

ENDURANCE

NEWS

BY HAMMER NUTRITION

#121 August/September/October 2020

\$4.99 US / \$5.99 CAN



IN THIS ISSUE...

New Products and Flavors!

New HEED®, Recoverite®, and CBD

Pit Stop Fueling

Nutrition in 30 seconds

Demystifying Keto

Examining the Latest Trend

PLUS...

- How to Fuel for Team Sports
- New Informed Choice Certifications





BIKING TO THE SUN

The historic Going-to-the-Sun Road crisscrosses its way across the Continental Divide just 45 miles from Hammer Nutrition headquarters. Every year, it takes plow crews weeks to clear the winter snowpack. As they work, the road opens for a few precious days to cyclists, but not to vehicles. It's a dream ascent through the towering peaks of Glacier National Park. Pictured here, two cyclists ride in front of Haystack Creek.

Photo: Josh Osborne



Welcome to the 121st issue of Endurance News!

This issue is similar to the previous 120 issues in the sense that we've updated just about everything in the magazine and will continue to do so with each subsequent edition you receive. I hope you notice fewer typos and grammos due to the added assistance of long-time sponsored athlete Carol Newman Cronin. So, whether this is the first issue or the 121st you're reading, I hope you enjoy it and share your feedback with us (positive or otherwise). As usual, we stuffed this issue full of content that I believe will be of interest and benefit to you.

Racing coverage is a bit slim for this time of year, but we've found a few races to share with you. Speaking of updating, refining, and changing, you'll find a lot of that in this issue as well—new flavors of **HEED®** and **Recoverite®**, new **CBD Softgel Sample Packs**, and so much more. Of course, no installment of *Endurance News* would be complete without at least one or two hard-hitting articles on the evils of sugar and artificial sweeteners. So, those are in here, too.

CHANGE

It's a subject that I ponder often. People like innovation and new things, but they tend to be resistant to change. That presents real challenges for me as an innovator leading a pioneering company that is constantly changing. It brings to mind the old saying about not being able to please all the people all the time. Even my staff gets tired of the pace of change around here. In fact, I am prone to saying, "The only constant at Hammer is change." And I mean it. It's how I am wired; I simply cannot leave a product, system, or procedure alone if I know I can improve it. I've been labeled a perfectionist more than once, and I'm fine with that.

My point is that when I develop a brand-new product and introduce it to you, it's simple—you try it and you either like it or you don't. However, things get tricky when I revise/update/improve an existing product. Some people like the new version and some don't. The re-formulation of all flavors of **HEED**, **Recoverite**, and **Hammer Whey Protein** are prime examples. Many of you have reported how much the taste, scent, and color of the products have improved. Of course, we've also heard from a few of you that you hate the new flavors. Just know that I lead taste testing and give final sign-off. So, if you don't like the new versions, blame me—I apologize.

Regular readers will have noticed that Dr. Bayne French has begun writing for *Endurance News* and has joined Hammer as our Chief Medical Advisor. He's not your typical MD and has some very distinct ideas on dietary habits that produce optimal health and athletic performance. Based on his education, credentials, athletic resume, and ultra-lean, muscular physique, I think he's worth a listen.

While Dr. French and I do not agree on all things diet, we do agree 100% that reducing/eliminating sugar and most grains from your diet is your best option for health and vitality. Heck, I have been preaching this for over three decades. So, no matter the name of the diet, IF it causes you to abstain from BAD CARBS and seek healthy whole fats, proteins, and vegetables as the bulk of your calories consumed, I like it!

Enjoy the read, and then pass this along to a friend or two.

Brian Frank
Brian

ON THE COVER: Nick DiNapoli pushed past a few riders on the last lap to place 3rd OA Pro/Expert at XC Sufferfest in Monterey, CA on February 23rd, 2020. Nick fueled his podium win with **Mango HEED®**, **Hammer Gel®**, and **Recoverite®**. Photo: Dustin Vaughn-Luma

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

Joseph Perry, Miles Frank, Dr. Bayne French MD DC

Laura Labelle, Dr. Kirstin Lauritzen DC MS

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 accessed 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 our complete mission statement online at hammernutrition.com/company/mission-statement



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

©2020 Endurance Marketing Group. This information is copyright protected. Please feel free to distribute this information as long as the copyright notice, phone number, and/or URL are included. Content must remain unchanged and original authorship acknowledged.

4952 Whitefish Stage Road
Whitefish, MT 59937

800.336.1977 • hammernutrition.com

In this issue, find out how fueling can make you feel great.

Read more on pages 12, 14, 18, 32, and 46



Erik Armes snags a cup on his way to winning the Clermont Draft Legal U25 Elite Development Race in 2019. The entire Armes family has fueled with Hammer for over 15 years. Erik continues to fuel with Hammer and is currently training to make the US Olympic team.

Photo: Tony Smoragiewicz

10 The Atypical Athlete: Seve Stember

12 The Perils of Loading

BY BRIAN FRANK

14 Moto Sports Fueling

BY BRIAN FRANK

20 Demystifying Keto

BY DR. BAYNE FRENCH MD DC

26 New Recoverite®

28 New CBD Samplers

30 New Cherry Bomb HEED®

38 5 Signals Your Body Needs Rest

BY DR. KIRSTIN LAURITZEN DC MS

44 6 Questions with Hammer Athletes

46 How to Fuel for Team Sports

48 Stay Away from Sucralose

52 Recover with CBD

by STEVE BORN

54 Hammer International

4 Publisher's Note

6 Starting Lines

8 #howihammer

16 Ask Hammer

18 Product Spotlight: Hammer Gel®

24 Product Spotlight: Whey Protein

32 SOS: Electrolyte Replenishment

34 Laura's Kitchen: Poached & Easy

40 Aid Station

42 Coffee Helps Digestion

50 33 Years of Memories

56 From Our Athletes

58 Finish Chute



18

Complex carbs, all-natural ingredients, and a pH-balancing formula make **Hammer Gel** the best source for long-lasting energy in a convenient, tasty, concentrated form.

50



33 YEARS OF HAMMER NUTRITION MEMORIES
Matthew Seymour competes in the 2009 Escape from Alcatraz Triathlon. Look back at decades of memories from E-Caps and Hammer on **page 50**.

A LETTER FROM CALEB PITTMAN

"So stoked to have discovered your company and excited to use your products for years to come!"



Caleb Pittman on a training run through wild flower fields in Austin, TX. Caleb can rely on all of his new Hammer products to keep his cool in the infamous West Texas heat. Photo: Megan Willin

Hi Brian!

Quick note: Never in my life have I been forced to send the owner of a company a feedback message.

I recently received my first order from Hammer Nutrition and can say, without having tried a single product yet, that I will be a Hammer Nutrition customer FOREVER.

I'm training for my first trail 50K out in West Texas. The training is going great, but the how-to-fuel part is pretty overwhelming. A few folks here in Austin pointed me toward your company so I figured I'd fire off an initial order of a variety pack of the gels.

I was literally almost moved to tears when I received this package (on my birthday no less) packed TO THE GILLS with not only additional products but also supplemental (no pun intended) info on how to use them and how to fuel for endurance sports in general. I'm already excited to go after more races using y'all's products.

Whoever runs your customer loyalty/service/fulfillment/marketing—basically whoever is responsible for this—I give them 1000 thanks.

So stoked to have discovered your company and excited to use your products for years to come!

Cheers,
Caleb Pittman

SEND US YOUR LETTERS!

Drop us a line, share a tip, or tell us about your latest adventure.
letters@hammernutrition.com

SHARE YOUR REVIEWS ON FACEBOOK!

We welcome your reviews our Facebook page and write a review! We check our page daily and enjoy hearing how Hammer Nutrition has helped you.
KEEP HAMMERING!

facebook.com/hammernutrition



ESSENTIAL KNOWLEDGE

GET YOUR **FREE** COPY TODAY!

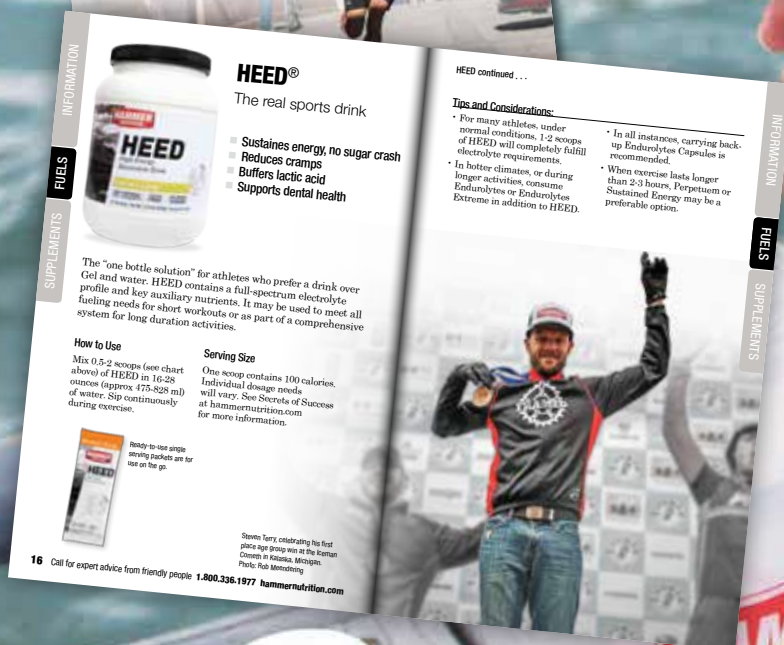
800.336.1977 • hammernutrition.com

HOW TO HAMMER

Endurance Fuels and Supplements Product Manual



The **HOW TO HAMMER Product Usage Manual** supplies all the vital information you need to use Hammer Nutrition products for maximum benefit. This is the final word on usage, with both the advanced details and specific applications you need to Hammer to the next level.



#howihammer



pedals_packs_and_pinots • Follow ...



Ben Handrich Couldn't have spent a three-day weekend with better company than @theadroitman and @sethcjd. 2 days. 200 miles. Rough dirt and gravel roads in a part of Washington you've never been to.



jasonmpoole • Follow
Bergen Peak, Evergreen, CO



Jason Poole Choosing the least-obvious route to Bergen Peak...to avoid all the people! Loving the caffeine of the Espresso Gel.



the_happy_mama_project • Follow ...



Karin Reemts Even bigger pile o' visors



cynthia_runsalot • Follow ...



Cynthia Salazar Fueled with HEED and a Gel, but tasted more like mango hot tea about halfway in - still yummy!

HAMMER HAPPENINGS ON FACEBOOK, INSTAGRAM, & TWITTER. USE THE HASHTAG **#HOWIHAMMER** TO SHARE YOUR PHOTOS!

RACE RECIPE

JOSHUA HERNANDEZ

Big Side of Texas Round 2 WTMX



Josh Hernandez took to the track in blistering 105°F heat for his first race in months. The day started slowly as deep, sloppy conditions compounded on Josh's fatigue from a heavy week of training. He relied heavily on HEED to push through and find the energy to pull off the win in all four of his races. Photo: Bekah Hernandez

FUELING RECIPE

PRE-RACE

Espresso Hammer Gel®

DURING

**HEED®
Endurance BCAA+
Cola Endurolytes® Fizz**

RECOVERY

Vegan Recoverite®

RESULTS

Big Side of Texas Round 2 WTMX
1st Place Overall 250 Pro
1st Place Overall 450 Pro



kaihao123 • Follow

Kuala Lumpur, Malaysia



Kai Hao Chen Thanks @hammernutritionmy for supporting our training group - visit them to get your best nutrition.



michaeld42.195 • Follow

Blue Mountains (New South Wales)



Michael Daly A nice run out to Fortress Rock, the Blue Mountains of New South Wales, for some more stunning views.

THE ATYPICAL ATHLETE

“The high peaks are coming into season, and I’ve certainly had a lot of time on my hands to set some goals that challenge me.” - Sevve Stember

Nestled in the Front Range of Colorado are many trailheads, wildlife preserves, state parks, and national parks that provide an ample playground for mountain athlete Sevve Stember.

Sevve has approached his plans this year fluidly, setting goals but responding to inspiration and the subtleties of where his psyche is. During the tough times we all faced in March and April, he stayed happy and sane by building his base fitness with trail running, scrambling in the Flatirons just west of Boulder, and working on his garden.

In May, with Colorado opening up, he could pursue further endeavors in sport climbing, a form of climbing that involves clipping into fixed hardware that was placed in the rock by a first ascent party. Additionally, he has been working on the mental training side of things, using Eldorado Canyon to gain trust and confidence in his ability to place his own gear—and even falling on it when necessary. This has been an invaluable opportunity for improvement, which he will be able to take into the high alpine setting later this season.

The early summer goal is to conquer “The Barb” in Spearhead, a section of Rocky Mountain National Park known as Glacier Gorge. Of the mapped routes in RMNP, “The Barb” is on the harder end of the spectrum, rated 5.10, and it’s usually the first to be available early in the season, as it dries in the alpine sun. This sheer face of granite offers northwest facing ledges with nothing but snow fields below. Once the technical climbing is done, there is still a loose rock scramble to the true summit of Spearhead.

In addition, if all goes according to plan, Sevve and his climbing partner, Matt Sahli, will attempt a route both have been eyeing for years on Hallet Peak. Rated 5.11c, it will test the team’s route-finding abilities, mental and physical strengths, and communication. The training in the Front Range will certainly help them prepare for this next objective.

For their particular combination of trail running, scrambling, and speed climbing, Sevve and Matt are always looking to shave weight from their packs and time from their ascents. On the days leading up to a big climb, Sevve takes **Hammer CBD Tincture** before bed to help get optimal rest ahead of what is sometimes a 10-12+ hour day in the mountains.



Sevve nearing the crux pitch of Solid Gold at his home crag, Clear Creek Canyon. With hundreds of routes on hand, Sevve is never bored.

Sevve says **Perpetuem®** solves the biggest fueling issue. “When I’m climbing all day, I need to keep calories coming in without eating too many sugary products or having to stop and dig something out of my pack. It’s nice to drink something that’s both calorie-dense and not too sweet.”

He also brings along a Katadyn BeFree water filtration system, which helps shave pounds of water off of pack weight and quickly filters out bacteria as well as sediment from any freshwater source.

“It’s a really exciting time of year,” Sevve said. “The high peaks are coming into season, and I’ve certainly had a lot of time on my hands to set some goals that challenge me. It’s been super joyful to reconnect with the sport I’ve loved and been inspired by for over 16 years. Not only that, but I’m at a point in my mountain career that allows me to start actualizing climbing routes and ridgeline scrambles that I’ve only dreamed about because I am applying years of learning experiences. I feel fortunate to have access to our public lands, where I can move my body in a way that feels like my form of art.” **EN**

HAMMER GEL[®]



"I LOVE HAMMER GEL!"

*"I use **Hammer Gel** both before and during training and races; it tastes great and gives me the energy I need." - Online Reviewer*



Purchase a
26-Serving Jug
and get a
FREE HAMMER FLASK

SMOOTH, SUSTAINED ENERGY

No sugar crash, and deliciously convenient

26 Serving Jugs **\$19.95 ea**
Single-serving packets **\$1.40 ea**



Hammer-Sponsored Athlete **Seve Stember** cross-trains with a trail run in Arvada, Colorado. Whether he's mountain climbing or running, Seve always relies on Hammer to get him through.

Photo: courtesy Seve Stember



Get a **FREE** 13 Tablet Tube of FIZZ
with any order
Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com
800.336.1977

The Perils of Loading

by BRIAN FRANK



You have almost certainly heard experts and veteran athletes say you should “race like you train” and “never try something new on race day,” right? Evidently, most athletes don’t think this applies to the days leading up to the event too. I constantly see athletes massively changing their calorie, fluid, and sodium intake just before a big endurance event, competitive or not. **These practices contradict the old adages and human physiology!**

The simple truth is that maintaining constant calorie, fluid, and sodium intake while simultaneously reducing expenditures in the taper phase leading up to your event allows you to “load” all of these things as much as possible.

Hopefully, you have read our fueling booklet, *The 5 Secrets to Success*, and incorporated those practices immediately prior, during, and after your training and racing routine. **But what do you do in the 72 hours prior to race morning?** Keep reading for the answers.

In the old days, athletes were erroneously told that consuming copious amounts of calories, fluid, and sodium during endurance events would allow them to achieve optimum performance. 400-600 calories, 40-60 ounces of fluids, and 1-3 grams of sodium per hour were recommended in the ’80s. Whenever exercise or competition went beyond three hours, stomach and GI problems were almost universal. Today it’s rare to find anyone still advocating these crazy numbers, at least in this country. Europe and Asia are another story.

As you know if you have read our literature, hourly intakes of 120-180 calories, 20-25 ounces of fluids, and 400-600 mg of salt (sodium chloride)—as part of a full-spectrum electrolyte replenishment product—are more reasonable and effective upper limits. We’ve been advocating this for three decades, and these numbers are now more or less the accepted wisdom of the crowd.

Unfortunately, the myths regarding “loading” in the days leading up to a big, hot event are still surprisingly pervasive. So, let me dispel this one more time and help you avoid making these mistakes.

WHEN YOU HAVE A BIG EVENT, COMPETITION, OR ADVENTURE, DO NOT ATTEMPT TO:

- **Load Carbohydrates**
- **Load Water**
- **Load Sodium**

IT DOESN'T WORK

X CALORIES

We typically eat too much already. Increasing calorie intake during days of lower physical activity before an event only makes more work, fills your stomach and intestines, and likely leads to increased fat storage.

X FLUID/WATER

We are not camels and cannot store water. Suddenly increasing daily intake by more than 10% will overly dilute the electrolytes in your blood, which increases the potential for serious issues associated with hyponatremia. Additionally, all that unnecessary water will excessively fill your bladder, causing you to prematurely lose electrolytes courtesy of frequent elimination.

X SALT/SODIUM

Again, we typically consume too much. Increasing it even more will not improve heat tolerance. In fact, it puts the body into survival mode where it seeks to jettison the excess to avoid toxicity. Whatever your normal daily sodium intake in the weeks prior to an event, keep it the same all the way up to race start. Then, from the start of the event, consume reasonable amounts throughout.

THE IDEA OF “LOADING” ANYTHING IN THE DAYS PRIOR TO A BIG EVENT IS NOT ONLY OUTDATED BUT COMPLETELY COUNTERPRODUCTIVE. DON'T DO IT!

What About LIQUID ENDURANCE?



YES!

When it comes to fluids, drinking excess amounts only increases the risk of overly diluting blood levels of sodium and other electrolytic minerals.

That said, there is a way to maximize cellular fluid storage, and that's via the glycerol component in **Liquid Endurance**. Glycerol is a naturally produced metabolite of fatty-acid oxidation, and it absorbs rapidly when taken with water or **HEED**®, increasing the water content in blood, cells, and extracellular spaces. All three of these compartments contribute to sweat volume, resulting in a significant increase in cooling efficiency during prolonged exercise.

The key to maximizing—not over-supplying, but naturally maximizing—how much fluid the cells can hold is to use a specific amount of **Liquid Endurance** in a specific amount of water (ranging from 16-28 ounces) for a three-day period prior to a hot-weather workout or event. Follow product dosage instructions for best results. **EN**

FULLY CHARGED

Pre-Exercise Ignitor



**“GO LONGER,
GO STRONGER!”**

“Fully Charged has become a game changer for me on big training days and races. It keeps my legs moving without fatigue.”
- Online Reviewer

- Increases energy
- Promotes mental acuity
- Improves power output



6 Singles **\$8.95**
24 Singles **\$34.95** 30 Servings **\$34.95**

Barbora Kršmaru, a member of the Hammer OCR Team in the Czech Republic, maintains a steady stride with **Fully Charged** during Gladiator Race Lanškroun. Photo: Miroslav Kubena



Get a **FREE** 13 Tablet Tube
of FIZZ with any order

Use Promo Code **EN121CF**

hammernutrition.com 800.336.1977

Limit one per
customer. While
supplies last
Expires 10.31.20



Novel Fueling Methods

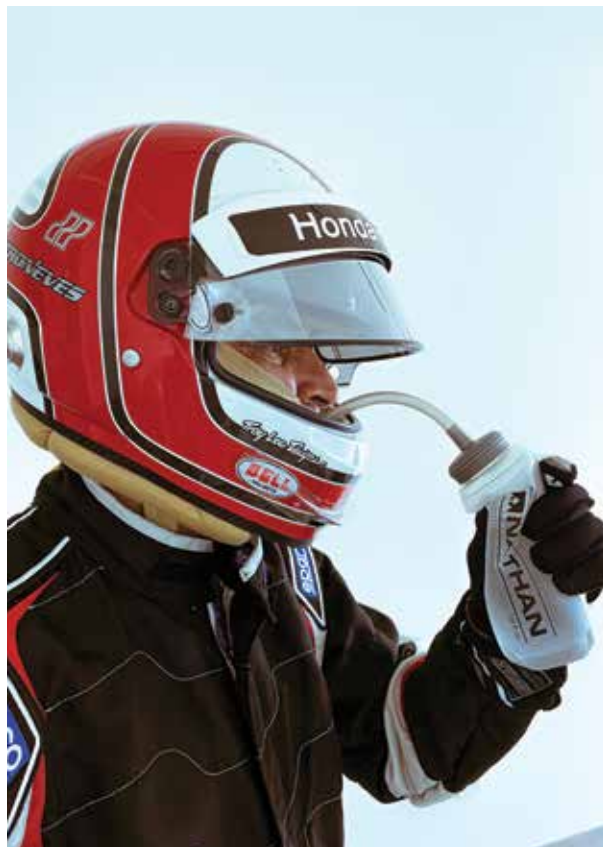
by BRIAN FRANK

Many of you participate in sports that can present logistical challenges when it comes to fueling during competition. Runners know well the challenges of carrying enough calories, fluids, and electrolytes while running. And when both hands are in constant use and you're wearing a full-face helmet, it's even more complicated. Working directly with some of the top racers in the country, on both two wheels and four, I devised a "solution" to this age-old problem: soft flask fueling.

Take the Grand National Cross Country (GNCC) riders. A typical GNCC race lasts about three hours, and heart rates are over 160 the entire time. The riders stop only twice for 30 seconds each time, their only opportunity to consume anything other than some HEED mixed with Endurolytes Extreme Powder. The novel soft flask fueling system we devised makes it easy to consume this "Hammer Bomb," a perfect "pick me up" at those brief gas stops.

But, it's the endurance race car drivers that have it the toughest. Think of 24 Hours of Le Mans. In these races, a driver can be in the car for almost three hours with nothing but plain water on board. But they can load up on calories and electrolytes during their 30-second fuel stops, which occur approximately every 40 minutes. This is where the soft flask Hammer Bomb is a complete game-changer.

If you find yourself in similar situations or anywhere else that makes taking on fuel a challenge, the soft flask Hammer Bomb might be your ticket as well. EN



Three-time Indianapolis 500 Champion **Hélio Castroneves** tests out his soft flask fueling solution. Note: the flexible straw works from above or below the chin guard for quick fuel without taking the helmet off. Photo: courtesy of Hélio Castroneves

HAMMER BOMB INSTRUCTIONS

- **DO NOT OVERFILL!**
- Consume full mix during fuel stop
- Shake to combine
- Clean with soap and warm water



UltraFlask™ 500 ML \$19.00

 Endurolytes® Extreme Powder (1 scoop)	 Hammer Gel® (1-2 servings)	 Fully Charged (1 serving)	 Water (4-8 oz.)
---	--	--	---

PERPETUEM®

Endurance fuel for the long haul



“KEEPS THE WATTS COMING!”

*“I mix **Perpetuem** in my water bottles on 50+ mile rides, and get a smooth, constant source of energy along with happy muscles.” - Online Reviewer*

- Stabilizes energy & blood sugar
- Maximizes fat utilization
- Protects lean muscle mass

ORANGE VANILLA CHOCOLATE
STRAWBERRY VANILLA CAFFÈ LATTE

32 Servings **\$49.95**

16 Servings **\$29.95**

Single-serving packets **\$3.25 ea**



Billy Payne catches air on his way to winning the Over the Hump MTB Race.
Photo: courtesy Billy Payne



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977



You ask, we answer

Here are some of our most frequently asked questions.

QUESTIONS FROM OUR ATHLETES

ANSWERS FROM OUR EXPERTS



QUESTION

When I take **Premium Insurance Caps**, I notice that my urine turns bright yellow. I have heard that it's due to one of the B vitamins. Which one? What causes this and is it normal? Also, are there other things I should be aware of with some of your other products?

ANSWER

Vitamin B2 (riboflavin) is the culprit for the bright yellow color change in urine. Among its many functions, riboflavin helps co-enzymes break down carbohydrates, fats, and proteins. As the flavins in riboflavin metabolize foods containing those nutrients, they pass along flavin rings that have a neon yellow color. That's why, in many people, their urine can be a brighter yellow color after consuming carbs, fats, and protein. It just means that the flavins in riboflavin are doing their job.

This “bright yellow color” is even more pronounced if a person takes a multivitamin such as **Premium Insurance Caps** that contains riboflavin. It doesn't matter when they take this particular B vitamin; the brighter yellow urine effect will be there most of the day. The effect is normal and harmless.



OTHER NUTRIENT “QUIRKS”



Mito Caps includes r-alpha lipoic acid, which is a sulfur-containing compound. After you take Mito Caps, your urine may have a medium-to-strong sulfur smell, which is normal and harmless.



Tissue Rejuvenator and **Vegan Tissue Rejuvenator** contain MSM (methylsulfonylmethane), which is another organosulfur compound that may cause urine to have a sulfur smell.



Endurance BCAA+ and **Super Antioxidant** contain glutathione, which is classified as a tripeptide comprised of the amino acids cysteine, glycine, and glutamic acid. Cysteine is an organosulfur compound, so it is possible—though not as likely as with Mito Caps—for urine to have a sulfur smell after taking either of these two supplements.



Premium Insurance Caps and **Mito Caps** both contain Vitamin B6, which may cause urine to have a fishy smell.



Fully Charged contains beta-alanine. Along with the amino acid histidine, found in high amounts in the muscles, beta-alanine produces the dipeptide carnosine, which has extraordinary acid buffering/pH neutralizing effects. Carnosine is also a potent antioxidant and anti-glycating compound. When first ingested, beta-alanine may cause an itching/tingling sensation on the face and neck of some people. The effect is harmless (if it happens at all) and only lasts a couple of minutes. Repeated use of beta-alanine appears to diminish this effect.



Endurolytes® and **Endurolytes Extreme** both have ginger root, which is very soothing to the stomach. However, some of ginger's naturally occurring compounds—zingiberone and capsaicin—can have a burning effect on the mouth and throat if the powder comes in contact with them. That's why we do not recommend opening up the capsules and swallowing the contents, and it's why we do not include ginger root extract in **Endurolytes Fizz** or **Endurolytes Extreme Powder**. **EN**

MANY COMMON NUTRIENTS HAVE OTHER NOTICEABLE EFFECTS THAT ARE TOTALLY NORMAL AND HARMLESS.



QUESTION

Why does a 7-capsule dose of **Premium Insurance Caps** contain only 50 mg of potassium? That's only 1% of the Daily Value?

ANSWER

We, of course, want to include potassium in **Premium Insurance Caps**, as a multivitamin/mineral supplement would not be complete without it. However, the US Food and Drug Administration (FDA) limits non-prescription potassium supplements to less than 100 mg per serving, primarily because of concerns with numerous prescription medications that can increase potassium levels in the blood. This, along with too much potassium from supplements (but not potassium-containing foods), can potentially lead to excessively high levels of potassium in the blood, an adverse health condition known as hyperkalemia. Also, so many foods are rich in this mineral (see the chart on page 15 in Endurance News #77), that potassium via supplements is usually unnecessary. **EN**

hammernutrition.com/media/downloads/ENissue77.pdf

PREMIUM INSURANCE CAPS

Peak Health, Peak Performance



"FINALLY, A VITAMIN THAT WORKS!"

*"With **Premium Insurance Caps** I can tell a big difference! I have more energy, feel better, and am more alert. These are great!!" - Online Reviewer*



- Supports optimal health
- Boosts energy all day
- Supports immune function



HIGH POTENCY	SUPER HIGH POTENCY
Training < 8-10hrs/wk	Training > 8-10hrs/wk
120 Capsules	210 Capsules
\$21.95	\$37.95

Gabrielle Suver runs through the dawn fog at Weeki Wachee Preserve in Florida. Gabrielle uses **Premium Insurance Caps** to support her intense triathlon and duathlon training. Photo: Gregory Vasquez



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ with any order

Use Promo Code **EN121CF**

hammernutrition.com 800.336.1977

Limit one per customer. While supplies last
Expires 10.31.20



HAMMER GEL®

Premium fuel for long-lasting energy

by STEVE BORN

I have used Hammer Gel for over 20 years. While I've seen tons of energy gels come and go over that time—and, yes, I did test a few of them—I have ALWAYS stayed with Hammer Gel. The reasons are pretty simple: They taste great, they're not loaded with sugar, they're devoid of artificial ingredients, and—best of all—they flat-out work.

While Hammer Gel looks similar to a lot of the energy gels flooding the market, it's what's inside that counts. Just take a look at the labels on products from other manufacturers. If you see ingredients ending in “ose” (e.g., glucose) listed, that energy gel contains a fair amount of simple sugar. (By the way, ingredients like “cane syrup” and “honey” are also simple sugars.)

And simple sugar is one ingredient you want to limit as much as possible in your energy fuel and your diet! In addition to posing numerous and serious threats to your health, simple sugar causes rapid, performance-ruining swings in energy levels, as well as digestive distress.

Hammer Gel is formulated with complex carbohydrates (maltodextrin)—with trace-to-zero amounts of added sugar—to provide you with the quick-acting, long-lasting energy you're looking for without the stomach distress issues that so many other energy gels cause.

Here's why maltodextrin is a superior carbohydrate for energy production:

- **Maltodextrin has a Glycemic Index value of 100**, which is equal to glucose (100) and higher than sucrose (58-65) and fructose (12-25). Maltodextrin raises blood sugar levels as effectively as glucose and does

it faster than other simple sugars, a highly desirable effect during and immediately following exercise.

- **Maltodextrin provides a more stable, longer-lasting energy than simple sugars**, without the “flash and crash” that's normally associated with simple sugars. Fueling with simple sugars is like lighting a piece of paper on fire to get heat. Sure, you do get some, but it's quick, hot, and out: very short-lived! Conversely, maltodextrin is like putting kindling and wood on the fire; it burns longer and more evenly. And when the heat (energy) finally dies down, it's a much gentler drop.

- **Maltodextrin allows the body to digest a greater volume of calories than simple sugars**, without a delayed exit from the GI tract. This

practically eliminates the potential for stomach distress (no gut bombs!) while supplying the body with more calories for energy production. As one nutritional scientist states, “maltodextrin allows one to swallow more energy in less volume.”



They taste great, they're not loaded with sugar, they're devoid of artificial ingredients—and best of all—they flat-out work.

When simple sugars like glucose, sucrose, and fructose—especially in high amounts—are added to a complex carbohydrate product, these two carbohydrate sources digest in different solution concentrations. Simple sugar matches body fluid osmolality and can only be digested efficiently when it is mixed in calorie-weak solutions of 6-8%. Conversely, maltodextrin matches body fluid osmolality parameters in more calorie-dense, 15-18% solutions. The bottom line is that when you combine sizeable amounts of simple sugars with complex carbohydrates, you critically compromise the efficient digestion of both.

That's why most Hammer Gel flavors don't contain ANY added sugars. And those that do—primarily the nut-containing flavors—contain only about a gram or two of tapioca syrup to help balance the pH of the product.

You want to get the very most out of the time and energy you spend on your workouts and events. That's why it's essential to "feed the fire" with the highest quality fuel, not sugar-laden candy disguised as energy gels. Take it from me: after successfully using Hammer Gel for over two decades, I can personally assure you that it is the premium fuel your body craves so that it can perform at its best!  Photos: Drew Silvers



HAMMER BARS[®]

Real Fuel, Ready to Roll



"GREAT SOURCE OF FUEL"

"I love Hammer Bars for an additional source of fuel while doing my endurance events. My go-to-delicious fuel!" - Online Reviewer

- Reliable, long lasting energy
- Packable & easy to eat
- Suitable for all diets



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

Zach Martinez gets out for a training ride sporting his custom Hammer kit.
Photo: Jeff Martinez

 **ORDER TODAY!**

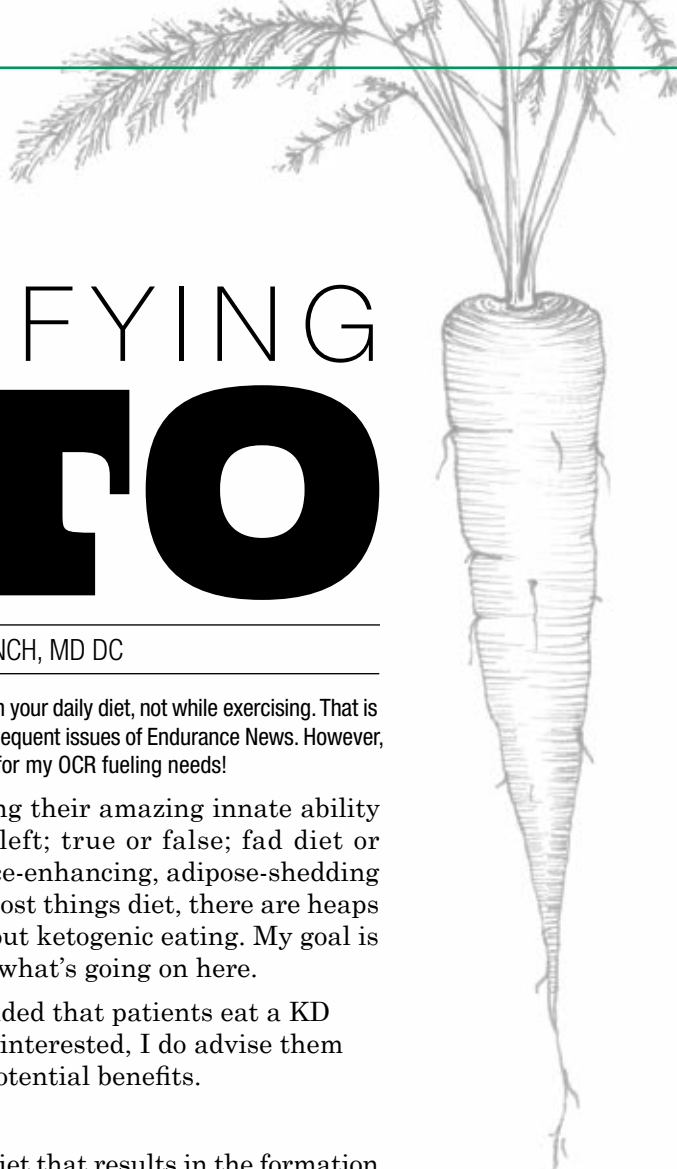
Get a **FREE**
13 Tablet Tube of
FIZZ with any order

Use Promo Code
EN121CF

Limit
one per
customer.
While
supplies
last
Expires
10.31.20



hammernutrition.com
800.336.1977



DEMYSTIFYING KETO

part 1. by DR. BAYNE FRENCH, MD DC

*It is worth noting here that I am referring to carbs consumed in your daily diet, not while exercising. That is beyond the scope of this article and will be addressed in subsequent issues of Endurance News. However, I will give you a hint: I use **Perpetuem®** and **Hammer Gel®** for my OCR fueling needs!

Now more than ever, sapiens are showing their amazing innate ability to be divisive: good or bad; right or left; true or false; fad diet or wonderful, ancient, panacea for performance-enhancing, adipose-shedding yummy, fatty bits of enlightenment. Like most things diet, there are heaps of misinformation, dogma, and emotion about ketogenic eating. My goal is to help you understand a little more about what's going on here.

Full disclosure: I have never recommended that patients eat a KD specifically for weight loss. But, if they are interested, I do advise them on how to implement it and its myriad of potential benefits.

BACK TO BASICS

Ketogenic eating is the consumption of a diet that results in the formation of ketones. It is not “you’re in it” or “you’re out of it” (sorry all-or-nothing sapiens); it is a spectrum. More ketones will be produced by any diet lower in carbs than our standard, government-recommended, American-Diabetic-Association-endorsed culinary lunacy. After a 24-hour fast, ketones are commonly 0.5 mmol (millimolar), and many authorities consider this “in ketosis.” A range of one to three mmol is mild-to-moderate ketosis. Fasting is the quickest way to elevate ketones. What we call fasting was starving for the Ancients, our fore-people from the beginning of the Paleolithic era. With both scenarios, ketones are produced. It passes the DIMADS (Does It Make Any Darn Sense) Test that ketones, therefore, do not represent a toxic byproduct; instead, they possess many useful biochemical properties that assisted our transition from the food chains’ midsection to its apex.

The ketogenic and paleo diets are closely related. In fact, being in ketosis was a very natural part of our Paleolithic history. Both diets drastically reduce carbohydrates. Relatively low carb eating is about 130 grams of carb per day or less. Significant ketone generation, however, requires less than 50 grams per day.

KETONE BENEFITS

- Improved insulin sensitivity
- Muscle sparing (helps prevent the breakdown of our skeletal muscle)
- Effects on gene expression (epigenetics)
- Upregulated internal antioxidant mechanisms, thus improving cellular defense
- Inhibited inflammatory pathways

- Inhibited gluconeogenesis (our bodies' production of sugar)
- Efficient metabolic fuel
- Increased efficiency and quantity of our mitochondria (our cellular energy factories)
- Reduced appetite
- Weight loss

WHAT'S A KETONE ANYWAY?

The metabolism or burning of fats is called beta-oxidation. As a result, acetoacetate and beta-hydroxybutyrate (BHB) are formed. These are our friendly ketones—cute little fellas, much-maligned and misunderstood. (Kinda like me.)

Burgeoning research suggests that ketones, especially BHB, helps to:

- **Reduce oxidative stress and inflammation**^{1,2}
- **Improve the pandemic of insulin resistance**³
- **Epigenetic effects on our gene expression**⁴

Our huge brains primarily burn glucose. However, that doesn't mean we need to eat glucose. We make glucose from other macronutrients in a process called gluconeogenesis. Our jumbo Central Processing Units can also burn ketones. Many patients, once keto-adapted, report to me that their brain fog is gone. Headaches, lack of sleep, mood, and other brain-induced problems also commonly improve.

HOW TO FOLLOW THE KETOGENIC DIET

Like all matters involving human eating, there is confusion and misinformation about the KD. Most people immediately picture bacon. I don't blame them; I think about bacon a lot, too. In reality, the KD is not a diet at all but rather a framework based on relative daily caloric percentiles of macronutrients. This means roughly 70% of daily calories should come from fat, 20%

from protein, and less than 10% from carbs. You might think, "Ugh, math." No, it's simple really. Eat lots of fat from varied sources, and eat some protein. Avoid potato, the Big 4 grains (wheat, corn, rice, and oat), and all forms of sugar. BAM, you're doing it! Some simplify the carby food to avoid as GPS (grain, potato, and sugar).

People who avoid ALL of the common carb sources listed above are most likely eating less than 50 grams of carb per day. It's an important place to be if your goal is to produce ketones. Being in this sub-50 club is considered very low carb and may not be sustainable for most endurance athletes. Eating "good carbs" that put you in the low carb range of 50-150 grams per day is a good longterm strategy. Many find this to be the sweet spot for athletic performance, palatability, and sustainability. Ketones will still be made in these carb ranges, especially if you're supplementing fat and ketones.

Coming soon on the Hammer blog and in the next issue of *Endurance News*:

- How to Eat Modified Keto while doing 10+ hrs/wk of Endurance Training
- What to Eat When You Want to go Low Carb

The KD, being more of a system than a diet, can be tailored to fit any eating pattern. The popular Mediterranean diet can be a KD. So

can a plant-based, vegetarian diet. What about the Standard American Diet (SAD)? Sorry, not that one—no hope for that one!

WHY PEOPLE LOSE WEIGHT ON THE KETO DIET

You may be thinking, "But isn't fat extremely calorically dense? Won't it go right to my hips?" Actually, weight gain has little to do with calories. Calories from carb spike insulin and calories from fat do not. Eating a low carb, higher fat diet eliminates the postprandial (after eating) blood sugar excursions that drive cravings and hunger. Also, carbs suppress our hunger hormone ghrelin the least. So when carbs are a staple, ghrelin levels quickly spike again after a meal, which drives hunger. Functionally, this mechanism makes sense and has served humans well through history. If we found berries, figs, or a grove of starchy cattail roots, we were hormonally triggered to EAT MORE. (That means we would fight baboons and short-faced bears, search and forage, or open the fridge over and over—whatever it takes to find more.) Over time, with carb restriction and enhanced fat consumption, your total caloric intake is naturally self-restricted, especially if mindfulness with food is practiced. (A future article on that is coming, but it's more than just what you're eating; it's how and when you're eating.) So even though a ketogenic diet is energetically dense, it's not at all unusual to consume FEWER overall calories in a day. *Continued on next page.*

The

The ketogenic diet, being more of a system than a diet, can be tailored to fit any eating pattern.

Continued from previous page

If you're already comfortable with the concepts that fat does not make us fat and fat does not clog our arteries, then congratulations. You are in rarefied air. If you're struggling with those ideas, then get some crackers and engineered low-fat cheese spread, find a comfortable chair, and read some of my past articles. Basically, any whole fat is good—tallow, lard, marrow, etc. Other excellent minimally processed fat sources include full-fat dairy (not milk) and oils (avocado, coconut, and olive). Find food that is organic, grass-fed, wild-caught, and free-running—insist on eating animals that ate their native food.

Many healthy foods contain carbs, including vegetables, nuts and seeds, fruit, dairy, and even meat. These amounts of carbs are negligible. Fruit intake should be fairly low. Aim for one to two servings per day that are chewed (not blended, mashed, or juiced) and eaten with fat sources.

“Even though a ketogenic diet is energetically dense, it's not at all unusual to consume FEWER overall calories in the course of a day.”

Vegetables vary in how starchy they are (glycemic index). Focus on less starchy ones, but beets, radishes, carrots, and yams CAN be part of a well-constructed KD.

GRADUALLY REDUCE CARBS AND INCREASE FAT

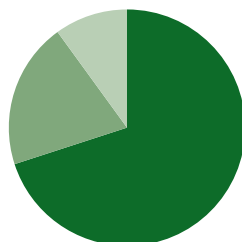
As mentioned, the fastest way to generate ketones is to simply not eat. If you're a carb eater, all I can say is good luck. Plummeting insulin levels result in a diuretic effect, so you'll be going like a racehorse. Also, our meager carb stores in the form of glycogen are linked with considerable water.

As we burn up our glycogen (which is important to allow burning and ketone liberation), water is liberated. Oh, and you'll experience backaches, trouble sleeping, headaches, and just overall want to kill me. Can you imagine our fore-people feeling this way? They would have had to hunt, travel, procreate, build, flee, and fight while feeling like they had been

hit by a mastodon. (It passes my DIMADS Test that treating carb as a staple instead of an occasional survival food is an unnatural event.) There is a latency in the transition from sugar burning to fat burning and ketone formation that results in several unpleasant symptoms. Remember, humans are effortless FAT STORERS. This is where the primitive brain wants to be today—silly, old-fashioned brain.

When carb is kept in its rightful place as a garnish, our bodies slowly and reluctantly transition to being FAT BURNERS, which is much healthier. To celebrate my own diet, I wear a tight-fitting half shirt that says, “I burn fat good.” (My 16-year-old hates it, but my 6-year-old wants a matching one.) Anyway, the uncomfortable transition can be ameliorated by a few weeks of gradual carb reduction and fat increase. Adding fat with medium-chain triglycerides (MCT) and using supplemental ketone salts (like KetoCaNa) help reduce symptoms by expediting ketone formation. Another method to expedite

KD is a framework based on relative daily caloric percentiles of macronutrients.



70% FAT
20% PROTEIN
10% CARBS

the process is the modern equivalent of starving—fasting. Just in the last few years, intermittent fasting (IF) has become mainstream. There is no shortage of podcasts, YouTube posts, and books on the subject, and there are many different methods and protocols. Here's a little secret, it's super easy.

The symptoms related to the non-adapted ketotic state has been termed the “Keto Flu.” Again, reducing carbs gradually as fat consumption is ramped up can prevent this. The correct amount of dietary sodium helps, too. Eating a low carb, high-fat diet without many processed foods is a very low sodium diet. For many people, 3-5 grams of sodium per day appears to be a good amount. Research has found that 5g of sodium per day was associated with the lowest risk of death from any cause.⁵ However, if you eat the SAD or are transitioning from the SAD, you will be REDUCING your sodium intake from the average of 10-15 grams a day.

If you are using a lot of “Keto” branded shakes, bars, and the like, be very mindful of checking for sodium content in these types of products.

IT'S OKAY TO BE HUNGRY

As part of misguided modern dietary advice, we have been programmed to eat regularly and avoid hunger. Conventional wisdom has told us to limit our portions but to eat regular meals, especially breakfast. I suggest that being hungry is a good thing and a very natural human=animal experience. Our mind and distorted physiology keep us from realizing our full potential as Great Starvers. Oh, and what about eating breakfast every day? It's not as essential as you've been lead to believe. In the morning you're just starting to burn a little fat, so keep it going! This is the underpinning

of fatty coffee. No insulin spike, feel good, fat burning continues. Even beyond skipping breakfast, hunger can be good. Back before more rigorous Institutional Review Boards,

Dr. Cahill at Harvard performed human studies involving subjects not eating for 40 days! (I'm told it rained the entire time.) Our modern understanding of hunger and eating patterns don't align with how our bodies operate and how the Ancients lived.

It takes 2-7 days to generate relatively high amounts of ketones, thus entering “ketosis.” It's not magic; all people are capable of this as it's a deeply natural human state. But it does not mean that you are “keto-adapted.” It takes weeks for the multi-organ adaptation in which the body fully learns how to effectively use ketones. It starts quickly, but it takes the body weeks and months to fully adjust. This is not a quick fix—it's a long-term lifestyle change. One carby meal can rapidly spin the dial back to fat storage.

SUMMARY

Don't get carried away with the technicalities of the KD or any diet. Any relatively low carb, higher fat way of eating results in lower insulin levels and some ketone generation. But to form higher levels of ketones, your diet choices will need to be more nuanced. I think these higher ketone concentrations do confer health benefits. What isn't clear to me is the validity of being in ketosis *all* the time.

It makes sense to me that evolutionarily we normally transitioned to and from higher and lower ketone levels. Herding the now-extinct North American Camel into a pit trap likely resulted in camel meat gorging—no ketones at that feast. A favorable late summery berry forage resulted in high insulin levels and fat formation, which is the an-

titheses of ketones. The convoluted point I'm making is that intermittently increasing ketone levels is fine.

To help avoid the Keto Flu (and the suggestion to use breath mints by basically everyone you share air with), make sure you drink plenty of water and consume ample salt, vegetables, and fiber.

There is nothing fad about an ancient physiological state. There's nothing trendy about possessing the cellular machinery to generate an alternative brain fuel, replete with other beneficial metabolic effects. I hope this cleared up any keto-confusion. I need to stop writing now, I haven't eaten in 5 days and have enough ketones as it is. EN



Dr. Bayne French, MD DC, is Hammer Nutrition's medical advisor. 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. He won the Masters division of the Bigfork, MT Spartan Beast (2016) and the Monterey, CA Spartan Super (2016). He competed in the Spartan World Championship Ultra Beast in 2016 and earned a 2nd place finish in his division.

WHEY PROTEIN ISOLATE

The Super-Versatile Superfood

A question we receive quite often at Hammer Nutrition is, “Which protein do you recommend the most?” While making allowances for an individual’s dietary practices and taking nothing away from other sources (e.g., vegan), our #1 pick is whey protein isolate, which is the kind we use in Hammer Whey Protein. Here’s why:

1. Superiority in protein measurement standards

No matter what measurement of protein quality is used, whey protein comes out on top, with whey protein isolate being the preferred form. Hammer Whey Protein is 100% whey protein isolate.^{1,2,3}

2. The richest source of all nine essential amino acids

Histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine are designated as “essential” amino acids because they cannot be made by the body and must be obtained from outside sources. Whey protein isolate has the highest volume of all nine essential amino acids, including the all-important branched-chain amino acids (BCAAs).^{3,4}

3. Extraordinary immune-system boosting properties

Whey protein contains excellent levels of glutamic acid, cysteine, and glycine—the three amino acids required for glutathione production. Glutathione is considered by many experts to be the most important antioxidant of all.^{5,6} Additionally, whey contains special proteins called immunoglobulins that stimulate immune function.

4. Protection against type II diabetes

Typically, a high-fat diet produces excessive weight gain, along with metabolic complications associated



Ryan Sipes mixes up a vanilla protein shake.
Photos: Danny Stuart

with a greater risk for type II diabetes. In one study, mice were fed a high-fat diet for 11 weeks. One group received no whey protein, while the other group was fed 100 grams of whey protein per liter of drinking water (equivalent to about 12 grams for a 165-pound human). The results showed that the mice fed whey protein had noticeable improvements in both glucose tolerance and insulin sensitivity, compared to control mice that did not consume whey protein.⁷

5. Safeguards against muscle mass loss and other age-related issues

A progressive loss of muscle mass and strength is called sarcopenia, which, according to research, “could lead to functional impairment, physical disability, and even mortality.” One study suggests that this progressive muscle mass loss begins in most people around the age of 40 and increases by an estimated 8% per decade.⁸ Decreased bone mass, suppressed immunity, cognitive impairment, prolonged recovery from injuries, and more are all associated with insufficient protein intake.⁹

Studies on participants consuming whey protein have shown increases in strength and lean muscle mass.^{10,11,12,13} Also, as an additional benefit in Hammer Whey Protein, each serving contains six grams of glutamine. Studies have shown that glutamine helps inhibit protein breakdown in muscle tissue.^{14,15,16}

6. Potential life-extending benefits

While the research is still in its infancy, studies have shown that whey protein isolate’s BCAA content mimics the health benefits of calorie restriction and increases the life span of yeast, worms, and mice.^{17,18,19}

7. Improved mood

Though not usually discussed among whey protein's chief benefits, research has shown that a fraction in whey protein, alpha-lactalbumin, raised brain serotonin activity and coping ability and improved mood under stress.²⁰

8. Reduced aches and soreness

Study subjects consuming 20+ grams of whey protein daily were found to have significantly reduced levels of C-reactive protein (CRP), which the researchers refer to as "a sensitive marker of inflammation."²¹

9. Weight-loss support

In a large study of nondiabetic men and women from various countries, researchers found that increased intake of BCAAs was associated with a lower adjusted risk of being overweight. The article "Reduce the Risk of Weight Gain—Branched-chain amino acids may help" discusses this in greater detail. You can find it on page 20 in *Endurance News* #74.

SUMMARY

Given all the benefits that whey protein isolate supplies, a change in its category from "protein powder" to "superfood" is certainly merited, so you'll want to make sure you're consuming sufficient amounts every day. **Protein intake from food and supplements should be in the range of 1.4 g/kg to 1.7 g/kg per day.** To get your weight in kilograms (kg), divide your weight in pounds by 2.2. Then multiply that number by 1.4 (for easy/non-work-out days) and 1.7 (for high-volume/intensity training). EN

HOT TIP

Consume one serving of Hammer Whey Protein mixed in 4-6 ounces of water (not juice or milk) immediately before bedtime. See "Elevate HGH While Sleeping" on our website for more details.

References available upon request

TISSUE REJUVENATOR

Less pain. More gain.



"DEFINITELY WORKS!"

*"I've been taking **Tissue Rejuvenator** for a long time now. I've always had hip soreness after long runs and this helps relieve it much quicker." - Online Reviewer*

- Targets muscle soreness
- Optimizes joint mobility
- Maximizes recovery



TISSUE REJUVENATOR
120 Capsules
\$32.95

VEGAN 120 Capsules
\$34.95



Ryan Ingham runs in Black Canyon, Arizona using **Fully Charged**®, **HEED**®, and **Hammer Gel**®. **Tissue Rejuvenator** is a key part of Ryan's recovery strategy. Photo: courtesy of Ryan Ingham



ORDER TODAY!

Get a **FREE** 13 Tablet Tube
of FIZZ with any order

Use Promo Code **EN121CF**

hammernutrition.com 800.336.1977

Limit one per
customer. While
supplies last
Expires 10.31.20



RECOVERITE®



Now in creamy
Caffè Latte
with
25mg of caffeine

*Shipping in September

BE CONFIDENT IN YOUR CHOICE. BE INFORMED.

When you find the **INFORMED CHOICE** logo, you can be assured that Hammer products are free of all WADA banned substances. These products are subject to monthly blind testing using ISO 17025 accredited methods.

INFORMED SPORT products are the pinnacle of confidence for elite athletes. Every single batch is tested using ISO 17025 accredited methods to verify the products are clean and free of any contaminants and/or banned substances.



- RECOVERITE® - ALL FLAVORS
- HEED® - ALL FLAVORS
- WHEY PROTEIN - ALL FLAVORS
- FIZZ - ALL FLAVORS
- ANTI-FATIGUE CAPS
- RACE CAPS SUPREME



- ENDUROLYTES® capsules
- ENDUROLYTES® EXTREME capsules

IT'S OKAY - IT'S KOSHER!

We are proud to announce our best-selling powders are all newly certified Kosher! When you see the KOSHER icon, you can be certain that each product complies with the strict dietary standard of Jewish law.

- RECOVERITE® - ALL FLAVORS
- HEED® - ALL FLAVORS
- WHEY PROTEIN - ALL FLAVORS



WHEY PROTEIN

Your Muscles' Best Friend



Thorn Bickel throwing down at the Mob N Mojave in Bootleg Canyon. He fueled with Hammer and finished with a win in his age group.
Photo: #SoStoked Aerial



“BEST WHEY PROTEIN EVER!”

*“Hammer’s **Whey Protein** powder is of superior quality and taste. Simple ingredients, not complicated!” - Online Reviewer*

- **Strengthens immune system**
- **Maintains muscle strength**
- **Repairs sore muscles**
- **Accelerates recovery**

24 Servings
\$42.95

Single Serving Packets
\$2.95 ea

- VANILLA
- CHOCOLATE
- STRAWBERRY
- UNFLAVORED



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ
with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com
800.336.1977

Total Intro Pack

\$22.95



BRAND NEW CBD SAMPLERS

6-Day Ramp-Up Intro Pack

\$18.95

Fluctuate your CBD dosage with precision by combining 25 mg and 10 mg softgels over a 6-day period.

- Day 1: 10 mg
- Day 2: 10 mg
- Day 3: 20 mg
- Day 4: 25 mg
- Day 5: 25 mg
- Day 6: 50 mg

The new CBD Softgel Sample Packs are now available! The softgels are the most popular version of Hammer's Gold Standard CBD. Since we introduced CBD over two years ago, thousands of Hammer clients have tried it and enjoyed countless benefits like better sleep, less soreness, faster recovery, and boosted mood. However, we constantly hear from clients that they want to start small with CBD. That's why we developed CBD Softgel Sample Packs. Now everyone can test CBD with these 4-count softgel packs at an extremely affordable price. We know you'll experience good results, which is why our CBD is backed by a 30-day Satisfaction Guarantee. For best results, try the Ramp-Up Intro Pack and follow the instructions for how to find your ideal CBD dose. EN



25 mg CBD Sample
\$12.95



10 mg CBD Sample
\$6.95

HAMMER CBD

BEST Quality, BEST Price, Guaranteed!



"GREAT PRODUCT WITH GREAT RESULTS!"

"I am sleeping like a baby and my recovery has definitely improved since using Hammer CBD daily."

- Online Reviewer

- **Aids quality sleep**
- **Boosts recovery**
- **Soothes soreness**



Balm starting at **\$3.95**

Oil Tinctures starting at **\$19.95**

Softgels starting at **\$6.95**



Mindy Przeor rides up South Mountain in Phoenix, Arizona. Photo: Mark Allen



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ
with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977



IT'S COMING!

CHERRY BOMB

HEED[®]

shipping in September

- An explosion of fresh cherry flavor
- A burst of caffeine: **25mg**
- Enhanced with a **500mg** blast of taurine
- The same steady energy you expect from HEED



HEED[®] Sugar-Free Fuel



"ENERGY AND ELECTROLYTES IN ONE DRINK"

"The best things about **HEED** are that it's not overly sweet and tastes great! I can drink **HEED** all day long!" - Online Reviewer

- Sustained energy
- No sugar crash
- Buffers lactic acid

Single-serving packets **\$1.95 ea**
 16 Servings **\$19.95** 32 Servings **\$29.95**
 80 Servings **\$64.95**

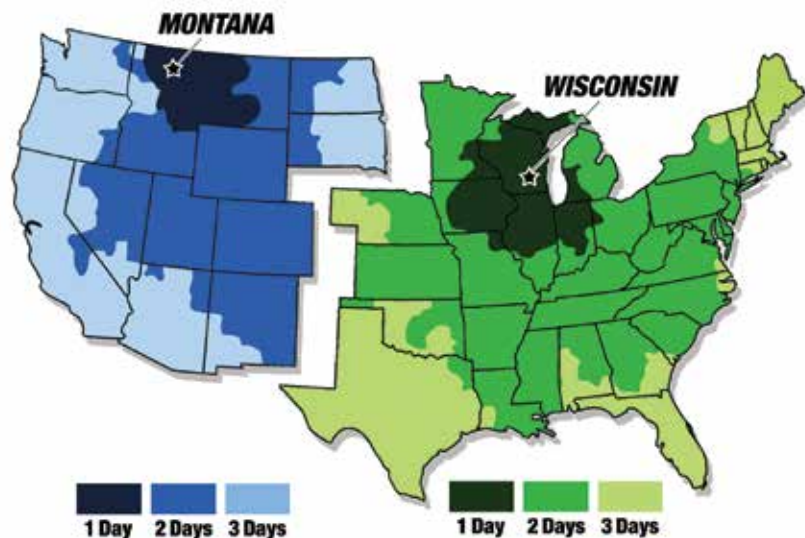
■ LEMON LIME ■ MANDARIN ORANGE
■ STRAWBERRY ■ MELON ■ CHERRY BOMB



12-year-old **Hudson Barry** training for his next race. Hudson likes **Lemon Lime HEED**, and also fuels with **Endurance BCAA+**, **Endurolytes[®]**, and **Recoverite[®]**. Photo: Troy Barry

ALWAYS FAST SHIPPING!

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



Product	Flavor/Color	Size	Price	Quantity	AMOUNT

ORDER TODAY!

Shipping rates:

Order Total Ground FedEx

\$0 to \$39.99 \$4.95
 \$40 to \$99.99 \$7.95
 \$100+ **FREE!†**
 Shopping Local **NONE!**

Subtotal _____

Shipping _____

Tax _____

See chart at left

TOTAL _____

Method of Payment (circle one)

Check / MO • Visa • MC • Discover • AmEx

Card # _____

Exp. _____

Verification # _____

Signature _____

800.336.1977 • hammernutrition.com

†Free shipping only applies to shipments to a street address (no PO boxes) within the 48 contiguous states of the U.S.

SOS 5 Secrets of Success

#4 ELECTROLYTE REPLENISHMENT

In addition to replenishing calories and fluids, proper fueling during exercise requires consistent and adequate electrolyte support. While it's usually easy to get your calorie and fluid needs dialed in, proper electrolyte replenishment requires a bit more effort. This is because your specific electrolyte requirements will not only differ from another athlete's—sometimes by a lot—but will also change constantly, depending on your fitness level, acclimatization level, and training duration and intensity. In fact, changes in the weather may alter your electrolyte requirements during a workout or race, so that what you need at 2 p.m. may be completely different from what you needed at 9 a.m.

Many athletes neglect consistent electrolyte replenishment because they've "never had cramping problems." But even if you've never suffered the painful, debilitating effects of cramping, you still need to provide your body with a consistent and adequate supply of electrolytes. Why? Because proper function of the digestive, nervous, cardiac, and muscular systems depends on adequate electrolyte levels. That's why we're fond of saying that electrolytes are comparable to the motor oil in your car—they don't make the engine run, but they're required to keep everything running smoothly.

Now, let's get back to muscle cramping. Though there are many theories as to why it happens, it



Local OCR phenom, Camry Penrod, shows off her fuel.

usually involves improper hydration and/or improper electrolyte replenishment. No one wants to cramp, of course, but remember, cramping is a long way down the road of electrolyte depletion. You never want to reach that point, it's extremely painful and your performance has already been severely compromised for some time. Just as you don't wait until you're dehydrated or bonking before you replenish fluids or calories, don't wait until you're cramping before you replenish electrolytes.

BOTTOM LINE: The consistent replenishment of electrolytes is as important as the calories you consume and the water you drink during exercise.

SALT IS NOT THE ANSWER

Salt tablets are an unacceptable choice for electrolyte replenishment for two important reasons:

- 1) They can oversupply sodium, overwhelming your body's ability to regulate electrolyte and fluid balance.
- 2) They provide only two electrolytes—sodium and chloride—when your body requires a full array of electrolytic minerals.



THE ANSWER?

THE HAMMER ENDUROLYTES® FAMILY OF PRODUCTS

Proper electrolyte replenishment during endurance exercise requires a gradual, consistent approach that incorporates all of the electrolytes—not just salt—and in amounts that do not override normal body mechanisms. Hammer Nutrition's **Endurolytes** products help your body maintain proper electrolyte levels no matter the conditions or duration of exercise. They allow your body to perform better under the demands of exercise by:

- Ideally fulfilling the body's electrolytic mineral requirements
- Optimizing multiple bodily functions
- Helping you avoid the unpleasant issues associated with electrolyte imbalance

Whatever your weight, body type, fitness level, or what the weather throws at you, one of Hammer Nutrition's **Endurolytes** products will satisfy your body's all-important electrolyte requirements in ideal fashion, hour after hour. **EN**

When it comes to endurance fueling...

WE WROTE THE BOOK!



Get the answers you need to succeed with Hammer Nutrition's easy-to-read FREE fueling guide that will help you

Fuel Right, Feel Great!®

Powerful recommendations

Concise information

Time-tested advice

★★★★★ **“FOLLOWING THESE GUIDELINES WILL GIVE YOU EVERY OPPORTUNITY TO RACE TO YOUR POTENTIAL.”**

*“Great source of information! This is the perfect guide for how and when to use the full array of Hammer Nutrition's endurance fuels. As an Ironman athlete, having a proper fueling strategy can mean the difference between getting a Kona slot and getting a DNF. Use the **SOS checklist** before every race and you don't have to worry about getting it right.” - Online Reviewer*

DOWNLOAD YOUR FREE COPY TODAY!
hammernutrition.com/media/downloads/sos.pdf



Barbora Kršmaru celebrates her success after a podium finish at the Gladiator Race Czech Paradise. Barbora competes for the Hammer OCR Team in the Czech Republic. Photo: Barbora Kršmaru

FROM THE KITCHEN OF **LAURA LABELLE**

Poached and Fresh

Summer is when I want to spend as little time in the kitchen as possible. And I want my food to be light since I don't have much of an appetite in warmer weather. Lately, I have been using a lot of poached protein. I add it to the top of my favorite salads and veggie dishes or alongside yummy veggies. You can easily mix and match with so many delicious recipes in our new edition of "In the Kitchen with Hammer Nutrition." I'm going to share some fast and simple recipes so that you can diversify your cooking repertoire and learn fun new ways to enjoy healthy, nutritious food in the comfort of your own home.

When I poach chicken or fish, I like to start with a flavorful base. For chicken, I use stock or bone broth. I add fresh or dried herbs and boil for a few minutes before adding raw chicken to ensure the flavors will marry nicely with the chicken. It's also important to not overcook the chicken so that it doesn't become rubbery and dry.

Poaching fish is also a wonderful way to eat light and have fresh food with minimal preparation and fuss. I like to add chopped onions, shallots or garlic, and fresh or dry herbs to wine. Then I bring the wine to a rolling boil to cook out the alcohol and acidity. I use a frying pan to be sure I can lay the fish inside and retrieve it without breaking the fillets into pieces. I sometimes thinly slice citrus and place it on top of the fish with herbs for a beautiful presentation.

I also love to poach eggs and put them on a salad, toast, or a pile of steamed zucchini. When poaching eggs, I keep it simple with a pinch of salt and a drizzle of white vinegar. The trick to poaching eggs is to not boil the water too high. I bring the water to a rolling boil, and then reduce it to a simmer before adding the eggs slowly from a cup. I then use a slotted spoon to retrieve them once the white is firm and the yolk is still nice and soft.

Our new edition of "In the Kitchen with Hammer Nutrition" features many new recipes and is much more user-friendly. Our staff worked very hard to make the cookbook as colorful, appetizing, and simple as possible for your enjoyment and use. I'm very proud of this amazing collection of fast, easy, and affordable recipes.

Page 36 shows my recipes using the above techniques so you can try your hand at new cooking styles and broaden your culinary skills. Have fun with it!

EN

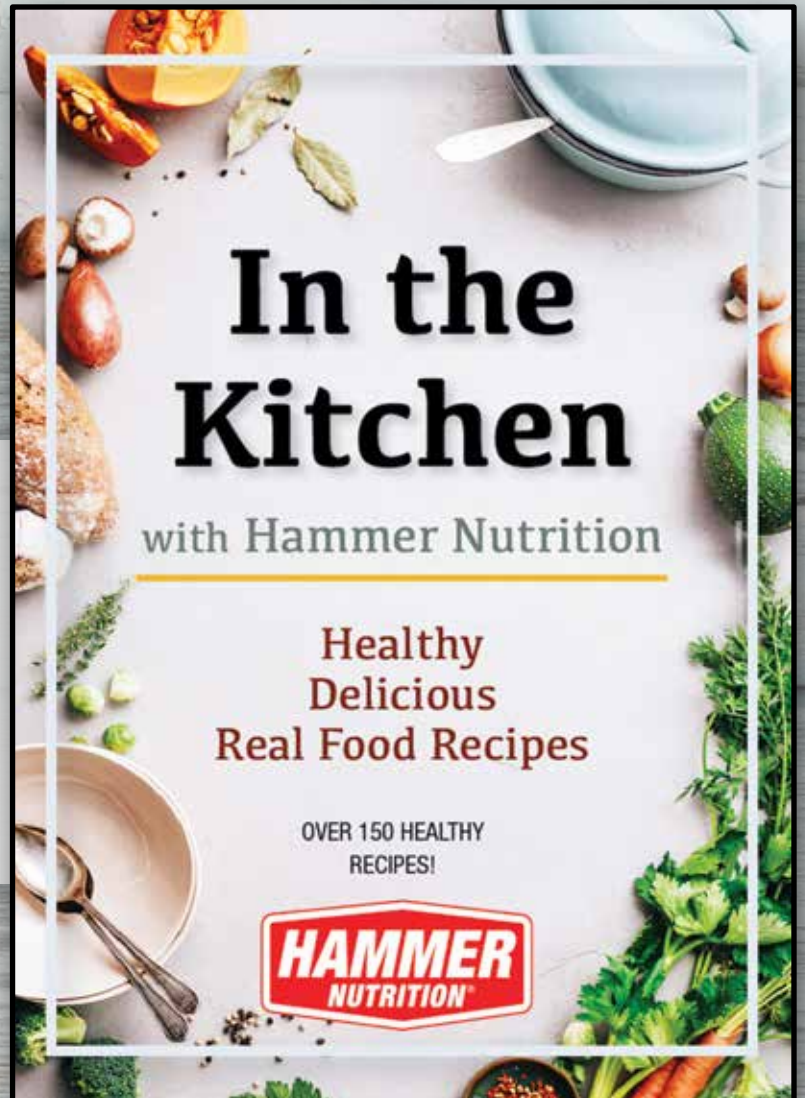


Acclaimed California-based chef Laura Labelle studied at *Ecole De Cordon Bleu* in Paris and received a "Grand Diplome" in cuisine and pastry. She has established two successful ventures, *Cafe Luna* and *Quality Food and Beverage* and also worked as a personal chef for various celebrities and

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

Deliciously Healthy Recipes

Over 150 pages of healthy, wholesome, and fresh ideas that you and your family will love!



Start cooking
the Hammer way
today!

Download your **FREE** copy today

hammernutrition.com 800.336.1977

FROM THE KITCHEN OF **LAURA LABELLE**

Poached Salmon

INGREDIENTS

2 half-pound salmon fillets
Fresh herbs
Thin lemon slices
1 onion, chopped
2 garlic cloves, diced
½ cup white wine
2 cups water
Salt and pepper

PREPARATION

In a frying pan, bring wine, onion, and garlic to a rapid boil. Reduce until most of the alcohol/acidity is gone. Add water and return to a boil.

Slowly add fish, flat and fully submerged in the pan. Place lemon and fresh herbs on top of the fish. Simmer for several minutes and remove from the fire. Let stand to finish cooking. Let fish settle before removing with a slotted spatula.

Poached Eggs

INGREDIENTS

4 large eggs (room temp)
1 Tbsp distilled vinegar
1 quart water
Pinch of salt

PREPARATION

Bring water to a boil, add vinegar and salt. Reduce to a simmer and pour in each egg one at a time. Cooking time is about 3-4 minutes, depending on how firm you like your eggs.

Remove from water with a slotted spoon and put on a paper towel or cloth to absorb excess water. Then serve as desired, on a salad, on toast, or over steamed or sautéed veggies, yummy!

Poached Chicken Salad

INGREDIENTS

One bag or large bunch arugula
Two medium heirloom tomatoes
One hothouse cucumber
½ cup toasted pumpkin seeds
2 boneless skinless chicken breast halves
2 cups chicken bone broth
1 sprig rosemary
1 sprig thyme
Salt and pepper

2 Tbsp chili oil
2 Tbsp toasted sesame oil
2 Tbsp avocado oil
2 Tbsp seasoned rice vinegar

PREPARATION

Wash and dry arugula and veggies, chop and put in a large salad bowl, refrigerate.

On the stove, in a shallow saucepan, bring bone broth and herbs to a boil. Simmer for a few minutes, and then add chicken breast halves. Cover and cook for about 10 minutes (depending on the size of the chicken pieces). Once the chicken is cooked, remove it from the broth and chill in the refrigerator. Chicken can be thinly sliced or shredded and added to salad. Toss with oil and vinegar dressing, top with pumpkin seeds, and enjoy!

Poached
Salmon





Poached
Chicken
Salad

Poached
Eggs

5 SIGNALS YOUR BODY NEEDS TO REST

by KIRSTIN LAURITZEN, DC, MS

What's going to help you get the MOST from the hard work you put in today? How can you get to race day, have limited-to-no pain, and be back ready to train a few days later? As athletes, we know recovery matters, but knowing when and what to do can lead to hours spent searching for the most recent research.

Recovery matters. It helps you prevent injury. It helps you stay in the game for a lifetime. It helps you stay healthy. Maximizing your potential starts with paying attention to the little things outside the gym. Here are a few signals that you may need to dial in your recovery.

1. You have delayed onset muscle soreness (DOMS) that doesn't end.

There are days to push through the pain. Not every day is going to be a day when you feel like you've come back from vacation. The issue is when DOMS lasts for 3-5 days after a tough workout and doesn't dissipate. You may be missing vital nutrients that your body needs in order to repair itself, or you may need an extra day of rest. Identify where the gaps are to help your body recover better so that you can get back to training faster.

2. You wake up fatigued.

Sometimes we don't sleep well; however, when you wake up fatigued every morning, it's time to take a deeper look. Are you being proactive with getting better sleep? You may need to look deeper into habits, nutrition, gut health, and optimizing other systems in the body.

3. Your heart rate variability app is saying you need to rest.

Track your heart rate variability, every morning before you get out of bed. Even if you don't have a geared-up watch, there are apps and simple heart rate monitors that you can use. Getting real data and matching it with how you feel will help optimize training and recovery.

4. Your joint stiffness, joint pain, and muscle/ligament pain are getting worse.

As a chiropractor, I work with athletes who have joint and muscle pain from injuries and training. Not every athlete gets to train and compete completely pain-free. But pushing through pain can also create larger issues. If your pain is getting worse, consider incorporating more physical medicine (physical therapy, chiropractic, massage) into your routine.

5. You aren't seeing improvement in your numbers.

Have you ever taken time off for vacation, come back, and hit your PR? That's the value of rest. Managing stress, taking quality supplements like **Recoverite®**, **Tissue Rejuvenator**, and **Endurance BCAA+**, and tuning up your nutrition are the best ways to optimize recovery and achieve your best results.



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 and is training for a full Ironman in St. George, Utah. For more information, check out her website: gymcall.com.



"GREAT RECOVERY MIX!"

"I use **Recoverite** after all my hard efforts. It has a great taste and a balanced ratio of carbs to protein to make the best recovery drink mix on the market!" - Online Reviewer

- Restores muscle glycogen
- Reduces soreness
- Reduces fatigue
- Rebuilds muscle strength

16 Servings \$34.95
32 Servings \$59.95
Single-serving packets \$3.50 ea



RECOVERITE®

Recoverite Today, Hammer Tomorrow



- ORANGE VANILLA
- VANILLA
- CHOCOLATE
- STRAWBERRY

COMING SOON

- CAFFÈ LATTE*

*Shipping in September

John Benham IV during his Shine Like Sable 24 Hour Ultra fundraiser. John organized this event to support a local non-profit by asking for donations on a per-mile basis. He ended up running over 100 miles with **Perpetuem**®, **Anti-Fatigue Caps**, **Endurance BCAA+**, and **Endurolytes**® powering him through. He raised over \$3,000. Photo: Griffin Miller



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977

AID STATION

SODIUM

The Real Villain

by STEVE BORN

Every once in a while, I come across a study where—in addition to presenting the evidence—the researchers don't pull any punches in stating their viewpoints. That's the case with this study, "Sodium Intake and Target Organ Damage in Hypertension—An Update About the Role of a Real Villain." Check out this verbiage in the researchers' abstract, which I've taken the liberty of breaking into ten separate statements for clarity and emphasis:¹

- 1 Salt intake is too high for safety nowadays. The main active ion in salt is sodium.
- 2 The vast majority of scientific evidence points out the importance of sodium restriction for decreasing cardiovascular risk.
- 3 International Guidelines recommend a large reduction in sodium consumption to help reduce blood pressure, organ damage, and cardiovascular risk.
- 4 Regulatory authorities across the globe suggest a general restriction of sodium intake to prevent cardiovascular diseases.
- 5 In spite of this seemingly unanimous consensus, some researchers claim to have evidence of the unhealthy effects of a reduction of sodium intake, and have data to support their claims.
- 6 Evidence is against dissenting scientists because prospective, observational, and basic research studies indicate that sodium is the real villain: actual sodium consumption around the globe is far higher than the safe range.
- 7 Sodium intake is directly related to increased blood pressure, and independently to the enlargement of cardiac mass, with a possible independent role in inducing left ventricular hypertrophy. This may represent the basis of myocardial ischemia, congestive heart failure, and cardiac mortality.
- 8 Although debated, a high sodium intake may induce initial renal damage and progression in both hypertensive and normotensive [normal blood pressure] subjects.
- 9 Conversely, there is general agreement about the adverse role of sodium in cerebrovascular disease.
- 10 These factors point to the possible main role of sodium intake in target organ damage and cardiovascular events including mortality.

This latest review of 135 published research articles includes one published six years ago in the *New England Journal of Medicine*. That particular research presented the same "sodium is the villain" sentiment as this review, stating that an estimated **1.65 million cardiovascular deaths occur each year due to sodium consumption** above the World Health Organization's (WHO) recommendation of 2.0 grams (2,000 milligrams) per day.²

That exhaustive research from 2014 involved collecting and analyzing data from 205 surveys of sodium intake in countries representing nearly three-quarters of the world's adult population. Along with other global nutrition data, the researchers used these surveys to calculate sodium intake worldwide by country, age, and sex. Other data were used in conjunction with current rates of global cardiovascular disease to estimate the number of cardiovascular deaths attributable to sodium consumption above 2.0 grams per day.

The results showed that all regions of the world were above recommended levels, with averages ranging from 2.18 grams per day in sub-Saharan Africa to 5.51 grams per day in Central Asia. The average daily sodium intake in the United States was 3.6 grams, which is 80% higher than the WHO recommendation and 60% higher than the United States Department of Agriculture (USDA) recommendation of 2.3 grams per day. The American Heart Association's recommendation matches that of the USDA and includes an admonition to move toward "an ideal



limit of no more than 1,500 mg per day for most adults.”³

The researchers found that nearly 58,000 cardiovascular deaths each year in the United States could be attributed to daily sodium consumption greater than 2.0 grams.

Regarding the results, Dr. Dariush Mozaffarian minced no words, **“High sodium intake is known to increase blood pressure, a major risk factor for cardiovascular diseases including heart disease and stroke.** These 1.65 million deaths represent nearly one in 10 of all deaths from cardiovascular causes worldwide. No world region and few countries were spared. These new findings inform the need for strong policies to reduce dietary sodium in the United States and across the world.”

Fast forward six years, and the evidence remains unchanged. The recommendations are still the same, and they reflect what we at Hammer Nutrition have been preaching since day one: **Too much sodium is a killer.** Reduce your risk of life-threatening health consequences by lowering the amount of sodium (salt) in your diet. You’ll also see significant improvements in your athletic performance.

Not adding salt to your meals is certainly a step in the right direction; however, the best way to reduce sodium in your diet is to eliminate packaged, processed foods. EN

References available upon request.

ENDUROLYTES®

FIZZ Delicious, Refreshing Electrolytes



“KEEP HYDRATED!”

“Fizz is a great way to ensure you are keeping hydrated during your workouts or events. No messy measuring and no waste while ensuring consistency in your drink.”
- Online Reviewer

- Prevents cramps
- Encourages steady fluid consumption
- Virtually calorie & carbohydrate free



- LEMON LIME
- GRAPEFRUIT
- MANGO
- COLA
- GRAPE

13 Tablet Tube
\$4.95

25 Wrapped Singles
\$12.95

Taralyn Summers keeps light on her feet through the trails of Twin Lakes Pass in Brighton, UT. Photo: Scott Wesemann

 **ORDER TODAY!**

Get a **FREE**
13 Tablet Tube of
FIZZ with any order

Use Promo Code
EN121CF

Limit
one per
customer.
While
supplies
last
Expires
10.31.20



hammernutrition.com
800.336.1977

COFFEE HELPS DIGESTION



PERK UP!

“The effect of coffee on digestion is an evolving area of research”

An exciting new report is all the **BUZZ**

- *Caffè Americano*
- *Café au lait*
- *Mocha Frappe*
- *Iced Latte*
- *Cappuccino*
- *Espresso*



New report discusses coffee's effect on digestion, including its potential ability to protect against common digestive disorders

*This article is republished with permission from the ISIC: The Institute for Scientific Information on Coffee

A new report from the Institute for Scientific Information on Coffee (ISIC), entitled “Coffee and its effect on digestion,” reviews the latest research into coffee’s effect on digestion and indicates a potential protective effect against gallstones and gallstone disease^{1,2,3} and pancreatitis.^{4,5} The report also highlights other beneficial effects that coffee consumption may have on the process of digestion,⁶⁻¹¹ including supporting gut microflora¹⁷⁻¹⁹ and promoting gut motility.^{12,13-16}

The report was authored by Professor Carlo La Vecchia, at the Department of Clinical Sciences and Community Health, University of Milan, Italy, who commented: “The effect of coffee on digestion is an evolving area of research. Data indicates benefits against common digestive complaints such as constipation, as well as a potential reduction in the risk of more serious conditions like chronic liver diseases, from nonalcoholic fatty liver disease (NAFLD), gallstones and related pancreatitis.”

Gallstone disease is a common digestive disorder, caused by the accumulation of gallstones in the

gallbladder or bile duct, which affects approximately 10-15% of the adult population.²⁰ While the mechanism by which coffee may protect against gallstone disease is not yet known,¹⁻³ it has been observed that the risk for the condition declines with increasing daily consumption of coffee.^{1,2} Caffeine is thought to play a role in these associations, as the same effect is not observed with decaffeinated coffee.³

A common question among consumers and a focus area for research is whether coffee is associated with heartburn or gastro-oesophageal reflux disease (GORD). Heartburn is a mild form of acid reflux that can affect most people on occasion, while GORD is a chronic and severe acid reflux condition that affects up to one in five adults,²¹ and is characterized by frequent heartburn, regurgitation of food or liquid, and difficulty swallowing. While a small number of studies have suggested an association between coffee drinking and GORD,²²⁻²⁴ the majority of studies reviewed suggest that coffee is not a major trigger of these conditions.^{12,25-31}

The report also reviewed a growing area of health and nutrition research: the effect of coffee on the

gut microflora (microorganism populations).¹⁷⁻¹⁹ Recent studies suggest that populations of the beneficial gut bacteria *Bifidobacterium* spp. increase after drinking coffee.^{19,32} It is thought that the dietary fiber and polyphenols found in coffee support the healthy growth of microflora populations.^{8,19}

Additional research findings highlighted in the report include:

- ☞ Coffee can stimulate gut motility.^{12,13-16}
- ☞ Coffee consumption is thought to stimulate digestion by encouraging the release of gastric acid, bile, and pancreatic secretions.⁶⁻¹¹

Coffee is already one of the most widely researched components of the diet, and its effect on digestion remains a growing area of research. While this report highlights a number of the more interesting findings that have emerged in recent years, it also provides insight into areas where further research would be beneficial to better understand the mechanisms behind some of the positive effects observed.

EN

References available upon request.



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.



"I LOVE 53X11 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



THE CHAIN BREAKER

Espresso..... 12 oz. **\$13.95**

THE EARLY BREAK

Medium Roast..... 12 oz. **\$13.95**

THE DOWN SHIFT

Decaf 12 oz. **\$13.95**

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**

Join the **Coffee of the Month Club** for discounts on monthly orders!
For more information, visit
hammernutrition.com/products/coffee



Get a **FREE** 13 Tablet Tube of FIZZ
with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977

6 Questions

WITH HAMMER ATHLETES

ALEX NIEDERER



1. Where are you from?

I am originally from Austria. When I was 18, I moved to Bradenton, FL.

2. What sport do you participate in?

I ride motorcycle trials.

3. How did you get into competing?

I always looked up to Dougie Lampkin and, later on, Toni Bou and Adam Raga. They pushed the sport so much and changed the way we ride trials today.

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

My box of Hammer goodies and my lucky underwear (yes, I actually have a pair of underwear that I wear on Sundays at big events).

5. Favorite Hammer Nutrition products?

Tropical Hammer Gel® and Endurolytes® Extreme.

6. What keeps you motivated?

My motivation to do well in trials has always come from my competitiveness. I compete to do as well as I can. I enjoy training. I think I enjoy the process of getting better the most. Competitions mean a lot to me. I always want to see where I stack up against the others. I use competitions to see what I need to work on to better myself. Being the best I can be in trials is definitely my motivation.

Alex battles the technical trails on round 6 of the AMA-NATC Moto Trials National Series in Howard, CO. He made it to the podium with a 2nd place for the weekend. Photo: Tom Fraser





HEATHER BROOKS

1. Where are you from?

I am from Missoula, MT.

2. How has your racing/training/lifestyle changed this season?

My ultramarathon races have been canceled, including Hardrock 100. My vision for this season has changed to more of an adventure approach. Hardrock is still in the future (2021), but for now, my objective has shifted to “getting comfortable being uncomfortable.” This simply means less emphasis on races and more attention on big days in the backcountry and mountains. Time to explore!

3. How did you get into competing?

I was a basketball player in college. The competitive spirit still strongly resides within, and I found a way to satisfy both my competitive side and adventurous side through ultramarathons.

4. How did you hear about Hammer Nutrition?

A Hammer Nutrition representative presented to my wildland fire crew back in 2010. We used Hammer Nutrition to fuel our crew during the fire season.

5. Favorite Hammer Nutrition products?

Perpetuem® and the Daily Essentials Kit.

6. What keeps you motivated?

Having a balanced life includes having a healthy body AND mind. I regularly check in with myself to make sure I’m having fun with the training journey. I’m motivated by exploring, stopping to take a few pictures, and bringing friends along. Having a full heart allows me to enjoy this sport long-term.

Heather placed 3rd female OA at this year’s Moab Red Hot 55K.
Photo: AKTIVA Sport Photography



HOW TO USE HAMMER NUTRITION PRODUCTS TO FUEL FOR TEAM SPORTS

Hammer Nutrition products are famous for helping people fuel for cycling, running, and triathlons. However, Hammer clients continually call to ask, “Can I use your products for (insert any team sport here)?” The answer is yes! All Hammer Nutrition products are great for any physical activity at work or around the home, and they’re perfect for kids headed out onto the field or court. The challenging part for most Hammer clients is figuring out what to use and when to use it. Here’s what you need to know to fuel for any team sport.



HEED®

With HEED, you can abandon the sugary sports drinks that litter the sidelines of every sport in America. HEED contains zero added sugars, is preservative-free, and is made with all-natural ingredients. Sip it gradually before and during practices and games for clean energy the entire time.

HAMMER GEL®

Hammer Gel is another low-sugar fuel in a land of sugar-laden sports snacks. Most teams give players sugary treats to spike their energy, but the ensuing energy crash harms every player’s performance. Take a Hammer Gel 15 minutes before and every 30-45 minutes during practices and games for smooth, consistent energy.

FULLY CHARGED

Fully Charged launches you to game-speed as soon as the first whistle blows. Its all-natural formula helps boost energy, focus, and concentration. Take one scoop or stick pack 30 minutes before practices and games.

If needed, take another one halfway through. *Note: Fully Charged contains a small amount of caffeine from green tea extract.*

ENDUROLYTES® EXTREME POWDER

Conquer cramps with the easy solution of Endurolytes Extreme Powder. Add it to a water bottle to supply the ideal combination of electrolytes your body needs to function smoothly. Consume 1-2 scoops gradually during (not before) practices and games. Increase the amount on unusually hot days.

RECOVERITE®

Recoverite is the key to prepping for the next day’s practice. Supplying your exhausted muscles with a variety of nutrients will help build strength, increase endurance, and reduce soreness. Take one serving within 30 minutes of finishing every practice and game. EN

Brandon Karberg dives to save a shot on goal. Hammer Nutrition keeps him feeling great for every practice and every game.

RACE CAPS SUPREME

THE ORIGINAL ENDURANCE SUPPLEMENT,
AND STILL SECOND TO NONE!



Malcolm Hill rides for the Hammer-sponsored Davis Phinney Foundation Masters Cycling Team during the CBR Dominguez Hills Circuit Race. Photo: Scott Dworkin



"THIS IS A LIFETIME PRODUCT"

*"I've used **Race Caps Supreme** for about 10 years, as part of both my daily regimen and race-day routine. I pulled my Masters group (45+) to a Platinum finish at the Cochise County Classic in 4:14 time!"*

-Online Reviewer

- Prolongs endurance
- Increases energy
- Supports cardiovascular health
- Enhances cognitive function

90 Capsules

\$49.95

3 or more

\$45.85



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ
with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977

Sucralose + Carbs = Negative Health Consequences

by ENDURANCE NEWS STAFF

You should ALWAYS avoid artificial sweeteners in your diet and energy fuels. And sucralose, the world's most commonly used artificial sweetener,¹ tops the list of those to avoid. Recent research concluded the following:

Consumption of sucralose combined with carbohydrates impairs insulin sensitivity.²

Not only will that decrease exercise capacity and result in muscle fatigue, but it will also put you on the fast track to diabetes.

This metabolic impairment is associated with decreases in neural responses to sugar, suggesting dysregulation of gut-brain control of glucose metabolism.

The signals the brain sends to the gut, and vice versa, will no longer properly metabolize blood glucose.

Previous research involving both humans and mice showed that artificial sweeteners, including sucralose, had a significant deleterious effect on gut bacteria that increased glucose intolerance.³

Don't be fooled by the seemingly benign substance known as sucralose. While it may begin as a sugar molecule, making sucralose involves a five-step process in which three chlorine molecules are added to a sugar molecule. This chemical process alters and converts the chemical composition of the sugar so much that it ends up being a type of molecule that does not occur in nature. The end product is a synthetic chemical with a chlorinated core.

One nutritional scientist states, "This artificial sweetening ingredient is possibly worse than the processed simple sugars it replaces. It is difficult to imagine that a synthetic chlorinated disaccharide is an improvement."⁴

BOTTOM LINE

Both of the above issues (impaired insulin sensitivity and decreased neural response to sugar) will negatively impact your workouts and, more importantly, your health! Stay away from artificial sweeteners, especially sucralose. **EN**

References available upon request



HEED[®]

Sugar-Free Fuel



"IT'S ALWAYS IN MY BOTTLE"

"HEED is my go-to on any ride. It's great, especially for hot days. I can't say enough about how great all of the flavors are!"

- Online Reviewer

- Sustained energy
- No sugar crash
- Buffers lactic acid



Single-serving packets **\$1.95 ea**
16 Servings **\$19.95** 32 Servings **\$29.95**
80 Servings **\$64.95**

■ LEMON LIME ■ MANDARIN ORANGE
■ STRAWBERRY ■ MELON



■ CHERRY BOMB*
*Shipping in September



Russell Elcock on his way to a podium finish in 2019, representing Hammer as part of the Barbados Cycling Union. Russell fuels right with Hammer. (Bonus: so do the riders in pink behind him!)
Photo: Terrence G. Lowe



ORDER TODAY!

Get a **FREE** 13 Tablet Tube of FIZZ with any order

Use Promo Code **EN121CF**



Limit one per customer.
While supplies last
Expires 10.31.20



hammernutrition.com

800.336.1977



HAMMER

2012



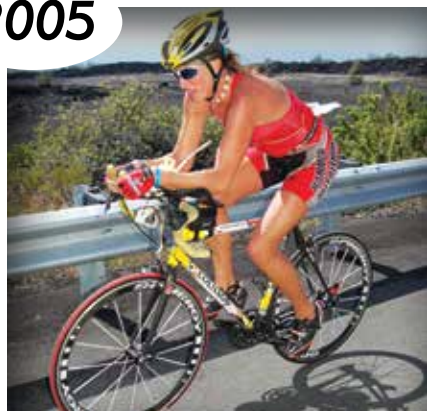
Tara Geraghty-Moats trains for her next Nordic race.

2008



Amanda McIntosh runs frame-to-frame across the trails.

2005



Shanna Armstrong rides toward a 1st OA Female finish at the Ultraman World Championships.

2010



Henry Nelson celebrates as part of the Hammer-sponsored Tieni Duro team.

THANK YOU!
To all of our Hammer Family, Friends, and Athletes for all of your support over the years!

KEEP HAMMERING!

CELEBRATING 33 YEARS OF CoQ-10

1987



1988



2004



MEMORIES

2013



Hammer Nutrition Sponsored athlete **Zandy Mangold** trains on a sunny day.

2010



Brian Frank rounds the corner during a professional kart race.

2004



Cheryl McGinnis on her way to a 1st OA Female Masters result at the 2004 USAT Duathlon National Championships.

2010



A member of the **Hammer Nutrition Team** rides in the first and only 24 Hours of Leadville.

2007



2010



2016



Superior Recovery with CBD

by STEVE BORN

Recovery—which we maintain is the most important puzzle piece in the entire athletic performance “picture”—consists of many things, including:

1. **Restoring the body’s fuel supply (glycogen)**
2. **Repairing muscle strength**
3. **Alleviating aches and soreness**
4. **Reducing stress to help support strong immune system function**
5. **Obtaining sufficient amounts of high-quality sleep**

Recoverite, taken ASAP after a workout, plus a quality diet, will take care of the fuel restoration and muscle strength repair. To support the other three recovery necessities mentioned above, CBD is your strongest ally. Let’s take a look at each.

ACHES AND SORENESS

The broad spectrum of cannabinoids in Hammer CBD—headed up by cannabidiol (CBD)—influences and activates the Cannabinoid Receptor Type 2 (CB₂) receptors in the body’s endocannabinoid system. Research has shown that activation of these receptors greatly assists in significantly reducing aches and soreness.^{1,2} Also, CBD influences a number of non-cannabinoid receptor systems in the brain that play a role in the regulation of aches and soreness. Additionally, Hammer CBD contains a broad spectrum of terpenes, organic compounds found in many plants that contribute to the color, scent, and flavor of the plant. Many of these terpenes—primarily beta-Caryophyllene, as well as d-Limonene, beta-Bisabolene, and others—have properties that assist in reducing aches and soreness.³

STRESS

A wide body of research indicates that, while some short-term stress is normal and even beneficial to the body, excess amounts and/or long-term stress overly taxes and suppress the immune system.^{4,5,6} This, of course, can lead to negative health consequences. Neuroendocrinologist Dr. Robert M. Sapolsky writes:

“Stress-related disease emerges, predominantly, out of the fact that we so often activate a physiological system that has evolved for responding to acute physical emergencies, but we turn it on for months on end, worrying about mortgages, relationships, and promotions.”⁷

Enter Hammer CBD. Perhaps the greatest benefit we have noted from both our own use of Hammer CBD and our clients’ feedback on their use of Hammer CBD, is in the area of mood elevation. Hammer CBD creates a state of calmness and relaxation, and it alleviates nervousness, worry, uneasiness, and other factors associated with stress. That should come as no surprise, as the phytocannabinoid-rich hemp oil in Hammer CBD influences one of the body’s main receptors (CB₁) found primarily in the brain. These receptors are involved in regulating mood, emotions, thinking, movement/coordination, appetite, and more.





Amy J Reinert enjoys an afternoon ride.

SLEEP

According to research, “adults should sleep seven or more hours per night on a regular basis to promote optimal health.”⁸ Statistics show that more than one-third of adults in the United States are not hitting the mark.⁹—and we’re quite certain that the numbers are much higher. Over the course of more than three decades, we’ve noted that, while research suggests regular exercise does appear to improve sleep quality, the majority of our clients—athletes involved in high-volume training and events/competitions throughout the majority of the year—are much more prone to having significant difficulty falling asleep and staying asleep. Couple that with a multitude of non-athletic stress issues and it’s clear that most athletes and highly active people are simply not getting enough high-quality sleep!

Part-time and chronic insomnia negatively impact your immune system and increase your risk of getting sick. One study on sleep and

immune system function concludes:

“Prolonged sleep curtailment and the accompanying stress response invoke a persistent unspecific production of pro-inflammatory cytokines, best described as chronic low-grade inflammation, and also produce immunodeficiency, which both have detrimental effects on health.”¹⁰

Enter Hammer CBD once again. We are convinced that there is not a more powerful yet safe and natural way to enhance sleep quality and duration. The phytocannabinoids in Hammer CBD augment the body’s natural production of cannabinoids while influencing the CB₁ receptors, allowing them to function better. In addition, some of the terpenes in Hammer CBD, primarily pinene, appear to assist in promoting a good night’s sleep.¹¹ This combination dramatically helps promote calmness, relaxation, and better-quality sleep to support the immune system.

SUMMARY

What we do in training is obviously important, no question about that. But if we neglect to consistently recover properly, we will never get the full value of the time and energy spent in training. Remember, the gains we make in training occur during recovery, but only in the presence of adequate rest and optimal nutritional support. If we don’t attend to that, we not only miss out on the benefits of our workouts, but we can also create more problems, such as getting sick or injured.

While there are a number of things we can and should do to assist with recovery—take **Recoverite®** and antioxidant supplements like **Super Antioxidant** and **Mito Caps**, and support joint health via **Tissue Rejuvenator**, at the least—there’s nothing that covers more of the “recovery bases” than CBD. Taking **Hammer CBD** after your workout and before bed will prove to be a winning strategy. We guarantee it! **EN**

References available upon request



HAMMER NUTRITION IS NOW IN ENGLAND

Welcome to the team!

A letter from a Hammer UK Client:

"Hi Sean,

Thanks for the free water bottle on my last order.

I've been using Hammer Nutrition since 2004 when I was staying in Fernie, BC. There were lots of people there for the TransRockies Challenge, and I kept hearing them talk about **Perpetuem**® and the fact that they were having to cross the border into the USA to try it! When I moved to New Zealand later that year, they were giving tasters of the **Apple Cinnamon Hammer Gel**® at Xterra Rotorua. I liked the taste so I bought some, along with **HEED**® and **Perpetuem**. When I first started using it and following the guidance in "The Red Book", it was the first time I felt I'd gotten my nutrition sorted.

Training has been sporadic these past five years with run injuries, but I got a new cycling coach in January and have been doing about ten hours a week. I've pretty much always used **HEED**, **Perpetuem**, and **Recoverite**®, as well as **Premium Insurance Caps**, **Race Day Boost**, and **Endurolytes**®, but I've tended to economize on bars and gels, using Clif Bars and High 5 Gel. However, on 3-5-hour rides, I noticed that if I combine my regular two or three-hour Perpetuem bottle with either of those, I get a minor bonk in the last 30 minutes or so. For example, if I drank an hour of **Perpetuem** and then had a bar to get some solids in me, the second hour, I'd peep. I ordered the SOS book on my last order and realized both those products use a lot of glucose, making them incompatible with the complex carb Hammer products. So I changed my strategy to drink all the **Perpetuem** at the start of the ride and then switch to Clif bars and gels (with much higher cal/hr) afterwards just to use them all up. Now I've only got a few left, and after they're gone, I'm going to use Hammer products exclusively.

Sorry, this is a bit long-winded, but I really admire your products and the fact that you try to get users to use less because it's more effective, rather than trying to make us buy more to improve your bottom line.

Cheers,

- Matt"



Sean Bowler (center) is Hammer Nutrition's international distributor for the United Kingdom and South Africa. In February 2020, during Hammer's ID Summit, Sean was able to meet with Brian Frank, Ginjer Yachechak, and the rest of the US Headquarters team in Whitefish, Montana.

Hull, England



**NOW OPEN
FOR SHIPPING
AND ONLINE
ORDERS!**

hammernutrition.co.uk



ZOLTÁN CSÉCSEI

In place of the UltraBalaton Ultrafutó Verseny 221 km, Zoltán Csécsesi or “Zoli” set out to complete a solo race of the same distance to put his fitness, and fueling, to the test. He came tantalizingly close to the international record and set a new Hungarian record, completing 221K (137 miles) in just 19:25:51.

Zoltán Csécsesi used primarily **Perpetuem**, **Hammer Gel**, and **Endurolytes** to sustain his pace.

Zoli is the very first Hammer Nutrition product user in Hungary and—of course—he is our ambassador as well!

Photo: Hammer Nutrition Hungary



HAMMER OCR TEAM

The Hammer OCR team in the Czech Republic continues to dominate the local racing scene. Their recent results include:

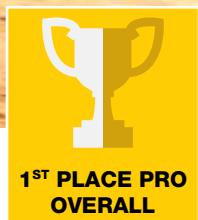
- Spartan Race – **Banská Bystrica** (Slovakia)
– 1st place in her age-group
- Gladiator Race Comeback – **Hradec Králové** (Czech Republic)
– 2x Gold, 1x Silver, and 1x Bronze
- Gladiator Race – **Holice** (Czech Republic)
– 1x Gold and 1x Silver

To finish the 2020 season, the team plans to compete in:

- Czech Republic OCR Championship
- Spartan Race European Championship
- World Championship in Sparta

Klara Hervertova during Gladiator Race Lanškroun Photo: David Antoš

FROM OUR ATHLETES



NICK DiNAPOLI

WORCS eMTB race

This was my first-ever electric Mountain Bike (eMTB) event alongside the World Off Road Championship Series (WORCS) off-road Moto series. I finished 1st in Pro! The 109°F heat was torture, but luckily **Endurolytes**® helped me survive! I also had a **Huckleberry Hammer Gel**® on the starting line.

This was the first round of 5 for the eMTB, and I believe there will be good growth once word spreads and events can relax regulations.

This was also my first time racing an e-bike! I borrowed a Specialized Levo and took the win in the Pro class and Overall, which I was stoked on. With the intense heat and unique difficulty racing alongside a motocross track, it wasn't too easy. As always, thank you for the support and communication! Photo: Dirt Nation



MICHAEL KOPPY

Superior Hiking Trail FKT

Setting a new Fastest Known Time (FKT) record by 28 ½ hours on the Superior Hiking Trail and completing an ambitious personal challenge felt wonderful! My finish time was 5 days, 3 hours, and 44 minutes on 8 ½ hours of sleep. I ended up running 314 miles because I got lost a few times. The trail had over 70,000 vertical feet. I was exhausted but elated!

I used **Tissue Rejuvenator** in the days leading up to my run. My crew members were at my truck preparing food for me and replenishing my spare fuel belt with **Chocolate Perpetuem**® and **Orange Vanilla Perpetuem Solids** as I went. Every hour I would take **Endurance BCAA+**, **Anti-Fatigue Caps**, and **Endurolytes** to keep me running for over 22 hours per day for the five-plus days! Photo: Ron Smith



ZANDY MANGOLD

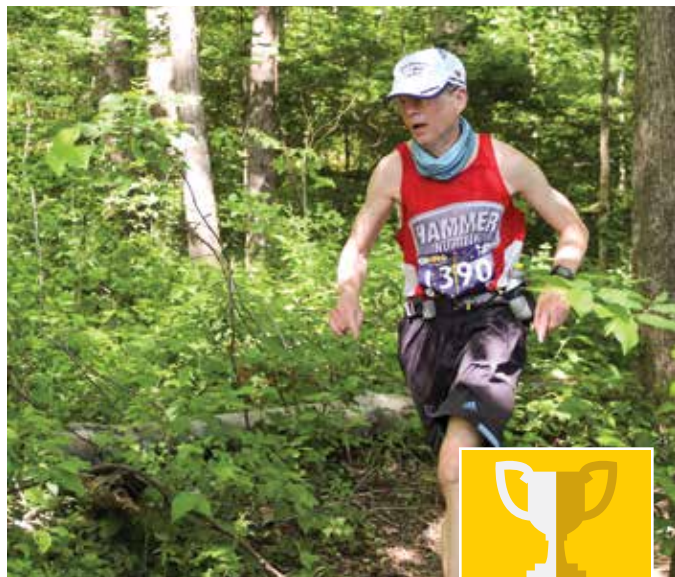
Orchard Street Runners Global Challenge

Thanks to the Orchard Street Runners (OSR) Challenge, I set out to run 100 miles at the McCarren track in Brooklyn.

Buoyed by incredible support from friends and family, I finished in 18:09 with 16:47 of that being moving time.

Together, with a commitment from OSR, generous friends, and my pledge to donate based on participation, we raised funds for Ahmaud Arbery's GoFundMe and Black Futures Lab. We ended up raising close to \$1000. Without much promotion on my end, people went out of their way to take part!

My fueling plan was simple because I planned to self-crew. 20oz of **HEED** and one **Peanut Butter Chocolate Hammer Gel** per hour. I added a **Fully Charged** serving to four of the bottles, which I took at hours 4, 8, 12, and 16. At mile 93, I took an **Espresso Hammer Gel** which sparked the push to the finish! Photo: Alex Marcinkiewicz

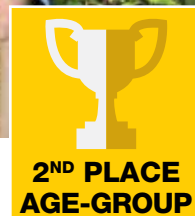


BRENT HAEFNER

DINO Trail Run Series

I used **Tropical Hammer Gel** and **Fully Charged** at the start, and **Cola Fizz** in the 90°F+ heat. Ice cold **Recoverite®** felt amazing at the finish. I ran a minute faster than I calculated I could run! I finished 2nd in my age-group.

Photo: DINO / Darla Holzhausen



JOSEBA BRIT ELOLA

PDX Virtual Triathlon

At his first ever virtual race, Joseba felt unusual pulling into the parking lot realizing he was about to race without any competitors. He started race day with a solid breakfast and **Fully Charged**. **Huckleberry Hammer Gel** and **Fizz** fueled him before and during the event. **Orange Vanilla Recoverite** for post-race recovery. His 2nd place finishing time was 1:07:52.



BACK IN ACTION

153. That's how many training sessions **Patrick McBride** put in between his last race and when he rolled out for the DINO Series MTB Race in June. All his prep paid off when he crossed the finish line 1st in his age group. He fueled with **Anti-Fatigue Caps**, **Fully Charged**, and **Hammer Gels®**, but he says the key to coming out on top was mastering his nutrition and recovery during every training session.

Photo: Bridget Shoemaker





✓ **THE BEST QUALITY** ✓ **THE BEST PRICES** ✓ **GUARANTEED!**

Friends don't let friends overpay for CBD!

Start referring your family and friends today! Our Sgenerous Referral Reward program is ideal for introducing all of your friends and family to the amazing benefits of CBD and getting some nice Hammer Bucks in your account! They get 15% off of their first order, and you get a 25% credit to your account.

CBD SOFTGELS

10 mg 4 ct	\$0.17 per mg
10 mg 30 ct	\$0.13 per mg
10 mg 90 ct	\$0.10 per mg
25 mg 4 ct	\$0.13 per mg
25 mg 30 ct	\$0.09 per mg
25 mg 90 ct	\$0.08 per mg

CBD TINCTURES

Hydro 250 mg	\$0.10 per mg
Classic 250 mg	\$0.08 per mg
Classic 750 mg	\$0.08 per mg
Classic 1500 mg	\$0.06 per mg

CBD BALMS

30 mg 0.15 oz	\$0.13 per mg
500 mg 2 oz	\$0.10 per mg

If you are buying CBD somewhere else, you are probably paying too much!

And you may be getting an inferior product.

Hammer Nutrition, the leader in Endurance Nutrition for 33 years, is now the leader in CBD. We have the research, education, and trained support staff to be your “go-to” for all things CBD. After studying this amazing new product and using it for years, in 2018 we partnered with the largest vertically integrated producer, manufacturer, and distributor of hemp-derived phytocannabinoids (CBD) in North America.

ORDER TODAY!



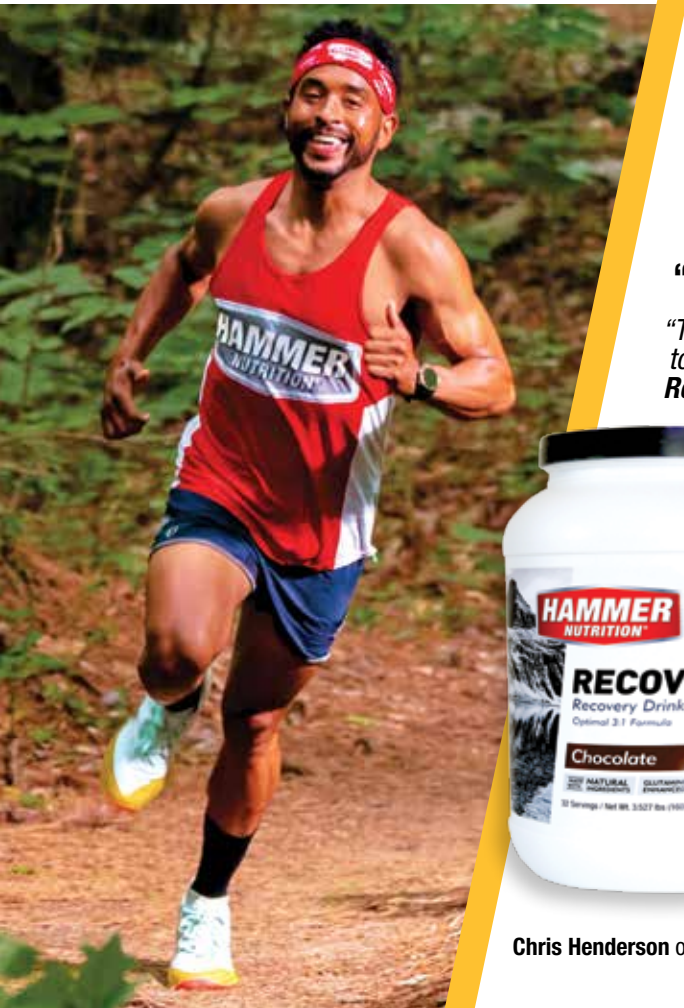
800.336.1977 • hammernutrition.com



Endurance News

4952 Whitefish Stage Road
Whitefish, MT 59937

PRSRT STD
U.S. POSTAGE
PAID
HAMMER NUTRITION
DIRECT



RECOVERITE®

Recoverite Today, Hammer Tomorrow



"RECOVERITE HAS MY BACK"

*"This stuff is the best! I started using **Recoverite** when training for touring rides. I have been a fan ever since...with confidence that **Recoverite** will jump start my recovery." - Online Reviewer*



- Restores muscle glycogen
- Reduces soreness
- Reduces fatigue
- Rebuilds muscle strength

ORANGE VANILLA VANILLA
CHOCOLATE STRAWBERRY

COMING SOON CAFFÈ LATTE

*Shipping in September

16 Servings **\$34.95**
32 Servings **\$59.95**
Single-serving packets **\$3.50 ea**

Chris Henderson on a training run through the wooded trails of Kentucky. Photo: Craig Gentry