

# ENDURANCE

BY HAMMER NUTRITION

#116 August/September/October 2019

\$4.99 US / \$5.99 CAN

# NEWS



*IN THIS ISSUE...*

---

## **Dr. French Explains CBD**

Everything you need to know

## **Circumnavigating Pitcairn**


USA swimmer makes history

*PLUS...*

---

■ **Spotlight: New Powders**





The Belgium Waffle Ride is an absolute beast! During the 133 mile course, participants tackle a road section and a sandy gravel section, testing a variety of bike skills. Among the 14 Hammer Nutrition fuels and supplements that Jennie Phillips used to power her race, HEED, Hammer Gel, and Endurolytes Extreme fueled her to finish in 9:47, 10 minutes faster than 2018.

---

Photo: Erick Gonzalez





## Welcome to the 116th issue of Endurance News!

The dog days of summer are upon us and I hope you are getting out and enjoying every minute you can! I appreciate you taking time away from your outdoor activities to turn these pages. You won't be disappointed, as we have great content to inspire, encourage, and inform.

Since several thousand of you are reading this for the first time (we add about 500 new customers per week!) and many more of you are still not sure if you can trust us . . . I will ask this question for

you: Is Hammer a brand/company that is authentic and operates with transparency, a company that I can trust with my health? I encourage you to vet us to your heart's content. Read our Core Values, Mission Statement, Commitment to Quality, and About pages on our web site. These are not just fancy words and slogans. This is who we are; we have over 32 years of history to prove it.

Talk to Hammer athletes in your community. At Hammer-sponsored events, ask the race directors. Or, better yet, come pay us a visit! We love it when customers stop by so we can give them the grand tour and show them all the cool stuff we do here. They all pretty much say the same thing: "Wow, this is nothing like I expected." If you can't make it to Whitefish, Montana for an in-person visit, give us a call. One of my staff or I will be happy to chat with you about whatever you want.

When you call 800-336-1977, there's no automated phone system, complicated menu to navigate, or operators who just try to sell you as much as they can. Instead, you'll find really nice people who are ready and eager to help you. I'm usually in the office as well, so if you'd like to speak to me, just ask. Same goes for Ultracycling legend Steve Born. He's on the phones daily, usually until around 3:00 P.M. Mountain Time, helping athletes create their own fueling and nutrition plans. He's been doing this with me for over 19 years now and has used my products since his first RAAM in 1988.

There's a lot more on these pages, so enjoy the read and share it with a friend or two.

Thank you for your support!

Brian Frank

**On the cover:** Robby Swift, a legendary professional windsurfer, catches the perfect wave while cross-training in Indonesia. Photo: Hugo Pettit

AN EXCLUSIVE PUBLICATION OF:



### STAFF

#### **Publisher and Editor-in-Chief**

Brian Frank

#### **Assistant Editor**

Steve Born

#### **Contributors**

Alex Corbelli, Dr. Bayne French, MD, DC, Laura Labelle, Joseph Perry, Aryn Maznio, Matthew Schwager, John Kelly

#### **Designer**

Adrian Villanueva

### 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](http://hammernutrition.com)

### OUR GUIDING PRINCIPLES

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

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

**Principles Before Profits:** Profits never take priority over our values. If it says "Hammer Nutrition," it's good for you.

### OUR CORE VALUES

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

**Product Integrity:** Our consumables are researched, tested, and USA-made to the strictest standards. Read more at [hammernutrition.com/company/mission-statement](http://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.

©2019 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](http://hammernutrition.com)



In this issue, learn how athletes utilize nutrition to recover properly today so they can keep Hammering tomorrow.

Photo: Josue Fernandez

Read more on pages  
**16, 30, 46, and 52**

**EN FEATURES** Endurance News: Issue 116 August/September/October 2019

**10 Hammer Athletes: Consistent Results**

**12 Sodium and Arterial Function**

BY STEVE BORN

**14 Hammer Kids Win Big**

**16 Olympic Recovery**

**20 Say NO to NSAIDs**

**24 Dr. French Explains CBD**

BY DR. BAYNE FRENCH

**30 7 Superstars for Superior Recovery**

**38 Fruit Juice Linked with Increased Mortality**

BY STEVE BORN

**42 Coffee is A-OK!**

BY STEVE BORN

**44 5 Questions with Josh Litofsky and Gabrielle Suver**

**46 Striding Forward**

BY ARYNN MAZNIQ

**48 What Happened to Recoverite?®**

BY BRIAN FRANK

**52 Endurance Sports: A Universal Language**

BY JOHN KELLY

**54 Swimming with Sharks**

BY ALEX KOSTICH

**4 Publisher's Note**

**6 Starting Lines**

**8 #howihammer**

**18 Ask Hammer: CBD**

**22 Product Spotlight: LSA Caps**

**28 Product Spotlight: Montana Made Powders**

**30 Superstars for Superior Recovery**

**32 SOS: Electrolyte Replenishment**

**34 Laura's Kitchen: Grilling for the Win**

**40 Aid Station**

**42 Coffee: A-Ok for Arteries**

**50 Events**

**56 From Our Athletes**

**58 Finish Chute**



**22**

LSA Caps helps you take care of your liver, so it can take care of you. Generally considered the hardest working organ in the body, the liver performs more functions than any other.



**50**

Cross state lines, tackle tough terrain and sweet single track during the No Business 100.

Photo: Misty Wong  
Learn more on pg. 50

# Letters from Hammer Nutrition Athletes & Clients

## Road to Kona BY DR. MATTHEW TATUM

This year has been one of trials, adversities, and, ultimately, perseverance. Since I started triathlons seven years ago, I dreamt of tackling Kona. Each year, I inched closer and closer, hoping to qualify in the last two years.

After years of running a drug and alcohol treatment center, last year I decided to venture out on my own and start my own mental health treatment center. I continued to train for Ironman Santa Rosa throughout the start-up of my business, which coincided with the darkest episode of depression I have experienced. Three days before my mental health clinic opened, I was on a morning training ride when I was sideswiped by a car driving 55 miles per hour. I was cleared by the hospital to go home with minor injuries. Determined to not allow this accident to deter me from my path, I was back on the trainer the next day. The Hammer family was such a help by overnighting me CBD Balm and capsules to aid recovery.

*“I am so grateful to the Hammer family for the role they played in the pursuit of my goals.”*

As my business and training took off, my depression began to lift and I felt encouraged about the future. But two weeks after the car accident, I was in a BBQ accident where most of my torso and parts of my neck, face, hands, and arm sustained second-degree burns. I was in the most excruciating pain of my life. I spent two days in the hospital burn unit then was released. Bandaged up, in pain, and on drugs, I was on the trainer the next day. The recovery (mental and physical) was brutal. Burns are horrific and my body was in tremendous pain. My mind attempted to deal with the trauma I had experienced, meaning flashbacks, fear of things related to the accident, and random bouts of uncontrolled emotions. But every day I was on the bike for two to three hours. With the support of my wife, four kids, extended family, and close friends, I pushed myself to my limits. Every visit, my burn doctor was surprised at how quickly my body was healing. Within one week, I was off all pain medication, riding daily, and even ventured out on my first run.



**“Every training session,  
Every recovery,  
Every race,  
Every day,...”**



**#howihammer**



**WE LOVE HEARING FROM YOU!**

**Send us your letters!**

Drop us a line, share a tip, or tell us about your latest adventure.  
[letters@hammernutrition.com](mailto:letters@hammernutrition.com)

**Share your reviews on Facebook!**

We welcome you to head over to our Facebook page and write a review! We check our page daily and enjoy hearing how Hammer Nutrition has helped you. Hammer on! [facebook.com/hammernutrition](https://facebook.com/hammernutrition)



Through it all, I was still focused on my goal of Kona. At Ironman Santa Rosa, I wasn't sure how things were going to go. In a way, it didn't matter—I was toeing the line. As it turns out, the training I put in paid off. I earned my first-ever place on the podium and, since the third-place finisher already qualified for Kona in a previous race, I received the only roll down and qualified for Kona myself. Getting to go to Kona is an incredible feeling. But both triumphing over adversity AND going to Kona has been phenomenal.

*“Every training session, every recovery, every race, every day, Hammer has been a huge part of my journey.”*

**“...I pushed myself to my limits”**



Dr. Tatum wasted no time getting back on the bike, cycling 2 to 3 hours each day during his recovery.

Photo: Courtesy David Tatum

# Essential knowledge, revised & updated!



**NOW AVAILABLE**

**HEED®**  
The real sports drink

- Sustains energy, no sugar
- Reduces cramps
- Buffers lactic acid
- Supports dental health

**HOW TO HAMMER**  
Endurance Fuels and Supplements Product Manual

**HAMMER NUTRITION**  
Fuel Right, Feel Great!  
Guaranteed since 1987!

**GET YOUR FREE COPY TODAY!**  
**800.336.1977**  
**HAMMERNUTRITION.COM**

Dean Karnazes running the Endurance Challenge Series race.  
Photo: Ultra Race Photos

# #howihammer

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



 @dylanefron

After taking some time off racing to focus on training, Dylan Efron's love for competition is re-ignited as he places 5th Overall in the Hermosa Beach Triathlon. Photo: Courtney King



 @ryan\_ingham\_endurance

Ryan Ingham stays cool in his Hammer Running Singlet during a training run around Lynx Lake in Prescott, AZ.



 @wildbunchdesertguides

As 'mixologist' for Marko Baloh during Race Across America 2019, Laurel Darren and the rest of the crew mixed countless calories to help power Marko's record RAAM finish.



# RACE RECIPE

**JOHN BENHAM**

SASQUATCH 50K



After receiving a comped entry from event sponsor Hammer Nutrition, John Benham decided to spontaneously run the Sasquatch 50K in Lore City, Ohio. John had a fantastic race and tied a 50K personal record he set two weeks earlier!



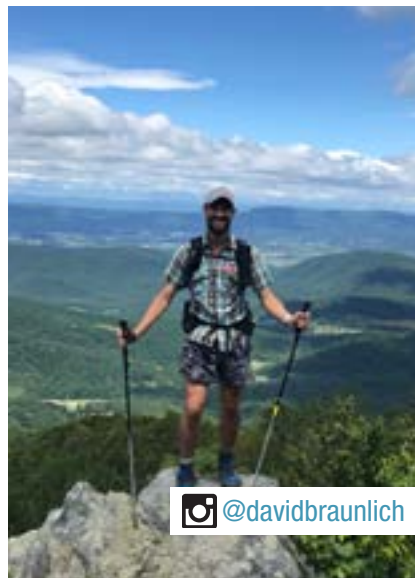
Ricardo Cuevas fueling with HEED before a hot training run in Southern California.

@mattressboirunner



Barbora and Marek are all smiles after placing 3rd during a Gladiator Race in Czech Republic.

@baru\_lilli



@davidbraunlich

David Braunlich 29 days into his northern-bound Appalachian Trail Thru Hike. Covering approximately 31.3 miles per day on the steep, rocky, and wet trails, every mile was earned.

## FUELING FACTS

Pre-Race

Fully Charged  
Endurolytes  
Endurance BCAA+  
Anti-Fatigue Caps

During

HEED  
Anti-Fatigue  
Caps

Post-Race

Recoverite

Results

**1st Place Age Group**

**6:13:48**

Photo: John Benham

# Leia Schneeberger Rollins

## Getting Results

2019  
WINS

Big Frog 65 (National Ultra Endurance Series)  
The Wisconsin Off Road Series - Englewood Opener  
Battle of CamRock

1ST  
PLACE

### How did Leia get into mountain biking?

Her boyfriend at the moment suggested they ride bikes in the woods; she had no idea about mountain biking before. Wearing soccer shorts, soccer shoes, and no helmet, she went for a ride of a couple miles. It was really hard and challenging for her, so as an elite soccer player she wondered what was going on. She said that if only she knew about Hammer Nutrition before, she could have been more successful at soccer: “How good could I have been if I fueled right and not just had cheeseburgers and Snickers bars as my main fuels,” she said. As her knees got worse from soccer and she got better at biking, biking naturally took over.

### What Hammer products does Leia use before, during, and after activities?

She takes Organic Vegan Protein as well as **Whey Protein** every day.

During every race and workout ride, she takes **HEED**, adding **Perpetuem** and **Endurolytes Extreme Powder** in the CamelBak for longer races. She also uses **Vanilla Hammer Gel**.

### *After every workout, Leia uses Recoverite.*

### What is Leia looking forward to for the rest of the season?

The biggest race she is training for is this September's Marji Ge-sick 100 mile, a National Ultra Endurance Series race sponsored by Hammer. It will be her first mountain bike race of this distance and length.

### Before that, she has a few smaller races to help her prepare for the big finale, such as:

July 6 - WORS Cup (Wisconsin Off Road Series)  
July 19 - 21 - The Crusher 225 Miles Enhanced Gravel race  
September 1 - Dakota Five-0, sponsored by Hammer

## Fun Facts about Leia

- She used to be an elite-level soccer player and turned into a mountain bike racer because of bad knees
- Leia didn't start biking until she was 31 years old
- She loves superhero movies—her favorite is *Avengers: Infinity War*

Leia Schneeberger Rollins keeps a strong pace as she races as a pro for the first time at the Grand Junction Off Road

Photo: Sportograf

# Jeff Cuddeback

## The Best of the Best

### WINNING RECORD

- *Inside Triathlon Magazine's* Performance of the Year
- *Triathlete Magazine's* Master Athlete of the Year
- Triple Crown Winner: Won U.S. National Championships, ITU World Championships, and Hawaii Ironman all in same year
- Three separate Ironman World Records in age groups

### Jeff Cuddeback knows how to win triathlons!

*"Just for the record, I have done Kona a total of 7 times, spanning from 1985 to 2018. I have finished 2nd in my age group four times and have won the other three times, each in AG record time. Your advice and concern for me during that phone call, Brian, came at exactly the right time and for that I am eternally grateful."*

Since he starting competing in 1983, Jeff has won the world's most prestigious competitions, from Ironman Kona to the Ironman World Championships. Hammer Nutrition has fueled his performance since the very beginning and recently Jeff wrote in to say: "By all accounts, I had a great 2018. I am ranked #1 in the World AWA [All World Athlete] 70.3, winning all three of my 70.3 races by huge margins. I am the USAT #1 ranked 60-64 and ahead of my closest competitor by nearly 3 points. With the exception of Ironman Hawaii, my racing season was unblemished. Even though I fell short of my dream of winning Kona for a 4th time, each time in a different age group, I likely would not have even made the attempt if not for you!"

**Hammer Nutrition wishes Jeff good health and fast races in all the years to come.**

Jeff Cuddeback crosses the finish line 1st place AG at Ironman Los Cabos 2017.

Photo: FinisherPix



# IGNITE your workout.



- Convenient fuel
- Increases energy
- Promotes focus

6 Single Stick Packs | \$8.95

24 Single Stick Packs | \$34.95



hammernutrition.com  
800.336.1977

# Sodium and Arterial Function

## A-Salting our Endothelium

BY DR. MICHAEL GREGER

Transcript of “Sodium & Arterial Function: A-Salting our Endothelium,” viewable at <https://nutritionfacts.org/video/sodium-and-arterial-function-a-salting-our-endothelium/>

### A word from Steve Born:

This is an extraordinary article in so many ways. Anything we can do to improve arterial function—which would help steer us clear from heart attacks and stroke—is worth employing. As Dr. Greger explains, simply lowering the amount of salt in our diet will help accomplish that. I also find his comments regarding how a “normal salt diet” suppresses the free radical-detoxifying capabilities of an important bodily enzyme to be extremely eye-opening. Lastly, given all the benefits of increased oxide production on athletic performance and overall health, take heart to Dr. Greger’s comments on how salt consumption affects this.

If you put people on a low-salt diet (meaning only getting twice as much sodium as they need), as opposed to a usual salt diet (where they’re getting five times more), you get a significant improvement in arterial function. Lower salt, better arterial function, suggesting heart-protective effects beyond just blood pressure reduction.

Now, this was after dropping people’s salt intake by about a teaspoon a day for two weeks. What if you only dropped salt intake by like a half teaspoon a day? You still get a significant improvement in arterial function, and it happens within just two days of reducing one’s salt intake. Or, even after a single meal.

A high-salt meal, which is to say just a typical amount of salt consumed in a commonly eaten meal, can significantly suppress artery function within 30 minutes. Now, is this in addition to the spike in blood pressure from salt, or because of the spike in blood pressure?

**“This is your artery function; this is your artery function on salt.”**



**“One salty meal, and not only does our blood pressure go up, but our arteries literally stiffen. That’s why we could figure out that too much salt was bad for us 4,000 years ago.”**

If you take people with normal blood pressure, and give them a bowl of soup containing how much salt a regular meal might contain, their blood pressure goes up over the next three hours, compared to the same soup with no added salt. Now, this doesn’t happen to everyone; this is just the average response.

Some people are resistant to the effects of salt on their blood pressure. So, what if you repeated the artery function experiment on them? Even people whose blood pressure is unresponsive to salt intake still suffer significant suppression of their artery function. So, even independent of any effects on blood pressure, salt hurts our arteries, and that harm begins within minutes of it going into our mouth, for our major arteries, and even our itty bitty blood vessels.

Using something called laser Doppler flowmetry, you can measure blood flow in tiny vessels in our skin. Now, to get the blood vessels to open up, you warm up the skin. The reason we may turn pink when we get into a hot bath is that the blood vessels in our skin are opening up. And that’s what happens, big increase in blood flow with the warming; but that’s on the low-salt diet.

A high-salt diet starts out the same at the beginning, but after the same heating, there’s significantly less blood flow. The arteries just don’t seem to open up as well on a high-salt diet, unless you inject vitamin C into their skin. That seems to reverse the salt-induced suppression of blood vessel function.

“...maybe we don’t need to follow people for a decade; you may just have to feed someone a bag of potato chips, and take their pulse.”

So, if an antioxidant reverses the salt effect, then the way salt may be damaging our artery function is through oxidative stress—the formation of free radicals in our bloodstream. But how?

Well, there’s an enzyme in our body that can detoxify a million free radicals a second, 24 hours a day, seven days a week. But compared to a low-salt diet, if we consume a normal salt diet, we suppress the activity of this detoxifying powerhouse of an enzyme.

That may help explain why “this is your artery function; this is your artery function on salt.” With our antioxidant enzymes crippled by the salt, all the excess free radicals may be crippling our arteries. But mop up those extra free radicals by infusing vitamin C into the bloodstream, and artery function returns to normal. Whereas, on a low-salt diet, if you drip vitamin C into people’s veins, nothing happens, because our antioxidant enzymes are already taking care of business, and haven’t been shackled by the sodium of a normal-salt diet.

Whereas potassium, concentrated in fruits and vegetables, softens the cells that line our arteries, and increases the release of nitric oxide that allows our arteries to relax, sodium in our blood stiffens the cells lining our arteries within minutes, and reduces nitric oxide release. The more salt, the less nitric oxide is produced.

One salty meal, and not only does our blood pressure go up, but our arteries literally stiffen. That’s why we could figure out that too much salt was bad for us 4,000 years ago. Maybe we don’t need a double blind trial, maybe we don’t need to follow people for a decade; you may just have to feed someone a bag of potato chips, and take their pulse.

## About

### Dr. Michael Gregor M.D., FACLM

Dr. Greger is a physician, *New York Times* bestselling author, and internationally recognized speaker on nutrition, food safety, and public health issues. A founding member and Fellow of the American College of Lifestyle Medicine, Dr. Greger is licensed as a general practitioner specializing in clinical nutrition. He is a graduate of the Cornell University School of Agriculture and Tufts University School of Medicine. In 2017, Dr. Greger was honored with the ACLM Lifestyle Medicine Trailblazer Award and became a diplomat of the American Board of Lifestyle Medicine.

# Cramp-Free Made Easy

- Full-spectrum formula
- Superior cramp prevention
- Rapidly assimilated



Travis McWhorter on a training run in the Sandia Mountains outside of Albuquerque. Photo Credit: Travis M.



“This is an amazing product. I have used **Endurolytes Extreme** for eight years to reduce cramping over long distances. High performance requires this kind of formula to help reduce cramps and increase muscle hydration.”  
- Online reviewer

120 Capsules

\$24.95

90 Servings

\$29.95

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



flavors as shown



hammernutrition.com 800.336.1977

# HAMMER KIDS



## ZACH MARTINEZ AGE 11

### How long has Zach competed in athletic competitions?

Zach has been racing for the past five years.

### How does Zach use Hammer Nutrition?

He uses Hammer products to fuel his training and race to be the best.

### What is next for Zach?

The MTB Nationals are next. Then, hopefully, in the future he will race professionally in the MTB World Cups or the Tour de France.

### What are some fun facts about Zach?

When not racing his bike, he loves watching videos of bike racing and posting on Instagram. His favorite food is avocados.

### What are some recent and/or notable events Zach has competed in recently?

Zach races in lots of local stuff right now. He raced the MTB JR championships last week and got second place in a photo finish. He is getting ready for Nationals in Colorado at the end of July, so he's doing lots of training miles.

Zach Martinez is all smiles after finishing on the second step of the podium during the Quick n' Dirty Summer Series.  
Photo: Wild Glass Photo

# ARE

# NAILING IT!

## DYLAN FLORES AGE 12

### How long has Dylan competed in athletic competitions?

Dylan began competing in taekwondo at age four. He quickly made the “all-star” team and earned his black belt at age nine. He began on a swim team at five and has qualified for junior age group championships in several events. While playing travel soccer, he discovered his passion for running. He started doing small local races and is now a dedicated cross country runner. At six he did his first triathlon in reverse and by age eight he began open water triathlon races. This past year he began mountain bike racing and loves it! Dylan loves being outside and competing with friends.

### How does Dylan use Hammer Nutrition?

Dylan uses Hammer Nutrition products in several ways. Hammer Vegan Protein is part of his “3-Ingredient Pancakes” that his mom makes for him every day. He also uses Hammer Gels on long bike rides and loves cold HEED after races.

### What is next for Dylan?

In July, Dylan will compete in a trail race called the Peak Half Marathon. He is also doing a competitive two-mile Spartan race in Utah that month. He will be a Newport Beach junior lifeguard this summer and will compete in the Regional Junior Lifeguard Competition. In September he will race in the Mt. Baldy Run-to-the-Top trail race. He is also excited about running cross country for his second year in middle school as well as competing in mountain biking, triathlons, and swim.

### What are some fun facts about Dylan?

He just finished sixth grade with a 4.0 GPA.  
He plays clarinet for his middle school band.  
He doesn't own any electronics.  
He has never had any soft drinks.  
Dylan loves water skiing.  
He broke the 31-year-old “mile record” for sixth grade when he did a 5:22 mile at his last track and field event.  
His favorite sport is triathlon.



Dylan Flores keeps up with the competition during the LA Tri Series #2. In a field of 111 racers, Dylan hammered strong to place 1st AG and 11th Overall. Photo: Byron Moore

# Olympic Recovery

with **MAGGIE VOISIN**

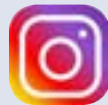


Olympic freestyle skier and Whitefish native Maggie Voisin is no stranger to hard work. As a dedicated lifelong athlete, she spends countless hours perfecting her skills, honing composure and form, and building strength and explosiveness. After undergoing surgery for a torn ACL in April of this year, Maggie shifted her mindset to focus on the road to recovery. By utilizing Tissue Rejuvenator and Hammer Vegan Protein after physical therapy sessions and workouts, Maggie can trust that her body is well-equipped to recover properly from her rigorous rehab routine.

As a member of the US Ski and Snowboard Team, Maggie works with some of the most skilled and professional trainers, sports psychologists, and coaches that the world of sports offers. With daily (sometimes twice daily) therapy sessions, recovery is not taken lightly when one returns to an elite level of competition.

Rehabilitation from an ACL surgery is not simple. Initially, Maggie and her trainers worked to increase the flexion of her knee until she was able to walk with a normal gait. One method the USSA Team uses to achieve this goal involves blood flow restriction (BFR) exercises. BFR exercises restrict the blood that flows away from your muscles during weight training, which tricks your mind and body into building muscle with lighter weights. This becomes an integral part of re-introducing weight to the injured knee.

Nearly four months into her recovery, Maggie continues to feel stronger every day. She is aiming for a complete recovery as soon as possible and will return to competition stronger than ever. **EN**



**Stay up-to-date on Maggie's recovery and return to competition by following her Instagram at [@maggie\\_voisin](https://www.instagram.com/maggie_voisin).**

# mobilegs™

## A Review BY JOSEPH PERRY

Using crutches will frustrate even the fittest athlete after only a few days. No one wants to add bruises, chafing, and underarm irritation to an already-injured body, but that is what crutches will do. For almost a century, in fact, crutch design remained the same. Today's common crutches look very similar to the design in the first crutch patent filed in 1917.

In a world of budget crutches, Mobilegs are a luxury edition. Their ergonomic design and responsive support system provide nearly pain-free use and specific grips for different hands reduce bruising while providing great control. Mobilegs' crown jewel is their spring-loaded saddle, which is constructed from a comfortable

rubber mesh that cushions the upper arm. The saddle also pivots, rolls, and compresses to accommodate natural body movements with maximum comfort.

A number of Hammer Nutrition employees needed crutches this summer. Founder Brian Frank loaned his pair of Mobilegs around because "traditional crutches just won't do!" Take it from our experience that Mobilegs are game-changers. Here's the kicker: they're only \$150! With a price like that, it's time to ditch 20th-century crutches for Mobilegs.

*Mobilegs are available at [mobilegs.com](https://mobilegs.com).* **EN**



Unique design allows for a greater range of motion and stability.







SPA Russell Debarbieris at Sa Calobra in black Hammer Kit.  
Photo: Mallorca Cycling Photos

# Recovery done right!

## Recovery matters. Do it right.

- Restores muscle glycogen
- Rebuilds muscle tissue
- Reduces soreness & fatigue
- New chocolate formula



**“THIS STUFF IS THE BOMB!”**



*“I’m a older cyclist and the recovery time in between rides is a lot longer then when I was younger, but with **Recoverite** I’m back on the bike within one day of rest even after a century ride. This is a product I can’t do without!”*

- Online Reviewer

**32 Servings | \$59.95**

**Single-serving packets | \$3.50**

Flavors: Chocolate, Vanilla, Strawberry, Orange-Vanilla

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



hammernutrition.com 800.336.1977



# Hammer Nutrition's Premium-Quality CBD Products



Every one of our outstanding CBD products is derived from organically grown, non-GMO, USA-raised hemp. Our broad-spectrum formulas contain all the beneficial cannabinoids—headed up by CBD (cannabidiol)—and terpenes. Our products are 100% THC-free and contain no heavy metals, solvents, microbes, or contaminants. Review the following information to determine which of our CBD products is right for you.

## Hammer CBD Softgels

Available in two strengths, 10 mg and 25 mg, Hammer CBD softgels utilize a proprietary nano-sized microemulsion manufacturing process for superior absorption. With standard CBD products, 10% or less of the ingested product is actually accessed by the body. In contrast, the nano-sized droplets in Hammer CBD Softgels generate up to 50% absorption rates, five times that of others!

### Q: Which strength is right for me?

A: There are two primary factors to account for which will help determine which strength is best for you:

- **BODY WEIGHT** — Smaller or lighter-weight people will usually find that one 10 mg softgel per day is ideal. Larger or heavier people (roughly 160 lbs. and above, though that is not a “set in stone” figure) will most likely receive desired benefits with one dose of 25 mg per day.
- **CURRENT PHYSICAL STATUS AND CONDITION** — Those dealing with chronic issues regarding aches, soreness, and discomfort, poor sleep, or both, will find that a 25 mg daily dose is best. If your physical status/condition is mild, one 10 mg softgel may be sufficient.

## Hammer CBD Tincture

Hammer CBD Tincture is an oil-based liquid form of CBD which allows for a greater versatility of dosing. Available in two strengths, 250 mg and 750 mg, Hammer CBD Tincture is blended with hemp seed oil, grapeseed oil, and organic coconut oil (medium-chain triglycerides/MCT) to aid absorption. It is also pleasantly flavored with organic orange oil.

One dropper (1 ml) of the 250 mg tincture supplies 8.33 mg of cannabinoid- and terpene-rich hemp oil. One dropper (1 ml) of the 750 mg tincture supplies 25 mg of cannabinoid- and terpene-rich hemp oil.

For best results, shake Hammer CBD tincture well prior to use. Place one full dropper of tincture under the tongue, hold there for 60 seconds, and swallow.

### Q: Is the tincture absorbed faster than the caplets?

A: Yes, the tincture will be absorbed a bit faster than the softgels,

simply because the cannabinoid/terpene-rich oil is not encased in a gelatin capsule. The gel cap dissolves rather easily; however, the oil will be absorbed faster, as it is not restricted within a capsule and has no need to be broken down. Conversely, because of the nano-sized microemulsion process that is utilized in the softgels and not the oil-based tincture, the softgel form will be more bioavailable than the tincture.

## Hammer CBD Hydro

If you prefer liquids to capsules, Hammer Hydro CBD Tincture is for you. Hammer CBD Hydro is a fully water-soluble formula that employs the same nano-sized microemulsion manufacturing process that you'll find in Hammer CBD softgel capsules for superior bioavailability.

The beauty of Hammer CBD Hydro's water-soluble formula is its mild taste, convenience, and versatility. You can take it straight from the bottle or add it to water or other beverages and consume as desired throughout your day.

Each serving (1 full dropper) contains 8.33 mg of a broad spectrum of cannabinoids, headed up by CBD (cannabidiol) but absolutely no (0.0%) THC, as well as a full complement of terpenes.

### Q: Which of your three orally dosed CBD products will absorb the quickest? Which one has the highest bioavailability?

A: In terms of absorption, here are the product rankings:

- #1 – Hydro
- #2 – Tincture
- #3 – Softgel

Here are the rankings in regards to bioavailability, or utilization by the body:

- #1 (tie) – Hydro, Softgel
- #3 – Tincture

### Q: How does dosing differ between the Hydro tincture and the softgels?

A: The optimal dose will, of course, depend on a number of variables, primarily body weight and physical condition and needs. One dropper full of 250 mg Hammer CBD Hydro contains 8.33 mg of cannabinoid content, slightly less than the cannabinoid/terpene content in one of the 10 mg softgel capsules. That may not be

# Hammer CBD Hydro

enough of a difference (1.67 mg) for a lot of people—they may find that one dropper of Hammer CBD Hydro is close enough in cannabinoid content to one 10 mg soft gel that they can use either one dropper or one soft gel. If, however, someone wants to replicate the amount of cannabinoid content found in one 10 mg softgel, they will need close to 1.25 droppers of Hammer CBD Hydro, as follows:

- 8.33 divided by 4 = 2.0825 (the amount in ¼ of a dropper of Hydro)
- 2.0825 x 5 (same as 1.25 droppers) = 10.4125 mg of cannabinoid content

If one finds they require the 25 mg strength, they would dose with 3 droppers of Hydro (8.33 mg x 3 = 24.99 mg).

## Hammer CBD Balm

Hammer CBD Balm is fantastic for helping alleviate aches and soreness, as well as for providing effective support for numerous skin conditions like itching, rashes, eczema, and psoriasis.

A superb carrier agent, medium-chain triglycerides (MCT), helps maximize skin penetration, which means a little goes a long way to provide effective relief. Lavender and eucalyptus essential oils act as carriers for the cannabinoid- and terpene-rich hemp oil while imparting a subtle and pleasant fragrance.

Simply apply a thin layer of Hammer CBD Balm onto the problem area and massage gently until it is completely absorbed. For best results, repeat the application once or twice more throughout the day.


Hammer CBD Balm not only has a plethora of uses, it also has a full 18-month shelf life. Keep a jar nearby, storing it at temperatures between 60° and 80°, and put the soothingly effective Hammer CBD Balm formula to work for you often.

## Q: What's the main difference between this Hammer CBD Balm and the standard Hammer Balm? Both are touted as working on sore muscles.

A: The difference is in the ingredients. Hammer Balm contains arnica (flower), ginger root, cayenne pepper (0.25% capsaicin), and clove oil. More about what these do can be found at <https://www.hammernutrition.com/knowledge/faqs/what-ingredients-are-in-your-body-care-products/>

Hammer Hemp Balm contains a broad-spectrum cannabinoid/terpene profile (100% THC-free) that not only helps alleviate aches and soreness but is also effective for numerous skin conditions.

## Summary

With all the extraordinary benefits attributed to CBD—science reveals more and more on a regular basis—Hammer Nutrition owner Brian Frank's statement that "CBD is the biggest news in sports nutrition since 1987" is absolutely spot-on. Isn't it time you discovered the wealth of benefits that Hammer's CBD products can provide? No matter your age, weight, and current condition, we have the products that will provide the kind of results you're looking for. Remember, we guarantee your satisfaction 100%! 



- Sleep like a baby
- Boost recovery
- Soothe soreness

Martin Criminale, The Enchantments (Alpine Lakes Wilderness) Photo Credit: Martin Criminale

## Broad-spectrum CBD Softgels or Hydro

30 Softgels \$69.95 | 1oz Bottle \$34.95  
25mg Softgels shown | 250mg Hydro shown



"... I've been using **Hammer CBD** since it was released and it is nothing short of awesome. With a 5x faster absorption rate, I feel the effects quickly which speeds me on my way to rapid recovery."

- Online Reviewer

## The Gold Standard



flavors as shown

ORDER TODAY!

Use Promo Code  
EN116VR

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



hammernutrition.com 800.336.1977

# Say **NO** to **NSAIDs**



BY THE ENDURANCE NEWS STAFF

While ibuprofen is a staple in purses and medicine cabinets across the county, many people do not know that this common pain reliever has been given the strongest hazard warning possible by the Food and Drug Administration.

The FDA's Black Box Warning, or boxed warning, is issued to drugs that have been shown to possess potentially harmful and dangerous threats to health. It is a specific call to action, asking patients to pay close attention to research and talk with their doctor about the risks and benefits of a particular medicine. This serious product designation is given because NSAIDs (nonsteroidal anti-inflammatory drugs) have been studied and linked to a variety of side effects such as hearing loss, gastrointestinal risks like leaky gut and stomach bleeding, and cardiovascular risks including thrombotic events and strokes.

## “What can I take instead?”

Additionally, recent research has shown that, unfortunately, NSAIDs can even worsen some of the ailments they are used to relieve. A powerful example is arthritis. Dutch researchers studied more than 1,600 people with hip arthritis and 635 with knee arthritis. In research cited in the *Journal of Prolotherapy*, people using an NSAID had three times as much of a progression of knee arthritis six years into the study. [1]

**Those with hip arthritis who took an NSAID had twice as much of a [disorder] progression as those who didn't.**

## “New evidence shows negative effect on cartilage”


“The scientific literature makes it abundantly clear that NSAIDs have a significant negative effect on cartilage,” says Sunil Pai, M.D., author of *An Inflammation Nation*. “NSAIDs have no beneficial effect on [cartilage] and speed up the very disease for which they are most used and prescribed.”

To relieve arthritis, research suggests using collagen. We include a specific, trademarked type of collagen, Undenatured Type II Collagen (UC-II™), in Tissue Rejuvenator. Turmeric, a plant that is related to the ginger family and that grows in India and Indonesia, has also been shown to reduce swelling and the symptoms associated with it. We include this powerful antioxidant in Tissue Rejuvenator as well.

## “NSAIDs have no beneficial effect on [cartilage] and speed up the very disease for which they are most used and prescribed.”

Omega-3 Fatty Acids also have strong anti-swelling properties. Daily supplementation with EndurOmega provides a number of benefits, including anti-swelling for overall health and pain relief.

Finally, glutamine is also an option for protecting and helping heal the lining of the gut, which can be compromised or damaged from NSAID use. Two of our products, Recoverite and Hammer Whey, contain ample amounts of this amino acid (3 grams and 6 grams per serving, respectively) for your health.

No matter if you're turning towards NSAIDs for osteoporosis, arthritis, or general pain relief, we invite you to pay attention to the new FDA warnings and consider methods that don't accelerate joint breakdown, but instead help you in a safe and natural way. 

### REFERENCES

1. [Journalofprolotherapy.com/the-acceleration-of-articular-cartilage-degeneration-in-osteoarthritis-by-nonsteroidal-anti-inflammatory-drugs/](http://Journalofprolotherapy.com/the-acceleration-of-articular-cartilage-degeneration-in-osteoarthritis-by-nonsteroidal-anti-inflammatory-drugs/)

# Beat the Pain

without  
NSAIDs

- Targets joint & muscle soreness
- Optimizes joint mobility & flexibility
- Maximizes recovery



**Tissue Rejuvenator** 120 Capsules | **\$32.95**

**Vegan Tissue Rejuvenator** 120 Capsules | **\$34.95**

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



hammadnutrition.com 800.336.1977

Bill Nutkins during the Atlas Carry in  
OCR Montana Photo: Spartan

**“ABSOLUTE MUST IN YOUR CABINET!”**



*“I have **Tissue Rejuvenator** readily available in my cabinet  
always! It is great knowing I have a back-up to other  
medication and a healthier option!”*

*- Online Reviewer*

# LSA CAPS for Essential Liver Performance

BY STEVE BORN

As a citadel, the liver is a strong protector for the entire body, but even guardians need upkeep. Athletes face the threat of oxidative stress from not just everyday life but also the high volume of free radicals and metabolic waste produced during workouts. We all want an efficient liver; athletes must do everything in their power to protect this vital organ.

Along with your efforts to consume the highest-quality diet possible—one that restricts salt and sugar, contains a wide range of fruits and vegetables, and includes sufficient fiber [1]—taking two capsules of LSA Caps twice daily provides an ideal amount of key liver-protecting nutrients. Nobody who cares about maximum performance would want otherwise.

Dr. Michael Tierra, a highly respected holistic health practitioner, describes the liver as “an important citadel for the function of the immune system,” our frontline defense against environmental and metabolic toxins. I really like Dr. Tierra’s description of the liver as a citadel because I think it’s 100% appropriate and accurate. A citadel is a strong castle in a city or town that shelters people from harm. As your body’s citadel, the liver does its job dependably and quietly, keeping other organs and systems safe and functioning properly.

A lot of people take liver health for granted. We actively protect our hearts, brains, and other organs, but we often forget to take care of our livers. As one of the body’s most resilient organs, the

liver might seem like it doesn’t require special attention. To add to this illusion, some of the symptoms of a less-than-healthy liver can easily avoid detection or present as a different medical condition entirely, leaving the liver uniquely vulnerable in those not preemptively taking care of it.

The liver’s most-well known function is the filtering and removal of harmful toxins and chemicals in the blood, but its true role in the body is far more involved than that. As a study on the liver’s involvement in exercise metabolism states,

“The liver is a battery, a rechargeable battery at that. It releases stored energy at times of high metabolic demand and replenishes energy stores during the nutrient excess associated with a meal...Physical exercise poses a unique challenge to the liver as metabolic demands of working muscles require the liver to mobilize energy stores, recycle metabolites, and convert compounds that are toxic in excess to innocuous forms.” [2]

Beyond its contributions to overall health or a long life, the liver is hugely involved in our performance and recovery during and after exercise. Being a healthy human is one task, but being a healthy athlete requires taking deliberate care of the liver. We developed LSA Caps (Liver Specific Advantage Caps) with a number of potent nutrients that will provide targeted support to your liver as it processes your daily life and exercise.

## HAMMER KNOWLEDGE

The liver is the hardest working organ in the body, performing more functions than any other.

The liver detoxifies, but also helps maintain fluid and electrolyte balance, supports proper glucose metabolism, assimilates nutrients efficiently, enhances cellular energy production, and much more!

### Get the Liver Specific Advantage

- Optimize healthy liver function
- Support the immune system
- Receive powerful antioxidant support

**LSA Caps** helps you take care of your liver so it can take care of you.

**LSA Caps** supplies nutrients to nourish the liver and protect and support its optimal function.

**Use LSA Caps** daily to experience widespread systemic health improvements while warding off potentially serious health consequences.

## Supporting Performance with Liver-Specific Ingredients

Artichoke Leaf Extract 10:1 (Cynara Scolymus) – Artichoke leaf contains potent compounds, primarily cynarin, that assist your liver in producing quality bile. That might sound off-putting, but healthy bile flow is a primary way your body digests and absorbs fats as well as carts away waste products.

Broccoli Extract 20:1 – Broccoli, like all cruciferous vegetables, contains an organic sulfur compound called sulforaphane, which in concentrated forms increases protective enzymes. Possibly due to its richness in the sulforaphane precursor glucoraphanin, broccoli sprout extract has been shown to improve liver function in men with fatty livers. [3]


Milk Thistle (80% Silymarin) – Milk thistle has been known in the Mediterranean for thousands of years as a liver-supporting plant. Its seeds contain a flavonoid called silymarin, which protects against the toxins naturally produced by the liver's filtering processes.

N-Acetyl-L-Cysteine (NAC) – N-Acetyl-L-Cysteine (NAC) is a precursor for the endogenous (internal) production of glutathione, an antioxidant found in almost every cell in the body and most highly concentrated in the liver. NAC is frequently used in medical settings to treat liver toxicity associated with acetaminophen overdose as well as mushroom poisoning (Hazai et al. 2001; Attri et al. 2001).

Vitamin C (Ascorbic Acid) – Vitamin C possesses liver-protecting capabilities and works alongside NAC to boost bodily levels of glutathione.

Selenium (L-Selenomethionine) – Selenium, a trace mineral, is involved with endogenous production of glutathione. Low levels of selenium have been shown to correlate with an increased risk of liver cancer.

BlueRich® Blueberry Concentrate 36:1 – Blueberries contain a number of potent compounds, namely anthocyanins, a flavonoid and pigment that gives blueberries their color, and pterostilbene (pronounced terro-STILL-bean), the blueberry's primary antioxidant. BlueRich® is a super-concentrated, all-natural, GMO-free standardized blueberry extract, equal to over 1/3 cup of whole blueberries.

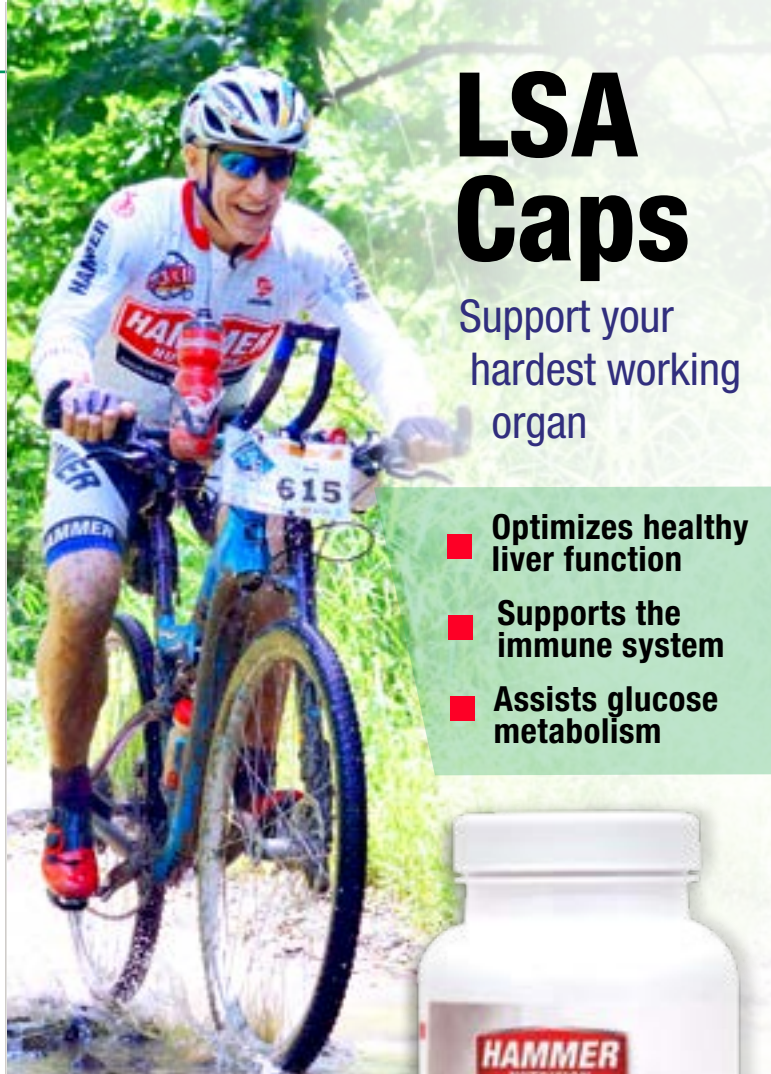
Molybdenum (Molybdenum Glycinate) – Molybdenum is a trace mineral found in foods and stored particularly in organs such as the liver and kidneys. It performs many functions, including breaking down various toxins and converting sulfite, which poses a risk of buildup in the body, to sulfate. 

### REFERENCES:

[1] "Focus on Fiber" at <https://www.hammernutrition.com/media/downloads/ENews/ENissue114.pdf> (page 46)

[2] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4826571/>

[3] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4649129/>



# LSA Caps

Support your hardest working organ

- Optimizes healthy liver function
- Supports the immune system
- Assists glucose metabolism



Ron Dick of Duncansville Pharmacy heads towards a water crossing during the Hilly Billy Roubaix in Core, West Virginia.  
Photo: Cassie Fetzer



*"After hearing about liver health in the news, as well as through online research, I was prompted to look for a quality liver health product, LSA Caps is now a daily part of my supplements."*

*- Online reviewer*

**120 Capsules | \$29.95**

Also a powerful antioxidant

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



*flavors as shown*



hammernutrition.com 800.336.1977

# Dr. Bayne French

I'm not ashamed to disclose that cannabis has always confused me. I don't mean that I use it and then get confused. The terminology is just so puzzling. What is cannabis, anyway? Is it a plant, really, or just a colloquially used garbage can word? And hemp? Come on. Through my day I would go, purposely oblivious, nodding at patients' anecdotes of use like I knew what they were talking about. Who has time to learn about plants, anyway? I have kids that need to be herded, ducks to butcher, endless government medical regulation to navigate.

**Perhaps you're wondering if CBD and its dozens of hitchhiking, complementing, chemical comrades might benefit you.**

Unfortunately, I am both incapable and unable to advise you. However, there is no question in my mind that something very powerful is going on here biologically. There are common reported effects from CBD use that I feel are very plausible, including alleviated mood swings, maintained immune function, and reduced stress and tension. Joint health and improved flexibility are also reported. The anecdotes have reached a crescendo. And I recently heard something about a Farm Bill that did something legally, with some stuff, for a thing, with a deal. When not herding my children, I read everything about these topics my wife printed off for me. Then when Brian Frank thrust *CBD (Cannabidiol): A Clinical Review* by Mark W. DelBello, M.D., into my hands and said, "Learn it, quack," suddenly I found the time to begin my study. I am not an expert. How about we learn together? I am going to distill a massively complicated cellular signaling system into basic constructs (more for me than you)



and try to figure out what CBD and related compounds are good for, all the while not riling any government agency. Set, hut, hut!

I sat in classrooms for so long rigor mortis set in, and never did I learn about our endocannabinoid system (ECS). As Dr. DelBello explains, the ECS is a cellular communication system that is not unique to *Homo sapiens*. It resides in virtually every cell type we possess, prominently in nerve tissue where it regulates appetite, mood, and pain. In peripheral tissues, the ECS acts on our immune system, purportedly to prevent dysfunctional and dysregulated immune responses. To simplify the ECS, it consists of two endocannabinoids (AEA and 2-AG, which are produced in our bodies), two receptors on cells (CB-1 and CB-2, which AEA and 2-AG interact with), and the protein enzymes that produce and degrade AEA and 2-AG. It's interesting to consider how and why we have developed this system. We as *Homo sapiens* likely interacted with the cannabis plant for over two million years and adapted alongside it. Much of what the ECS is capable of has not yet been elucidated. What we do know is that it interacts with our endocannabinoids (cannabinoids produced within the body) as well as phytocannabinoids (from plants) and exocannabinoids (any cannabinoid produced outside the body, including synthetic ones).

Let's turn to the plant itself. *Cannabis* is Latin for hemp. It appears that it is a general term for a plant of three different "species": *Cannabis sativa*, *Cannabis indica*, and *Cannabis ruderalis*. This, however, is a business designation, which is why "species" is in quotes. The scientific opinion is that *Cannabis* exhibits monotypia, meaning it consists of a single species named *Cannabis sativa L.* and the different "species" are merely subtypes (the "L" stands for Linnaeus. Carolus Linnaeus is the father of taxonomy and most likely was an endurance athlete but records are sparse). Maybe the division of the plant is a bit semantical.

***Hemp is now like any other agricultural commodity - heck, now it's a mainstream crop.***



# Explains CBD

What does matter are the chemical differences between the plants, namely drug-type (marijuana) plants and fiber-type (hemp) plants. Just as how apple trees and wheat are bred to produce a certain yield, so too is *Cannabis* selectively bred to produce a desired profile, and there are more than 700 different cultivars, or plant varieties, of *Cannabis*.

All subtypes of *Cannabis* possess a wide array of compounds, including both cannabinoids and hydrocarbon terpenes. Of the over 100 different cannabinoids, the two of largest concentration in *Cannabis* and the most widely studied are delta 9-tetrahydrocannabinol (THC for short) and cannabidiol (CBD). Fiber-type hemp plants possess high ratios of CBD to THC (with ratios as high as 30:1) and, by legal definition, contain less than 0.3% THC. Drug-type plants obviously contain more THC, on average an amount that is about 5% of their makeup, and sometimes as high as 20%. CBD and other cannabinoids are oils. They are lipids, and thus not soluble in water. As mentioned, there are very many different cannabinoids.

**There are common reported effects from CBD use that I feel are very plausible, including alleviated mood swings, maintained immune function, and reduced stress and tension.**

There is also a completely different class of compounds known as terpenes, which are hydrocarbons. The individual constituents and their relative concentrations are accurately quantifiable using gas chromatography. What is not known is what the heck they are all doing in our bodies!

A quick read-up on hemp informs us of its myriad textile uses and potentially medicinal uses as well. So why has it been lumped in with drug-type *Cannabis*? Because banning is the easiest method of control: convenient, however not the most effective, as shown with Prohibition. But no sociological or philosophical digression.

*Getting straight what is known, what is thought to be known, and what is yet to be known.* By Dr. Bayne French



We have to outline hemp's outlaw status, its recent extrication from that status, and more. So what, exactly, is legal? I'm not sure I know, but hopefully we will both learn over the next few paragraphs.

The Brookings Institution and the *National Law Review* recently had excellent reviews of the Farm Bill which explained hemp's legal status. All *Cannabis* plant types were effectively made illegal in 1937 and made formally illegal under the Controlled Substances Act in 1970. But change has been recently afoot; the 2014 Farm Bill extended protection to hemp research. For the 2018 Farm Bill, Senate Majority Leader Mitch McConnell, hailing from the fertile, hemp-happy soil of Kentucky, championed further reform legislation and President Trump signed it on December 20, 2018. This latest bill defines hemp as any part of the *Cannabis sativa L.* plant that contains less than 0.3% THC by weight, and offers the states regulatory authority over its production within their borders. Hemp is now like any other agricultural commodity—heck, now it's a mainstream crop. This is great news for hemp farmers who may now have protection against evil forces like climate and pestilence. CBD, however, is far from legally unfettered. It's exempted from being a Schedule I drug *if and only if* its production follows numerous regulations.

Continued next page

# CBD will be much more available and legal.

From previous page

The take-home is that under the 2018 Farm Bill, CBD will be much more available and legal. But knowing the legitimacy of your source or the brand you buy from is critical.

The CBD industry is burgeoning. According to the research firm Brightfield Group, legalization of hemp could result in a CBD market of \$22 billion by 2022, and this group considers themselves “highly conservative analysts.” Brightfield states, “CBD is the next healthcare phenomenon.” They recognize that, in the current environment, CBD’s impressive growth has been primarily word-of-mouth given heavy FDA regulation. The United States Food and Drug Administration (FDA) has issued statements clarifying its role as a result of the Farm Bill changes. ANY cannabis product whose marketing makes medical claims must be approved by the FDA before it can be sold.

**How about we learn together? I am going to distill a massively complicated cellular signaling system into basic constructs...**

If you know anything about the medicine approval process you’ll know that it’s daunting. “Expensive” and “time-consuming” are understatement, so many products now exist with no associated explicit claims of their medicinal value. And in an appeal to lots of folks with lots of problems, numerous formulations and delivery mechanisms for CBD exist. Transdermal, transmucosal, inhaled, and oral methods, nasal routes via oral disintegrating tabs (known as ODT), lollipops, sprays, gel caps, and lozenges exist. Self-emulsifying drug delivery systems (SEDDS) are researched and water-soluble versions and nanoscale-range powders have enhanced bioavailability. The bioavailability of CBD has been a problem. Only 6% of orally ingested CBD actually reaches the blood stream and sublingual (under the tongue) and transmucosal methods from lozenges and sprays also offer relatively poor absorption. One of the few reliable intake methods for CBD appears to be taking it with a high-fat meal (we’re going to nail this

*We all possess a well-developed internal system of cellular communication and signaling that utilizes synthesized cannabinoids and we have definitive evidence of their numerous favorable effects on health.*

one in future articles), which results in much-enhanced bioavailability, especially when the dose is divided twice daily, as pharmacokinetic studies cited in DelBello’s text would suggest.

Not unlike readily accepted indications for use, solid dosing guidelines for CBD products are also lacking and usually just empirical. Many patients galvanize this sentiment, reporting a dizzying array of maladies helped by their CBD du jour. Dr. DelBello, thankfully, is a voice of reason. In his excellent *Clinical Review* he outlines the evidence behind these anecdotes and objectifies what is known, what we think is occurring, what isn’t known, and the research involving dozens of health conditions.

Dr. DelBello outlines a study that I have obtained and read comparing purified CBD vs. *Cannabis* extracts (mixture of compounds). There was a considerably higher number of patients reporting improvement using the extracts. Furthermore, the average dose of the extracts was more than four times lower than the purified CBD dose and had fewer adverse effects. These findings certainly raise questions about potential synergy between components. Synergy is a well-known phenomenon describing the enhanced effect of combining more than one agent when compared to the effect seen from the agents individually. In relation to *Cannabis*, synergy was termed the “entourage effect” in a 1998 study. The internet is filthy with references to the entourage effect, but that study showed only an association of enhanced effect from one chemical with another. In no way has extensive scientific investigation been done or true causality established for the effect. “Full spectrum CBD” is a common term of trade, signifying the product has undergone less processing, and that a mixture of compounds exist in it. Some insight into the potential and physiological potency of CBD may be had by looking at two of the

# But knowing the legitimacy of your source or the brand you buy from is critical.

three FDA-approved *Cannabis* medications.

Epidiolex, approved just last year, is a purified form of CBD oil and treats two rare and severe seizure disorders. Dronabinol (Marinol), with its two indications approved in 1985 and 1992, is a synthetic cannabinoid with THC qualities. It is approved to treat nausea and vomiting that occurs due to chemotherapy and, more recently, for weight loss associated with AIDS. Nabiximols (Sativex) is not approved in the US but is used in numerous other countries as an anti-inflammatory treatment against muscle spasms that come with multiple sclerosis. Nabiximols is a 1:1 ratio of CBD and THC. To quote Dr. DelBello, "Because CBD and cannabinoids are a new field of therapeutics, even physicians feel uncomfortable and not knowledgeable about advising patients." I'm not that guy. With all the medications we don't bat an eye at prescribing every day, sometimes in combination, I have no personal reservations about the safety of a broad spectrum CBD compound. The risk/benefit ratio I view as being very favorable.

So, as we conclude, what have we learned? Please don't say, "To never read another Dr. French article." We all possess a well-developed internal system of cellular communication and signaling that utilizes synthesized cannabinoids and we have definitive evidence of their numerous favorable effects on health.

**How about we learn together? I am going to distill a massively complicated cellular signaling system into basic constructs...**

It seems to me that encountering similar compounds in nature or our food supply is not at all an unnatural occurrence. Many within my profession feel that supplementation is unnecessary, and warn patients that it only results in expensive urine. Well, my urine represents such a goodly sum that I almost hate to part with it. Given our brief insertion at this time in history, into the glorious theatre of humanity, I find it highly probable that many important nutrients are deficient and *improbable* that they may be adequately replaced via food. Although "as-needed" CBD appears to help a wide array of ailments, I feel its regular supplementation is akin to that of omega-3, trace minerals, vitamin D, etc.

In addition to an outstanding diet of "human animal food," the uniqueness of this compound may offer another advantage in our quest for well-being and disease avoidance.

There is much that is still unknown. What seems clear is that a reputable source of CBD is critical. It is safe and legally available. Twice daily dosing with a meal containing fat seems to offer the best absorption and bioavailability. Beyond that, fellow *sapiens*, as with all things involving your health, it's up to you.

*With all the medications we don't bat an eye at prescribing every day, sometimes in combination, I have no personal reservations about the safety of a broad spectrum CBD compound.*



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





# Made in Montana? YOU BETCHA!

BY HAMMER NUTRITION STAFF

*Supporting local shops, farms, and businesses with the strictest quality control standards, maintaining the very best products and optimal stock levels.*

Our tireless efforts to produce the finest fuels never ceases. One area of those efforts is in regards to the companies that we choose to manufacture our products. You can bet that we're constantly keeping our eyes and ears open for suppliers and manufacturers who can not only meet our strictest-of-strict quality control standards but are also able to meet our goal of having optimal levels of fresh stock.

Well, as it turns out, our country-wide search led us back to home. We found exactly what we were looking for here in Montana. The term "state-of-the-art" oftentimes gets overused, but the company that will now be producing HEED, Sustained Energy, Perpetuem, Recoverite, Hammer Whey Protein, and Hammer Soy Protein is the very definition of that term.


The entire facility is immaculately pristine, no doubt due to the ultra-rigid quality control standards employed. Additionally, because these producers are a Certified Informed-Choice Site, they're absolutely able to meet our unflinching requirements for product quality and purity.

Without question, product integrity has always been extremely important to us, and we know (as should you) that with our new manufacturer there is simply no possibility that anything can contaminate our products. You can find out more about Informed-Choice at <https://www.informed-choice.org/>

We also took the opportunity to see if improvements could be made to the flavor of many of our fuels. Wow, did this company impress us with the samples they provided!

We're very pleased with the way things have turned out flavor-wise with these fuels and we sure you will be as well.

One last thing. If you've been a Hammer family member for even a short time, you know that we're all about supporting local shops, farms, and businesses. With our move to this fantastic new Montana-based facility, we have achieved that goal as well.

We don't have an exact ETA on when our Montana-based fuels will be available, but we will certainly keep you up to date! 



Some of the many products we are proud to make for you, right here in our home state of Montana!

# Your muscles' BFF!

*Repair and repeat!*

- Maintains & repairs lean body mass
- Strengthens immune system
- Accelerates recovery



Hammer Employee, Ginjer Yachechak drinking Whey Protein post 24 Hours Round The Clock. Photo: Miles Frank



## "CLEANEST PROTEIN I'VE EVER HAD"



"I've tried many different protien brands and flavors and **Hammer Whey Protein** is, without a doubt, the cleanest protien I HAVE EVER HAD. Good protien without all the add-ins. Love it."

-Online Reviewer

24 Servings | \$42.95

Single-serving packets | \$2.95

Flavors:

Chocolate, Vanilla, Strawberry

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



hammadnutrition.com 800.336.1977

# 7 Superstars for Superior Recovery



BY STEVE BORN

In the last issue of *Endurance News*, we published “7 Recovery Tips for Your Toughest Workouts” (pages 38-39). While we discussed the importance of “refilling the tank” with Recoverite ASAP after your workouts, undoubtedly the most important step in kick-starting the recovery process, we also mentioned some supplements we recommend for recovery.

In this article, I rank the supplements that are my favorite for supporting full and complete recovery. If your list is different, that’s OK! Whether your favorite Hammer Nutrition recovery-benefiting supplement is #1 or #7 here, or may not have even made the list, as long as you’re using it consistently and experiencing better recovery between your workouts, you’re doing it right!

one

**Hammer CBD.** In my view, there is no other class of nutrients that provides as wide a range of benefits as the cannabinoids and terpenes found in the hemp plant do. You won’t find a more powerful supplement than Hammer CBD for alleviating aches and soreness. CBD also has potent antioxidant properties for powerful immune system support and it has been shown to enhance sleep quality and duration, essential for maximizing exercise recovery and overall health.

two &amp; three

**Chromemate and Essential Mg.** One of the ways your body rewards you for your training efforts is by storing more minutes of fuel in the muscles as glycogen. With this “reward,” you start future races with more on-board fuel that’s ready to serve you.

Maximizing this “fuel restoration/accumulation in the muscles” process is undeniably important. Taken with Recoverite, Chromemate and Essential Mg work closely together to powerfully enhance the body’s glycogen synthesis and storage capabilities.

four

**AO Booster.** Comprised of three nutrients/nutrient compounds that are extraordinary fat-soluble antioxidants, AO Booster also alleviates aches and soreness. In fact, AO Booster’s nutrients supply so many benefits, we wrote about each one of them separately!

[www.hammernutrition.com/blog/the-full-e-family-in-ao-booster](http://www.hammernutrition.com/blog/the-full-e-family-in-ao-booster)

[www.hammernutrition.com/blog/ao-boosters-lutein](http://www.hammernutrition.com/blog/ao-boosters-lutein)

[www.hammernutrition.com/blog/astaxanthins-amazing-benefits](http://www.hammernutrition.com/blog/astaxanthins-amazing-benefits)

five

**Tissue Rejuvenator/Vegan Tissue Rejuvenator.**

“What?!? TR is only #5? How can that be? It’s my #1 recovery product!” If that’s what you’re thinking, you won’t get an argument from me. While they aren’t at the top of my list, TR/VTR are definitely go-to products for me; I take one to two capsules of each of product twice daily. The personal reason for my TR/VTR ranking isn’t because of any weakness in the products’ effectiveness, but has more to do with showing how vitally important the ones listed above are in my personal recovery supplement program.

six

**Mito Caps.** In a blog post ([www.hammernutrition.com/knowledge/endurance-news/four-reasons-mito-caps-are-must-for-cell-health](http://www.hammernutrition.com/knowledge/endurance-news/four-reasons-mito-caps-are-must-for-cell-health)), I provide the rationale for why all athletes would benefit from daily use of Mito Caps, number four on that list being particularly important for recovery.

“Nearly every nutrient in the Mito Caps formula...” I wrote, “has powerful antioxidant properties. R-ALA is particularly impressive, as it is believed to be the only nutrient that functions as both a water- and fat-soluble antioxidant, with the ability to quench several different types of free radicals. Additionally, R-ALA enhances glutathione levels in the body. Glutathione is one of the primary antioxidants produced directly by the body, and it plays a key role in immune system health.”

seven

**Super Antioxidant.** How powerful is this product? Here’s what Dr. Bill Misner once wrote: “When I first proposed Super Antioxidant’s formula to the manufacturer, they advised us that this combination would be too potent an antioxidant for human use. Since I had already tested the ingredients in my own training without side effects, but with good performance results, Brian Frank approved production, and we—as well as thousands and thousands of athletes—have enjoyed using it for years.”

Enhanced circulation is another great benefit of Super Antioxidant. Any time you can boost circulation after exercise, helping clear out the metabolic waste products that accumulated during the training session, you’re going to enjoy a quicker and more-complete recovery.

**Additional support:** Though they didn’t make my “Top Seven” list, I also personally take Boron, Xobaline, and Premium Insurance Caps every day as part of my overall health supplement program, with these three products also helping support recovery after exercise.

**Summary:** A dual approach—Recoverite or Organic Vegan Recoverite for refueling the body and an intelligent supplement program such as the one listed in this article—is the best way to promote quick and complete recovery from your workouts, ensuring that your body will be ready to take on the demands you’ll be placing on it in future workouts and in all your events and competitions.

# HAMMER ON!



A much-needed rest during the 2019 Land Run 100  
Photo: Salsa Cylces

## Recovery Done Right

- Supports Joint Health
- Promotes Well Being
- Relieves Soreness

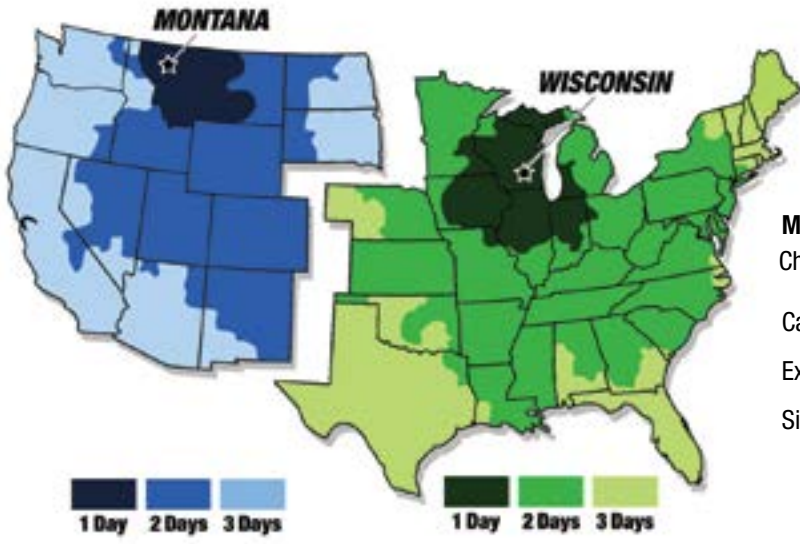


For better performance tomorrow, recover right today!

### NEW! Faster Shipping!

Client # \_\_\_\_\_  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Email \_\_\_\_\_

Product	Flavor/Color	Size	Price	Quantity	Amount



**ORDER TODAY!**  
 Shipping rates:  
**Order Total Ground FedEx**  
 \$0 to \$39.99     \$4.95  
 \$40 to \$99.99     \$7.95  
 \$100+     **FREE!**  
 Shopping Local     **NONE!**

Subtotal: \_\_\_\_\_  
 Shipping: \_\_\_\_\_  
See chart at left  
**TOTAL:** \_\_\_\_\_

**Method of Payment** (circle one)  
 Check / MO • Visa • MC • Discover • AmEx

Card # : \_\_\_\_\_  
 Exp. : \_\_\_\_\_ Verification # : \_\_\_\_\_  
 Signature : \_\_\_\_\_

**800.336.1977**  
**hammadnutrition.com**

# SOS 5 Secrets of Success

Continued from  
**Endurance News #115**  
June/July 2019

## #4 ELECTROLYTE REPLENISHMENT

Complete electrolyte replenishment is vital for sport performance. It doesn't matter if it's hot, humid, cold, or dry, electrolytes are necessary to prevent cramps, regulate body temperature, and execute critical body functions. They keep your body running strong when replenished consistently.

While it's common to see salt tablets passed around as an electrolyte source, you'll do more harm than good when you supplement with sodium alone. In fact, doing so is downright dangerous! Supplementing with excess salt leads to immediate, negative results such as swelling, elevated blood pressure, and, in extreme cases, muscle weakness, seizures, and even death.

When our bodies detect added sodium from outside sources, we stop filtering and recirculating sodium within our bodies so we can purge the excess instead. The same thing happens if we eat a high-sodium diet, meaning anything more than 2,300 milligrams of sodium per day. So, skip the salty foods in favor of natural, unprocessed foods. This will help you consume sufficient sodium without interrupting your body's natural regulatory processes. Additionally, make Hammer Nutrition's Endurolytes products, not just sodium, a staple in your workout fueling regimen and reap the rewards.

Full-spectrum electrolyte replenishment must be consistent in order to counter the effects of over-heating, optimize bodily functions, and enhance athletic performance. In addition to sodium and chloride, Hammer Nutrition's Endurolytes products contain a line-up of electrolytes including potassium, magnesium, calcium, and manganese. Endurolytes are formulated to maintain proper electrolyte levels so athletes can best handle any condition: extreme climates and exercise duration or changing dietary habits. The human body can assimilate only about 1/3 of what it loses during exercise, so a proper balance of minerals will allow your body to finish strong.

## KEEP GOING!

**Precise electrolyte replacement**  
Endurolytes and Endurolytes Extreme

With four primary product selections to choose from, Hammer Nutrition provides an electrolyte solution for every athlete: Hammer Nutrition's original Endurolytes capsules have provided athletes a proportionally balanced electrolyte supplement since 1996! With 100 milligrams of sodium chloride in each capsule, 1 to 6 capsules per hour are recommended depending on heat stress levels. Athletes who tend to consume a high-sodium diet, are preparing for an event, or work out in extreme conditions should replenish with Endurolytes Extreme Powder or Capsules. Triple the potassium, sodium, and chloride compared to our original formula allows for a 3:1 reduction in the number of capsules consumed. Endurolytes Extreme Powder is the same formula with a light watermelon taste that mixes well with water.

Endurolytes Fizz effervescent tablets provide electrolytes equal to two Endurolytes capsules. For those who have difficulties swallowing capsules or prefer flavoring their water, Endurolytes Fizz provides a win-win solution in five refreshing flavors: Cola, Lemon Lime, Grape, Mango, and Grapefruit. **EN**

## HEED<sup>®</sup> to SUCCEED!

**ENDUROLYTES<sup>®</sup> Extreme Powder**  
Is formulated for ideal use with hydration packs





# HAMMER Quick Tips



Electrolyte replenishment is important regardless of outside temperatures.



The body only needs 500 to 2,300 milligrams of sodium a day, an amount easily supplied with natural, unprocessed foods.



Intake of high levels of sodium leads to increased sodium loss during exercise, which leads to more required sodium later on.



Adding Endurolytes, Fizz, or HEED to your water bottle is an easy way to help replenish electrolytes consistently throughout your workout or race.



## Build your optimal fueling strategy!

For a complete guide to fueling, replenishing electrolytes, and applying all SOS recommendations, refer to Hammer Nutrition's product usage manual, *How to Hammer*.



When it comes to endurance fueling...

# We Wrote the Book!

Get exclusive answers you need to succeed with Hammer Nutrition's easy-to-read, FREE fueling guide that will help you ***Fuel Right, Feel Great!***<sup>®</sup>



Powerful recommendations  
Concise information  
Time-tested advice



800.336.1977

**DOWNLOAD  
YOUR FREE  
COPY TODAY!**

[hammernutrition.com/media/downloads/sos.pdf](http://hammernutrition.com/media/downloads/sos.pdf)

## FROM THE KITCHEN OF **LAURA LABELLE**

**S**ummertime is the best time to enjoy the outdoors, warmer temperatures, and starry skies. The ocean is warm and inviting and the mountains buzz with life.

Summer is also the height of most endurance athletes' training and competing. To keep things light, easy, and delicious, when I think of summer foods I think of grilled meats, poultry, fish, and veggies, and when I grill, I like to look back at my yummy recipes for rubs, marinades, sauces, and drizzles.

There are many books on grilling and everyone is all about the "Traeger grill," which takes some time to get just right. Personally, I like an old-fashioned charcoal mesquite grill. I get the coals nice and hot and let them burn a little, like I'm preheating the oven, so they don't scorch the food. It is always best to put your meat or veggies on the grill once there are no longer flames.

Nowadays you can find lots of different attachments for your grill so fish and fine-cut veggies don't fall through the bars. I highly recommend using these attachments, as I personally am prone to losing bits and burning my fingers while trying to prevent pieces from falling into the flames. Another tip is to not continually turn your items on the grill. I like to let my food get somewhat crispy on an even fire and turn it just once. This may not be possible if your fire is too hot, so you may have to turn your food to prevent it from becoming charcoal. It's pretty easy to read a couple articles online about the "ins and outs" of grilling to assure you get your highest rate of success.

Why am I rambling on and on about grilling, you ask yourself? Because there are so many things you can do with grilled food. Grilling just makes me hungry; the aroma of your food wafting throughout the neighborhood is always so inviting to me. What I like to do is grill a good amount of food all at once so I can use it for leftovers and multiple meals to come. Grilled steak and poultry are delicious on the spot when accompanied by a nice salad or your choice of rice or mashed potatoes. However, if you grill extra food, you can slice the leftovers and toss them in a chopped salad, put them over a bed of greens, or make sandwiches with them. Leftover grilled veggies are also delicious to serve as a side dish "antipasti" style or chopped up and added to a pasta dish or salad. I use them in my lasagna sauce.

A final tip: for meats and poultry you can go with a marinade or rub. It is always best to not use too much sugar or oil in your preparation, as they tend to burn if the fire is too hot.

As always, I like to give you a dose of my enthusiasm for preparing and eating easy, healthy food. I hope some of these tips, recipes, and ideas serve as inspiration to get your food on! Enjoy the summer and all the delicious seasonal foods and recipes our cookbook has to offer.

Hammer on! **EN**

# Grilling for the Win



Summer sizzle. Recipe on page 36.  
Photo: Alex Corbelli

■ Light  
■ Easy  
■ **Savory**



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 to 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.



Hammer HQ's Tyler Keck fuels with HEED Lemon Lime on a ride on the Whitefish Trails. Photo: Alex Corbelli

# Everything you need!

## Nothing you don't.

- Sustained energy
- No sugar crash
- Reduces cramps
- Supports dental health



### "HEED USER FOR 10 YEARS"



*"Heed has been my go-to energy supplement through 10 years of training for marathon running and cross country bicycling. It is simply mixed in my water and gives me the energy needed without the sugar. Love it."*

- Online Reviewer

**32 Servings | \$29.95**

**Single-serving packets | \$1.95**

Flavors:

Lemon-Lime, Mandarin Orange, Strawberry, Melon

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



hammernutrition.com 800.336.1977

# FROM THE KITCHEN OF LAURA LABELLE

## Seared Steak with Grilled Summer Veggies

### Coffee Rub

#### Ingredients:

- ¼ cup finely ground dark roast coffee
- ¼ cup ancho chili powder
- 1/3 cup coconut sugar
- 2 tbsp. smoked paprika
- 2 tbsp. garlic powder
- 2 tsp. kosher salt
- 1 tbsp. ground cumin

#### Preparation:

- 1) In a small bowl or food processor, mix all ingredients thoroughly.
- 2) Rub selected steak or chicken with blended mixture, using your fingers so it adheres. Allow protein to sit and absorb rub flavors.
- 3) Grill according to preference and serve.

Get summer sizzling with steak and fresh veggies! Throw your favorite cut on the grill and *perk* things up with a creatively bold rub using Hammer's 53x11 coffee, paired with savory herb marinated vegetables, and balanced with a light and tangy chimichurri sauce.

# Hungry yet?



Photo Credit: Alex Corbelli for Hammer Nutrition ©



### Marinade & Vegetables

#### Marinade Ingredients:

- ¼ cup olive oil
- 2 tbsp. honey
- 4 tsp. balsamic vinegar
- 1 tsp. dried oregano
- 1 tsp. Herbes de Provence
- ½ tsp. garlic powder
- 1/8 tsp. pepper
- Dash of salt

#### Vegetables:

- 1 lb. fresh asparagus, trimmed
- 3 small carrots, cut in half lengthwise
- 1 large red bell pepper, cut into 1-inch strips
- 1 medium yellow summer squash, cut in ¼-inch slices
- 1 medium red onion, cut into wedges

#### Preparation

- 1) Whisk all of the marinade ingredients in a bowl until completely blended. Transfer to a large Ziploc bag.
- 2) Add prepared vegetables to the marinade. Mix well and let rest for one to two hours before grilling.
- 3) Put veggies in a vented foil packet and place directly on grill heated to approximately 400°F.
- 4) Allow to cook for 10-15 minutes or until vegetables are slightly softened.

### Chimichurri Sauce

#### Ingredients:

- 1 cup fresh, firmly packed flat-leaf parsley, trimmed of thick stems
- 3 to 4 garlic cloves
- 2 tbsp. fresh oregano leaves OR 2 tsp. dried oregano
- 1/3 cup olive oil
- 2 tbsp. red or white wine vinegar
- ½ tsp. sea salt
- 1/8 tsp. ground pepper
- ¼ tsp. red pepper flakes

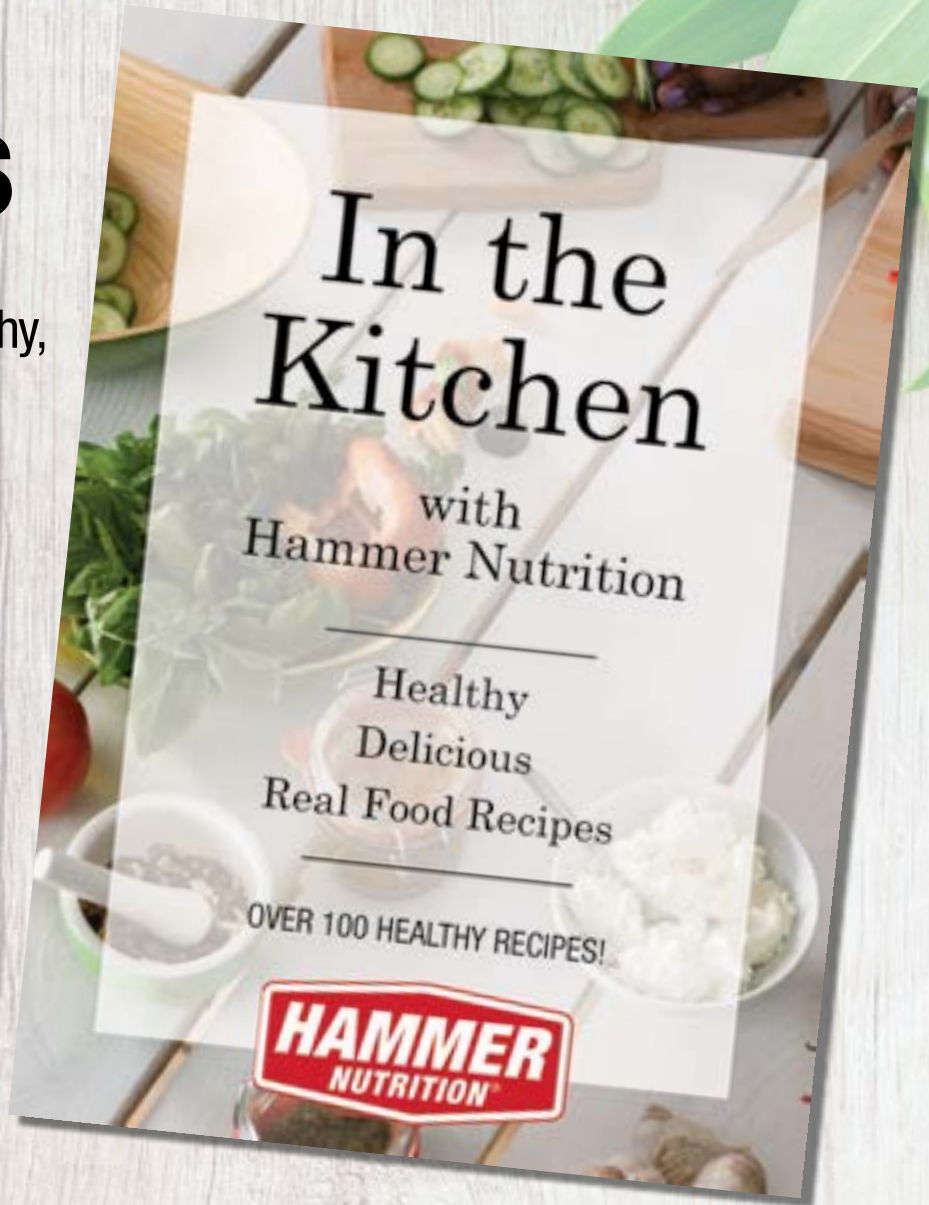
#### Preparation:

- 1) Chop parsley and fresh oregano (if using), removing any large stems.
- 2) Put all ingredients in a small food processor and pulse until evenly mixed.
- 3) Serve immediately as a topping or side sauce with your meal of choice. Refrigerate if preparing early. If chilled, return to room temperature before serving.

\*Note: This sauce can keep for up to two days refrigerated.

# Deliciously Healthy Recipes

Over 100 pages of healthy, wholesome, and fresh ideas that you and your family will love!



Download your  
**FREE** copy today at  
[hammernutrition.com/cookbook](http://hammernutrition.com/cookbook)

hammernutrition.com | 800.336.1977



# High Fruit Juice Consumption Linked with Increased Mortality Risk

BY STEVE BORN

It should already be well understood that sugar-sweetened beverages (SSBs) such as soft drinks and sodas are detrimental to health. What most people don't realize is that 100% fruit juices—once thought to be healthy beverages—also have a deleterious effect on human health and should be included in the same list as soft drinks.

That's the findings and recommendations from a recent cohort study lead by Lindsay J. Collin, MPH [1] involving over 13,400 US adults aged 45 years and older. Using participant-completed Block 98 food frequency questionnaires, and while also examining death records, the researchers analyzed sugar-sweetened beverage and 100% fruit juice consumption.

Their findings reveal that participants who obtained 10% or more of their daily calories from any SSBs increased their risk of all-cause premature death by 14%, with a 44% increase in death solely from coronary heart disease. Perhaps most alarmingly, the researchers found that each additional daily 12-ounce serving of fruit juice, independent of other SSBs, was associated with a 24% increase in risk for all-cause mortality.

The results of this study suggest that a higher consumption of SSBs, including 100% fruit juice, “is associated with increased all-cause mortality among older US adults,” according to the researchers. They added, “Efforts aimed at reducing consumption of SSBs should include fruit juice.” Dr. Marta Guasch-Ferré and Frank B. Hu commented: “Many people consider fruit juice to be a healthier alternative to sugary soft drinks.

However, these drinks often contain as much sugar and as many calories as SSBs. Although the sugar in 100% fruit juices is naturally occurring rather than added, once metabolized, the biological response is essentially the same.”

Kate Patton, RD, summarizes these findings by stating, “Excessive amounts of any sugar-sweetened drink, over time, is going to likely lead to weight gain and, possibly, obesity – eventually. It's the obesity that's really causing an increased death risk. You really have to be careful with the portion size.”

Our recommendation: If you simply must drink fruit juice, limit it to no more than six ounces daily. Additionally, diluting it with water will allow you to enjoy a greater-volume beverage but without any increase in sugar content. Best advice of all is to eat whole fruit, which is a healthy practice as it contains the fiber and enzymes that 100% juices don't, as well as significantly more of the vitamins, minerals, and phytonutrients than juice alone contains.

**BEWARE**  
of hidden  
sugars in  
your favorite  
foods



# Beneath the surface: Sugar lurking in everyday foods

BY ARYNN MAZNIO

## #1 “Whole Grain” bread:

While most of us assume a slice of multi-grain bread provides a healthy alternative to typical white breads, several brands add at least two grams of sugar to their product. One particular brand features a little runner on its packaging, which made me think it could be a healthy choice. Upon flipping over the package, the new nutrition label revealed the bad news of added sugar.

**#2 Nut butters:** Beware of peanut, hazelnut, and almond butters that are mixed with ingredients like honey and maple syrup, even if the butters are from organic brands. These ingredients, while sourced from natural origins, are considered added sugars because otherwise the product would not naturally contain them.

**#3 Canned or jarred sauces:** We don't often think something as innocent looking as a jar of spaghetti sauce could contain much more than tomatoes, other veggies, and herbs, but a standard jar of sauce can contain at least four grams of added sugar.

**#4 Bottled tea:** A cup of hot tea might seem to be on par with a refreshing cup of iced tea. Many iced teas, however, whether powdered or concentrates, do not simply condense the original tea. Sugars are added, and even if they aren't, many recipes encourage consumers to mix it in.

## #5 Dairy free “milk”

(such as sweetened/flavored rice, hemp, or almond milk): Aside from the unsweetened varieties, milk alternatives are prime culprits for added sugar, depending on the brand and flavor.

### REFERENCES:

[1] Lindsay J. Collin, MPH Suzanne Judd, PhD, Monika Safford, MD, PhD, et al; Association of Sugary Beverage Consumption With Mortality Risk in US Adults A Secondary Analysis of Data From the REGARDS Study. *JAMA Network Open*. 2019;2(5):e193121. doi:10.1001/jamanet-workopen.2019.3121



# So Healthy, So Handy!

**“GREAT IN A PINCH!”**



*“Love Hammer Bars when I need healthy food on the go!”*  
-Online Reviewer

Raw Energy  
Hammer Bar  
(5 Flavors)  
**\$2.50 ea.**



Vegan Protein  
Hammer Bar  
(2 Flavors)  
**\$2.95 ea.**



Whey Protein  
Hammer Bar  
(1 Flavor)  
**\$2.50 ea.**



**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



flavors as shown



hammernutrition.com 800.336.1977

# AID STATION

## Dietary salt intake:

### Your body performs better when you keep it low!

BY STEVE BORN

Thirteen years ago, Hammer Nutrition founder and owner Brian Frank wrote, “Show me an athlete with salt crust on their skin and clothing and I’ll show you an athlete that consumes a high-sodium diet. The more you eat, the more you will excrete; it really is that simple.

High sodium intake is not only contrary to optimal health, it contravenes normal body mechanisms that regulate sodium excretion and recirculation during exercise. This is why we have always advocated a low-sodium diet and moderate sodium intake during exercise.”

When Brian made that statement, a handful of “experts” were recommending that athletes increase their sodium intake, either on a daily basis, in the week leading up to an event, during an event, or all three combined, to prevent heat-related problems.

At the same time, a lot of companies seemed to be in a competition to see who could jam the most salt or sodium in their sports products. It was as though they thought the more sodium, the better, like it was the key to resolving heat-related issues during exercise.

Sadly, the excess-sodium products are still on the rise and the “experts” haven’t changed their position, which is why athletes continue to suffer diminished-to-ruined performance in their training sessions and races.

Dr. Bill Misner wrote extensively about electrolyte replenishment. In one article he explained the issues and negative outcomes associated with excess salt/sodium intake:

“Far too many athletes have suffered needlessly with swollen hands and feet from water retention due to ingestion of salt tablets or electrolyte products too high in sodium during prolonged exercise in the heat. The body has very effective mechanisms to regulate and recirculate sodium from body stores. Excess sodium consumption interferes with or neutralizes these complex mechanisms. Sweat generates large sodium losses, which is monitored closely through hormonal receptors throughout the body.

However, rapid sodium replacement neutralizes the system, allowing water intake to dilute the sodium content.

High-sodium electrolyte supplementation contravenes the natural physiological control of serum electrolytes, and once the body detects an increase in sodium from exogenous sources (i.e., food, salt tablets, or products too high in sodium) the hormone aldosterone signals the kidneys to stop filtering and recirculating sodium. Instead, the kidneys will excrete sodium; another hormone, vasopressin, will predominate and cause fluid retention.

While ingesting large amounts of sodium may temporarily resolve a sodium deficiency, doing so substantially increases the risk of a number of problems, including increased fluid storage and thus swelling, or edema, in the distal extremities, elevated blood pressure, and increased rate of sodium excretion. All of these inhibit performance. If you’ve ever finished a workout or race with swollen hands, wrists, feet, or ankles, or if you have experienced puffiness under your eyes and around your cheeks, chances are your sodium/salt intake was too high.”

**“The consumption of a low-sodium diet will help protect you from a plethora of negative health consequences...”**

**“While ingesting large amounts of sodium may temporarily resolve a sodium deficiency, doing so substantially increases the risk of a number of problems... All of which inhibit performance.”**



**“Show me an athlete with salt crust on their skin and clothing, and I’ll show you an athlete that consumes a high-sodium diet.”**

You may still hear a lot of so-called experts telling you that “to ensure best performance in the heat” (or something to that effect) you’ll want to increase your sodium (salt) intake in your diet, especially in the days leading up to a hot-weather event. Of course, that’s not our position and it shouldn’t be yours.

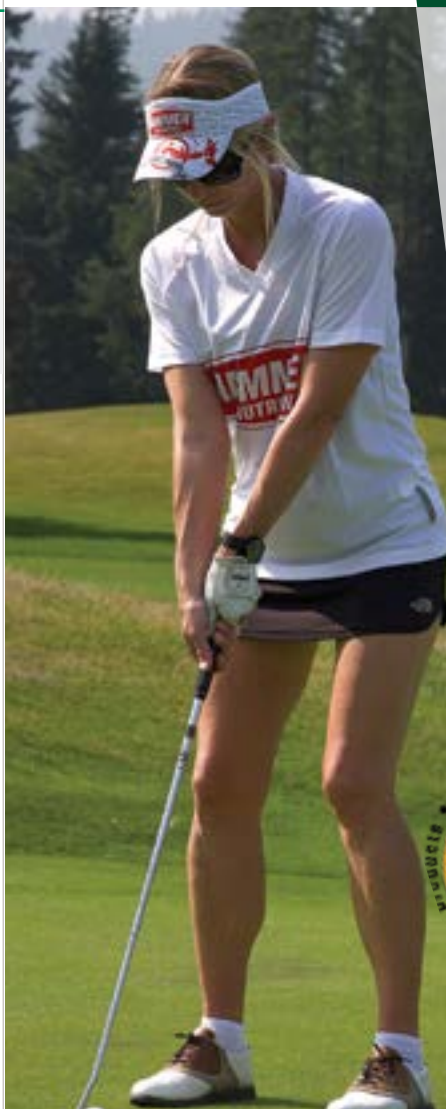
As Brian and Dr. Bill pointed out, by consuming a high-sodium diet all you’ll do is increase the sodium concentration in your sweat, impair your body’s sodium-regulating mechanisms, and have to deal with seriously unpleasant and uncomfortable water retention. Does that sound performance-enhancing to you?

Instead, limit your sodium intake to no more than 2,300 mg a day, remembering that your body is very adept at storing sodium, so you’ll have plenty on board to serve you during your workouts and races. By consuming a lower-sodium diet, your body will become very efficient at using its stores of sodium, much more so than the person who consumes a high-sodium diet or who practices “sodium loading.” This means that you will only need a modest amount of sodium to keep you going.

In addition, and even more importantly, the consumption of a low-sodium diet will help protect you from the plethora of negative health consequences associated with excess sodium consumption. This includes, but is not limited to, high blood pressure, heart attack, and stroke, as well as damage to the kidneys, gastric ulcers, liver disorders, and stomach cancer. **EN**



flavors as shown



Sarah Carlson tees up.  
Photo: Alex Corbelli

# Fill the holes in your diet

Maintain peak health through all of life’s rigors

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



**“FINALLY, A SUPPLEMENT THAT WORKS!”**



*“I play a lot of tennis, have a regular work out, and scuba dive, so I’m fairly active. I decided to try **Premium Insurance Caps**. I took them for maybe a week then forgot to take them for several days. There was a noticeable difference in my energy level. I have more energy, and feel better over all since taking Premium Insurance Caps. These make a difference, thanks Hammer.”*

**120 Capsules | \$21.95**

- Online Reviewer

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



hammernutrition.com 800.336.1977

# Coffee

## It's A-OK for your arteries!

Drinking coffee shown to be beneficial  
in reducing key heart-related issues

BY STEVE BORN

**W**hile the number of studies documenting the benefits of coffee continues to grow—check out the article links below—just as impressive is the research showing that its downsides have been traditionally overstated.

In *Endurance News* #111, we discussed research showing that coffee consumption, once thought to be a primary catalyst for arrhythmia (abnormal heart rhythms), were actually beneficial in reducing a type of arrhythmia known as atrial fibrillation. [1]

Exciting new research from Queen Mary University of London reveals that coffee consumption—even in extremely high amounts (up to a massive 25 cups a day)—is not associated with an increase in arterial stiffness. [2] These new findings, which researchers believe debunk previous studies that claimed coffee drinking is responsible for having stiffer arteries, is good news indeed. That's because stiffening arteries increase the workload demands on the heart as it delivers oxygen and nutrients to the body, potentially leading to a heart attack or stroke.

The 8,412 participants involved in this study were divided into three groups:

- Those who drink less than one cup of coffee per day
- Those who drink one to three cups of coffee per day
- Those who drink over three cups of coffee per day, with some up to 25 cups daily

All participants underwent MRI heart scans and infrared pulse wave tests to detect possible changes to their blood volume. After accounting and adjusting for factors such as age, weight, alcohol consumption, smoking status, and more, the results showed no difference in arterial stiffness between the three groups.

One of the lead researchers in this study, Dr. Kenneth Fung, stated, "Despite the huge popularity of coffee worldwide, different reports could put people off from enjoying it. Whilst we can't prove a causal link in this study, our research indicates coffee isn't as bad for the arteries as previous studies would suggest."

Professor Metin Avkiran, Associate Medical Director at the British Heart Foundation, adds, "Understanding the impact that coffee has on our heart and circulatory system is something that researchers and the media have had brewing for some time.

**"...based on the ever-growing body of research such as this, we are convinced that coffee is a safe and health-benefiting beverage."**

There are several conflicting studies saying different things about coffee, and it can be difficult to filter what we should believe and what we shouldn't. This research will hopefully put some of the media reports in perspective, as it rules out one of the potential detrimental effects of coffee on our arteries."



## DRINK UP!

**"It brings good news for coffee drinkers, and a further scientific element in support of our previous findings that coffee, far from being 'bad for health' is on the contrary beneficial."**

Regarding this latest study, Professor Elio Riboli, Chair in Cancer Epidemiology and Prevention at the School of Public Health, Imperial College London, summarized, "It brings good news for coffee drinkers, and a further scientific element in support of our previous findings that coffee, far from being 'bad for health' is on the contrary beneficial."

## Whoa! That's a lot o' Joe!

While we certainly don't advocate drinking upwards of 25 cups of coffee per day—the average amount in this study was five cups daily—based on the ever-growing body of research such as this, we are convinced that coffee is a safe and health-benefiting beverage. **EN**

#### REFERENCES:

- [1] <https://www.hamnernutrition.com/media/downloads/ENews/ENissue111.pdf> (page40)  
[2] [https://heart.bmj.com/content/105/Suppl\\_6/A8.2](https://heart.bmj.com/content/105/Suppl_6/A8.2)

ALL 53X11 COFFEE BLENDS ARE AVAILABLE IN GROUND AND WHOLE BEAN!



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

# 53X11 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.

- 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

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

For more information, visit: [hammernutrition.com/products/coffee/](http://hammernutrition.com/products/coffee/)

## "MY GO TO COFFEE"



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

- Chudley, S.



## 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**

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



[hammernutrition.com](http://hammernutrition.com) 800.336.1977

# JOSH LITOFSKY 5 Questions



## 1 How did you get into racing?

My track coach in undergrad has been involved in ultrarunning for the last 2+ decades. He ran the Kettle Moraine 100 every year, which was only about half an hour from where I went to college. One summer they needed an extra person to run a leg in the relay (19 miles), so they asked me. Even though this was the longest run I had done at the time, I was hooked and never looked back. Since then, I've run about 15 ultras, including three 100-mile finishes.

## 2 What is your favorite pre-race meal?

Rice and chicken three hours before and a Hammer Gel while I'm walking to the start line.

## 3 How did you hear about Hammer?

Since Kettle is a Hammer-sponsored race, I was introduced to it during my first experience there (2011). The Gels seemed to work and tasted better than other endurance products I'd had before. Coupled with HEED, the Gels gave me everything I needed until I started to dip my toes into events longer than 50K, which is when I started to explore the entire suite of Hammer products.

## 4 What is your favorite Hammer fuel?

It's a split between the Chocolate Gel and the Lemon-Lime HEED. Nothing tastes as refreshing in the middle of a race in 90° heat as ice cold lemon-lime HEED. The Chocolate Gel tastes like pudding, except it's pudding that helps you run for hours and hours and hours.

## 5 What is your favorite Hammer supplement?

Tissue Rejuvenator—with all the research that has come out about NSAIDs, I take Tissue Rejuvenator every day. Since I started taking it three years ago, I've never had joint soreness in races (or otherwise), and it helps me be able to pack on the miles as much as I can during training.

Josh Litofsky keeps a steady pace during the Caumsett Park 50K  
Photo: Ed Grenz, LIRP, Long Island Running Photos

# 5 Questions

# GABRIELLE SUVER

## 1 How did you get into racing?

I started running cross country late in my high school career, but I continued running cross country and track in college. I loved running and competing. Unfortunately, my body started getting injured a lot, so I spent more and more time on my bike and in the pool. I walked off the team by my fourth year to focus on bike racing and let my body heal completely from all my running injuries. I ended up “morphing” into a triathlete after college and continued to race and get stronger and faster! I participate primarily in triathlons, but I also enjoy competing in duathlons, bike time trials, running races, trail running, bike racing, and cyclocross.

## 2 How did you hear about Hammer Nutrition?

I first learned about Hammer Nutrition from using their gels during an event. When I started racing longer distances (like the Ironman 70.3), I had a hard time staying hydrated and keeping my energy up, so my coach, Rebecca Marsh, suggested I try using Hammer’s Perpetuem on the bike. I did and it made a huge difference, so I started trying other Hammer products, too.

## 3 I can’t leave for a race weekend without:

An MP3 player, so I can listen to music on race morning to get mentally pumped up. I love me some Imagine Dragons, Skillet, Three Days Grace, and The Score!

## 4 What is your favorite Hammer supplement?

I love Hammer Fully Charged, especially on mornings when I need to wake up at 3:30 a.m. to train before work. I teach elementary physical education, which requires a lot of energy. Fully Charged helps give me that extra push I need to wake up!

## 5 What keeps you motivated?

In high school, I struggled with an eating disorder and depression. Running gave me an outlet and a reason to get strong. I wanted to race faster and stronger, so I had to make a choice to fight the eating disorder if I wanted to reach my goals. It has taken years for my body and mind to heal and for me to get strong enough to perform the way I wanted. My family and coach have helped me tremendously with their support in helping me stay on the right path. My sponsors also motivate me to perform well. Remembering where I came from and how far I’ve come even with the health challenges I struggle with keeps me motivated to continue improving. I’m very thankful that I get to train and race.



Gabrielle Suver after a 1st Place Female finish during the Ocala HITS Olympic Triathlon in Ocala, FL. Photo: Michael Suver

# STRIDING FORWARD

## Recovery is Key to Avoiding Post-Race Blues and Burnout!

BY ARYNN MAZNIO

### In a recent magazine article,

Ultramarathon Man and Hammer athlete Dean Karnazes reported on Edward Bullmore's new book, *The Inflamed Mind*. Naturally, the article drew me in, not only because Dean wrote it, but also because the subject matter is relevant to our success as ultrarunners.

This text studies the theory that while “post-race blues” and burning out can be attributed to a number of mental and emotional factors, chronic inflammation is very much a critical and underestimated culprit of burning out.

We're all familiar with at least some of the mental and emotional maintenance we need to do to protect against burning out (in other words, being careful to not put “all of our eggs in the training/racing basket”), like pursuing family and other interests. But reading Dean's reaction to the new research having a physical aspect that most of us probably haven't given much thought to got me thinking that he and Edward are on to something too big to ignore.

*“...reading Dean's reaction to the new research having a physical aspect that most of us probably haven't given much thought to, got me thinking that he and Edward are on to something too big to ignore.”*

We all experience post-race blues on occasion (“my race is done and now I feel kind of directionless”) and some of us have gone down the long, hard road known as “burnout.” But based largely on what Dean shares in his article, I am now convinced we can minimize—even conquer—both of these undesirables with a fine-tuned game plan, one that incorporates proper steps in all three aspects: mental, emotional, and physical.

#### The physical aspect focuses primarily on:

- Optimizing our recovery between our training sessions
- Including planned rest days (remember, all the gains we make occur in the time in between our workouts)



Dean Karnazes, the Ultramarathon Man.

*“The Hammer Nutrition products and strategies Arynn recommends are useful defenses against inflammation and can help you feel and perform your best.”*

*-Dean Karnazes*

We can effectively deal with the aches and soreness (which oftentimes linger far too long without resolution) that occur throughout a long season of training and racing. The following tips are meant to help you hone your recovery process and ward off burnout all season long.

### 1 Start with prevention.

Every athlete experiences muscle and joint soreness while training or racing. Dealing with it (or not!) the right way will be a big determining factor in regard to how your season unfolds. Every day, training or not, I use Tissue Rejuvenator. This extraordinary product not only alleviates naturally occurring soreness and aches from my workouts, but it also protects and strengthens my joints, ligaments, and tendons. Tissue Rejuvenator is definitely my “ounce of prevention is worth a pound of cure” product!

*“As we learn more about the relationship between swelling and depression, it makes sense to take steps to reduce swelling, especially if you’re prone to bouts of post-race blues.”*

**2 Refuel your body immediately following a workout or race.**

The day I started using Recoverite was the day it became an indispensable part of my post-workout ritual. After pushing my body for hours on end, my body needs quality protein, carbs, and other nutrients that support my recovery. The ideal time to use this product is immediately after exercise—the sooner, the better, and definitely within 30 minutes of finishing—so I add a couple scoops of Recoverite to a water bottle before I head out and mix it with water when I finish. It takes mere seconds to fill the bottle and shake it up. There are no excuses to ignore daily workout recovery!

**3 Take Hammer CBD to boost sleep and reduce soreness.** I take one softgel before bedtime to improve my sleep quality and duration. I wake up refreshed and prepared to take on intense workouts. Hammer CBD—also available in tincture form—improves my training one well-rested night at a time.

**4 Enhance your flora by taking probiotics.** Hammer’s Digest Caps is a fantastic product that supports gastrointestinal health. By boosting the healthy bacteria residing in our digestive system, we can improve our absorption of nutrients, reduce fatigue, and prevent the potential for illness as our bodies are subjected to tough conditions. An athlete’s immune system is taxed following tough workouts or races, so supporting immune health is critical.

**5 Consume a serving of Whey Protein prior to bed for additional support.** Providing the body with the most bioavailable protein on the planet works wonders for muscular recovery. Our bodies do their best work while we sleep, so give the repair process an awesome assist with this superb product. Hammer’s Whey Protein is the richest source of all nine essential amino acids—including much-needed branched-chain amino acids—that help rebuild your muscles and tissues while also giving your immune system a powerful boost.

These five products go a long way to provide a powerful and tangible solution to the groundbreaking information Edward presents in *The Inflamed Mind*. Solid physical recovery goes hand-in-hand with our success and improvement as endurance athletes—mental and emotional growth included—so don’t underestimate what a proactive daily recovery routine can do to prevent burnout!

EN

# Naturally enhance your performance, guaranteed



**Reduces muscle fatigue**  
**Enhances energy and endurance**  
**Increases workload capacity**



Coen Stegeman's muddy celebration finish at the Amsterdam Marathon. Photo: Courtesy Coen Stegeman



*“After starting Race Caps Supreme, I felt the benefits almost immediately... I noticed an immediate and sustained increase in energy.”*  
- Online Reviewer

90 Capsules | **\$49.95**

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



flavors as shown



hammernutrition.com 800.336.1977

# Leah Goldstein Beats Record in Race Across America

Race Across America is often described as the toughest cycling event in the world. This year, former RAAM champion Leah Goldstein returned to the race with an eye on bettering her time from 2011, breaking the 50+ record, and winning the women's overall title.

Two clear contenders emerged on the way to Annapolis. Leah decided to take a sleep break rather than risk injury, placing second in the race less than 1.5 hours behind Daniela Genovisi of Brazil.

Fueled on Hammer's Perpetuem and Anti-Fatigue Caps, Leah beat her previous time by over eight hours and the 50+ record by a day and a half.



Leah speeding across pavement in 2019's RAAM. Photo: Vic Armijo

## What Happened to Recoverite® ?

BY BRIAN FRANK

Many of you have commented critically on the “new” Recoverite formula, mostly regarding the Chocolate flavor. There was a lot of frustration expressed over why we would fix something that was not broken. I am here to offer you an apology, explanation, and encouragement for the future.

First of all, I am very sorry that we had to “mess up” the original version. The reason we had to do it was the Proposition 65 legal scam being run in California. Yes, it's a good old-fashioned shakedown racket and consumer safety has absolutely nothing to do with it. So, we got hit, and besides paying dirtbag lawyers and their “professional plaintiff” clients six figures, we had to reformulate three of the four flavors of Recoverite to comply with this bogus “law” or stop selling it in California, which is, unfortunately, our largest market by state. The result was the “Generation 2” version that so many of you found objectionable. It was not my favorite, either.

### Lorem Ipsum Prop 65

#### GENERATION # 1

15+ years



The original, well-loved formula was used by thousands of athletes. Generation 1 Recoverite fueled people to success for over 15 years.

#### GENERATION # 2

PROP-65 Era



To meet Prop. 65 requirements, we altered the Recoverite formula. We produced one run of Generation 2 before immediately searching for a better solution.

#### GENERATION # 3

Coming SEPT. 2019



Generation 3 is the best Recoverite yet. It meets all the requirements, but more importantly, it delivers results while tasting better than ever before!

The good news is that “Generation 3” Recoverite will be coming along by the time you read this. I’m eager to get your feedback to see whether we succeeded in making a compliant formula that still tastes like chocolate.





# GET THE OMEGA-3'S YOU NEED

- Supports healthy joints
- Enhances brain function
- Stabilizes mood

**“I LOVE THIS PRODUCT”**



*“I use EndurOmega daily! I get the omega-3 fatty acids that I need without the terrible fishy aftertaste that you get from other omega-3 products.”*

*-Online Reviewer*



Hammer employee, Tyler Keck rides neighboring trails surrounding Hammer Headquarters. Photo Credit: Alex Corbelli

**180 Softgels | \$29.95**

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19

*flavors as shown*



hammadnutrition.com 800.336.1977



# WE SUPPORT

Whatever your sport, you'll find plenty of challenging Hammer Nutrition-sponsored events to choose from this summer. We already have over 200 events on our calendar for the upcoming months, covering practically everything associated with endurance, and more requests for sponsorship support are pouring in daily.

## NFECS EVENTS

WASHINGTON, DC

NEW YORK

MASSACHUSETTS

WISCONSIN

CALIFORNIA



THE  
NORTH  
FACE  
ENDURANCE  
CHALLENGE

## THE NORTH FACE ENDURANCE CHALLENGE

9/14/19 KETTLE MORAINÉ STATE PARK, WISCONSIN

Hammer Nutrition and The North Face are back for the fourth leg of The North Face Endurance Challenge Series (ECS) journey, this time going through Kettle Moraine State Park in Wisconsin. A great course for veteran trail runners and beginners alike, a large section of the course follows the Ice Age trail, one of only eleven National Scenic Trails, through Kettle Moraine. If you are setting your sights on a PR, this fast and flowy course is a can't-miss event. Distances offered include a 50 miler, 50K, Marathon, Marathon Relay, Half Marathon, 10K, 5K, and, finally, a Kid's Race hosted by Dean Karnazes! This jam-packed weekend promises to be the highlight of your summer.

Hammer's own nutrition expert Steve Born has manned the Hammer Fueling Station at each of the

ECS events this year. He describes the ECS series as a "thoroughly professional and absolutely first-rate event—the best I've ever seen. The staff and volunteers are super friendly, mega-helpful, and genuinely enthusiastic."

Prior to the run, Hammer Nutrition will team up with Ultra-Marathon Man Dean Karnazes to offer a "warm-up" run. Steve Born will also lead a clinic after the run to offer insights and answer any questions runners may have about fueling, recovery, and daily nutritional needs. You won't want to miss this opportunity meet and interact with two endurance legends!

For more details or to register, visit: <https://www.thenorthface.com/get-outdoors/endurance-challenge.html>

# YOUR SPORT

## QUICK N' DIRTY FILTHY 50

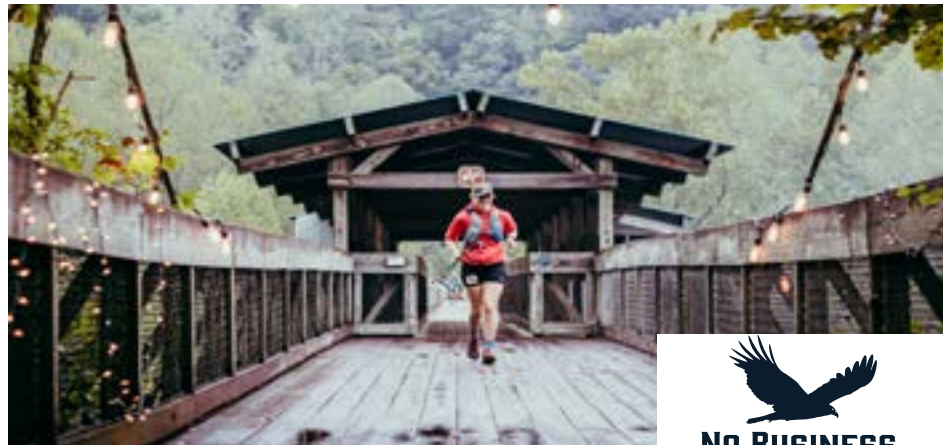
10/26/2019 ESCONDIDO, CA

The Quick n' Dirty Mountain Bike Race series, held in sunny So Cal throughout the year, has a long-standing tradition of fueling with Hammer Nutrition. Join the fast and fun at the Quick n' Dirty 6th Annual Filthy 50+ where bikers will ride through various areas of the San Dieguito River Park and Black Mountain Park. The 50+ mile riders will continue on to the Black Mountain Park area encountering a lollipop and new trails! You may even ride with some well-known athletes, as NBA legend and Hall of Famer Reggie Miller rode in the 2018 race. As always, aid stations stocked with Hammer Nutrition Fuels will be placed throughout the course to keep you riding hard.

Come pedal hard and enjoy one of the best mountain biking experiences possible!

For more, visit: <http://quickndirtymtb.com/index.html>

Photo: WildGlass Photography



## NO BUSINESS 100

10/12/19 BIG SOUTH FORK NATIONAL REC AREA, KENTUCKY

If you haven't heard about the No Business 100, it's time to consider heading over to Kentucky and get down to business! Following a 101.9-mile single loop, the NB100 starts in Kentucky, journeys into Tennessee, and eventually loops back north to finish in Kentucky. The course is full of scenic landmarks along the way including sandstone bluffs and overlooks, waterfalls, rock houses, and natural arches. This event's namesake comes from an old ghost town called No Business which runners pass through.

At this event, Hammer Nutrition will supply each runner with reusable Speed Cups designed to drastically reduce waste on the course.

For more details or to register, visit: [nobusiness100.com](http://nobusiness100.com)

Photo: Misty Wong



## UPCOMING EVENTS:

### HIGH PLANES GRINDER

9/21/19 ELBERT, CO

[highplainsgrinder.com](http://highplainsgrinder.com)

### MARJI GESICK 100

9/21/19 MARQUETTE COUNTY, MI

[nuembt.com/series/marji-gesick-100](http://nuembt.com/series/marji-gesick-100)

### GRAN FONDO MARYLAND

9/22/19 FREDERICK, MD

[granfondonationalseries.com/gran-fondo-maryland](http://granfondonationalseries.com/gran-fondo-maryland)

### JENSIE GRAN FONDO

9/28/19 NOVATO, CA

[thejensiegranfondo.com](http://thejensiegranfondo.com)

### LAS VEGAS TRIATHLON

10/05/19 LAS VEGAS, NV

[bbsctri.com/lasvegastri](http://bbsctri.com/lasvegastri)

### CUBAN GRAVEL CRISIS

10/12/19 CUBA, MO

[cubangravelcrisis.com](http://cubangravelcrisis.com)

### CROWELL HILAKA TRAIL RUN

10/19/19 RICHFIELD, OH

[ultrasignup.com/register.aspx?did=59499](http://ultrasignup.com/register.aspx?did=59499)

### GENERAL 100

10/19/19 KENNESAW, GA

[general100.com](http://general100.com)

### GREAT FLORIDIAN TRIATHLON

10/19/19 CLERMONT, FL

[greatfloridiantriathlon.com](http://greatfloridiantriathlon.com)

### ANTELOPE ISLAND FALL CLASSIC 50K

11/16/19 DAVIS COUNTY, UT

[buffalorunadventures.com/antelope-island-50k/](http://buffalorunadventures.com/antelope-island-50k/)

### DEAD HORSE ULTRA

11/16/19 MOAB, UT

[madmooseevents.com/dead-horse-ultra](http://madmooseevents.com/dead-horse-ultra)

### DAWN TO DUSK

12/14/19 FOUNTAIN HILLS, AZ

[ziarides.com/event/dawn-to-dusk-az/](http://ziarides.com/event/dawn-to-dusk-az/)

**FOR MORE INFORMATION,  
VISIT THE EVENT WEBSITES  
LISTED ABOVE.**

# Endurance Sports

## A Universal Language

BY JOHN KELLY

## “THE GRAND ROUND”

**J**ust a few days after bowing out of the Barkley this year, I headed off with my wife and three young children for an entirely new adventure. We moved to a small country village in England and have been adapting to the big changes in everyday life (and the weather!). One thing that has been a constant during this transition has been running. Don't get me wrong, there have been some changes to running: exploring the exciting and beautiful new terrain, learning how to navigate the endless web of public rights of way, and dealing with the horrors of stinging nettles. The important things, though – the sense of adventure, the mental relief from daily stress, the challenge and personal growth – these things have remained constant. Above all, the community has been every bit as wonderful as the one in the US that made me fall in love with ultrarunning to begin with.



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

Photo: Gregg Gelmis, WeRacePhotos

but the logistics were nearly as frightening. I would be out for 4+ days with a lot of gear and no matter how much studying and planning I did the fact remained that I wasn't personally familiar with the routes. Without support, it was simply impossible.

After gathering support, I set off in the Welsh mountains. The weather was horrendous, with absolutely constant rain, cold, low visibility, and sustained winds topping 50 mph.

My schedule continued to slip and I worried that my support would understandably not be able to stick around. But for each leg, there they were. When some did have to leave, new people hopped in. People I had never even spoken to, showing up in

the middle of the night in that weather to help out some crazy guy from America. I didn't complete the full challenge, but I did finish two of the three rounds. Without the incredible support, I don't know that I would have made it through one.

*“...no matter where in the world you are or how different a particular challenge might seem, the running and endurance sports community is amazing.”*

When I decided to set off on one of those crazy challenges, that community stepped up with an unbelievable amount of support. I was attempting to link together all three of the UK's big rounds, Paddy Buckley, Bob Graham, and Ramsay Round, while riding my bike in between them (totaling about 185 miles of running with 84K feet of elevation gain over 113 summits, plus over 400 miles of biking).

**I called it the Grand Round.**

The physical part of this challenge alone was daunting,

Maybe it's that extraordinary shared experiences build camaraderie or maybe it's just that awesome people are the ones who tend to do endurance sports, but no matter where in the world you are or how different a particular challenge might seem, the running and endurance sports community is amazing. If you do find yourself moving to another country or doing some crazy international challenge, also remember to give yourself the time, the nutrition, and the sleep to recover from the added stress! All stresses matter, not just the physical ones. **EN**

# More Gel... Less Waste

*Go green while saving green!*

- Rock-solid sustained energy
- Easy to digest
- Mix flavors in reusable flask



Matt Sommer fueling with Hammer Gel during the Endurance Challenge Series, DC.  
Photo courtesy of The North Face

**BEST VALUE!**  
Only 77¢ per serving!



## “HAMMER GEL FAN FOR LIFE!”



“Hammer Gel is my go-to quick energy source. As a fitness instructor, I rely on **Hammer Gel** to get me through multiple classes per day, as well as my own training as a Krav Maga coach. Raspberry is my favorite flavor! Thanks, Hammer Nutrition, for your incredible products!”

-Online Reviewer

**26-Serving Jug | \$19.95**

Purchase a 26-Serving Jug and receive a **FREE HAMMER FLASK!**

Flavors: Espresso\*\*, Montana Huckleberry, Nocciola\*, Raspberry, Apple Cinnamon, Tropical\*\*, Vanilla, Chocolate, Orange, Unflavored

\*Ultra Hammer Gels contain high-quality nut protein and fats  
\*\*Contain caffeine

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 8.31.19

*flavors as shown*



hammadnutrition.com 800.336.1977



## FEATURED ATHLETE

### Swimming with Sharks

# ALEX KOSTICH

While swimming in his usual pool day after day, former USA National Team swimmer Alex Kostich started thinking of ways to break out of his monotonous routine. With his athletic background and lifestyle, Alex wanted to complete an athletic feat no one in the history of humanity had done. Pitcairn Island had been calling his name ever since elementary school, so in 2018 when recovering from shoulder surgery Alex began preparing to be the first person to successfully circumnavigate the island. Pitcairn Island has approximately 50 permanent inhabitants and is one of the four South Pacific islands referred to as the Pitcairn Islands. A “high island” formed from a volcanic hotspot, Pitcairn itself is accessible only by boat and was settled by mutineers from a British sea vessel in 1789. Today, the island remains isolated, aside from the large shark populations that call these waters home.

The 9.8K swim through unforgiving seas would be anything but easy for Alex. Though he was met with big swells and strong currents the morning of the attempt, Alex was determined to create his record:



Photo Credit: Stephen Childers

**“I fought my way out into deeper waters, but it didn’t get any smoother.**

“The water was literally like a washing machine, waves coming from every direction and battering my arms as I tried to stroke forcefully,” he writes:

“Heading to Pitcairn was an endurance ordeal. We were prepared for three travel days, including two days at sea on a cargo ship taking supplies to the island. What we were not expecting were huge swells and gale-force winds that tossed us around on the boat for over 48 hours. I was not particularly optimistic upon first sight of the island. It was shrouded in clouds and rain and there were nine-foot swells against the shore. With only three days on the island, I didn’t know if I’d even have a chance to circumnavigate it. The conditions were too dangerous for a swimmer and support crew.

Steady rains and wind continued through the first two days on the island. On our third and final day, the skies parted and the sun came out at dawn. Even though the surf and currents were strong due to the early winter winds from the northeast, we decided to go for it after a quick pep talk.

My kayaker was Ian Lawson, a Scottish New Zealander on assignment for 15 months on Pitcairn as the resident doctor. He strapped my two Hammer Nutrition water bottles tight to the hull of his kayak and tucked a few Peanut Butter Chocolate Hammer Gel packets into his life preserver. The swim was predicted to be about 10K but I had no idea how long it might take given the conditions. My two bottles each contained water and two dissolved tablets of Cola Endurolytes Fizz. I figured I’d need the caffeine boost at some point during my swim.

At the first break in the incoming wave sets, we were off, me leading the way through the surge, Ian following closely behind in the kayak, and my support crew on a motorized boat directly behind him. The waves and currents were strong, but after about an hour it calmed slightly as I turned around the northern tip of the island. The waves died down as we were on the more protected east side of Pitcairn and I chose to make the first of my two feeding stops. If the currents and waves picked up it would be impossible to stop swimming without getting a face full of waves, so I took a few decent gulps from my Hammer bottle and kept swimming.

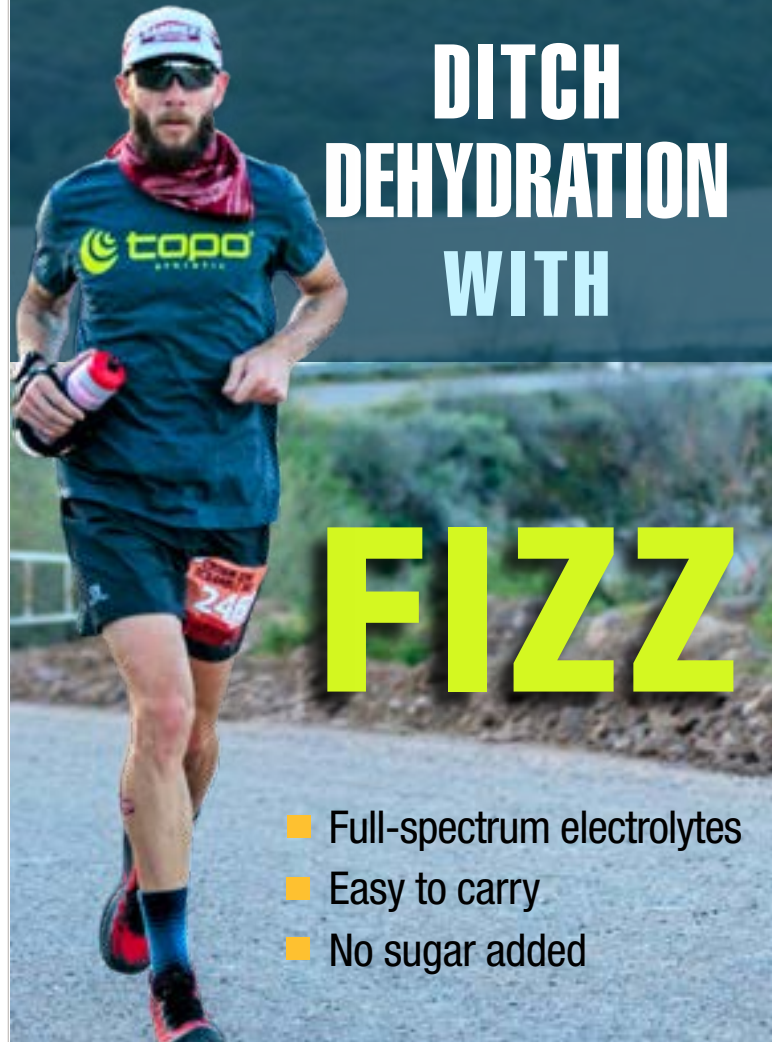
By the time I reached the southern tip of the island, I had been in the water for two hours and had about one hour to go. After another feeding stop, I finished the circumnavigation 40 minutes later, coming in at a little over 10K and with a time of 2:37:45 in rough seas and challenging conditions.

Becoming the first person in the world to circumnavigate this historic island has still not really hit me. I do know that I would not have been able to do it without Hammer’s support or their terrific products. Thank you, Hammer!” **EN**

# DITCH DEHYDRATION WITH

# FIZZ

- Full-spectrum electrolytes
- Easy to carry
- No sugar added



Steven Terry during the Crown King Scramble 50K in Crown King, AZ.  
Photo: Jubilee Paige



“...Usually a full tab per water bottle works well for me. It’s saved my butt in hot and humid conditions and I don’t race without it.”

- Online Reviewer



**13 Tablet Tube | \$4.95 | 25 Wrapped Singles | \$12.95**

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

**ORDER TODAY!**

Use Promo Code **EN116VR**

Get two **FREE** Organic Vegan Recoverite Singles  
Limit one per customer, while supplies last / Expires 10.31.19



flavors as shown



hammadnutrition.com 800.336.1977

# From Our Athletes



Chase Sexton

## 2019 250SX East Champion

Congratulations to Chase Sexton for winning the 2019 250 East Supercross Championship!

Chase has had an amazing season, and it's not over yet. He notched his first Supercross win in April and then followed that one week later by wrapping up the championship at the series finale in Las Vegas. Moving to the Outdoor series, Chase has been consistently on the podium and won his first Outdoor moto of the year in June.

Chase is one of a select group of riders that works directly with Brian Frank for expert guidance on his fueling and recovery. Since Motocross is one of the most physically demanding endurance sports in the world, proper fueling is essential to handle the rigors of racing and daily training required to be a champion. Some of his favorite products to use are Fully Charged, Endurolytes, Hammer Gel, Recoverite, Premium Insurance Caps, Endurance Amino, and most flavors of Hammer Bars.





### **Willi Cannell**

The Red Bull X-Alps is a true test of endurance. In June of 2019, 32 invitees set out from Salzburg, Austria aiming to reach Monaco, France as fast as they possibly could.

After 11 days of competition Willi Cannell - one of three Americans - covered a total 1350.66 KM, including 79.9 hours of hiking and 28.5 hours of flying.

With Hammer Nutrition in his flask, Willi was able to experience flying in the alps for the first time along some of the best pilots in the world.

Photo: Redbull X-Alps



### **24 Hours Round the Clock**

*Hammer Nutrition's own Ginjer Yachechak powers her way through the 20th annual, and final, 24 Hours Round the Clock. With help from fueling expert Steve Born, Ginjer remained energetic and motivated, finishing as the 3rd Female Overall.*

*Photo: Miles Frank*

# Real Endurance Fuel NOT SUGAR!



**Premium, natural ingredients ■ No added sugars ■ Made in the USA**

Unlike the countless sugar-based products out there, every fuel made by Hammer Nutrition is both healthful and effective. That's because we take no shortcuts. Each ingredient is carefully selected and sourced and we refuse to use any added simple sugars or artificial sweeteners.

Only Hammer Nutrition has the tried-and-true products, extensive knowledge, and top-notch customer service you need for fueling success at any distance, guaranteed!

**Call, go online, or stop by your favorite retailer and start hammering today!**



hammernutrition.com 800.336.1977



# Endurance News

4952 Whitefish Stage Road  
Whitefish, MT 59937

PRSRT STD  
U.S. POSTAGE  
PAID  
HAMMER NUTRITION  
DIRECT

## FRESH LEGS WITH HAMMER CBD

### Superior Hemp-Derived CBD Oil THC-Free, Broad Spectrum

- Sleep like a baby
- Boost recovery
- Soothe aches and soreness
- 0.0% THC

**“TOP QUALITY!”**



*“There is none better. Hammer offers the best quality products on the market.”*

*- Online Reviewer*

<b>CBD Softgels</b> 10 mg 30 count	<b>\$39.95</b>
<b>CBD Hydro</b> 250 mg 1 oz	<b>\$34.95</b>
<b>CBD Tincture</b> 750 mg 1 oz	<b>\$59.95</b>
<b>CBD Balm</b> 500 mg 2 oz jar	<b>\$49.95</b>

Ryan Ingham on a training run on the Pacific Crest Trail in Hammer CBD Shirt.  
Photo: Ryan Ingham

