushed aside during the other seasons, lest love for the sport turn into bitterness for taking too much time from other things you love. It's not all fun and relaxation, though: take the opportunity to trim down that to-do list that's probably grown quite large, to keep it from being a distraction once training ramps back up.

If pursued with the proper purpose and passion, every season can be welcomed with enthusiasm and then bid farewell without regret. The recovery season is no exception, and perhaps the most important of all.

Be Well, ~ John Kelly

John Kelly is an ultrarunning data scientist with a triathlon habit. He has won the Barkley Marathons and finished top 10 in M30-34 at Kona. He also holds a Ph.D. from Carnegie Mellon University and works as the Chief Analytics Officer at Envelop Risk. This proud father of three (including twins!) resides in Bristol, England. Follow John's running saga at randomforestrunner.com.

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Hammer Nutrition Scholastic athlete, Camry Penrod, celebrates after a successful Montana Beast and Sprint Weekend in Bigfork, MT. Camry raced both days, finishing 2nd AG in the Beast, and 1st AG in the Sprint. Photo: Spartan OCR



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Miles Frank's 2019 EURO JOURNEY

Photo:MilesFrank



“This summer, I enjoyed a trip through Switzerland, a mountainous country that provides recreation with a side of chocolate and banking.”

BY MILES FRANK

The largest and most wild of the Swiss cantons (administrative divisions akin to states or provinces) is known as Grisons in French or Graubünden in German. It is a very green alpine region, yet Zurich is only a 45-minute train ride

away. Graubünden holds the headquarters of Sportbenzin, also known as Hammer Nutrition Switzerland, which I was lucky enough to not only do business with but also see the inner workings of. I stayed with our partner, Remo Thöny, and his wife, Susan. While there, I went to events, ran errands all over

Switzerland, and worked in the office. There were fantastic cycling opportunities when it wasn't pouring rain—those hills don't stay green by themselves. And on the few weekends that weren't booked up, I was able to travel and visit our other Western Europe distributor, Buddy van Vugt, in the Netherlands.



ARLBERG MARATHON – The next running event was in Austria. This time we were on course fuel. We also gave samples of **HEED** and **Endurolytes** to the race participants. We were located right inside the registration area and worked with the organization volunteers to make sure all the racers were prepared for the heat and the altitude of the Austrian Alps. Photo: Miles Frank



During the first of Europe’s heat waves of the summer, I was back in the Swiss office and explored the mixed terrain paths in order to visit the local lake, the Walensee. The super-flat route is a rarity for Switzerland. Even with the 35°C heat (95°F), the number of fountains per KM kept me hydrated, in combination with **Fizz** and **HEED**, throughout my journey.

Photo: Miles Frank

After work, I packed a frame bag and small handlebar bag on to my Ritchey breakaway and set out toward Zurich. I took cycle paths through the valley to Lake Walen or Walensee. Then I was on gravel for 25 miles until I reached the shores of Lake Zurich or Zurichsee. Zurich was a full-on festival atmosphere, with major streets downtown and across the river Limmat to the Arboretum and beyond. There were musicians and vendors of all types, and at 11 p.m. a fireworks show illuminated the whole lake from above.



Photo: Miles Frank and Buddy

Next up was a trip to The Netherlands

I flew from Zurich to Amsterdam and met Buddy at the train station in Veenendaal, which is just outside of Utrecht. This is where Buddy’s warehouse is located, and I met his partners, Art and Aarno, for the first time. We had a short meeting and toured the facility, and then we drove to the canals outside of Rotterdam to cycle around the farmland and windmills. **EN**

From Our Athletes

CHRIS MARCINEK

Chris Marcinek is all smiles as he flies through the Marji Gesick 100, finishing as the first male and second overall! Despite 100% humidity and brutal conditions, Chris stayed fueled with HEED, Fizz Tabs, Endurolytes Extreme, Gel, and Perpetuem to get through the race!

Photo: Ryan Stephens Photography



ALEX NIEDERER

2ND PLACE OVERALL AMA-NATC MOTOTRIALS NATIONALS

“ ”

Hi Brian, I wanted to personally thank you for all the work you put into that sheet for me for my nutritional intake for the Nationals. It really worked fantastically. I have never felt that strong on Sunday after riding on Saturday, and this year I was feeling just as strong on Sunday as I was on Saturday. I have gone through pretty much all of the product you sent me for the Nationals now. Fortunately I don't have anything coming up this next month but starting again late August. I was really blown away how well you were able to make my body work by giving me the right tools and advice. I hope that we can continue working together for as long as I am riding trails professionally. I am and have been making sure to tag Hammer in all my social media posts and took the bottle up on the podium with me every time so everyone could see that you were keeping me fueled. Feel free to give me a call when you have some free time so I can elaborate on how the different products worked.

*Thanks,
Alex Niederer*

Photo: Alex Niederer



HEATHER BROOKS



Heather Brooks was the first and only woman to finish the Palisades Ultra Moose 100! Heather hammered through the course in 35 hours and 19 minutes, earning a spot on a lonely podium!

Photo: Sue Chadwick



JARED MUNCH

Jared Munch SUPs from Duluth, MN to the Arctic Circle. During his 37-day journey, Jared covered a total of 920 miles from Lake Superior to James Bay, CA. Jared utilized Perpetuem, Hammer Gel, among other Hammer products to fuel his efforts

Photo: Jared Munch



AMY JAKOBSSON

On July 29th, 2019, Amy Jakobsson swam the width of Lake Tahoe, a 19.4 KM swim! Fueled with Hammer Gel, Perpetuem, and HEED, Amy crossed the massive lake in 10 hours and 56 minutes.

Photo: Anders Jakobsson

Four time champions

Ron Amos celebrates a victory as he cruises through the rain to the finish line at the Green Mountain Stage Race (GMSR). Ron and teammate David Gazsi earned seven podiums over four races for the Hammer Nutrition team, including 1st and 2nd overall in the General Classification. Hammer has won the overall title at the GMSR four times in the past five years.

Photo: Angelica Dixon



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"Thank you Hammer for developing these supplements! I'm back to running again and loving every second." - Online Reviewer



Sponsored Athlete, Ryan Mortensen riding trails outside of Prescott, AZ in his high-quality 2019 Hammer Kit
Photo: Luke Mortensen