

# ENDURANCE

BY HAMMER NUTRITION

#136 October / November / December 2023

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# NEWS



## IN THIS ISSUE

### Wall of Champions

Hammer Winners of 2023

### Hammering in the Off Season

Diet, Workouts, Supplementation, Fueling and More!

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## PLUS

### Looking Ahead

2024 is looking Bright!





# BEING FRANK

## A WORD FROM BRIAN FRANK

*"We at Endurance News believe that there are no shortcuts and success can only come from hard work."*

Welcome to the 136<sup>th</sup> issue of *Endurance News* and our last of the year. This issue is absolutely stuffed full of awesome content—a real page turner. The best is always our athlete submissions showing us how they hammer! There's a lot of national champions in there, as well as super human endurance feats that make us say WOW!

The content side of the magazine is no less amazing. Dr. French has opened Pandora's box on fructose/sugar with his latest tome on "**Uric Acid**". This is an absolute must read (pg 26). We've also got the "*Top 10 Biggest Mistakes*" dusted off and updated. This is where it all started, before the *Guide to Success* or the **5 Secrets of Success**, this document represents the foundation of our "**Less is Best**" fueling philosophy. Thanks goes to Steve for helping me complete it, update it and derive from it.

Next on the hit list is my article and accompanying video on "**Minimum Calories Per Hour**" (MCPH). What is it and do you know yours? It's the magic number that lets you fuel effectively for any event, lasting any duration. Hint – it's most likely your bodyweight plus or minus 10%. I've written about this many times in the past, but not nearly enough, nor loudly enough. A new generation of high calorie jokers, masquerading as "experts" and "scientists" are out to confuse you and ruin your event by advocating up to 90 grams (360) calories PER HOUR!

It's actually heart breaking to hear the stories of misery and suffering and a entire season worth of training or the biggest race of the year going down in flames due to following this stupid advice. Honestly, in 36 years, I've NEVER met an athlete who could consume more than 60 grams of carbs per hour, 250 pound Clydesdale aside, for more than 2-3 hours. Yep, I'm pissed and anyone who tells you to consume this many calories should be force-fed until they puke! That's what happens to unsuspecting athletes who follow their advice. Please don't fall for

this trap. Watch my video, read the 5 SOS or just **call me**. Yes, I can be reached by phone whenever I'm in the office, which is most of the time. Just call our 800 # and ask for me.

Ok, off of my soap box and on to other topics. Shortly after you receive this issue, our 35<sup>th</sup> annual Family and Friends sale will begin. Unfortunately, for the first time ever, we will not be able to include most flavors of **Hammer Gel**, due to limited or out of stock inventory. The exception will be the three newly reformulated nut flavors – peanut butter, peanut butter chocolate and hazelnut chocolate (aka Nocciola) will be back in stock and if they are they will be part of the sale.

Continued on page 64

Brian Frank

Owner and Founder of  
Hammer Nutrition



MINIMUM CALORIES PER HOUR



## What's your MCPH?

by BRIAN FRANK

### Hey, Hammer fans!

Brian Frank here talking about a really important subject. "Got to get this off my chest before I explode," as the old headline used to read. For 36 years, I've been dealing with the question of how many calories per hour one should consume when exercising, be it an hour, 3 hours, 6 hours, or 12-hour multi-day events.

#### Hint: **Less is BEST**

This question vexes many athletes, and unfortunately, there is so much myth and misinformation surrounding it. The high-calorie crowd, as we call them, the experts of the day, were saying the same thing about how many calories per hour, with some going as high as 400, even 600! Silliness!

Maybe that's what you're burning. Doesn't really matter. You can't consume anywhere near that much. So, now we have a whole new generation of research, sort of. The outcome of a couple of questionable studies touting 60 to 90 grams an hour of carbohydrate is the basis for the "new" 60-90 grams

per hour or recommended intake. Take a closer look at that research - Test subjects operate at 50% of max watts! What?

That's right. Participants are walking along at a 95 beats per minute heart rate, not so much. We're constantly exercising at a much higher heart rate than that.

You've probably tried higher calorie intake and had GI distress, plus all kinds of fun problems that go with it. So we invented this concept that less is best for optimal fueling in response to constantly dealing with athletes suffering from overconsumption of calories. So I have a little system I call the minimum calories per hour - **MCPH**.

MCPH is the number you want to know. You want to determine your minimum calories per hour that allows you to exercise at the limits of your ability and fitness, not slow down, and not suffer GI distress or any other cramping problems. It comes down to about one calorie per pound of body weight for most athletes.

That usually ends up being the sweet spot, plus or minus a few. So, for most athletes, we're talking 100 to 180 calories an hour. Nowhere near this 240 to 360 calorie craziness we're hearing. This high-calorie take also contradicts human physiology. We know that the human liver can return about 1 gram of carbohydrate per minute into Glycogen.

So there you go. Four calories per gram, times 60 minutes in an hour, equals a 240-calorie per hour theoretical ceiling. So why try to exceed that? And more to the point, why try to stuff so many calories down your throat when you just want to go pedal, swim, bike, run, whatever?

So do that and consume a lot less calories. You'll be happier, your stomach will be happier, and you can forget about all the high-calorie fuss and muss. So **less is best**. 100-180 calories an hour. One calorie per pound of body weight, and you'll be in the ballpark. **EN**

### Hammer on!





*Endurance News* depends on authentic photos from our readers and your photo submissions are always welcome! To be featured in the next issue of *Endurance News*, email your hi-res photos to [photos@hammernutrition.com](mailto:photos@hammernutrition.com).



Hammer athlete, **Flavie Dokken**, skillfully navigates the rugged terrain of the US Central Cascades.

Photo: Brigette Takeuchi.

**T**aking on **Cascade Crest 100** as my first 100 was a big challenge and I was excited for it, especially since Hammer became the official nutrition partner for the race this year!

Besides being fit to tackle the race, I needed a solid nutrition plan. While my nutrition plan mostly worked in the past for ultra-races up to 100k, it is a different game over 100 miles.

Working at Hammer Nutrition, I am grateful to have direct access to fueling advice from the best! I sat down with our owner and CEO Brian Frank and we established a solid nutrition plan. All I needed to do was execute!

A big factor was to “respect the heat” as Brian advised. The conservative pace worked out and I was able to negative split the last 50 miles.

I practiced all of Brian’s nutrition and caloric intake recommendations in training and the plan worked like a charm. My energy was consistent and I never had any GI issues! I also had no heavy legs syndrome or major soreness during and after the race.

**Read more** from Flavie online at [hammernutrition.com](http://hammernutrition.com), and see details of her most recent success at the **Teanaway Country 100** on **page 51**.

## ENDURANCE NEWS

*The informed athlete's advantage since 1993*

AN EXCLUSIVE PUBLICATION OF:



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### 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, and individually. Your trust is our top priority.

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

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

### OUR CORE VALUES

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

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

Read our complete mission statement online at [hammernutrition.com/company/mission-statement](http://hammernutrition.com/company/mission-statement)



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## EN CONTENTS

**ON THE COVER: Flavie Dokken** manages to keep a good pace and a winning smile despite grueling conditions of the TEANWAY 100.

Photo: Brigette Takeuchi.

Endurance News: Issue 136  
October/November/December 2023

## EN FEATURES

- 5 **MCPH Explained**  
by Brian Frank
- 6 **Wall of Champions**  
Big Winners of 2023
- 22 **The 10% Rule**  
by Dean Karnazes
- 26 **Uric Acid**  
by Dr. Bayne French MD DC
- 36 **Off Season Support**  
by Brian Frank
- 46 **Coffee Ups Cognition**  
by Steve Born
- 48 **Fructose**  
by Steve Born
- 60 **4 Pillars of Health**  
by Brian Frank

## EN REGULARS

- 2 **Publisher's Note**
- 14 **Starting Lines**
- 18 **SOS: Recovery**
- 20 **Ask Hammer**
- 24 **#howihammer**
- 44 **Laura's Kitchen**
- 50 **From Our Athletes**
- 56 **International**
- 58 **Events**
- 66 **Finish Chute**



## WINNING RECIPE

# MASON KLEIN

Sertoos Rally 2023 - Brazil  
1<sup>st</sup> Place OA



Photo: Mason Klein

### FUELING RECIPE

#### BREAKFAST

Light breakfast including 2 scoops of Hammer PHOOD® with almond butter.

#### PRE-RACE PREP

2 water bottles with Fully Charged & HEED  
1 Gel Flask with water and Fully Charged

#### WATER PACK

8 scoops of Perpetuem®

#### VEST BOTTLES

Bottle 1: 2 scoops of Recoverite®  
Bottle 2: 2 scoops of HEED®

#### PILL PACKS

4 Anti-Fatigue Caps  
2 Race Caps Supreme  
5 Endurolytes® Extreme

#### POCKETS

Hammer Gel® Flask  
2 Hammer Bars®

#### POST-RACE

2 scoops of Recoverite®  
2 Anti-Fatigue Caps  
4 Race Day Boost with supper



# WORLD



## CHARLENE PROCTOR

with MIKHAIL ZHARINOV

EMBASSY World Ballroom Championships  
1<sup>st</sup> Place OA - Open Smooth

with MIKHAIL ZHARINOV

EMBASSY World Ballroom Championships  
1<sup>st</sup> Place OA - Ten Dance Title

## HONORABLE MENTION



Photo: Carel Du Plessis.  
Courtesy of Keller Norland.

## KELLER NORLAND

XTERRA World Championships

Short: 00:35:36

FULL: 2:56:01

16<sup>th</sup> Place AG

20<sup>th</sup> Place AG

16<sup>th</sup> Place AG ELITE

20<sup>th</sup> Place AG ELITE



# CHAMPIONS



## CHRIS CURTIS

IBJJF  
2023 World Jiu-Jitsu  
Championship  
Las Vegas, NV

1<sup>st</sup> Place  
Male Master Master 1  
Brown Gi and NoGi  
Heavy weight

“Four fights with 2 submission victories, 1 victory by decision and 1 victory by points. I finished the tournament without giving up a single point. After this tournament I am a two-time IBBJF (International Brazilian Jiu-Jitsu Federation) World Champion and the number 1 ranked IBBJF Masters 1 heavyweight brownbelt in the world in both the Gi and NoGi divisions.”

## HONORABLE MENTION

### CHRIS HAMMER

2023 World Triathlon Para  
Championships  
SPRINT DISTANCE

57:16

3<sup>rd</sup> Place OA in PTS5 Category



## WINNING RECIPE

# CHRIS CURTIS

IBJJF Worlds 2023 - Vegas



Photos: Kelly Curtis

## FUELING RECIPE

### BEFORE

I made weight and started fueling with **HEED**®. I took a **Perpetuem**® **Solids** tab and a serving of **Fully Charged**, then warmed up with an **Energy Surge** before my first match.

### DURING

I finished scoring 9 points and getting a submission. I continued sipping **HEED**, then added some **Endurolytes**® **Extreme** when topping up. I took another **Energy Surge** before my next match, one more before the third match, and another immediately after. I followed up with **Fizz** and **Endurolytes Extreme** in some water. Now I needed **Perpetuem**® for some calories. Finally, one more **Energy Surge** and I went on to WIN scoring 7 points and getting the submission victory.

### AFTER

**Energy Surge**, **Endurolytes Extreme**



# NATIONAL



## MATT TRETHRIC

**1<sup>st</sup> Place 65+ AG**  
**US Cycling Nationals**  
**50 Miles**

Photo: Rob Knock



## HALLIE MARKS

**US Womens' National Hard Enduro Champion**

**King of the Motos Hard Enduro (KOM) 2<sup>nd</sup> Place / 72 OA**

**Grindingstone Hard Enduro 2<sup>nd</sup> Place / 113 OA**

**Battle of the Goats HardEnduro 2<sup>nd</sup> Place / 96 OA**

**Silver Kings Hard Enduro 2<sup>nd</sup> Place / 133 OA**



## TONY SCHILLER

**1<sup>st</sup> Place Olympic Tri Distance Men's 65-69**  
**1<sup>st</sup> Place Sprint Tri Distance Men's 65-69**  
**USAT National Championships**

**2<sup>nd</sup> Place Men's 65-69**  
**World Tri Championships, Pontevedra, Spain**



## PAT SMAGE

**14-time NATC CHAMP**

**1<sup>st</sup> Place OA**

**AMA Moto Trials National Championship**

Photo: Steph Vetterly



# CHAMPIONS



## VICTOR SHELDON

1<sup>st</sup> Place OA - Men's 55-59 AG  
Gravel National Championships  
88 miles / 4:23



## KYLIE DeJAGGER

1<sup>st</sup> Place OA women 15-16  
Gravel National Championships  
56 miles / 3:04

## HONORABLE MENTION



## BRIAN FRANK

1<sup>st</sup> Place, 2x 2<sup>nd</sup> Place, 3<sup>rd</sup> Place  
AMA/NATC MOTO TRIALS WESTERN SERIES



## RON AMOS

1<sup>st</sup> Place Back 40 Gravel  
75 km GRAVEL  
1<sup>st</sup> Place OBC Time Trial  
Series 15 km and 40km



## DEVON FEEHAN

MTB National Championships  
1<sup>st</sup> Place Cat 1 19-24 XC0  
1<sup>st</sup> Place Cat 1 19-24 STXC





# STATE



## BRAD DANIELS

### GRITTY GROWLER

Missouri

24 miles / 2:26

3<sup>rd</sup> Place OA

### MR340

Missouri

340 miles / 31.30

1<sup>st</sup> Place AG / 1<sup>st</sup> Place OA

### 3 LEGGED MONSTER

Missouri

30 miles MTB

13 miles Canoe

7<sup>th</sup> Place OA



## TOR GUDMUNDSEN

### BOZEMAN HALF MARATHON

13.1 miles - 1:32:51 - 2<sup>nd</sup> Place AG

### CEDAR CREEK MARATHON

26.2 miles - 3:25:40 - 1<sup>st</sup> Place AG

3<sup>rd</sup> Place M. OA

### KALISPELL PARKLINE HALF MARATHON

13.1 miles - 1:35:29 - 1<sup>st</sup> Place AG

1<sup>st</sup> Place OA

### MONTANA SENIOR OLYMPICS

5K - 21:02 - 1<sup>st</sup> Place AG

10K - 41:36 - 1<sup>st</sup> Place AG - 1<sup>st</sup> PLACE OA

## WENDY SKEAN

### NEW MEXICO

New National Time Trials

Record Set for Women

AG 75-79

20K 34:31:27

Also set a New PR!



# Keep Hammering in 2024!



# CHAMPIONS



## BEVERLY ENSLOW

USAC Illinois State MTB Championships  
and Farmdale Frenzie

17 miles / 1:38:32

1<sup>st</sup> Place Expert Women 40+ AG

2<sup>nd</sup> Place OA Expert Women



## LINCOLN MURDOCH

Iowa State Games Tri

7<sup>th</sup> Place OA / 1<sup>st</sup> Place AG 65-69

Omaha Tri - Nebraska State Championship

3<sup>rd</sup> Place OA

Nebraska State Games Tri

23<sup>rd</sup> Place OA / 1<sup>st</sup> Place AG 65-69

Congrats to  
**ALL** of our  
**Hammer**  
**Champions!**



## RICHARD SMITH

NEW ENGLAND

Gravel Championship

Vermont

40 miles / 2:24:20

1<sup>st</sup> Place AG 40+

9<sup>th</sup> Place OA

---

## CRANK THE KANG

New Hampshire

21.3 miles / 1:06:16

1<sup>st</sup> Place AG 45-54

10<sup>th</sup> Place OA

---

## Mt. ASCUTNEY BICYCLE

CLIMB

Vermont

3.9 miles / 12% grade

29:31

1<sup>st</sup> Place AG 50+

16<sup>th</sup> Place OA





by BRIAN FRANK

# Fueling for Under and Over 3 Hours

The variety of fuels that Hammer offers and how we explain their best use has inadvertently caused much confusion. Hopefully, this article and accompanying video will clarify this for you and everyone else.

Back in 1992, when I introduced **Sustained Energy**, it was intended for our Clients engaging in long-distance, mega-endurance efforts. In the late 80s and early 90s, ultra, distance events were increasing, and there were no products designed or intended for long periods. The only available fuels were the usual sugar, citric acid, and salt combo, and they did not work for ultra distances.

However, shortly after introducing Sustained Energy, giving athletes a real ultra fuel, I realized there was a lack of carb fuels for higher intensity, shorter duration exercise. It turns out the products of the day were not working for many athletes even in these shorter durations. This led me to develop **Hammer Gel**® and then **HEED**®.

The introduction of Hammer Gel in 1995 and HEED in

2004 created the need to differentiate the products and their best uses. To help facilitate this, we started talking about exercise periods lasting less than or more than three hours so you would know which fuel is best based on the duration of your exercise. The introduction of **Perpetuem**® in 2002 increased this need.

Since then, we've been suggesting that athletes think about fueling for their exercise bouts with a hard dividing line of under three hours or over three hours. If you exercise for 1-3 hours, use Hammer Gel if you are a water drinker, and HEED if you are a drink drinker (see my other article/video on this subject): Both are complex carb-only fuels that provide a quick boost for these durations.

However, if you plan to exercise for longer than 3 hours, Perpetuem or possibly Sustained Energy should be your primary source of calories. They contain protein, and Perpetuem even has some fat in it.

The above instructions confused many clients and even some of our staff. No

one is confused about exercise lasting less than 3 hours – use Hammer Gel or HEED, and you'll be golden. It's the 3 + hours fueling where things get confusing.

Even today, I regularly hear clients asking:

**“Does that mean for my long events, I start with HEED or Gel for the first three hours, THEN switch to Perpetuem or Sustained Energy?”**

**NOPE. This is absolutely not what I am trying to convey.**

**The big idea here is that when you exercise for 3 + hours, you forego the Gel/Heed and start immediately with your protein-fortified fuel. This is super key and the big takeaway here.**

*Continued on page 64*

## SHAKE THINGS UP!

### Be your own Hammer Pro MIXOLOGIST

All this talk about “Use this and that, but not this or that unless you’re doing XYZ”... it can get confusing.

Since you're here, be sure to go read our article regarding “The Myth of the All-In-One Convenience”, for even more clarity about what you should and shouldn't mix together, when, and why.







# The Original NonAcidic Sports Drink



Keller Norland tops up before a ride.

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- Reduces muscle cramps
- Buffers lactic acid

- Lemon Lime
- Orange
- Cherry Bomb\*  
\*Contains Caffeine



70 Serving      \$64.95  
 32 Serving      \$37.95  
 Single Serving    \$1.95



*"The Cherry Bomb flavor is outstanding! I have been a Hammer Nutrition user since the early 1990s, and have used every flavor of **Heed**. Great flavor and it holds up well as the day and the bottle heats up." - Chris H.*

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



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**EN136PH** to receive one free Hammer PHOOD  
 single with any purchase. \*flavor will vary



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 12.31.23

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# Letters from Hammer Clients

## Eric Young

Adirondack Canoe Classic ( 90 Miler)

1st AG  
 15th OA (out of 250)  
 Day 1: 34 mi. / 5:42:33  
 Day 2: 33 mi. / 4:49:1  
 Day 3: 23 mi. / 3:30:16



HAMMER Must-haves

HEED®, Hammer Gel®,  
 Hammer Bars®, Recoverite®



Hi Hammer,

**I just wanted to let you know your products worked great this weekend!**

I just completed a 3 day/90 mile canoe and kayak race in Northern NY which I was fortunate enough to win my division and set a personal record. Ever year, in usually in the same places I experience the dreaded “bonk”. This year it never happened which helped me secure the win. Thanks again for your help and advising which of your products I should use.

Sincerely, Eric Young



**THANKS DAVE!**  
 for all the years  
 of support and  
 friendship.  
 #hammerfamily



## Dave Dillon

Hammering for 22 years

Hi Brian,

A short note of appreciation/gratitude for providing me with Hammer products over this period. Turning 80 this Spring, I find the fuels continue to provide me with the energy and mental well being to get out on the bike whenever it pleases me. A week ago today, I completed 75 consecutive days of riding (5033 miles/67.1 mpd avg.) and recreating around the Flathead Valley. I always felt energized and possessed mental wellbeing and confidence throughout this period. I had no goal....I just felt like riding every day, so that’s what I did. My deepest thanks for providing me with the products that make life so enjoyable on two wheels.

Sincerely yours,  
 Dave Dillon





# HOW TO HAMMER

## Comprehensive Product Usage Manual

### 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 your reviews. We check our Facebook page regularly and enjoy hearing how Hammer Nutrition has helped you.

### KEEP HAMMERING!

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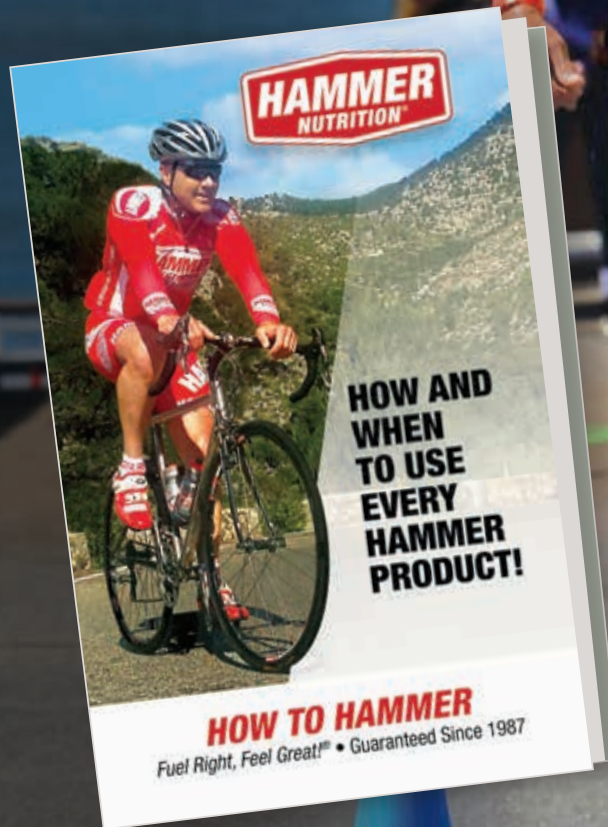
For more information about Hammer-recommended fueling protocols that can help you not only meet, but exceed your goals, go to

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

to download your **FREE** copy of our #1 comprehensive guides *5 Secrets of Success*, and *How to Hammer*.

Still have questions? Join us on live chat and get a complimentary personal fueling plan from one of our friendly experts. We're here to help.

### KEEP HAMMERING!



Ricardo Cuervas comes down the IronMan home stretch with energy to spare. Photo courtesy of Ricardo Cuervas.

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[hammernutrition.com/how-to-hammer](http://hammernutrition.com/how-to-hammer)

*How To Hammer* provides all the vital information you need to Hammer to the next level. The final word on usage, with advanced details and specific applications.



# A Cure for “DEAD LEGS”

by BRIAN FRANK

Ben Handrich stays light on his feet throughout the Tillamook Burn 50K. Photo courtesy of Ben Handrich.

## CLIENT QUESTION:

“Recently, after even a couple of days of complete rest from even short runs (6–7 miles), I find that the next time I try to go running or biking, my legs feel like lead. Any advice for resolving this current dilemma?”

## ANSWER:

Great question! Certainly, overtraining could contribute, but your “dead” legs most likely come from ongoing nutrient deficiency, which is common for high-training volume endurance athletes. This common scenario can result from the old-school mentality that protein is not essential for endurance athletes. Eating more protein will make you big, like a bodybuilder, new dietary habits, or just not realizing how vital meeting daily protein goals is.

Regarding protein requirements, high-volume, mostly aerobic athletes need the right amount of protein daily to handle the daily workouts and need quick, efficient muscular repair and

recovery so they can go out and do it again the next day. For this reason, plant- and whey-based protein powders were some of the first powders I introduced in the late 80’s.

This article focuses on the importance of protein, how much you need, and the other nutrients that support protein synthesis, such as iron, B12, folic acid, antioxidants, and ammonia scavengers!

**PROTEIN** – the Macronutrient key to muscular recovery

During high-volume training, our protein intake recommendations are 1/2 to ¾ gram of protein per pound of body weight; the lower end is for muscle maintenance, and the higher for engaging in strength training/building mass.

So, If you’re a 165 lb athlete, you’ll want to consume approximately 76–120 grams of protein daily. On your days off, I suggest you aim for at least ½ of your body weight in grams of protein (60 grams if you weigh 120 pounds). Adjust for your

body weight if you weigh more or less than this.

Your protein should come primarily from high-quality food sources and can be supplemented with any of our plant and or whey-based protein powders and bars to help you reach your daily total.

## Iron deficiency / B12 and folic acid supplementation

You might also check for anemia, which is common among runners. If you’ve had blood work done in the past six months, look at your hemoglobin number to see if it’s low. With or without the number, though, the solution is simple: seek iron-rich foods (NOT iron-fortified)—spinach, beet greens, and other plant sources rich in organic iron.

Even if you are getting protein and iron, if you are not getting enough vitamin B12 and folic acid, your recovery will lag—along with your body’s ability to absorb iron effectively, repair/build muscle tissue, and form red blood cells.

*Continued on page 64*



# Recover Right with Recoverite!®



Jake Elkins takes the lead at Quick-n-Dirty. Photo: Wildglass Photography.

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

32 Servings **\$69.95 each**  
Single Serving **\$3.95 each**

■ Caffé Latte ■ Chocolate ■ Vanilla



Now made with Tapioca Maltodextrin for support taste and performance!



*"As an older athlete, I have relied more on rest and proper post-workout nutrition to stay competitive. Recoverite has been and continues to be an integral part of my training program. I use it as a delicious rehydration supplement post efforts and know I am rebuilding muscle mass everyday." - M. Burkhardi.*

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



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Use Promo Code **EN136PH** to receive one free Hammer PHOOD single with any purchase. \*flavor will vary



expires  
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**800.336.1977**

# SOS 5 RECOVERY DONE RIGHT

For a better performance tomorrow, recover right today!

While there are several aspects involved in improving athletic performance and overall health, we are 100% convinced that proper recovery is at the top of the list. As athletes, we sometimes focus so intently on our training and equipment that we forget about recovering properly, and that's a big mistake.

If we neglect to take the proper steps for recovery, we will never get the full value out of the time and energy we spend in training. Remember, the gains we make in our training occur during recovery, but only in the presence of adequate rest and optimal nutritional support. If we don't attend to that, we not only miss out on the benefits of our workouts, we can also create more problems for ourselves such as getting sick or injured.

Recovery after exercise is always important. Always! Adopt and follow these four Rs consistently, and your body will reward you handsomely.

## 1) REPLENISH

As soon as possible after your workouts—ideally within the first 30 minutes—replenish your body with complex carbohydrates and protein (whey protein isolate, if possible). Give your body this kind of support when it's most receptive to replenishment, and here is what it will do for you:

- Store more minutes of the premium, ready-to-use fuel known as muscle glycogen

- Strengthen your immune system
- “Kickstart” the rebuilding of muscle tissue
- Diminish soreness

**Recoverite**® provides your body with the perfect ratio of carbohydrates to protein, along with: generous amounts of multi-beneficial L-glutamine (a whopping 3 grams per serving!); the potent antioxidant L-carnosine; the “key to insulin utilization” nutrient, chromium; and a full-spectrum electrolyte profile. The result is rapid and enhanced recovery that allows you to obtain the maximum value from workouts and preps your body for your next workout or event.

## 2) REHYDRATE

Although water has no real nutrient value, it's essential for performance, recovery, and health. Nearly two-thirds of our body is comprised of water, so we must drink enough of it, not just during workouts, but throughout the day. In addition to what you consume during exercise, aim for ½ fluid ounce of liquid per pound of body weight per day, mainly from clean, pure water. After a hard training session, you could be a bit dehydrated, so use non-training time to get your hydration back on track. Keep in mind that the water you use to prepare your **Recoverite** counts toward your daily hydration goal, so if you choose to mix it with only a small amount of water (say 4–8

ounces), be sure to follow up with additional water.


## 3) RESUPPLY

After a tough workout or event, your body is begging for vitamins, minerals, and antioxidants. **Premium Insurance Caps** will resupply the vitamins and minerals (some antioxidants, too), and Hammer Nutrition's arsenal of potent antioxidant supplements—including **Mito Caps**, **Super Antioxidant**, and **AO Booster**—will supply wide-ranging protection against the damaging effects of free radicals.

## 4) REPAIR

When you regularly push your body hard in your workouts, it can take a toll on your muscles and joints. Without adequate rest and nutritional support, you may find yourself in that inhospitable place known as “over-training syndrome,” coupled with an increased potential for getting injured.

The protein in **Recoverite** will help with muscle tissue repair. To further reduce aches and soreness—as well as provide your body with many more benefits—we recommend the unparalleled combination of **Hammer CBD**, **Tissue Rejuvenator**, and **EndurOmega**.

Remember, how well you recover today will greatly determine your performance tomorrow. Know, adopt, and consistently apply the 4 Rs. It's the right way to reap all the rewards of proper recovery. 



# SOS WATCH NOW FOR SUCCESS TODAY!



## Video Series



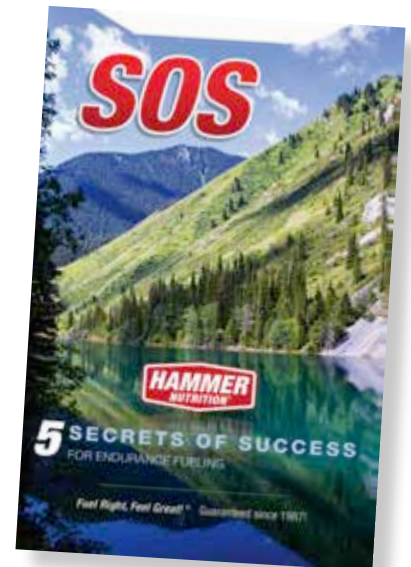
Brian Frank takes in a fall evening ride on the backroads at Hammer HQ.

For over 36 years, we have been THE fueling experts! Our “Less is Best” fueling protocols have helped countless athletes successfully fuel for every endurance endeavor imaginable - without cramps or GI distress! You name it, we’ve done it, or helped other athletes do it. By following the fueling practices revealed in this book, you’ll be able to Fuel Right and Feel Great for anything you do.

Informed by rigorous science and proven in use, our methods and products are the surest path to optimal performance and health.

If you have fueling questions feel free to call to speak with one of our friendly, knowledgeable client advisors. We’re here to help!

*Brian Frank*  
Brian Frank, Owner



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Jesse Morton-Langhaug Hammers the pace Fueling Right and clearly Feeling Great!

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WE ANSWER

## QUESTION

I have an UltraMarathon coming up and am new to Hammer. Where can I find quick fueling information and tips, including which Hammer products you might recommend?

## ANSWER

Welcome to Hammer -You're in luck!! Log onto [hammernutrition.com](http://hammernutrition.com) today and take our new **QUIZ** to get started answering some of your immediate questions. From there, get dialed in with specially curated fueling plans, supplemental reading, and product recommendations just for you!

We also now provide a wealth of fueling guides for your sport, recommendations for your everyday health, well-being, and more!

Additionally, you can always reach out by phone or Live Chat to speak with an expert. **We're here to Help!** EN

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Essential Knowledge  
Advanced Knowledge  
Endurance Library  
Endurance News Magazine  
Endurance News Weekly  
Frequently Asked Questions  
How To Fuel Guides

## START ENJOYING THE BENEFITS OF HAMMER TODAY!

**Step 1)** Watch the videos or read the 5 Secrets of Success below. [Download a FREE copy here](#)  
**Step 2)** Choose from the products or starter kits that best suit your needs and order up! We'll ship 'em fast.  
**Step 3)** Call, live chat or email us anytime you have questions or would like more information! **1-800-336-1977**

### Need help finding the right products?

Take our product recommendation quiz for a guided tour of the Hammer Nutrition product line tailored to your needs and requirements.

**TAKE THE HAMMER QUIZ TODAY!**



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**YOUR FREE GUIDES TO SUCCESS**

## KNOWLEDGE BASE

Getting Started  
Problem Solver  
Essential Knowledge  
Advanced Knowledge  
Endurance Library  
Endurance News Magazine  
Endurance News Weekly  
Frequently Asked Questions  
**How To Fuel Guides** ←

## HOW TO FUEL GUIDES

### FUELING FOR SUCCESS WITH HAMMER NUTRITION

Looking for sport-specific fueling advice? Look no further than our 'Fueling for Success' guides. Inside each article you'll find specific, actionable advice to fuel right and feel great - no matter the sport or distance.

Are we missing a sport or activity that you'd like to see? [Let us know!](#)

If you're looking for general product and fueling advice, see our [Product Usage Manual](#) and [5 Secrets of Success](#).

The Product Usage Manual contains actionable advice on how and when to use every Hammer product. The 5 Secrets of Success contains the core fueling and recovery principles we've developed through nearly three decades of rigorous research and field testing.

Together, all these resources make for a winning combination, guaranteed!



HOW TO FUEL GUIDE:  
8-HOUR PROTOCOL

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HOW TO FUEL GUIDE:  
MARATHON (26.2  
MILES)

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HOW TO FUEL GUIDE:  
HALF OR FULL IRON  
DISTANCE  
TRIATHLON

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# The 10% RULE

Keeping energy in reserve will get you all the way to the finish line.

by DEAN KARNAZES

**“Finishing an ultramarathon is simple. All you have to do is not stop.”**

That zinger comes from my latest book, but when you think about it, it really is true. Many endurance sports boil down to one thing: persisting until you reach the finish line. The challenge, of course, is how to reach that finish line as quickly as possible but still reach it. That’s where the 10% Rule comes in.

Developed over years of strenuous research (i.e., many respectable finishes, with a few DNF’s sprinkled in as educational lessons), I now use the guiding principle when racing to always keep 10% in energy reserves. On race day, I always remind myself to obey this rule or potentially face the consequences. Now, don’t interpret this as simply meaning to go slow. On the contrary, the concept is to push as hard as possible during each race stage, bumping up against that 10% energy reserve threshold throughout but never crossing over... until the finish.

Once you feel that strong gravitational pull from the finish line, the 10% Rule goes out the window. The idea is to push like a crazy person and give everything you’ve got, arriving at the finish and either puking your brains out or collapsing (special bonus points for both).

Try it on your next race and see if it helps you (feel free to skip the puking and collapsing part; that apparently is my specialty).

While the 10% Rule applies from the start, I make sure I’m 100% ready before the gun goes off. This includes taking 3 **Race Caps Supreme**, **Fully Charged**, **Endurance BCAA+**, and **Anti-Fatigue Caps** to help prolong my endurance from the very start. I continue

using these throughout the race, along with other Hammer Nutrition products like **HEED** and **Endurolytes Extreme**. Assurance that you’re getting the best ingredients in ideal formulations goes a long way to boosting race day confidence. EN





# Daily Essential Kit



Mitch DeYoung is always ready to ride year round. Photo courtesy of Mitch DeYoung.

- Supports overall health
- Encourages efficient energy production
- Supports mitochondrial health



*"This combination of products truly changed my training and racing experience. Using these products helped me get past a training slump. I have more energy and feel great!" - Mary S.*

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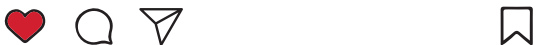




# #howihammer



@mejackson128



Great time with great friends at the AHRMA Vintage race at Muddy Creek. A beautiful setting for Sunday track-side church service too! #howihammer



@mtbmitch



Mitch DeYoung\_The @thecrusherrace EX100 was quite the day. After 3.5-4 hrs the rain stopped and the day turned nice enough for me to enjoy the rest of the day. #howihammer



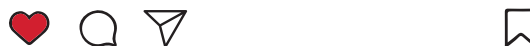
@scott\_gebken



Scott Gebken\_BEAT THE HEAT with @hammernutrition. They have supplements to help you perform and recover better than ever! Support those who support the sport! #howihammer



@traceholland15



Trace Holland\_Frustrating week for me at @lorettalynnmx. Top 5 finish in 250b limited and a 7th overall. Glad to be leaving healthy and to get back to work. #howihammer



# Where "Social" is SOCIAL, NOT Sales!



@nathan.a.moody



**Nathan Moody**\_Van life boys weekend. Crested Butte, CO.  
#howihammer



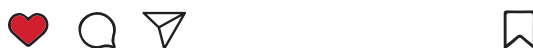
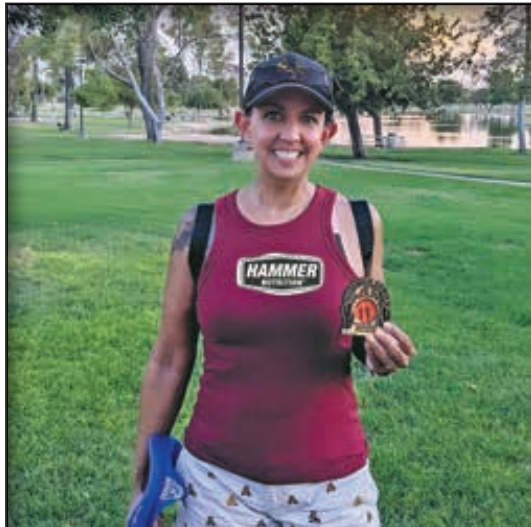
@mattressboirunner



**Ricardo Cuervas**\_@champ82mp and I did amazing! So happy to run the course. Weather was perfect and a beautiful race. #howihammer



@cynthia-runsalot



**Cynthis Salazar**\_Arizona Road Racers Summer Series Celebration and Awards last week. I earned 1st in my Age Division for 45-49 for the Series! #howihammer



@thaddy989



**Thad Duvall and son**\_Some of my best days! Kids legit out doing motos with us. Wild. Matching with my mini @mooseelite @alpinestarsmx #howihammer

# URIC ACID PART ONE

## and Its Metabolic Effects

by Dr. BAYNE FRENCH, MD DC

**T**raditional teaching and my educational understanding until recently was that uric acid (UA) is an inert byproduct of metabolism. Its importance is only in regard to kidney stones and gout.

Like solid evidence on proper human nutrition, literature on the metabolic detriments of UA has been around for decades. Yet it is the rare medical provider that knows this, nor is it anywhere in large-scale nutritional guidelines.

It seems to me the fastest way for knowledge on metabolic wellness to be known and understood by the individual where it matters most is for visionary authors to write books. Individuals then read

these books and enact change. This change is then spread horizontally to those they care about and others that observe the favorable changes. Basically, bypass the vertical trickled down of bastardized and erroneous information that ends up in the shape of a pyramid or a plate. It just takes an eternity to go from the laboratory into the literature and disseminate into clinical medicine in a way meaningful to patients. Even upon arrival to a clinical setting, your medical provider may not be aware of it, is likely mired in dogma, and just overworked and surly. So don't wait.

Case in point, Scottish physician Dr. Haig described the connection between UA

levels and a wide array of diseases, from depression and migraine to cancer, dementia, and heart disease, over 100 years ago. He wrote a book on it that went through seven editions and was translated into numerous languages. And this knowledge is JUST NOW making it into clinical practice. Barely.

I first wrote about UA in a "Nonalcoholic Liver Disease" article published in part on 8/21 EN 127 and unabridged in ENW. I expounded on it in EN 128 (and ENW) "Laboratory Testing" article. Rumblings about metabolic impairments driven by UA were heard by me a few years ago, and I wanted to know more because metabolic impairment drives most of our chronic diseases.

Dr. David Perlmutter MD wrote *Drop Acid*, published in February 2022. The book itself is terrific, and I recommend everyone read it. I owe him an outstanding debt of gratitude for his work and my subsequent knowledge. The citations provided at the back of the book are particularly appreciated. Authors like Dr. Perlmutter, Dr. Mark Hyman, and others have well-referenced work. Their cited references have expedited my knowledge of metabolism and metabolic disorders. Much of this article is based on Dr. Perlmutter's work.

## THE DOCTOR IS IN DR. BAYNE FRENCH, MD DC

- Double Board Certified in Family Practice and Obesity Medicine
- Nutrition and Medical Weight Loss Specialist
- Hammer Nutrition Chief Medical Advisor
- Accomplished Spartan Athlete
- Proficient Outdoorsman and Mountain Survivalist
- Developer and founder of DeEvolution Lifestyle
- Developer and founder of LW Med

*Dr. French is clearly not your average lab coat physician. Read more from Bayne on Endurance News Weekly.*



Continue reading this article in its entirety with references on **Endurance News Weekly**.  
[hammernutrition.com](http://hammernutrition.com)







# WILL TURNER

## 6.5 IM's non-stop!

Photo: Chris DeStefano

## Perpetuem 2.0 Shines

by BRIAN FRANK

As you read in issue #135, our cover athlete, Will Turner accomplished the super-human feat of completing 100 Ironman distance triathlons in 105 days, as a 60<sup>th</sup> birthday present to himself. Unbeknown to us at the time, was that he was using **Perpetuem**® Classic and other Hammer products as his primary fuels during this odyssey. I was amazed to discover this when he reached out recently to ask for guidance and support in the quest of his 65<sup>th</sup> birthday present - a multi day ultra-ultra triathlon equaling 6.5 IM distances non stop, totaling 914 miles of swimming, biking and running.

Broken down by discipline, that's 15.6 miles swimming, 728 miles pedaling and 170.4 miles running. Wow! From our discussion, he lowered his hourly caloric intake goal (See MCPH pg.5) by about 30%, adjusted his fluid intake to sustainable levels and added several Hammer products to support this effort. We'll break it all down in detail in the next issue of EN and in *Endurance News* prior.

Mega congratulations to Will, who shows us that you can do amazing things if you put your mind, body and soul into it..... And fuel with Hammer products, using our "**Less is Best**" fueling protocols :-).

In his words, Hammer fueling was the "cornerstone to his success" and the changes he made after our discussion were "a total game changer". Amongst key products, Will used: **Perpetuem 2.0** powder, **Perpetuem Classic Solids**, **Hammer Gel**®, **Recoverite**®, **Liquid Endurance** and multiple forms of **Endurolytes**®. These were complimented at transitions and "aid stations" with **Anti Fatigue Caps**, **Race Caps Supreme**, **Tissue Rejuvenator**, **Mito Caps**, **Endurance BCAA's** and maybe one or two more for good measure.

Read the full story in EN137!



# 5

## TIPS to avoid holiday weight gain

**T**rick or treating, holiday parties, sugar-sweetened cocktails...add reduced exercise and stress to the mix and you've got a recipe for weight gain. From Halloween through the early New Year, even the most disciplined athlete can struggle to hold the line against extra pounds. Use these tips to devise your defense. Cheers to your health!

### 1. WATER WORKS

Proper hydration is always important, but during the holidays, it can be a valuable ally. Aim to drink two full glasses of water before you leave for that holiday gathering to help curb your appetite. It will also counteract the dehydrating effect of alcohol should you indulge. Throughout the day, every day, drink 0.5–0.6 ounces of pure clean water per pound of your body weight to avoid weight gain. A Hammer water bottle can help measure.

### 2. REIN IN APPETITE

Get a jump on cravings now with **Phytolean** and **ChitoLean**. They both suppress appetite and Phytolean helps to increase fat metabolism, without the use of harmful stimulants. Phytolean also contains a plant-based precursor of serotonin, which may enhance sleep quality and reduce sugar cravings. Take 1–2 capsules an hour before lunch and dinner. Use in cycles of three weeks on and one week off.


### 3. GO FOR COLOR

Be proactive at those parties. Instead of standing at the buffet table, wondering whether to choose salty/starchy nachos or high-fat Brie cheese, bring the hostess a tray of kale wraps, stuffed cherry tomatoes, and sliced sweet peppers. These veggies are loaded with nutrients and fiber yet low in calories. Lean proteins such as steamed shrimp, turkey breast, or small handfuls of nuts, are also good choices.

### 4. EASY ON THE WHITE STUFF

Skip the sauces, gravies, and dressings which all contain unnecessary calories, sugar, and salt. Be mindful of those tempting starchy carbs like bread, chips, white rice, pasta, and cookies. On those rare times when you know you'll indulge, be sure to take Phytolean. It will block the digestion of starchy carbs for you, enhance fat burning, and optimize your blood sugar levels.

### 5. GET YOUR Zs

Research has shown that not getting 8 hours of quality sleep can affect your body's insulin and ghrelin levels, leading to overeating. Ensure a full night of restful sleep by taking 2 **REM Caps** an hour before bedtime. Made exclusively with natural ingredients, REM Caps improves sleep quality and duration, enhances growth hormone release, and helps your immune system stay strong. 



# Now “weight” just a minute

Hammer has everything you need to tip the scales back in your favor!

- Balance blood sugar levels
- Keep metabolism steady
- Prevent afternoon drag
- Reduce cravings
- Satisfy hunger



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# RE-INTRODUCING HAMMER PHOOD®

by BRIAN FRANK

In 2021, we introduced our first Meal Replacement Product that I euphemistically named **PHOOD!** It was a bit hit; everyone loved it. However, the powder was a bit wet and hard to mix up. It was even harder to manufacture, forcing us to go back to the drawing board to modify the formula so it would mix up easier and run on the machinery. Unfortunately, this took longer than hoped, and we've been out of stock since February.

Luckily, just in time for Fall, I'm thrilled to have PHOOD back in stock and better than ever! It mixes thoroughly, tastes excellent, and provides the same 4-5 hours of satiety that the original did.

The idea of a Hammer meal replacement product (MRP) goes back at least 10 or 15 years. It is a good question why it took us so long to bring one to market. One of my favorite sayings is, "The best time to plant a tree was 20 years ago, but the second best time to plant a tree is today."

I did not create an MRP until now because it just did not feel right. I could have done a "clean" version of the typical MRPs, but that is close to Recoverite, which I have always said could be effectively used as an MRP. However, Recoverite lacks fat, which is paramount for satiety

and caloric density, so it serves more as a meal bridge than a replacement.

The next part of the MRP story is my evolution through diet theory and practice. I have tried to abstain from refined sugar and encouraged all of you to do the same. The challenge here is that refined sugar is usually replaced with natural sugars and foods our body identifies as sugar.

While this is an improvement from the "sugar's not that bad, I don't eat that much" denial, it still does not fully achieve a practice that avoids sugar.

Any diet that restricts or eliminates sugar and wheat is a diet I support. Furthermore, we now know that the "low fat" fad diets of the past were primarily based on flawed research that diverted attention from sugar





and blamed fat and cholesterol for our major diseases.

The last puzzle piece is my growing collaboration with Dr. Bayne French. As an informed, educated, and credentialed expert in bariatric medicine, hardcore endurance athlete, and mountain man survivalist, Dr. French has spent the past two decades studying macronutrient intake and its effect on our health and well-being. His advocacy for a higher-fat diet combined with intermittent fasting is compelling and has been a revelation for me.

Ironically, I taught him how to fuel for OCR and the other endurance events in which he excels. Two guys who can't stop developing products would inevitably come together to create a unique one. The result is Hammer PHOOD, a high protein, high fat, low carb, minimal ingredient powdered drink mix that genuinely fits the definition of a healthy meal replacement product. It will be an MRP for Hammer and Dr. French's bariatric practice.

As with every product that carries my brand, Hammer PHOOD underwent extensive bench testing for almost two years before being released to the public. In real-world testing, I didn't go as far with Hammer PHOOD as with Perpetuem in 2001 when Steve Born did his double 508 record ride, but I did some extreme testing. Initially, I used it as a substitute for either lunch or dinner. Eating breakfast and lunch, then having the MRP for dinner, worked very well.

I also experimented with one MRP and one meal daily for a week, which went well too. I preferred eating my main meal for lunch and the MRP for dinner, but vice versa worked as well.

The final test was 72 hours on nothing but Hammer PHOOD – 3 servings per day for three days and nothing else besides water. I maintained 30-90 minutes daily moderately intense exercise during this testing period. While I would not want to go for much longer than three days on nothing but Hammer PHOOD, I was amazed at how satiating the 240-calorie serving is. I would enjoy 4-5 hours of complete satiety without hunger pangs.

Now comes the fun part! We release the product into the wild and await your feedback and creative uses! It's in stock and flying off the shelves. **EN**

# Meal Replacement never tasted **SO GOOD!**



Kimberly Pedrotti knows the importance of maintaining a lean frame.

- **Hunger satisfying**
- **Reduces cravings**
- **Supports weight management**

■ Chocolate  
■ Vanilla

15 Servings     \$44.95 each  
Single Serving     \$3.49 each



*"Hammer PHOOD continues to be great! Tasty, easy to make and drink quickly on those mornings that I'm in a hurry to get going, and it keeps me full until time for my next meal. Keep up the great product!" - John C.*



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# ENDURANCE NEWS WEEKLY



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Dawn at Logan Pass, Glacier Ntl. Park, MT, USA.

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Discover a wealth of free information and education, specially authored and curated with your peak endurance performance in mind.

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# Immunity Booster Kits



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Endurance C + Enduro D

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*"A great combination of ingredients. All I know is that I have hardly been sick since I have been taking them and that says a lot. Thanks Hammer!" - Merville H.*

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# HOUSEKEEPING

## from HAMMER HQ

### Important updates from BRIAN FRANK

**W**hen we started this section last year, it was not supposed to be a permanent fixture in the magazine. However, supply chain, manufacturing challenges continue and so I find it necessary to use this to keep the loyal members of our Hammer Family as up to date as possible.

#### Hammer Gel Nut Flavors

have proven to be MUCH harder to run than our new manufacturer anticipated. The lack of excess citric acid, fructose/sucrose/glucose and preservatives makes this product extremely hard to make and keep the FDA happy. I can't tell you how many times they've suggesting I compromise the formula to make it easier to run. **Nope.** In August, we finally did the

first Nocciola full production run and ended up with 100,000 pouches of taffy. If you could get it out of the pouch, you'd have to chew it.

Ever the optimist, and having resolved several challenges, I'm beyond hopeful and actually a bit confident that we'll have Peanut Butter and Nocciola and hopefully Peanut Butter Chocolate back in stock in time for our 35<sup>th</sup> annual family and friends sale.

**Hammer Gel Jugs** getting thick. Something has changed with the processing of these products and we are seeing them turn solid, but not until they are 6-9 months out of production. We are working diligently to resolve this issue, but please be sure to let us know if you have a jug turns solid and needs replacing.

Most affected flavors seem to be Huckleberry and Raspberry – of course our most popular.

#### Hammer Gel OOS

Many of you have been frustrated by jugs and pouches not always being in stock. Believe me, this is one of my top priorities, but unfortunately due to our extremely low inventory, Hammer Gel will not be able to be included in the family and friends sale for the first time ever. I'm very sorry. IF we get the nut flavors in stock and sellable, they will be included in the sale.

**Perpetuem Solids** Not all flavors have the same characteristics and the only one that we can get to run at the moment is Chocolate. We are working feverishly on the other flavors, but I'm not going to make any promises here. We'll be shouting from the root tops through ever communications channel as soon as more flavors are available!





# Less pain, More gain!



35-year Hammer superstar Tony Schiller, keeps the wheels spinning year after year with Tissue Rejuvenator.

- Targets Soreness and Irritation
- Optimizes mobility and flexibility
- Maximizes recovery

120 Capsules \$34.95



*“Tissue Rejuvenator definitely helps with the aches and pains from a lifetime of competition. Wouldn’t want to be without it! - Frank W.*

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# KEEP HAMMERING!

## Supplement Your Off-Season

by BRIAN FRANK



**Hammer Capsule Dispensers are the perfect thing to keep all your supplements organized and handy on the go!**

As the racing season winds down, many of you are probably a little burned out and ready for some downtime. The big question that always comes up is; “Should I keep using my Hammer during the off-season?” I realize that it would be in the best interest of Hammer to have every customer using the products year-round. But after 34 years of serving endurance athletes, we are well prepared for the seasonality of some of our clients’ purchasing habits. So I will answer the question based on what’s best for you the athlete, not what’s best for Hammer Nutrition.

It is a common assumption that there is no point in using their Hammer products once they finish their competitive season. This misconception is most likely our own doing since Hammer’s literature emphasizes achieving peak performance, setting PRs, and other benefits associated with the competitive season. Hammer now offers a wealth of a wealth of unique products that offer significant benefits that offer significant benefits event during the off-season. A growing number of our customers are not even competitive athletes; they take Hammer products purely for health and therapeutic reasons.

While it is theoretically possible to go from maximum stress between April and September to zero pressure from October to March, usually, the off-season means just a little less stress or simply different types of stress. Whether it is fall road racing, strength training, cross country, or alpine skiing, most of you remain very active over the winter months. On top of that, there are the holidays, cold and flu season, and so many other time demands.

**According to your feedback, the benefits you enjoy the most from our products are more energy, less fatigue, and a general sense of well-being.**

These benefits translate into improved quality and consistency in your day-to-day training and recovery when it comes to racing. But these same benefits are equally important to all of the other stresses your body endures. And several Hammer products have robust health and therapeutic applications of their own.

Whether or not you actually “need” to continue your Hammer regimen is an individual assessment. Many athletes continue using products like **Race Caps Supreme**, **Race Day Boost**, and **Xobaline**.





They simply take less of them, maybe half dosages three or four days a week and full dosages on exercise or busy days. Others will switch to different products altogether. **EN**

Here is a brief list of products and suggested off-season uses:

**HAMMER RACE CAPS SUPREME**

Revitalize and rejuvenate every cell in your body with this “miracle” nutrient. This product offers too many health benefits to list.

**HAMMER PREMIUM INSURANCE CAPS**

The most economical high potency vitamin-mineral supplement, plus a complete amino acid profile. Also the freshest formula you will find, never more than six weeks out of production.

**HAMMER CHROMEMATE**

Improve insulin function, metabolism of fats, carbohydrates, and protein. Increase lean muscle mass and strength.

**HAMMER BORON**

Naturally increases hormone production, and calcium absorption. Banish brittle bones and get stronger too.

**HAMMER XOBALINE**

(Cobamamide, Coenzyme B12) Some of the benefits associated with B12 include improved concentration, memory, and balance, relieving irritability, and better utilization of fats, carbohydrates, and protein. It also accelerates protein biosynthesis, tissue regeneration, muscle growth, and red blood cell production.

# Race Caps still reign Supreme!



Will Turner rounds the bend on a lake-side training run. Photo: Chris DeStefano

- Prolongs endurance
- Helps increase energy
- Supports overall health

90 Capsules     \$54.95



*“I have been using Race Caps Supreme for over 37 years. It has never let me down, both for competing and recovery. - Ken J.”*



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# COFFEE

## Helps Protect Against Cognitive Decline

by STEVE BORN

**N**eurodegenerative disease describes a range of conditions that primarily affect the neurons in the human brain. They are, according to the EU Joint Programme – Neurodegenerative Disease Research (JPND), “incurable and debilitating conditions that result in progressive degeneration and/or death of nerve cells.”

Alzheimer’s disease and Parkinson’s disease are arguably the two most well-known neurodegenerative diseases. According to the Alzheimer’s Association, “In 2018, an estimated 5.7 million Americans of all ages are living with Alzheimer’s dementia. This number includes an estimated 5.5 million people age 65 and older and approximately 200,000 individuals under age 65 who have younger-onset Alzheimer’s.” The Parkinson’s Foundation states that “Approximately 60,000 Americans are diagnosed with PD each year,” and that, “Nearly one million will be living with Parkinson’s disease (PD) in the U.S. by 2020.”


As bleak as those statistics are, a sizeable body of research has shown that coffee consumption is correlated with a decreased risk of developing these two diseases. New research now reveals the compounds that may be responsible for this protective effect. Dr. Donald Weaver states, “Coffee consumption does seem to have some correlation to a decreased risk of developing Alzheimer’s disease and Parkinson’s disease. But we wanted to investigate why that is—which compounds are involved and how they may impact age-related cognitive decline.”

Their initial research noted assorted benefits from coffee’s caffeine, chlorogenic acid, and quinic acid components, but none of those were identified as the primary benefitting agents for protecting against Alzheimer’s or Parkinson’s. The researchers then discovered that phenylindanes, a group of compounds produced in coffee via the roasting process, were responsible for coffee’s cognitive-protective benefits. The researchers found that

phenylindanes had the ability to inhibit the clumping of protein fragments known as tau and amyloid beta, which occur in the brains of both Alzheimer’s disease and Parkinson’s disease patients.

While allowing that more research would be needed to confirm just how beneficial phenylindanes’ benefits are, Dr. Ross Mancini remarked, “It’s the first time anybody’s investigated how phenylindanes interact with the proteins that are responsible for Alzheimer’s and Parkinson’s.” Dr. Weaver concluded, “What this study does is take the epidemiological evidence and try to refine it and to demonstrate that there are indeed components within coffee that are beneficial to warding off cognitive decline.”

It is suggested that since roasting increases phenylindane content, dark roast coffee may have more potent effects than light roast.

**Coffee. It not only energizes your brain, it provides powerful protection for your brain!** 





**Hit the road ahead  
always "Ride Ready"!**

Multi-National Champion Victor Sheldon and his wife Piper enjoy a caffeinated spin along PCH after enjoying several cups of 53x11 coffee



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# TAKE IT TO THE GYM

by BRIAN FRANK

## Brian Frank's Weight Sandwich Workout (WSW)

I started lifting when I was 18. At the same time, I got very serious about cycling and have continued to go to the gym regularly for upper-body strength to complement my endurance training, which is mostly lower-body—cycling. I use this for cross-training for moto trials, which require equal amounts of strength, endurance, and mental focus. In addition to cycling or riding 5-6 days per week, I try to get into the gym at least three times per week. The following workout routine is what I have distilled down from all of my studies on the subject and practiced over the past 38 years.

### THE SANDWICH

**Cardio** : 5-30 minutes

**Free weights:** Upper Body Routine

**Cardio:** 5-30 minutes

Timing is easily adjustable per your schedule or other training.

**WHEN / HOW OFTEN?** 3-4 times per week, year-round!

### CARDIO #1

Cardio options – stationary bike, concept 2 rowing ergo, stair climber, elliptical. (Treadmill/running not encouraged.)

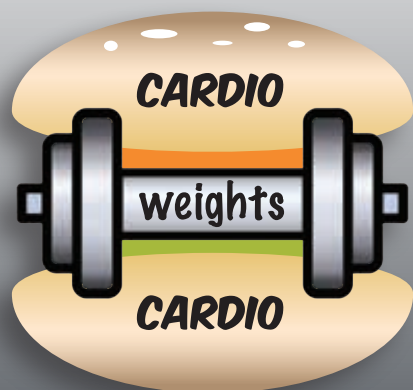
**1st Cardio session:** needed to get the heart rate up and blood flowing. It should be done for at least 5 minutes or until you break a good sweat. When outdoor cycling/moto is not happening regularly (wintertime), increase the cardio duration to 15-30 minutes to burn more calories.

### WEIGHTS

Due to the amount of cycling I do and how bad my knees are, I refrain from engaging in resistance/strength training for my lower body.

Also, I don't like to have huge legs, and things like squats, deadlifts, and the like are a great way to injure one's back. I only do resistance/strength training for upper body muscles for many reasons.

**Free Weights and body weight:** For the first 3-6 months of structured workouts, use only free weights and bodyweight exercises. Save barbells and machines for later.





Free weights are used to develop all supporting/stabilizing muscles, tendons, and ligaments, in addition to the major muscle groups. The former takes longer to develop than the latter. Exercises like pull-ups and dips should be employed regularly for lats and pecs as the body responds fastest to bodyweight-supported exercises.

Strict form while doing resistance training routines is a must, always. Use lighter weights with strict form instead of heavy weights and poor form. The former produces the best results, and the latter causes injuries.

The format for weightlifting follows the size of the muscles – big ones first, little ones last. Chest (pectorals), back (latissimus), and then arms/shoulders (triceps, biceps, deltoids.) Abs and back can be done at any point during the workout.

### Chest/Arms/Shoulders and all supporting muscles:

(Pectorals/triceps/deltoids) are all worked together with exercises such as push-ups, dips, prone dumbbell/bar presses, and similar variations. Alternate between prone, incline, and decline to force further adaptation and growth of all areas of the muscles.

### CARDIO #2

Cardio options – stationary bike, concept 2 rowing ergo, stair climber, elliptical. (Treadmill/running not encouraged.)

**2nd Cardio session:** After you have completed your upper body weight routine, keep the calorie/fat burn going with a second round of cardio for another 5-30 minutes.

### Building a Workout

The idea is, to begin with a cardio workout as described above, then add your upper body strength routine before finishing with another cardio segment. Begin with compound exercises that work a major and minor muscle group, then continue with muscle isolation exercises that only work one muscle at a time.

*Continued on page 65*

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- Accelerates recovery

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*Awesome! Highly recommend. Works great for cycling and running. - Dwayne G.*

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# FRUCTOSE

## The Worst of the Worst

by STEVE BORN

I'll preface this by saying that in nearly 40 years in the health food/sports supplement & fuel industry, including almost 24 years employed at Hammer Nutrition, I honestly don't think there's a sports nutrition company that spends anywhere near as much time and energy promoting overall health as they do their products (and the constant push to sell those products).

A longtime friend of Hammer Nutrition once wrote, "An endurance athlete is a healthy person first, an athlete second, and an endurance athlete third." I think that's spot on regarding why we place so much emphasis on overall health. That's why you've seen more and more articles about healthy eating practices, what to avoid (e.g., artificial ingredients, excess sodium, processed seed oils), and more. You must be healthy to accrue any benefits in your workouts and succeed in your competitions.

And, over the 36+ years of Hammer Nutrition's existence, we've talked LOTS about the harmful effects of sugar on your health and athletic performance. These days, however, as there seems to be a revival in the odd and almost universally failed practice of trying to consume as many carbohydrates as possible (using fructose as part of the formula), it's time for a discussion on what we feel is the worst thing you can put in your body in terms of health and athletic performance—fructose.

When one looks at even a fraction of the superabundant research on fructose and its adverse effects on human health, there should be no doubt that this is a substance you want to avoid at all costs. The beginning of just one research paper lays it out quite clearly, "The increased consumption of fructose in the average diet through sweeteners such as high-fructose corn syrup (HFCS) and

sucrose has resulted in adverse outcomes in society, producing considerable economic and medical burden on our healthcare system. Ingestion of fructose chronically has contributed to multiple health consequences, such as insulin resistance, obesity, liver disorders, and diabetes."

Another negative health issue associated with fructose intake is uric acid (UA) production, with elevated amounts leading to gout, which Dr. Bayne French appropriately states, "is a truly painful condition." However, elevated uric acid levels are not just associated with gout. In his article, Uric Acid and its Metabolic Effects, Dr. French writes that elevated UA "drives the formation of insulin resistance, elevated blood sugar, type 2 diabetes, heightened blood pressure, distorted cholesterol, systemic inflammation, and weight gain. It is directly implicated in a large percentage of all-cause mortality, especially from cardiovascular disease."

**Continued online. See link below.**



Find this article in its entirety for more details, and a trove of further reading on *Endurance News Weekly*.  
[hammernutrition.com](http://hammernutrition.com)





# BARIANI OLIVE OIL



## THE “GOOD” OILS

In past issues of *EN*, we have identified **processed seed oils** as dietary villains - hijacking your good health.

However, this has caused some confusion. “What about Olive Oil? Is it bad too?”

NO. Extra Virgin Olive Oil (EVOO), is definitely one of the good guys! Perfect for cooking, salads, dipping your anitpasti, etc.

But believe it or not, there are fake Olive Oils out there. You'll have to check your labels to be sure you're getting the real deal. Meanwhile, we've done some background research for you and compiled a few brands that are readily available and certified pure.



**Botticelli**



## A letter from our good friends at Bariani Olive Oil



Dear Hammer Nutrition,

As a very satisfied customer for well over a decade, I read your *Endurance News* carefully.

By reading the last issue #135, and in particular the article about processed seed oils, I have become aware that in the next issue of the magazine you'll be listing companies with legit extra virgin olive oils.

It is in this regard that I am writing to you today because I have been producing extra virgin olive oil in California since the early '90s.

Meanwhile, please visit our website for more information about the company and products.

Thank you for your attention and for making the best products on the market!

Regards,

Enrico Bariani

Bariani Olive Oil, Owner

Visit [barianioliveoil.com](http://barianioliveoil.com) for more information. →



Pictured here are scenic views from the Bariani Olive Oil estate in Sacramento, CA. Photos courtesy of the Bariani family.



FROM THE  
KITCHEN OF **LAURA LABELLE**





## SHEPHERD'S PIE

This quick supper is as easy to make as its namesake implies. Fast assembly, short baking time, and made from everything you probably already have on hand in the pantry. If it sounds like gourmet leftovers, well... that's kind of the idea – A rewarding fast recipe after a hard day's work in the fields (or office) tending the herd (or family).

See the full recipe online here.



## STUFFED ARTICHOKE

Italian or Panko breadcrumbs  
Butter  
1 egg  
Parmesan cheese

Cut the stem of the artichoke so the bottom is flush and will sit steady upright. Snip the points off of as many leaves as possible and cut off the remaining top. Place in a sauce pot with about 2" of water. Bring to a boil. Reduce heat to low, cover, and steam for 15 minutes. \*Tip: a sprinkle of lemon juice helps to preserve the leaves' green color.

In a bowl, slowly add breadcrumbs and some Parmesan to the egg until lightly stiff.

Transfer artichoke to a baking dish. Using a spoon, fill as many lower leaves as possible with stuffing. Drizzle with melted butter. Bake at 350 for about 20 minutes or until turns slightly golden. Leaves should easily turn loose, and stuffing should be firm. Top with Parmesan cheese and season to taste.

## WHIPPED PUMPKIN FETA with HONEY and THYME spread

1 can pure Pumpkin Puree  
1 small container of Crumbled Feta Cheese  
1 single serving container of Greek Yogurt  
Fresh or dried Thyme to taste  
1 Tbsp honey

Combine all ingredients in a food processor and blend until smooth. Season to taste. Chill until firm. Garnish with walnuts and a honey drizzle.

## HAMMER 53x11 ESPRESSO CHAI MARTINI

Brewed Chai Tea (4 bags)  
1/2 cup honey  
1 oz. 53x11 Chain Breaker Espresso  
1 oz. Coconut Milk  
1.5 oz Kahlua  
1.5 oz. Vodka  
1 tsp Vanilla extract

Serve warm, or ice cold.

Garnish glasses with raw brown sugar rims (optional), nutmeg, and star anise.



# With Hammer In the Kitchen, healthy eating never has to be boring!

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*"For someone like me with the culinary creativity of a potato, this cook book has helped me enjoy cooking in a way I never thought possible! It's become a staple of helping me get prepared for race season!" - Online Reviewer*





# Water vs Drink Drinkers

by BRIAN FRANK



While exercising, do you prefer to drink plain water or a flavored drink? Determining which camp you fall into and taking that into account when devising fueling plans for multi-hour exercise can mean the difference between success and failure. Surprisingly, it's a question that many athletes have never really pondered when developing a fueling plan for a long, hot, and or logistically challenging event. This article and accompanying video will help you decide which paradigm fits you best and how to apply that to your fueling practices. Once you've determined your innate preference in this area, you can use fuels and products that suit you.

**For this discussion, let's be clear that neither style is better; it's just a case of determining your preference.**

The exception is when logistics override your natural inclination, i.e., you are in a self-supported situation and need to carry as many calories in as little space/weight as possible. In this case, having concentrated calories and picking up water as you go will be necessary, if not preferred.

**Personally, I'm a water drinker.**

Absent the need for calories, I always prefer to drink plain water, especially in extreme heat conditions. However, when helping athletes with their fueling plans, nearly 50% say they would rather have some flavor/taste in their bottle to encourage them to stay hydrated. Conversely, they tend



to be averse to drinking plain water, especially when it's warm out. These athletes typically have trouble with multi-hour concentrated fuel mixtures, such as gel, because they tend to also go for flavored drinks rather than water. This can lead to over-consuming calories and other misses on fluids and electrolytes.

## The General Idea

Water drinkers naturally prefer to have concentrated sources of calories and electrolytes, thus allowing them to drink water to meet their hydration needs. Drink drinkers prefer all-in-one or nearly all-in-one fueling systems with the desired amount of water, calories, and electrolytes in one solution/bottle. Below are examples of how each type can fuel.

## Water Drinkers

For exercise lasting one to two hours, I carry a flask of **Hammer Gel**<sup>®</sup>, a bottle of water, and a capsule dispenser with **Endurolytes**<sup>®</sup>, consuming each separately while riding. For longer rides, I add a multi-hour bottle of **Perpetuem**<sup>®</sup> (1.5 scoops per hour of expected exercise) and still carry a flask of Hammer Gel for variety and added calories if needed. Refill water bottles with water along the way. This system works really well for me and anyone who prefers water. **HEED**<sup>®</sup> and **Fizz** are products I do not use. Depending on temperatures, this allows me to drink 12-24 ounces per hour of plain water while still getting all the calories and electrolytes I need.


However, this scenario would be problematic and unsustainable for someone who does not prefer to drink plain water.

## Drink Drinkers

The drink drinkers' fueling protocol for exercise lasting for one hour or more hours usually involves "hourly" bottles that can be prepared in various ways. It can be as simple as 1 to 1.5 scoops of **HEED** per hour in mild conditions. 1-2 servings of Hammer Gel can also be mixed into a bottle instead of **HEED**. If heat stress is very high, 1-2 scoops of **Endurolytes Extreme Powder** can be added every hour or two. This keeps things simple in an all-in-one package.

When exercising beyond two to three hours, the hourly bottle options increase with **Perpetuem** and **Sustained Energy** as additional calorie sources, which can also be mixed into identical or different "hourly" bottles, depending on preference and logistics. This fueling format also requires forethought in determining approximately how many total calories per hour, ounces/ml of fluids, and electrolytes you'll want hourly and mixing that all into one bottle.

Hourly bottles can be a bit more complicated logistically. Still, they are necessary to keep you drinking the proper amount of fluid and simultaneously getting the calories/electrolytes you need. For more prolonged efforts, preparing "hourly" fuel bags with dry powder that can be carried and mixed along the way may also be necessary. Also, it's a good idea to have some extra electrolytes, just in case.

**Hopefully, this article will give you the occasion to decide whether you are a "water drinker" or a "drink drinker." Of course, if you are unsure, call us; one of my staff or I will be happy to discuss it with you further. **



Mason Klein know what works for the Win before, during, and after the race.

Learn more about proper hydration in our SOS online video series.

WATCH HERE

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



# TOP 10 *BIGGEST MISTAKES*

## Athletes make and How to Avoid them

by BRIAN FRANK with STEVE BORN

**T**his is where it all started. Over 30 years ago, I wrote this using David Letterman's "top 10" as my inspiration. This content has been re-purposed and expanded in the huge Guide to Success, then simplified and condensed in the 5 Secrets to Success. So, take a stroll down memory lane and see how many you've experienced in the past. However, we don't just tell you what can go wrong; each of the ten topics also provides the appropriate corrective action. Follow our "Less is Best" protocols and you'll be able to Fuel Right and Feel Great, no matter what you do.

### **MISTAKE #1:** **Excess Hydration**

When it comes to hydration, you can neither overload nor under-supply your body without compromising athletic performance and incurring detrimental results. If you don't drink enough, you'll suffer from unpleasant and performance-ruining dehydration. Drink too much, however, and you'll not only end up with impaired athletic performance, you may even be flirting with potentially life-threatening water intoxication.

#### **RECOMMENDATION:**

Depending on conditions and body weight, 16-18 ounces (473 – 532 ml) per hour may be quite

acceptable. A larger athlete in hot temperatures might need up to 28 ounces (828 ml) hourly. Our position, however, is that the risk of dilutional hyponatremia increases substantially when an athlete repeatedly consumes more than 30 fluid ounces (878 ml) per hour.

### **MISTAKE #2:** **Simple Sugar Consumption**

Fructose, sucrose, glucose, and other simple sugars (mono- and disaccharides) are poor carbohydrate sources for fueling your body during exercise. Simple sugar-based drinks or gels have to be mixed and consumed at very dilute and calorically weak concentrations in order to be digested with any efficiency. A simple sugar-



Darren Parham navigates muddy conditions at Vail Lake. Photo: Erik Gonzales for Windglass Photography.



based product used at an acceptably mixed concentration cannot provide adequate calories to sustain energy production, and the energy it supplies is very short-lived and fluctuates wildly. Any way you look at it, fuels containing simple sugars are inefficient and therefore not recommended during prolonged exercise.

### RECOMMENDATION:

Complex carbohydrates instead of simple sugars.

To get the proper amount of easily digested calories, rely on fuels that use complex carbohydrates (maltodextrin) only, with no added simple sugar as their carbohydrate source. **Hammer Gel**® and **HEED**® are ideal for workouts and races up to three hours, sometimes slightly longer under certain circumstances. For longer workouts and races, select **Perpetuem**® or **Sustained Energy** as your primary fuel choice.

### MISTAKE #3:

#### Improper Amounts of Calories

Athletes who try to replace “calories out” with an equal or near-equal amount of “calories in” will suffer unpleasant digestive maladies, with the inevitable poorer-than-expected outcome, and possibly the dreaded DNF (“Did Not Finish”). Body fat and glycogen stores easily fill the gap between energy output and fuel intake, so it’s detrimental overkill to attempt calorie-for-calorie replacement.

### RECOMMENDATION:

120-180 calories per hour is typically sufficient for most athletes.

A good starting point is 1 calorie per pound of body weight, adjusting slightly if needed.

Lighter weight may need even less than 120 calories per hour, while heavier athletes (>190 lbs.) may need slightly more on occasion, the key word being “may.”

Continue reading this article in its entirety on Endurance News Weekly.  
[hammernutrition.com](http://hammernutrition.com)



Also be sure to read about our Hammer **5 Secrets of Success** on pages 18-19.

# Your CBD Gold Standard



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Balm starting at \$4.95  
Oil Tinctures starting at \$44.95  
Softgels starting at \$6.95



“Thank you **Hammer** for making **CBD** that I can trust and that does the job! The tincture keeps me calm, collected, and mentally refreshed - even 80 miles in.” - Travis M.

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# FROM OUR ATHLETES

## 5 Questions with

# Lisa Wawizynowski

### 1. How did you get into racing?

I have always been an athlete of one sort another another, but I simply LOVE running! I took up CrossFit where I learned about OCR, which combines both running and strength. I did my first OCR competition in 2017 and have been hooked ever since!

### 2. How did you hear about Hammer Nutrition?

A runner-friend of mine was having great success with Hammer and recommended the brand highly. I've been using Hammer since 2016.

### 3. What are your go-to Hammer products?

**Pre race** - Fully Charged and Anti-Fatigue Caps

**During race** - Hammer Gel and Perpetuem

**Post race/every day recovery** - Vegan Tissue Rejuvenator

**Shoutout** - Cherry Bomb HEED! I LOVE it for racing and hydration! So tasty and helps me get my electrolytes in when needed!

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

My Hammer race attire, my race shoes, and without petting my dogs goodbye (if they aren't tagging along for the journey!)

### 5. What keeps you motivated and Hammering everyday?

I am someone who just loves adventure and being active. I love pushing myself to keep growing as an athlete. Nobody is perfect and there is always room to get better so I know I have to wake up each day and put in the work. I have goals as an athlete that I still haven't reached yet and so I will keep hammering until I accomplish those goals!



2023 Savage Race Boston, MA : 7<sup>th</sup> OA Pro Fem / 1<sup>st</sup> AG

Photo courtesy of Lisa Wawizynowski.



## Vic Allen

Racing the Columbia River: 10th Place OA



HAMMER Must-haves

HEED®, Fully Charged, Hammer Gel®

## Scott Turpin

Rebecca's Private Idaho. Sun Valley, ID

103 miles. 7:01:17



HAMMER Must-haves

HEED®, Hammer Gel®, Perpetuem®,  
Endurolytes®, BCAA+, Anti-Fatigue Caps

## Flavie Dokken



TEANAWAY COUNTRY 100

Central Cascades, WA 9.16.23

104 Miles, 34 Hours, 2<sup>nd</sup> Place Female, 9<sup>th</sup> Place OA

“My goal this year was to complete two hard 100 milers close together in view of a long term preparation for Swiss Peak 360 in 2024. After Cascades Crest, I focused on recovery and getting some quality training to take on Teanaway Country 100, 6 weeks later.

My plan was to keep moving despite the relentless steep climbs. Nutrition and hydration were dialed in this year thanks to all the prep work with Brian Frank here at Hammer. I also benefited from the best pacer in Brigette Takeuchi, fellow Hammer Sponsored athlete and rising star in mountain ultra trail! In the end, I got to the finish faster than I could have ever expected.

Now some rest and onto the start of the training for Swiss Peak 360!” **Also read Flavie’s full recap of the Cascade Crest 100 online at [hammernutrition.com](https://www.hammernutrition.com)**



HAMMER Must-haves

HEED®, Hammer Gel®, Anti-Fatigue Caps,  
Perpetuem® Solids, Endurolytes®

# FROM OUR ATHLETES

## Georgi Stotchev

**Event:** Grand Fondo  
**Location:** Asheville, NC  
**Distance:** 100 miles  
**Date:** 7.16.23  
**Stats/Results:** 17<sup>th</sup> OA.  
7 min. and 3 min. faster than last year!  
Photo: Georgi Stotchev



HEED<sup>®</sup>, Hammer Gel<sup>®</sup>, Sustained Energy<sup>®</sup>, Perpetuem<sup>®</sup>, Endurolytes<sup>®</sup>



## Gabrielle Suver



**Event:** IRONMAN  
**Location:** Lake Placid, NY  
**Distance:** 140.6 miles  
**Date:** 7.23.23  
**Stats/Results:** 12<sup>th</sup> Pro Fem./New PR  
Photo: Gabrielle Suver



Fully Charged, Race Caps Supreme, BCAA+, Hammer Bars<sup>®</sup>

## Warren Sibilla



**Event:** 29029 Everesting  
**Location:** Snowbasin Mtn., UT  
**Distance:** 29029 vertical feet  
**Date:** 8.18.23  
**Stats/Results:** 31 hours, 37 miles,  
3-2300 ft. ascents  
Photo: Warren Sibilla



Hammer Gel<sup>®</sup>, BCAA+, Endurolytes<sup>®</sup> Extreme, Perpetuem<sup>®</sup>

## Victoria Grammar



**Event:** IRONMAN 70.3  
**Location:** Salem, OR  
**Distance:** 70.3 miles  
**Date:** 7.23.23

**Stats/Results:** 6:46:05  
Photo: Victoria Grammar



Fully Charged, Endurolytes<sup>®</sup> Extreme, Hammer Gel<sup>®</sup>, Perpetuem<sup>®</sup>, Recoverite<sup>®</sup>





## Nathan Moody

**Event:** LT 100

**Location:** Leadville, CO      **Date:** 8.20.23

**Stats/Results:**

46<sup>th</sup> AG / 51<sup>st</sup> OA

Time 24:55:00      18,000 ft. elevation gain.

**Photo:** Nathan Moody



Endurolytes®, Hammer Gel®, Perpetuem®

## Wendy Skean



**Event:** Broadmoor Cycle to the Summit

**Location:** Colorado Springs, CO

**Distance:** 12.26 miles

**Date:** 8.12.23

**Stats/Results:** 3<sup>rd</sup> Place AG, 2:56

Overall- 6:43:30

**Photo:** courtesy Colton Ahlberg



HEED®, BCAA+, Anti-Fatigue Caps, Race Caps Supreme, Mito Caps, Recoverite®



## Margaret Thompson

**Event:** 2023 Forge Gravel      **Location:** Old Forge, NY

**Stats/Results:**

**32 miles** 1<sup>st</sup> Place Masters Winner, 2<sup>nd</sup> Place OA Women, 26<sup>th</sup> OA



Perpetuem®, Fully Charged, Race Caps Supreme, Anti-Fatigue Caps, Mito Caps, Endurolytes®, Energy Surge

Read more  
from all of  
our featured  
athletes here.



# Steve Wilson

## Proof is in the Pudding!



### A Fueling consultation with Hammer Fueling Expert Steve Born

Hi Steve (Wilson),

Thanks for emailing me... I'll be happy to help. The first thing I want to encourage you to do is to NOT try and get a head start on your calories, hydration, and electrolytes in the days leading up to the event. Consuming excess amounts during this time will only create significant performance-ruining issues. It's no different than trying to get in shape the week before the event by continuing to train in the days prior to the event... if you're not already fit in the week heading into the event, there's nothing you can do at that time to improve your fitness. What you will do, however, in continuing to train in the hopes of being more fit (or to maintain fitness), is to rob your body of the time it needs to rest and soak up all the training you did in the weeks and months leading up to your event... you will most certainly under-perform come event time, even to the point

where you may not be able to finish the event.

The same is true with your diet leading up to an event. Consuming excess food, fluids, and salt/electrolytes in the week prior to your event—more than what you were doing when you were training in the weeks and months prior—will place a massive burden on the body, one that will greatly increase the potential for a less-than-desired performance, or, even worse, a DNF. Regarding the athlete's diet in the days leading up to an event, my advice has always been the same: Don't deviate from what got you there in the first place.

Brian Frank, Founder & CEO of Hammer Nutrition, wrote an outstanding article regarding this topic, "**The Perils of Loading**", and I urge you to follow his time-proven recommendations.

Cheers,

Steve Born for Hammer Nutrition

Dear Steve (Born),

I can't thank you enough for your reply!

The day after, I had a 9-hour training session planned. I modified everything and implemented your strategy of liquids only: **Perpetuem**®, water, and **Endurolytes**®. The result?

### I was blown away!

I had no GI issues, what felt like better lactate buffering, sustained energy on long climbs and throughout the day (I rode 130 miles with 14K climbing), and didn't feel terrible hunger pains, etc, etc. I was, and remain, ecstatic about the fueling for that training session and the outcome! I feel a confidence in my fueling plan that has been missing for years going into my upcoming event in Sept.

I'm going to get some additional products ordered and then, after reading and researching more of the articles you've linked me to, I may have some follow-up questions to dial things in a bit more. I just wanted to reach out before too much more time passed to express my appreciation for your reply and guidance.

Thank you, again!

Steve Wilson







## LEAVE US A REVIEW!

We love hearing from you and reading your praise, but more importantly we value learning how we can better serve you.

You can leave us a review on the product detail page for every product on our website.

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



Here are a few examples of what over 20,000 of you have been saying just so far this year!

---

*“**FANTASTIC** effective products without excess sugar and salt. Love Hammer Gels, Heed and Fizz for all my outdoor activities.” - Joseph F.*

---

*Thank you Hammer for the top-notch advice. All my questions were answered quickly and efficiently.” - Online Reviewer*

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*“Shopping was a pleasure. Web site is well organized and check out is always easy. The products are great!” - Raymond C.*

---

*“**Hammer rocks!** Thank you so much for supporting the military and veterans. It means so much. - Steven L.*

---

*“What separates Hammer Nutrition from other companies is their support for the clients. Their customer service is a rare find in today’s automated world. Brian Frank has assembled a team the genuinely adheres to taking exceptional care of people. When you become a Hammer client, you join the Hammer family as well.”- Mike B.*

---

*“The 8-hour “**Fueling for Success**” Protocol is a great article helping someone that has no idea what is what and how to put it all together. Thank you!” - David B.*

---

*“I’ve used Hammer products since 1995. I’ve tried other brands and nothing else compares when it comes to fueling”. - Philip D.*





# Graham Seabrook Ultraman

Hi Brian,

Thanks for your clarification and fantastic products. I used them exclusively for Ultraman in Noosa Australia in 2018. I used Hammer products solely for the 9 months training prior so my body was well used to them. Each day started with **Fully Charged** 30 min prior. Then, fifteen minutes prior, my first dose of **Race Caps Supreme**, **Anti Fatigue Caps**, and **Endurolytes® Extreme**. Five minutes before start I consumed one **Espresso Hammer Gel®**. Through each hour I consumed one drink bottle which contained 1 hr of **Perpetuem®** fuel to my weight as per the guidelines you provided in the **SOS** pamphlet (printed a few of those to hand out to mates).



Every hour on the hour I took **Race Caps Supreme**, **Anti Fatigue Caps** and 2 **Endurolytes Extreme**, plus a fresh bottle of **Perpetuem**. Throughout the day I only had the occasional sip of extra clean water.

Within fifteen minutes of completion each day I had a glass of **Recoverite®** and usual meal at night.

**Day 1** was 10hrs,

**Day 2** was 11 hours and

**Day 3** was 9hrs 40min.

Day 3 was quite warm for the double marathon and at about the fifth hour I requested my crew to up the **Endurolytes Extreme** to 3 per hour.

**Training exclusively with the product prior, and knowing how my body would respond was an absolute treat.**



Overall, I felt completely energized throughout the entire event and I can't speak more highly about a product.

After a grueling three days I pulled up better than in previous Ironman events. I put a very large part of this down to using Hammer. As a result my team captain now uses Hammer exclusively and a number of other mates. The guidance provided in the **Five Secrets of Success** is very comprehensive. Thanks again for a brilliant product and the detailed guidance in the brochures.

Regards,

**Graham**







# Tomas Krausse



## 2022

1<sup>st</sup> PLACE  
SUBARU TRICHILE  
NATIONAL RANKING

1<sup>st</sup> PLACE  
NATIONAL  
RANKING of  
FEDERATED  
TRIATHLON

2<sup>nd</sup> PLACE  
NATIONAL  
RANKING of  
FEDERATED  
DUATLÓN



## 2023

1<sup>st</sup> PLACE  
SUBARU TRICHILE NATIONAL RANKING  
14-15 Yr. Old AG

# Thomas Lubin Tahiti



## 2023

OTILLO SWIMRUN RACE  
70 km / 8:53:00  
13<sup>th</sup> OA / 10<sup>th</sup> Mens



# Shane Mascarin

## 2023

THE DIVIDE 200  
Canada's only 200-miler.  
The Crow's Nest pass area of southern  
Alberta, Canada.  
Powered through 166km using:  
**Hammer Bars®**, **Hammer Gel®**, **Recoverite®**  
**Perpetuem®**, **Tissue Rejuvenator**  
Shane will be back to take on the  
Divide in 2024!



# HAMMER EVENT PARTNERSHIPS



## EPIC RIDES

We are excited to be the fueling partner for Epic Rides events in 2024!

**24 Hours in the Old Pueblo Feb 16-18 2024**

Come meet us at the Hammer booth at the 24 Hours in the Old Pueblo! We are proud to be fueling one of the largest 24 Hour events in the world. Ride the event the mountain bike community has been raving about for years!

Registration is open! Epic Rides ...a good day on the bike – Epic Rides ...a good day on the bike

**Whiskey Off Road April 26-2, 2024**

Look for Hammer on course and at the expo. Starting on Prescott's historical (and lively) Whiskey Row and climbing into the beautifully distracting views of Prescott National Forest, riders will connect some of the area's most exhilarating (and challenging) pieces of singletrack – including the new Spence Basin trail network, double track, gravel roads, and



the occasional paved segment.

**Tour of the White Mountains Oct 5, 2024**

Come celebrate great mountain biking at 7000'! The Tour of The White Mountains by Epic Rides offers challenging singletrack among a pine forest backdrop and beautiful fall colors!



## ALL WE DO IS RUN

We began a symbiotic friendship with AllWeDoIsRun back in 2018, and are greatly honored to provide fuel for their trail running events on California's beautiful Central Coast. If you haven't met Luis Escobar and his team, we highly encourage you to sign up, get out, and Hammer at his events! Luis is also well known as the founder/host of the RoadDog Podcast. You will find our owner and CEO Brian Frank as a recurring guest as well as Hammer sponsored athletes Erik Koenig and Scott Gaiser.

Register for their events here:  
[allwedoisrun.com](http://allwedoisrun.com) - Running, Trail Running



# LOCAL EVENTS

We are proud to partner with many local events here in the beautiful Flathead Valley, Montana, USA! You will also find us onsite or well represented at the following events.

See you there!

- WHITEFISH MARATHON**  
5/18/24  
Road Running  
whitefishmarathon.com
- SWIM THE FISH**  
8/11/24  
Open Water Swim  
whitefishwave.com
- THE HERRON'S HALF**  
6/8/24  
Trail running  
ftbtraces.com
- CEDAR CREEK MARATHON**  
9/21/24  
Road Running  
logan.org
- FOY'S to BLACKTAIL MARATHON**  
9/15/24  
Trail Running  
ftbtraces.com
- WHITEFISH TRAIL LEGACY RUN**  
10/5/24  
Trail Running  
whitefishlegacy.org
- LE GRIZZ**  
10/12/24  
Trail Running  
runlegrizz.com

## Here comes the SUN!



Hammer's own Cam Lingle takes a lap in Glacier country.

- Superior structural health combination
- Offers powerful defense system support
- Helps improve carbohydrate utilization

30 Capsules    \$24.95



*"Vitamin D is an underappreciated nutrient - especially for endurance training! I've noticed a ton of benefits in my overall health and performance since transitioning to Enduro D."*  
- Toby B.



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PHOOD single with any  
purchase.  
\*flavor will vary



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# Four Pillars for Health and Wellness

by BRIAN FRANK

## PEAK PERFORMANCE AND SUPREME HEALTH START HERE!

**W**e've been helping people achieve peak performance and maximum health for over 36 years. While countless diets have come and gone, our recommendations for staying healthy and consuming a good diet have remained constant.

The basis of everything we do is diet because what you eat affects everything in your life. Eating a healthy diet with plenty of locally-grown, organic whole goods, very little sugar, low salt, and a robust supplement regimen will help you achieve optimum diet and nutrition. Here are our four ways to stay healthy.

# 1



## AVOID SUGAR

Brian Frank often appropriately calls out sugar as the heinous, evil substance that it truly is. "Sugar," he adds, "is the devil!" For as long as there has been a Hammer Nutrition, our position has always been to limit—and we mean e-x-t-r-e-m-e-l-y limit—the amount of sugar you consume. The adverse health issues associated with sugar are far too many to list here, but some of the most serious are heart disease, type 2 diabetes, and several cancers.

# 2



## SUPPLEMENT

If you want to look, feel, and perform your best, the first step is always a diet dominated by nutrient-dense whole foods. However, diet alone will no longer suffice. The main reason to eat whole foods is for their health-benefiting phytonutrients—but to obtain ideal amounts of vitamins and minerals, you must supplement. If you want to achieve your best performances in exercise sessions and events—and, even more importantly, enjoy optimal health—then daily supplementation is a necessity, not an option.

One of our *ENW* articles, "The Balanced Diet Myth and the Case for Supplementation," includes the following statement from Dr. Bruce Ames: "Inadequate dietary intakes of vitamins and minerals are widespread, most likely due to excessive consumption of energy-rich, micronutrient-poor, refined food. Inadequate intakes may result in chronic metabolic disruption, including mitochondrial decay."

So, consume an optimal diet as consistently as possible and augment that with sufficient amounts of vitamins, minerals, antioxidants, and auxiliary/complementary nutrients. This is the best way to more completely cover all your nutritional bases, allowing you to achieve higher-quality workouts, better results in your events, and, most importantly, superior health.



# Sound advice with proven results for over 34 years

## 3



### LIMIT SODIUM

Excess sodium—via processed foods, salting your food, etc.—may not be the devil, but it's darn close. Sodium is, of course, vital for health. However, far too many of us (9 out of 10 Americans, according to the American Heart Association) are consuming too much. The Daily Value for sodium for adults is 2,300 mg, with the AHA recommending an even lower, 1,500 mg/day amount. Unfortunately, the average intake is 3,400 mg daily, an amount that's more than double the AHA's recommendation.

Younger people are also consuming too much.

- The average intake for 6–10 years old is 2,900 mg per day
- The average intake for 14–18 years old is 3,700 mg per day

Clearly, we are all consuming too much sodium, and it not only negatively affects our athletic performance but also has serious health consequences. “Sodium—The Real Villain” (pages 40-41 in *Endurance News* #121), provides the sobering facts. One eye-opening finding from the research in that should make you take action:

*The researchers found that nearly 58,000 cardiovascular deaths each year in the United States are due to more than 2 grams daily sodium consumption.*

Too much sodium is a killer, and reducing your risk of life-threatening health consequences can only happen by lowering the amount of sodium in your diet.

## 4



### EAT LOCALLY GROWN ORGANIC WHOLE FOODS

No one can fulfill nutritional needs from diet alone, but:

1. Consistent consumption of the best diet possible must be the top priority, ahead of supplementation.
2. Choosing and consuming locally grown, organic foods as much as possible is vital.

The primary reason to eat a variety of fresh fruits and vegetables is NOT for their vitamin and mineral content, but for the nearly countless health-benefiting phytochemicals that only they can provide. One example is a naturally-occurring flavonoid found in various fruits (mainly strawberries) called fisetin. Research has shown that fisetin has strong antioxidant properties (which helps neutralize the negative effects of free radicals) and appears to have numerous other health-boosting properties. Your best opportunity to give your body adequate amounts of fisetin is to eat whole strawberries and other fisetin-containing foods. Ditto for every other fruit and vegetable; you can only obtain the many health-benefiting nutrients they contain by eating them.

And locally grown, organic foods are picked at their peak ripeness, and have a shorter time from harvest to your consumption of them. That means higher amounts of that food's beneficial content for your body. Conventionally grown food, often harvested early to allow for shipment and distribution to stores is almost always lower in nutrients. Additionally, most (if not all) local growers adopt organic growing practices, which produces clean pure, clean food free of pesticides, herbicides, or other chemicals. EN

# Premium Insurance Caps



by STEVE BORN

## ENJOY 60% FEWER SICK DAYS

A few years ago, the journal *Nutrients* published a remarkable study, and to this day it remains one of the most important studies in recent years. The results were nothing short of jaw-dropping:

Compared to study participants taking a placebo, the participants who took a multivitamin/mineral supplement had a 60%+ reduction in the number of sick days!

Those same participants also reported fewer and milder illness-related symptoms!

Profound? You bet. Look, we should always make maintaining a robust immune system a

significant focus of our daily lives. During the past couple of years, health challenges have emphasized just how razor-sharp that focus needs to be. Add to that the seasonal changes just ahead—shorter days (less vitamin D), colder temperatures, and wetter conditions for most of the country—and taking care of your immune system simply cannot be ignored.

There are many things that we can do to help promote strong immunity—getting adequate sleep and reducing stress are just a couple—and the first step is always the consumption of a diet dominated by nutrient-

dense whole foods. However, as important as eating healthy is, that alone will not suffice. To achieve your best performance in your exercise and events—and, even more importantly, enjoy optimal health, with fewer sick days—then daily supplementation is a necessity, not an option.

### STUDY HIGHLIGHTS

In case you missed reading about this study the first time, here's a recap:

It involved healthy participants between 55 and 75 years of age.

For 12 weeks, one group received a daily multivitamin/mineral supplement, while the other received an inactive placebo.

Before and after this period, researchers measured the participants' blood vitamin/mineral status and various markers of immune function.

At the end of the study, the researchers noted that the participants who took the multivitamin/mineral supplement experienced an average of 2.29 sick days, while the placebo group averaged 6.43 days of illness.

It was also noted that the multivitamin/mineral supplement group experienced fewer illness symptoms than the placebo group and that those symptoms were noticeably milder.

In the published report, researchers made some notable comments:

“Since multiple nutrients support immune function, older adults may benefit from multivitamin and mineral (MVM) supplements.”

“Generally regarded as safe and readily available over the counter, dietary supplements have been used with few significant side



Patrick McBride is no stranger to competition in all kinds of weather. Photo courtesy of Patrick McBride.



effects in clinical studies.”

“Although conflicting and contradictory studies exist, there is evidence suggesting that dietary supplementation with a combination of immunity-related micronutrients supports immune function and reduces risk or severity of infection.”

“Indeed, targeted supplementation with these vitamins and minerals may provide additional protection at doses higher than the U.S. recommended dietary allowance (RDA).”

## THE SOLUTION: HEALTHY DIET + PREMIUM INSURANCE CAPS

We have never deviated from our position that consuming the healthiest possible diet is a top priority; our battle cry has always been “the quality of the calories you consume always matters.”

Avoid packaged, processed foods and junk foods at all times.

Consume low-sodium, minimal-to-no simple sugars (glucose, sucrose, fructose, etc.), and no artificial sweeteners, colors, flavors, or preservatives.

Still, as vitally important as consuming the healthiest diet is, research shows that food alone does not supply all the micronutrients we need to prevent deficiency, let alone achieve optimal health. We must supplement.

Regardless of age, activity level, or dietary habits, every person will benefit significantly from the daily use of Premium Insurance Caps. Our potent multivitamin and mineral supplement contains Optimum Daily Intake amounts (not the bare-bones-minimum Recommended Daily Allowance or Daily Value amounts) of highly absorbable vitamins, minerals, and essential auxiliary nutrients. Hammer Nutrition specifically formulates Premium Insurance Caps to fill in the gaps left by the modern diet. A few daily doses of two or more capsules are a surefire way to ensure that you have what you need to thrive this fall, winter, and all year long! **EN**

Read more about  
“Protecting Yourself  
Against Cold and Flu”  
online here

→  
*Endurance News Weekly*  
[hammernutrition.com](http://hammernutrition.com)



# Your Daily Multi-tasking Multi



Vivian Barreda out for a training run in O'Neil Park. Photo: Paksit Photos.

- Supports optimum health
- Boosts energy all day
- Supports the immune system

120 Capsules    \$24.95  
210 Capsules    \$39.95



*“Love the **Premium Insurance Caps**. My wife and I both take them and when I don't, there is a noticeable difference in my energy level and ability to recover.” - Aaron R.*



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\*flavor will vary



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# CONTINUED ARTICLES

## BEING FRANK

*Continued from page 2*

Videos and more videos – if you have not seen them, I’ve been making a lot this year. They are all over our site, social media and on our YouTube and Vimeo channels. If you have not watched any or many yet, please check them out and give me your feedback, I will listen. I’ve got a long list of to be made videos, but I’m always open to suggestions.

In closing, I just want to say thank you again for your enduring support and encouragement. It’s kept me going for 36 years, and hopefully many more to come. You are a valued member of the global Hammer Family and your feedback is always welcome.

Enjoy the holidays and the winter months, we’ll be back in the spring with a fresh issue.   
- Brian Frank

## Over/Under 3hr.

*Continued from page 12*

After many hours, to avoid flavor fatigue, to change things up, or for more energy towards the end,

### Sustained Energy and Perpetuem

Either or both, this magical combo is for the long days.

We’re talking about 3, 6, 12, 24, 36 hours, and beyond.

**The difference is both Sustained Energy and Perpetuem contain protein. Heed and Gel do not.**

This is especially important because, after about 1.5 hours, your body will begin burning some protein in the gluconeogenesis process.

In fact, roughly 10% of calories converted to glycogen will come from protein.

That said, if you’re not consuming a steady protein source during these long activities, it has to come from somewhere.

By using a carb-only fuel source, after a while, your body will have to start robbing protein from... you guessed it - your hard-earned muscle mass.

This will cannibalize your precious muscle and accelerate fatigue – both of which we want to avoid.

**Sustained Energy and Perpetuem** are here to fill the void and help offset what you are burning.

Furthermore, Perpetuem has the Bonus advantage of having some fat to help with fat metabolism. (Read more here on ENW, all about the many benefits of some Good Fat!)

**CHEAT SHEET** Jot this down...

### UNDER 3 HOURS:


**HEED** and/or **Hammer Gel** alone is fine.

---

### 3 HOURS OR MORE:

Use **Sustained Energy** and/or **Perpetuem** from the start.

Start sipping away 10-15 in and continuously throughout your activity.

After 6-12 hours or more, to break up the flavor fatigue, go ahead and have a little **HEED** or **Gel** for a palette perk and to get up that next hill. 

## Dead Legs

*Continued from page 16*

Folic acid is vital for many reasons and is a required substance for synthesizing heme, the iron-carrying component of the hemoglobin in red blood cells.

We make a B12/folic acid product—**Xobaline** (pronounced Zo-buh-lean), for these and many other reasons. First introduced in 1989, Xobaline was a standalone B12 product that I dubbed “the cure for dead legs”. The updated B12/folic acid formula is even better than the original. If you go to the “Product Detail” page for Xobaline on the Hammer Nutrition site, you’ll find even more information about its benefits.

### **FREE RADICALS**

Free radical overload can also contribute to a sluggish recovery. If you do not currently take a variety of antioxidants—especially the “key players” (beta carotene, vitamins C & E, and the minerals selenium and zinc)—that would be a good idea. These antioxidants are all in one product—**Premium Insurance Caps**.

To further get the upper hand on free radical activity in your body, I’d encourage you to consider adding even more antioxidants. Hammer Nutrition’s **Super Antioxidant** and **AO Booster** products contain potent combinations of water-soluble and fat-soluble antioxidants, respectively, that don’t duplicate the ones in Premium Insurance Caps or other Hammer Nutrition supplements. We designed these products to give you even more protection for your immune



system, circulation, and recovery, which sounds like just the ticket for you.

The last part of the puzzle is adding **Anti Fatigue Caps** to your training supplements, especially during longer runs. The reason is that after about 70-90 minutes of exercise, we begin breaking down protein (muscle tissue) for energy needs, and ammonia is released into the muscles, causing further damage and the sensation of heavy legs. The ingredients in Anti Fatigue neutralize or scavenge the ammonia before this can happen!

Got other concerns? Call or go online today to chat with a friendly expert who can recommend just the right combination of products. **EN**

## The GYM

*Continued from page 41*

**Periodization:** the final key. Traditional bodybuilding includes the concept of three-month or 12-week cycles that are then broken down into 2-4-week cycles. In each cycle, the number of reps, amount of weight used, number of sets performed, and rest time between sets are altered to force continual adaptation, which translates into growth, strength, and size increase.

**Adaptation:** This is the most important and ignored aspect of long-term strength training. You will make the most gains in your entire life in the first six months of following a steady workout routine. Continuing to make gains from that point will only come if routines are changed regularly. The body will only adapt as much as it needs to meet the workload it expects. This is why within the outline of this workout, every muscle should be worked in as many different ways as possible. Varying the number of reps, sets, types of exercise, speed of each rep, and rest time between sets. These must all be changed up every couple of weeks to avoid stagnation. **EN**

# Keep up with the Kiddos!



Manuel Guijarro knows being a Dad can be an endurance sport all its own!

- Improves energy production
- Promotes overall wellness
- Helps improve fat metabolism

90 Capsules     \$29.95



*I have been using **Mito Caps** for over 25 years. I find that even a half dose helps recovery and energy, and is the best base for a boost to my performance." - Austin H.*



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Here's to a brisk and adventurous journey ahead!  
Photo courtesy of Renaissance Cyclist.  
Knik Glacier, Alaska



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## **Endurance News**

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# ***HAMMER BAR***<sup>®</sup> ***Raw Energy to GO!***

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Georgia Danielson packs light, and packs smart with her favorite Oatmeal Apple Hammer Bars. Photo: Brigette Takeuchi.