Big Soda & Sugar
Health organizations sponsored by soda companies

Cyclocross Champion
Alex Forte

Hammer Celebrates 30 Years in Style
New anniversary casual wear

Trans Andes Race
Patagonian mountain bike adventure

PLUS
- Protein & Carbs: A winning combo
- 30 years of athlete memories
- Spotlight: PSA Caps

AND MORE!
The scenic route

Staying fit while traveling doesn’t have to be a chore. Rich Maines enjoys mixing in sightseeing with a solid workout.

Photo: Julie Grevling
Welcome to the 104th issue of Endurance News. This year, we celebrate our 30th anniversary and the 25th anniversary of this publication. Other than acknowledging these milestones, 2017 is going to be just like every other year since 1987. We will continue to relentlessly strive to improve our existing products, develop cutting edge new products, improve our customer service and the educational materials that allow you to get the most out of our products and your body!

This issue of Endurance News is full of great stories from the field, insightful articles, and product updates that we hope you will enjoy. Notably, I’d like to call your attention to the details on some recent formula changes on page 72.

Endurolytes Fizz will now taste better with more fruit flavor and no more white film residue! The elimination of the potassium sorbate from the Hammer Gel altered the flavor so much that we had to go back to square one and redo them completely. The result is that the Orange flavor, for example, which used to be one of my least favorite flavors, is now in the “so good I have to be careful not to eat too much” category. Same with the Apple-Cinnamon — it was one of my favorites before, but now it’s ridiculous how good it tastes.

Although we missed the boat on the Almond Raisin and Chocolate Chip bars, we’ve already fixed them with a third generation bar. So now all 8 bars are irresistibly yummy and the 2nd generation bars are on clearance for $1 each. If you happen to have preferred these less flavorful versions or just are not that picky and want to stock up on these organic bars, the time to buy is now. They have a year or so before they expire, so no worries there.

On page 34, you’ll find more information and athlete feedback on our Fully Charged pre-workout supplement. It sounds cliché for sure, but this product really is a game-changer for use before workouts and competitions and during extended exercise periods. You’ll want to add this to your bag of nutrition tricks for 2017 for sure. We also follow up on Essential MG on page 76. While this product may not be as instantly noticeable as the Fully Charged, it should be considered a “must” for most athletes as magnesium deficiency appears to be almost universal these days. Thus, the benefits of consistent magnesium supplementation will have profound benefits for you.

Of course, we also have several articles on the deadly killer that is lurking in everyone’s diet – refined sugar! When we started down this road three decades ago, people were quick to dismiss us as alarmists and simply “sugar bashing” as a marketing ploy to sell our products. Today, we are on the verge of the tipping point as the mountain of evidence grows ever taller and the effects of long-term sugar abuse play in worldwide epidemics of diabetes and obesity. The article on page 10 is just a sampling of the changes we are seeing in this country and around the world. This trend will only continue!

However, moderation of sugar is more than just about your health, it truly is about performing your best! If you have any doubt as to the veracity of the benefits of sugar avoidance, you’ll find plenty to think about in this issue. I encourage you to perform a simple, but extremely challenging test: fast from refined-added sugar for 30 days and see for yourself how much better you will feel, how much better you’ll perform, and how much weight you lose. Of course, you’ll be able to continue using your favorite Hammer products because they have no added refined sugars!

Enjoy the read and then go out and enjoy the Spring weather and the joy of being outside!

Cheers,

Brian Frank
Hammer Nutrition Owner
In this issue, Hammer presents four articles on the public health crisis surrounding sugar.

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BY STEVE BORN
Living the High Life

My boyfriend Dan and I had some EPIC rides. For example we rode from Glenwood Springs CO to Gunnison CO for a total of 150+ miles -10k vertical gain in 8 hours. We are living, breathing Hammer Nutrition fans and it makes these long rides and endurance races possible for us. We are both avid cyclist (road and mountain bike) and when people ask me how I do it, I say, “dedication, determination and Hammer Products!”

We are also stoked that your Vegan Protein powder is now Organic! I live for Recoverite and every ride is supported with RaceCaps, Endurance Aminos, Endurolytes, Anti-Fatigue Caps, Energy Surge, Perpetum, and Hammer Gel. We take our Daily Premium Insurance Caps, Boron, MitoCaps, Clear Day, OMG THE LIST IS ENDLESS! We are happy to tell you how much we appreciate your nutritional support as athletes.

-Melody DeSantos

One Stop Shopping!
I used to use over five websites to get all of the different supplements I need. Even if I timed everything correctly (which I usually didn’t), it took a lot of time and effort to keep all of my orders coming. Now, thanks to the VIP Program, everything I need for my day-to-day use comes at the same time and it’s exactly what I need for three months. Then, POOF, my next shipment is in. Don’t have to think about anything except for any extras I might need to add.

Brian Mull, VIP member

Loving the VIP Discount
I’m new to VIP and I love it so far. Getting the items I need regularly without having to think about it is great. The discounted price, free shipping, and added gifts are a nice bonus.

Jim Dexter

Fully Charged Rocks!
Fully Charged is an amazing product. It gives that focus and extra boost I need at the start of my workouts. I love the flavor, the natural ingredients, and the results are indisputable.

Brad Tyra

Hammer Gel is Tops
Hammer Gel is simply the best tasting and the formula simply works. If you need a little kick, grab one that has caffeine. If you’re going long, grab some of the Ultra Gels with protein. If you like banana one week but then get tired of it and need a switch, grab Montana Huckleberry or Raspberry. If you value the cleanliness of the outdoors, do us all a solid and grab a flask or two and a jug of Gel. You’ll eliminate the litter, save yourself some money, and have the ability to make your own custom mix of water to Gel. Simple ingredients, no simple sugars, and big results. Try it out!

Steven Terry
Taking HEED on San Jacinto Ascent

I am 58 years old and on October 22nd, my co-worker and I hiked Cactus to the Clouds in Palm Springs. It involves climbing the San Jacinto Mountain from its base in Palm Springs to its summit in one day. That's 22 miles with 10,800 feet of climbing. Backpacker Magazine considers it the 5th hardest day hike in America!

I used HEED for the Rock n Roll half-marathon so I decided to bring it with me for the hike. After I had been climbing for 9 hours, I got a hamstring cramp. I pulled out my sports drink bottle with HEED in it and drank it right away. After massaging the leg and letting your product do its work, the cramp went away and did not bother me for the rest of the climb. Without Hammer's HEED, I would have been stuck on the mountain needing search and rescue and I wouldn't have been able to complete my hike. Thanks again for taking the care to make such an effective product.

Edward Colburn

SEND US YOUR LETTERS!
WE LOVE HEARING FROM OUR CLIENTS & ATHLETES:

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

RAPID NUTRIENT REPLACEMENT

- Reduces muscle fatigue
- Enhances energy and endurance
- Increase workload capacity

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“One my go to Hammer Products. I use this product daily and also combine it with Endurance Amino and Anti-Fatigue Caps every hour religiously during long training sessions and races. I feel the difference in my muscles and fatigue levels and can go much longer at a higher pace when used properly. It should be part of every athletes tool kit for a race day PR or just a long training session!”

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HAMMER HAPPENINGS ON FACEBOOK, INSTAGRAM & TWITTER

@Chris_R_Hanson
Crushing through the last workout of 2016 with Fully Charged (pre-exercise workout ignitor) from @hammernutrition #hammeron #howihammer

David Larpenteur

Enjoying the Scenery
Taking a break from skate skiing at Cypress Mountain. @Hammer Nutrition #howihammer

@hammerthewall

Success!
I DID IT! I have dropped 26 lbs. since Thanksgiving and now weigh what I did when I graduated high school. #hammerthewall #howihammer

@whitejk22
Back in the pool for the first time in over a year. #help#howihammer #irunthis @hammernutrition @aquasphereswim #jammersaretight

@danisabor19

Preparation
My partner for long trainings @TriStorePanama #howihammer#hammernutrition #cycling #nutrition
Vic Allen
Hiking around in Koke'e State park has some of the most spectacular scenery in the world. Here I am celebrating National Take A Hike Day. HEED and Fizz kept me hydrated on this special day! Mahalo, Hammer Nutrition! #hammernutrition #HowiHammer

Adam Jerzak
@exxtremixapr

January Run
My dad and I just enjoyed the warm January day with a 10mi run. Anything above 35°F calls for shorts in Wisconsin! #hammerfamily #hammerfamily #howihammer

Training hard
Plank pain, must love pain. #hammernutrition #ironmanwannabe #swimbikerun #jajaja #keepitup

@ a_fire_inside
‘You only live once, but if you do it right, once is enough’. -Mae West
#altrarunning #hammernutrition

Keep the conversation going on social media.

Use #howihammer for a chance to be featured on Hammer Nutrition's social media pages and right here in Endurance News!
Unless you’ve been living under a rock for the past several months, it would be hard to ignore the tidal wave of news about sugar’s detrimental effects on human health. In fact, the evidence has been coming in so fast and furious, and in such high volume, that there can be no denying the conclusion that the research continues to show. An overabundance of sugar is the number one problem in modern diets.

Now more than ever, people are seeking out the truth about sugar. Coming to light recently has been the discovery that showed how the sugar industry paid scientists in the 1960’s to minimize the correlation between sugar and heart disease. Instead, scientists were corrupted to draw attention to fat to intentionally downplay sugar’s role in health.

Additionally, research recently revealed that soda companies are sponsoring the nation’s most highly respected health institutions to manipulate public information. The conclusions from the abstract are disturbing, to say the least:

“There is surprisingly pervasive sponsorship of national health and medical organizations by the nation’s two largest soda companies. These companies lobbied against public health intervention in 97% of cases, calling into question a sincere commitment to improving the public’s health. By accepting funding from these companies, health organizations are inadvertently participating in their marketing plans.” [1]

As a result of the mountain of research clearly showing sugar’s negative impact on health AND the sugar industry’s efforts to try and counter, even hide, that evidence, it’s no wonder why there is an ever-increasing anti-sugar movement across the country. Here is just some of what’s happening.
Some cities are passing resolutions to affect public policy. For example, Philadelphia passed a “sugar tax” to influence shopping behavior. Currently, an 8-pack of grape Gatorade has 96 ounces of sugar and is priced at $5.99. After the tax, it will be $9.06. The hope is to deter the unconscious consumption of unnecessary sugar and it appears to be working. The tax is only three months old and has resulted in a 40-50% plunge in sales.

Similar taxes have been implemented around the world in countries like Australia and the UK. Even soda company executives are recommending smaller sizes of their products because customers are reading the labels and noticing how much sugar is inside. In all sectors (private, public, and government), the tide toward sugar is turning.

Competitive pressure is driving business change as well. According to Bloomberg.com, consumer companies reformulated about 20% of products in 2016 in a shift toward healthier options with less sugar. That was about twice as many products than in 2015.

Americans reportedly eat more than 150 pounds of sugar per year on average. Athletes who consume sugary products in training can easily double this amount. These are alarming numbers, especially as sugar has been shown to be a leading contributor to most-to-all of the epidemic diseases we face as a nation, especially diabetes, heart disease, kidney disease, and liver damage.

Don’t be hoodwinked into thinking that it’s OK to consume sugar because you are an athlete. No one gets a free pass. Let there be no doubt: even a little excess sugar will negatively affect your health and it will do nothing to help you perform better as an athlete. You have a choice in the direction you want your athletic performance and overall health to go. Decision time is NOW!

Follow our coverage of the War on Sugar in future issues of Endurance News, on our blog, and in our social media accounts. This public health issue affects everyone and we appreciate our athletes for trusting our science-based fueling protocols. Hammer on!

[1] www.ajpmonline.org/article/50749 3797%2816%2930331-2/abstract
Feel Great in the AM

Drink Hammer Whey
Before You Hit the Hay!

BY STEVE BORN

Wise athletes understand that while the work done in the training session is undeniably important, it’s the time in between workouts where the real gains are made. That’s why it’s vital to take all the steps you can to maximize your recovery.

In addition to your post-workout fuel replenishment with Recoverite, another great tactic to employ is to consume a serving of Hammer Whey prior to bedtime. This is especially helpful after those extra-hard workouts or when you feel that your immune system needs a boost.

Hammer Whey provides 17 grams of 100% grass-fed whey protein isolate, the richest source of all 9 essential amino acids. These are the ones that the body cannot produce internally and must obtain from the diet, the ones that really help you the most.

Here’s what to do:

Mix 1 scoop of Hammer Whey in 6-8 ounces of water (water only, no carbs) and drink. Then, brush your teeth and go to bed. Nailed it! It’s so simple, but the benefits are anything but.

Here are some profound benefits from such an easy gesture:

1. Hammer Whey provides your body with an outstanding dose of amino acids, including the branched chain amino acids (BCAAs). Your body uses them best during a time (sleep) when it does many of its reparation and recuperative processes.

2. You also receive immune system support via two amino acids: methionine and cysteine. They are present in high amounts in Hammer Whey. These two amino acids stimulate production of glutathione, one of the body’s most powerful antioxidants.

3. Whey protein, courtesy of its quadrapeptide content, is the best protein source for alleviating muscle soreness, so you’ll receive that benefit as well.

4. Perhaps most importantly, each serving of Hammer Whey contains 6 grams of glutamine which will safely and effectively elevate serum human growth hormone (hGH) levels. This is an outstanding way to shorten recovery time and improve athletic performance. Dr. Bill Misner writes, “During sleep, 85% of hGH is released and the 6 grams of glutamine in each serving Hammer Whey is adequate to cross the blood-brain barrier to raise nocturnally-released hGH by as much as 400%.” That’s enough to have a noticeable effect on anabolic, muscle building/maintaining activity in the body.

Hammer Whey is pure protein, completely devoid of unnecessary and unhealthy ingredients with no antibiotics or hormones. It is unquestionably the premier protein source for promoting recovery and boosting immune system health. Have a serving prior to sleep and feel great when you wake!
I have been using Recoverite for over 10 years. I believe it has definitely enabled me to keep an active schedule training and racing throughout those years from sprints to Ironman distance triathlons. I trust no other recovery drink!

Our Customers Say It Best ★★★★★

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hammernutrition.com 800.336.1977
5 Reasons Why Premium Insurance Caps should be YOUR multi!

BY STEVE BORN

For optimal health and enhanced athletic performance, you must aim to consistently consume a high quality diet. This isn’t just for the vitamins and minerals, but primarily for the beneficial phytonutrients, enzymes, and fiber that an endurance athlete needs. To “fill in the gaps” between what your diet should contain and what it actually does, daily supplementation with a high quality vitamin/mineral supplement is equally important. Here are five things about Premium Insurance Caps to make them stand out from the rest:

1. Optimum, not minimum, amounts. Unlike many supplements that contain inadequate Recommended Daily Intake (RDI) amounts of nutrients, Premium Insurance Caps is formulated with Optimum Daily Intake (ODI) amounts of the highest quality vitamins and minerals. Dr. Shari Lieberman hits the nail on the head about why the use of ODI amounts in supplementation is so vital. “RDIs reflect amounts that are adequate to prevent nutrient-deficiency diseases, and are not tailored for individual needs. In order to attain a state of optimum health and disease prevention,” she says. “We must take into our bodies optimum—not minimum—amounts of vitamins and minerals.” For example, Premium Insurance Caps contains superb levels of the B complex vitamins, thus making additional products unnecessary.

2. Capsules, not tablets. The nutrients in Premium Insurance Caps are contained within a all-vegetable capsule. That means they will dissolve much more rapidly and thoroughly than tablets would, so your body actually will receive the nutrients you’re consuming. Because tablets can take longer to break down, they often irritate the intestinal lining and cause stomach discomfort. Additionally, tablets can pass through the entire digestive system only partially dissolved or completely un-dissolved. Either way, your body does not get the full volume of nutrients you ingested, which means you’re not really getting what you paid for.

3. Highly-assimilated, amino acid-chelated minerals. For many minerals, there are several forms available, all with differing absorption rates. Some companies use inexpensive forms of minerals in their products (ex: magnesium in the oxide form or calcium in the carbonate form). Unfortunately, these cheap forms are not as well absorbed as others, such as the superior amino acid chelates we use in Premium Insurance Caps.

4. Multiple digestive enzymes for maximum nutrient absorption. It’s not what you consume, it’s what you absorb. To aid the absorption of nutrients, Premium Insurance Caps includes digestive enzymes such as pepsin, papain, Bioperine™, and our Proprietary Enzyme Blend (protease, amylase, glucoamylase, lipase, cellulase, phytase, maltase, and sucrase). If its not bioavailable, its not valuable.

5. Only beneficial nutrients, no “salt and pepper.” Some companies add auxiliary nutrients at levels that have no real value (what we call “salt and pepper” amounts). All of the nutrients included in Premium Insurance Caps are at levels that will provide real benefits. Your goal isn’t just to maintain health at a minimally acceptable standard. Your goal is to achieve supreme health! Get the absolute most out of your body by giving it the vitamins and minerals it needs. Let Premium Insurance Caps be your foundation.
Our Customers Say It Best ★★★★★

“Hammer Nutrition’s Premium Insurance Caps fills in the gaps that heavy training can create in your armor.”

High-Potency Multivitamin

Contains 54 different nutrients proportionately balanced in each capsule, using only the highest quality vitamins, minerals, digestive enzymes and micronutrients, not just minimum “daily recommended” amounts.

Supports optimum health
Boosts energy all day
Supports immune function

Kyle Doyle on an aggressive downhill run at the KMC Winter Series. Photo: Jason Cleghorn

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Hello! My name is Taylor Reed. I compete in Olympic Taekwondo, Kickboxing, and Mixed Martial Arts competitions. I am a third degree black belt in Taekwondo and have studied martial arts my entire life. Through years of fighting, I have become a six-time, back-to-back Heavyweight Montana State Champion, Junior Light Heavyweight National Champion, two time Team USA fighter, and am the current Senior Welterweight U.S. National Taekwondo Champion.

It’s definitely hard to describe what I do to others being both an athlete and a fighter. Taekwondo is a hard hitting, high intensity, emotionally draining, and psychologically challenging experience. I began when I was six years old learning self-defense and from there, I fell in love with martial arts and competitions. Taekwondo is a short burst endurance competition where a fighter will fight three two-minute rounds. Athletes fight to outscore or knockout the opponent to continue to the next bout. Depending on the division, a Taekwondo athlete may have 4-7 matches throughout the day to earn the gold.

This is why I choose Hammer Nutrition. Over the years, I have tried just about every supplement under the sun. To put it simply, no other product can compete with Hammer. I started using Hammer when I took my first-degree black belt test. Because the test is seven hours long, I needed to be able to properly fuel for an endurance performance. After that first Hammer Gel, I was sold.

I have used to Hammer Nutrition products to achieve an added edge in training and an extra push in endurance when competing. As a fighter, I am known for high volume attacks and unmatched conditioning. Paired with Hammer, this has proved to be a lethal combination.
Recently, I attended the Team USA training camp where we trained for upwards of six hours a day studying strategy and new material from the best coaches in the United States. More is learned and absorbed when properly fueled because attention can be on the strategy and not fatigue.

My next event that I am training for is the USA Taekwondo Team Trials/World Championships. Currently, I am training with Coach Steve Rosbarsky of the Missoula Taekwondo Center. We are preparing for upcoming events, evaluating technique, studying fights, and refining my fight game and strategy. I am very blessed to have such a great team to work with. We are looking to compete at U.S. Collegiate Nationals, USAT and AAU Nationals, the Pan American games, and a few other major events that are to be announced as we push to make the Olympic Team to represent the United States at the next Olympics in Tokyo in 2020. Thanks to the premium fueling formulas from Hammer Nutrition, I have never been so educated on nutrition and am confident I can achieve my goals.

Our Customers Say It Best

“I find HEED perfect for long endurance events (Ironman, marathons and centuries/double-centuries). It’s easy to digest, replenishes electrolytes, and isn’t too sweet.”
-Chrissy R

- No sugar “crash”
- Buffers lactic acid
- Reduces cramps
- Promotes oral health

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800.336.1977 hammernutrition.com
Hammer Nutrition’s war on sugar started in 1987 when we were founded in an effort to provide nutritional supplements and fuels for endurance athletes that weren’t soaked in sugar. We have stood by our knowledge base surrounding the dangers of simple sugars and seek to provide only the best products on the market. Why? Because we are a researched-based business that cares about health.

While public awareness is growing, our “sugar is bad for you” stance was not always popular or readily available. While we wondered why, important discoveries have come to light that explain so.

New research has proved that the most highly respected medical and public health institutions in the United States have accepted corporate sponsorships from the nation’s two largest soda companies. The report was published online on October 10, 2016 in the American Journal of Preventive Medicine.

Sixty-three public-health organizations, 19 medical organizations, seven health foundations, and five government organizations accepted financial sponsorship from Coca-Cola or Pepsi. Major institutions included the Centers for Disease Control and Prevention, the American Diabetes Association, the American Heart Association, and the Obesity Society, as well as a number of cancer organizations.

At the same time, Coca-Cola lobbied against all 29 public-health bills intended to reduce soda consumption or improve nutrition. PepsiCo opposed 26 of the 29 bills (90%) according to the study’s authors, Daniel G Aaron and Michael B Siegel, MD, MPH, of Boston University School of Public Health, Massachusetts.

“Rather than supporting public health, organizations may become unwitting partners that contribute to corporate marketing strategy,” the authors note. “It is probable that corporate philanthropy is increasing consumption of soda throughout the country and causing substantial harm to Americans.”

Big Soda isn’t affecting Hammer’s mission or transparency. We have HEED and science on our side! Trust that we are here to provide you with the very best, scientifically sound supplements and fuels. Thank you for relying on Hammer Nutrition for all your nutritional needs and for educating yourself about what is important to you. Hammer on!
"I ordered the Vanilla Whey Protein and it tastes great. I mix it with a smoothie in the mornings and feel like I have sustained energy all day. I run multiple marathons and ultras a year and train hard in-between. I knew I needed more protein in my diet and the Whey Protein fills in that gap."

- Maintain and repair lean muscle tissue
- Potent immune system support
- Grass-fed, 100% isolate

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Can exercise, a low-salt diet and meditation stave off Alzheimer’s Disease? That’s what a husband-wife team of neurologists at Cedars-Sinai is trying to find out.

Alzheimer’s disease, the most common form of dementia, affects more than 5 million Americans, and according to the World Health Organization, diagnoses are expected to triple by 2050, costing the healthcare system an estimated $1.2 trillion annually.

The Cedars-Sinai Alzheimer’s Prevention Program in Los Angeles hopes to change that. Directed by Drs. Dean and Ayesha Sherzai, a husband-wife team of neurologists, the program uses lifestyle planning, support and medical innovation to detect and treat Alzheimer’s earlier. Both doctors have firsthand experience with the disease, having seen their grandparents suffer from it.

To ensure that future generations avoid the same pain they did, the couple is currently conducting an 18-month clinical lifestyle intervention study, examining whether changes in lifestyle among patients with mild cognitive impairment or a family history of dementia can slow the progression of Alzheimer’s disease.

“There is no cure for Alzheimer’s at this point,” Dean Sherzai told the Observer. “But you can mask the symptoms.”

The Sherzais use the acronym NEURO to describe their approach. N stands for nutrition. The doctors advocate the so-called MIND diet, which combines elements of the plant-based Mediterranean diet with the low-salt DASH diet, used to combat high blood pressure. “This diet can push onset back by five years,” Dean explained.

E stands for exercise. Both aerobic and anaerobic physical activity can help the brain as part of a personalized fitness routine. Exercise reduces the risk of depression, and can even allow the brain to make new connections between neurons.

U means unwind, which in this case means supplying study subjects with regimented mindfulness and relaxation techniques such as meditation. These activities have a quantitative effect on the brain, decreasing stress hormones.

“A lot of us talk about unwinding, but none of us do it,” Ayesha said. “Stress makes dementia propagate and worsen. We give patients the tools to take stress out of their lives.”

R stands for restful sleep, which means both sleeping the right amount (seven to eight hours a night, no more or less) and having good quality, uninterrupted sleep with no electronic devices nearby. Patients who have sleep apnea and actually stop breathing for short periods while they sleep are also at increased risk of dementia.

Finally, O stands for “optimizing social and mental activity.” While there is scientific evidence that mental exercises like crossword puzzles and Sudoku help with memory and recall, Dean stressed that going out into the world and listening to music or going to a museum was also beneficial to older patients. “Those who retire and become sedentary do worse than those who are active,” he said. “Small, incremental changes affect brain health.”

The Sherzais are also using technology to aid in their comprehensive investigation. They use biomarkers like MRI’s and PET scans to get their information, along with more traditional methods like blood tests.

Their study also employs the first advanced retinal imaging scan, which may detect amyloid, the main plaque that causes brain tissue to develop Alzheimer’s, in the back of the eye before it enters the brain and becomes symptomatic.

“This is extremely important, and has tremendous implications,” Dean said. “We can show that if implemented earlier in a systematic way, you can affect the whole healthcare system and economy in general.”
Avoid electrolyte depletion and maintain optimum athletic performance by supplementing with Endurolytes before, during, and after exercise. Trusted by endurance athletes the world over since 1996.

Our Customers Say It Best. ★★★★★

“Endurolytes are the perfect response to water loss through sweat from helping your sister move up (and down) three flights of stairs in addition to racing.”

“Endurolytes give us the edge buy replacing our electrolytes, therefore keeping us cramp-free and performing at peak levels. “

Endurolytes Extreme

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Endurolytes

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Protein & Carbs: A Winning Combo

BY JESSICA EVANS

What you do immediately after your workout is important as your workout itself. When endurance athletes start their taking their nutrition seriously, one of the concepts that they come across is the protein-to-carb ratio. What is this ratio and why is it important?

Our diets are comprised of three macronutrients: carbohydrates, protein, and fat. Carbs are present in food mostly in the form of starch, sugar, and fiber. They are converted into blood glucose by your body to use for energy. While you will get the bulk of your actual daily energy from fast-burning carbohydrates, you cannot utilize that energy unless you body has plenty of protein.

Protein’s job is to make possible the synthesis and maintenance of muscle and the creation of hormones and enzymes. Both adequate carbohydrate and protein intake are essential to a healthy diet. The best way to get protein is from foods that have what is called “complete protein.” This means they have all the essential amino acids.

Research shows that endurance athletes should consume a recovery meal that contains both carbohydrates and protein and specifically, they should be in the 3 or 4:1 ratio. Studies that compared carbohydrate, protein, and carbohydrate-protein supplements to determine their effects on muscle glycogen storage during recovery from prolonged exhaustive exercise showed that combining protein and carbs worked best.

Hammer recommends that athletes “refill the tank” as soon as possible (ideally within the first 30 minutes) to fully replenish glycogen and build and repair muscle tissue. The 3:1 carbohydrate to protein post-exercise protocol is appropriate for the endurance athlete, especially if lean muscle mass recovery is the objective. Hammer Nutrition chose the 3:1 ratio as research didn’t show substantial differences between the two.

The best time to consume these nutritional items is the first 30 minutes after exercise to take advantage of the limited post-exercise enzymes and hormonal carrier availability. Recoverite and Hammer Bars provide your body the perfect amount of carbs and protein in the ideal 3:1 ratio. Also, be sure to take antioxidants after exercise to neutralize cell-damaging free radicals and speed recovery. Following this expert fueling advice will help you attain a strong, healthy, and winning season.
Hammer athlete Zandy Mangold hammering out a run in Namibia, Africa. Photo: Courtesy Zandy Mangold

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Team Loft OCR

The first Spartan race in North America was in 2010 and had 500 participants. Since then, the sport of obstacle course racing has caught fire across the globe with millions of athletes taking part in sanctioned or similar competitions. This year, Hammer Nutrition proudly sponsors their first OCR team, Team Loft. Here, we interview their captain, Tony Martinez.

Endurance News: What is OCR?

Tony Martinez: Obstacle course racing (OCR) is a sport where a competitor must overcome various physical challenges. Mountains, mud, and trail runs are combined on most race courses to challenge even the strongest of athletes. The races are designed to test your mental and physical skill. Obstacles include, but are not limited to, climbing over walls, carrying heavy objects, traversing bodies of water, crawling under barbed wire, and running over varied terrain and elevation.

EN: How did you get in the sport?

TM: I have always been athletic and love to be active. I was a college basketball player at Plymouth State University in New Hampshire from 1997/2001. After my playing days were over at the college level, I spent the next few years continuing to play in various basketball leagues around the state. Over time, I got burnt out and stopped putting effort into being a athlete. I was overweight and very out of shape. While trying to start to workout and get back on track again, members at the gym I was training at asked me to try a race called “Spartan.” Long story short, I got my butt kicked. I was hooked and have never looked back!

EN: You are also a coach at a gym specifically dedicated to the sport. Tell us about that.

TM: Yes, I coach OCR training classes and oversee most of the OCR training program at the LOFT (Lakes Region Obstacle Fitness Training). I coach along with two other teammates, Brian Sweetser and Ben Lehman. The LOFT Fitness Center is located in Tilton, NH and is a full indoor obstacle training facility, specializing in preparing individuals to be race ready, whether they are a beginner or an elite level athlete. We have 20+ obstacles, all designed after obstacles athletes will face at any OCR they take on. The LOFT is owned by Bob Callahan and managed by Eric Pyra, both who are extremely supportive of growing our OCR training program and race team.

EN: How does OCR work?

TM: Over the course of an obstacle race you will face a variety of mental and physical challenges. In some races, failure in completing an obstacle results in some sort of penalty. A common penalty is losing time, but depending on the race, you may be allowed to return and complete the obstacle for the time lost once your penalty has expired. Overall, the goal of OCR races is to complete a set number of stages, usually under a certain time limit. Classes include both men and women.

Team Loft Member Deanna Mazzei, carrying a keg across the finish line. Photo: Courtesy Team Loft

Tony Martinez at ladder obstacle at the Hesco Bone Frog Challenge. Photo: Courtesy Tony Martinez

How an Obstacle Course Racer Hammers:

Tony’s Routine:
“My routine consists of Premium Insurance Caps, Mito Caps, Enduromega, and Race Caps Supreme.”

Pre-Race Prep:
“I turn to Fully Charged, Anti-Fatigue Caps, and Endurance Amino.”

Recovery Recipe:
“I rely on Tissue Rejuvenator and Recoverite.”
physical penalty. For example, in a Spartan Race, failure to complete an obstacle requires the athlete to complete 30 burpees before moving on. There are different levels of competition from open wave (consisting of beginners to avid weekend warriors out to push their limits), competitive wave (racers looking to compete with themselves along with other athletes) elite wave (racers looking to compete, podium placement and cash prizes are at stake) Typically the average distance in an obstacle event ranges from 3 to 15 miles, with ultra-distances up to 30 miles. Depending on the level of competition, athletes range from very little preparation to up to 5 – 10 hours a week in training. Training varies among each individual. This sport is designed so everyone can compete at their ability.

EN: Thank you Taylor! Best of luck to Team loft in 2017!

Team Loft after a team victory at the Winter Wild Race Series event. Athletes pictured: Back row left to right - Josh Pelletier, Jamie Good, Tony Martinez, Steven Nelson, Barry Reynolds Sr. Front row Left to Right - Jill Ober, Deanna Mazzei, Kendra Hines, Sonia Nelson, Holly O’Connell, Jackie O’Neil-Vier. Photo: Regina Reynolds

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**GLYPHOSATE: Safe for your plate?**

**By Jessica Evans**

As an athlete, you’re probably well acquainted with acute injury-related inflammation. Reacting to the trauma of a sprain, a strain, or to invasion by viruses or bacteria, when it’s working properly, this natural immune response aids healing.

Chronic low-level inflammation occurs as well. A steady diet of refined sugars and trans fats, exposure to chemicals, sleep loss, and even overtraining have been linked to chronic inflammation. It can cause a host of serious diseases and conditions, including arthritis, heart disease, diabetes, some cancers, and Alzheimer’s disease.

Proper nutrition is one of the best ways to fight inflammation and whole grains are understood to be quite healthy. But what if those grains have pesticides? Could that be contributing to inflammation and your health?

In November 2016, an independent food safety testing laboratory found extremely high levels of the pesticide glyphosate in some of America’s most popular grain-based food products. Glyphosate is the most heavily used chemical weedkiller in food and agricultural production in human history.

Applied on more than 175 million acres in the United States and more than 440 million acres around the globe, new scientific evidence shows that probable harm to human health could begin at ultra-low levels (0.1 parts per billions (ppb)).

The testing and analysis was performed at the request of Food Democracy Now in coordination with The Detox Project which gathered additional scientific evidence from around the world. The independent research on glyphosate contains the Anresco Laboratory’s results. Tested products also included oatmeal and baby foods.

The findings that some of the most widely consumed grain products in America have such high levels of are especially troubling, considering that The World Health Organization’s International Agency for Research on Cancer (IARC) classified it as a “probable human carcinogen” last year.

Glyphosate contamination cannot be removed by washing and is not broken down by cooking or baking. Glyphosate residues can remain stable in food for a year or more, even if the foods are frozen or processed.

Increased demand for organic and non-GMO foods led to a sharp rise in organic grain imports in 2016 according to a new report from CoBank. Recent studies also show that 68 percent of Americans have recently bought organic food items and 44 percent have recently bought non-GMO labeled food.

While it is argued that the abundant food and high standard of living we enjoy in the United States would not be possible without pesticides, they are poisons and can be hazardous. Fortunately, research, education, and government agencies are constantly reducing the risk of using pesticides by producing “safer” chemicals, pest-specific pesticides, better application methods, and tougher pesticide laws. The result is a constantly improving risk-benefit ratio. But that does not mean the job is complete.

To boost your body’s ability to fight chronic inflammation, be sure your daily diet is rich in these whole foods and herbs. For the top ten best foods, see p. 62.
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“I have been Hammering since 1987! Brian has always been about providing effective products and grass root support. Running a big company is challenging, and if the products are not effective, you go out of business. Hammer Nutrition has been true to the mission all these years, and countless athletes and events have benefited as a result. Hammer provides the products and knowledge to help us athletes achieve our athletic goals. Hammer has been there for me for 3 decades. Dang, I’m getting old. Hammer On!”

Bruce Balch

“I’ve been Hammering since 2007! Guess it’s my 10 year anniversary. Are you surprised that I’ve been improving over the past 10 years? I’m not. The first product I ever used was espresso Hammer Gel and it is still my favorite. When a product works, you stick with it! What I love about Hammer is that it’s a system that can be applied to anyone. My mantra: work smarter not harder.”

Matt Sommer

“Hammering since 2007! The Texas Trail 50K was sponsored by Hammer and they had Endurolytes in the race packet. I realized then how effective they really are. My performance has improved dramatically since that day. “

Francisco Garza

“I’ve been Hammering since 2010! On a hot summer day of 2010, a guy was enlightening me on Endurolytes before a kayak race. I noticed a lot of the competition using HEED that day. After the race, I looked in to the nutrition line and took immediate notice to Recoverite and had to try it. Never looked back since.”

Dale Glover
“I’ve been Hammering since 2001. A friend suggested I try Endurolytes for cramping issues I was having. They worked for me! Then I tried Hammer Gels and HEED and I have been a believer and loyal customer ever since, using many of the Hammer products. My only regret is not trying them sooner!!”

Rick Timossi

“I started using Hammer products in 2002, as a 16 year old that was diving head-first into marathoning and training for my first 50K. (I was ambitious and completely enamored with the distance stuff) I used them really for the first time at the Quivering Quads 50K here in St. Louis. I used it almost exclusively from then til I joined the team in 2014!”

Luke Sinak

“I’ve been Hammering since 1997 with e-caps. I still use Race Caps Supreme and more! “

Margaret Thompson

“Hammering since 2000! My sister found out about Hammer Gel and the jugs. Much more economical and convenient. I added in HEED, Sustained Energy, and eventually Premium Insurance Caps, and a host of other great products.”

Eric Fernando

“I’ve been Hammering since 2000! I got introduced to Hammer Nutrition while racing bicycles in 2000. Back then, we mostly made our own nutrition and the banana or PB&J in the jersey pocket was not an uncommon sight at all. I started with Sustained Energy and then tried HEED and Hammer Gel. Then I added Perpetuem, Recoverite, and Endurolytes. Hammer got me turned onto the concept of “liquid food” and I’ve never looked back. Being able to drink most or some of my calories is awesome. That, and the fact that Hammer products have never caused me any gut issues, meant I stuck with them.”

Martin Criminale

“I’ve been Hammering for 20 years! My first product was Hammer Gel, simply because it was less expensive if you bought it in the container. Then, I started to discover how great that product really is and started using other products. Same conclusion: Awesome. Hammer was my first sponsor and helped, besides my body, my confidence. Thanks Hammer for all these years of fuel and supplements! Best company ever!”

Lincoln Murdoch

“I started using Hammer Nutrition around 2006 with e-caps. In 2009, I started to use Hammer Nutrition products exclusively. I’ve been using my favorite mix of Perpetuem and HEED mix for several years now.”

Chris Karpowicz

“I have been using Hammer products since 2008. The first product I tried was Gel, and then HEED and Recoverite. I have been using a vast majority of Hammer products for about 4 years. I love reading about their use and benefits. Hammer does a great job in creating quality products that really make a difference in energy, recovery, and overall wellness.”

Torie Elkins Grammar
Answers to frequently asked questions about Hammer Supplements

**As an ultra runner, I am often running on fat but on my daily nutrition, I am also on a low carb diet. I use Perpetum a lot but is it better for me to use more fat during an ultra along with the Perpetuem or not? Maybe add coconut oil or ghee or something to the fuel?**

Your body will naturally use the vast amount of calories from fatty acid stores during prolonged exercise. In fact, about two-thirds of energy requirements will be fulfilled from body fat stores. Still, from an exogenous source, the fuel should be skewed in favor of carbohydrates (fat burns in a carbohydrate flame), a small amount of protein, and some fat. How much fat? That’s a very good question. Anywhere from 2-5 grams would be sufficient.

If you want to add more healthy fat to Perpetuem, it may not be necessary, though it may not be being much of an issue, either. If you do, just remember that the extra fat slows down the rate of digestion, which may increase the potential for stomach distress. Also, keep track of the calories from any fat that you add to Perpetuem. Calories from all sources count toward your hourly intake.

**I often have a strength workout after my bike or run. It’s usually an hour or more later. I take my Recoverite and post-workout supplements (PIC, Race Caps, Essential Mg) right after the bike or run. Is this what you’d recommend, or should I save the supplements until done with strength training too?**

The immediate replenishment of carbs and protein via Recoverite is so important that we recommend that you do that right after your endurance/aerobic workout (bike, run, etc.)

Efficacy-wise, we don’t think it’d matter too terribly much when you took your supplements, though we suspect that when you’re done with all of your training (both endurance and strength) would be the most appropriate time. Many athletes have experienced stomach distress if they take supplements before exertion. We recommend Recoverite after your endurance workout and your post-workout supplements after all your workouts have been completed.

**How much in advance do you recommend taking Fully Charged for a 40-minute high intensity exercise?**

When we tested Fully Charged, we found that taking a dose 15-30 minutes prior to exercise worked really well. However, we have received really positive reports from athletes who have sipped on a bottle of water containing Fully Charged right up to and at the start of their workout. You might want to try both to see what works best for you, knowing that there’s really no wrong way to take the product prior to exercise.
Unsurpassed for maintaining optimal athletic performance for as long as you need, Perpetuem combats fatigue by providing consistent, reliable, sustained energy, helping to preserve muscle tissue, maximize fat utilization, and buffer lactic acid.

**Perpetual Motion**
- Long-lasting energy
- Maximizes fat utilization
- Prevents muscle fatigue

Unsurpassed for maintaining optimal athletic performance for as long as you need, Perpetuem combats fatigue by providing consistent, reliable, sustained energy, helping to preserve muscle tissue, maximize fat utilization, and buffer lactic acid.

Our Customers Say It Best ★★★★★

“I have been using Perpetuem for about six years and usually get the Orange-Vanilla flavor as it is mild and easy to take even if a bit warm. I usually prepare it in multi-hour bottles or use as a paste inside a Hammer flask on the bike.”

“Perpetuem has given me more endurance on my rides and provided hydration without losing strength. I recover quicker after extreme exertion and I am ready for the next push when it comes.”

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The 2017 USA Cycling Cyclocross National Championships were Jan 3-8 in downtown Hartford, Connecticut. Hosted by the Connecticut Cycling Advancement Program, it offered five non-championship events for men and women. Overall, organizers saw more than 1,700 registered riders over the week.

One of those riders was Hammer sponsored athlete Alex Forte. She earned three podium finishes at this world famous event. Forte finished fourth in the Women's Open, second in the Women's Masters (age 35-39), and second in Women's Industry.

Cyclocross is an off-road form of cycling in which riders use a road-style bike with treaded tires and ride a 1.5- to 2-mile course that consists of road, dirt, gravel, single track, trails, grass, and mud with various obstacles. This event has been growing in popularity ever since its inception and has competitions all over the world.

Forte started racing Cyclocross three years ago. She said she wanted to be on the National podium one day and is proud to say her goal has been accomplished. She credits her Hammer fueling, diligent training, and support of both friends and family.

“There was a short period during the middle of cyclocross season this fall where my health and nutrition plummeted, but I couldn’t figure out why. Adding Hammer supplements was the key component that helped put my health back on track for the remainder of the season.”

Rain and muddy conditions greeted competitors on the 3.4-kilometer course at Riverfront Recapture's Riverside Park. The course has been described as the hardest championship race on American soil with numerous off-camber sections, steep hills (up and down), twists and turns. Forte said the weather made for an incredible challenge.

“It went from wet and muddy on Tuesday to cold and frozen on Thursday to snowing on Saturday,” said Forte. “I enjoyed racing in a variety of conditions and competing against many strong and skilled women in each division. You never know what to expect on race day and Nationals was no different. Knowing I didn’t have to worry about my fueling plan or nutrition thanks to Hammer really allowed me to focus on the win.”

In addition to the races above, Forte also raced in a team relay. The Vanderkitten relay team placed 6th overall as the only group to have a majority of female competitors.

“I can’t thank everyone at Hammer enough for the continued support and encouragement. I loved the personalized fueling advice available online and by phone. It is more than just a sports nutrition company. It is a family.”

This event brought the USA cyclocross season to a close, however, the international season continues with the UCI World Cup, Superprestige series, and the UCI World Championships. Next year, the USA Cyclocross National Championships will be in Reno, Nevada.
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While euphoria generally refers to happiness, it derives from ‘euphoros,’ a Greek word that means ‘healthy.’

What does this have to do with Fully Charged, Hammer Nutrition’s brand new pre-exercise supplement? Quite a bit!

Given the numerous advantages you’ll enjoy after taking Fully Charged prior to your workouts and races, one can’t help but feel happy about the following health benefits:

- Boosted nitric oxide levels
- Increased mental alertness
- Enhanced fat utilization
- Buffered acidity
- Stimulated the production of ATP
- Alleviated muscular soreness

One athlete describes his experience with Fully Charged this way:

“I’m so excited to have Fully Charged in my toolbox! I run very early in the morning and this stuff helps me WAKE up and immediately gives me a smooth, confident readiness to take on the day’s run. Out on the road, I feel alert, calm, and energy levels are UP. This product doesn’t make you “jittery” or bloated, and is such a smooth, effective option for giving you that edge you’re looking for EVERY day. I love it! I’ll never leave home without it!” -Luke S.

We agree completely! With Fully Charged, you not only enjoy a significant boost in strength and endurance. You’ll also feel invigorated, but not wired. You’ll feel grounded, yet ready to take on whatever your training session or race throws at you. Focused and full of pure, clean energy.

The “healthy” part of Fully Charge’s “euphoric experience” is due to the many nutrients in our product’s carefully crafted formula. For the euphoria, you’ll be ecstatic knowing you have finally found a pre-exercise product that doesn’t ruin your performance with negative side effects or copious amounts of caffeine or sugar.

With Fully Charged, you have a product that will safely and effectively ramp up the quality of your workouts and improve your race results, while also providing some significant overall health benefits as well.

Euphoria? You bet! 

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Our Customers Say It Best. ★★★★★

“I was so excited to try the new Fully Charged from Hammer. This product is amazing. I used it 25 min. before going out for a 16 mile training run. It has a slight cherry flavor, not super sweet. I felt renewed focus and increased energy.”

“I can wholeheartedly recommend Fully Charged! I feel energized and focused, with more “pop” in my workouts. I feel less fatigued during and after the workout.”

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Say No to NSAIDS

New evidence showing negative effect on cartilage

BY JESSICA EVANS

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

The FDA’s Black Box Warning is issued to drugs that have been shown to possess potentially harmful and dangerous threats to health. It is a specific call to action, asking the patient to pay close attention to research and to talk with their doctor about the risks and benefits of a particular medicine.

This strict and serious product designation is given because NSAIDs (non-steroidal anti-inflammatory drugs) have been studied and linked to a variety of side effects. Gastrointestinal risks include leaky gut and stomach bleeding. Cardiovascular risks include thrombotic events and strokes. It has also been linked to hearing loss.

Additionally, recent research has also shown that unfortunately, NSAIDs can even worsen some of the ailments hoped to relieve. A powerful example is arthritis.

Dutch researchers studied more than 1600 people with hip arthritis and 635 with knee arthritis. In research printed in the Journal of Prolotherapy, people using NSAIDs had three times as much progression of knee arthritis six years into the study. Those with hip arthritis who took NSAIDs had twice as much progression as those who didn’t.

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

What can one take instead?

✔️ For arthritis, research suggests turning to collagen. Hammer includes a specific, trademarked collagen—Undenatured Type II Collagen (UC-II™)—in Tissue Rejuvenator.

✔️ Tumeric, a plant that grows in India and Indonesia related to the ginger family, has also been shown to reduce inflammation and the symptoms associated with it. This powerful antioxidant is also found in Tissue Rejuvenator.

✔️ Omega-3s have strong anti-inflammatory properties. Daily supplementation with Enduromega provides a number of benefits, including anti-inflammation for overall health and pain relief.

✔️ Glutamine is also an option to help protect the lining of the gut which can be compromised/damaged from the use of NSAIDs. Glutamine can also support the healing process should one experience a NSAID side effect like leaky gut syndrome. Two of our products—Recoverite and Hammer Whey—contain ample amounts of this amino acid (3 grams and 6 grams per serving, respectively) for your health.

Whether your turning towards NSAIDs for osteoporosis, arthritis, or general pain relief, we invite you to pay attention to the new FDA warnings and turn to methods that don’t accelerate joint breakdown and help you in a safe and natural way.
Get off the sidelines &

GET BACK IN
THE GAME

- Anti-inflammatory support
- Promotes joint integrity & mobility
- Allows reduced NSID use

Our Customers Say It Best ★★★★★

“I use Tissue Rejuvenator every day for maintenance to keep my body functioning optimally by speeding up the constant repair process my training keeps me in. Tissue Rejuvenator is great for athletes AND non-athletes alike!”

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According to the CDC, six out of ten American children drink a sugar-sweetened beverage on a given day. While that’s cringe-worthy enough, that’s not all.

Roughly 30% of them drink two or more daily!

The recent study released by the Centers for Disease Control and Prevention’s National Center for Health Statistics focused on youth behavior between 2011 and 2014. Unfortunately, it looks like sugar consumption in youth is growing and happening around the world as well.

Reports show that adolescents in the US get a whopping 20 percent of their total daily energy intake from added sugars. Half of that sugar comes from sugar-sweetened beverages like sodas, sports drinks, and energy drinks.

A 2015 study by the United Kingdom’s Cancer Research UK found that in one year, UK teens take in enough sugar to fill a bathtub with cola. They found that across all age groups, children are consuming far too much sugar in drinks.

Currently, the American Heart Association recommends that children should consume only about 6 teaspoons (about 100 calories) of added sugar a day and should limit their intake of sugary drinks to 8 ounces weekly. That’s certainly a far cry from what’s happening, so, is there hope?

To help raise awareness, a Maryland-based public campaign started bringing fact-based marketing to youth and their parents with new #BevRev ads. “Howard County Unsweetened” is a project focused on helping kids and families cut back on sugary drinks through policy changes and outreach. Similar to the “truth” campaign against the tobacco industry, the campaign elevates teen voices to call out the beverage industry. The first three years of their efforts have radically altered consumer behavior and soda sales plummeted twenty percent in their county.

“Like tobacco companies, sugary drink companies are a major source of deceiving marketing that masks serious health risks,” says Nikki Highsmith Vernick, president and CEO of the Horizon Foundation. “In reality, their sugar content puts consumers at risk for diabetes, heart disease, cavities, and obesity.”

A new report from the US Centers for Disease Control and Prevention found that found that while just over a third of kids in grades 9 through 12 drank a sweetened beverage each day in 2007, that number had fallen to 20.5 percent by 2015. Their study was published February 2, 2017 in the CDC journal Morbidity and Mortality Weekly Report.

Hammer Nutrition has always recommended strictly limiting and/or removing sugar-sweetened beverages from one’s diet completely. Switching to HEED or Hammer Gel for responsible glucose intake provides your body with sustained energy without refined or added simple sugars.

Founder Brian Frank says, “We are winning the war on sugar, but it hasn’t been easy and it’s not over. We have served endurance athletes for the last thirty years and we are here to help the next generation make healthy choices as well.” We’ll drink to that!
Not Just Flavors, INGREDIENTS

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- No sugar “crash”
- Easy to digest, no GI distress

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Karin S. Weller is an ultra distance cyclist who is passionate about the sport. In 2016, Karin took first place and set a new course record as a two person team in the Silver State 508. She went on to take first place as a two person mixed in Race Across the West. She is a mother, a hard worker and loves to dance.

I have been using my Compex EMS unit for a few months and have found it to be one of the most beneficial parts of my recovery. It used to take days after a long day of cycling to recover. Now, I am able to feel good the very next day. After my workout, I place the EMS pads on the areas that feel fatigued and run the Active Recovery program. It is a relaxing sensation and it brings me to a great state.

I do what it takes to keep improving my fitness and recovery to perform at my very best. I have been using my Compex EMS unit for almost two months and have seen amazing results. I have found it to be an essential part of my training. I find it relaxes me as it stimulates my muscles, clears the lactic acid, increases blood flow, and gives me a faster recovery. The next day, my legs feel refreshed and I do not have the fatigue that I felt in the past.

The past three weekends, my training rides have been challenging, leaving me very fatigued and sluggish. I am excited to get to my unit and start the recovery. Prior to the EMS, it would be days before my soreness went away. EMS takes away the soreness giving me energized muscles. I find myself astonished when I start to ride again, expecting to feel slow, but happy to see that I am not.

An easy way to accomplish two things at once, I finish my workout, make my Hammer recovery drink, and put on my EMS. I can have my recovery drink while recovering with the EMS. It is part of my everyday routine. When you strive to do everything to be your very best, all aspects of fueling, training, rest and recovery are very important. Purchasing this unit was one of the best things I could do for myself. We spend money on so many things to make us smarter and better. Why wouldn’t you invest in yourself? Invest in EMS.

Though this could be my secret weapon, I am so excited about discovering this unit that I want to share it with everyone. This is not just for athletes. It can provide benefits to anyone wanting to alleviate pain and muscle soreness from injury and daily activities.

The Endurance setting is also a great addition to my training as it aids on those days when I can’t fit everything in. I can feel the slow twitch targeting my muscle fibers. It is fascinating to watch it work your muscles. It increases the blood flow and makes me stronger.

The third setting is Resistance which builds muscle size, strength and density, optimal for toning your muscles. It is nice to see my muscles toning up and getting stronger. I can definitely say I am faster on the road. I do not miss a day without using the EMS unit.

After my 30 minute consultation, it has been easy to set up and use. I take it with me as I travel and plan on using it everyday of my life. Thank you Hammer Nutrition for enhancing our lives and making a difference by introducing athletes to EMS. 🥾
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Product Spotlight: PSA Caps

Attention Men! Support prostate health with Hammer Nutrition

BY STEVE BORN

Prostate cancer is the second most common cancer in American men, second only to skin cancer. It is estimated that 1 out of 7 men will be diagnosed with prostate cancer. Those are pretty scary odds! As us guys begin 2017, let’s make protecting our prostate health a major focus. The following Hammer Nutrition supplements provide powerful support:

1. PSA Caps
Eight powerful, all-natural nutrients work synergistically to provide wide-ranging support to help prevent enlargement of the prostate gland (benign prostatic hyperplasia, or BPH) and maintain healthy levels of prostate-specific antigen (PSA).

2. Essential Mg
Research has shown that magnesium levels positively affect prostate cancer risks. A 2011 study showed that “low blood magnesium levels and a high Calcium/Mg ratio were significantly associated with high-grade prostate cancer.” These findings suggest magnesium affects prostate cancer risk, perhaps through interacting with calcium.

3. Boron
Over 10 years of research has shown that this trace mineral can reduce the risk of prostate cancer.

4. EndurOmega
Several studies have shown that increased levels of EPA and DHA, the two fatty acids found primarily in fish and fish oil supplements, are correlated with decreased risk of prostate cancer.

5. AO Booster
Provides all eight components of vitamin E with primary emphasis on the all-important gamma tocopherol fraction, which has been shown to provide a significant protective benefit against prostate cancer. AO Booster also contains astaxanthin which research has shown to help decrease levels of harmful dihydrotestosterone (DHT).

6. REM Caps
Research released at the AACR-Prostate Cancer Foundation Conference in 2014 showed that high levels of melatonin were linked to a reduction in prostate cancer risk. Melatonin is a key component in REM Caps.
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“I've been searching for all these types of magnesiums and finally Hammer Nutrition has a supplement with all of them! It's easy on the stomach and now I can have a full spectrum of magnesium delivered easily in a pill.”

“I really felt the benefits of using Calm Magnesium before bed, but what I really like about Essential Mg is it offers five additional types of magnesium than just the magnesium citrate. Especially while taking Vitamin D in the winter, I feel really good knowing my magnesium requirement is being met.”

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Meal prep &
an active lifestyle

My family has busy schedules and we still find time to sit down to dinner. Our schedules are all quite varied with work, school, and social commitments. In my family, we are so specific about what we eat (mostly organic, plant based diets) it works out best to eat at home. I think the key to achieving healthy accessible meals regularly at home, is to have a plan.

I generally like to have one or two days a week that I spend 3 to 4 hours prepping food. I enjoy coming home at lunch or dinner to find I already have most of the meal done and I can just mix, match, or accessorize with salads or side dishes. I generally never spend more than 10 to 30 minutes in the kitchen preparing dinner as we already have dishes to pull from.

To create dishes is one thing but to recreate is another, and so fun. For example, I love to boil a pot of potatoes. I serve them sliced with olive oil and salt and pepper. Or later, I will slice them up and sauté them to serve crispy. I might perhaps cut them in cubes and throw together a potato salad, or throw a few into soup to thicken it up.

Meat loaf is also a great one. I serve it as loaf, slice leftovers for sandwiches, or crumble it up and use it in tacos or Shepard’s pie. Roasted chicken is also a wonderful dish. We eat it hot out of the oven or pull off the remaining meat the next day to garnish a salad, make a sandwich, and then throw the carcass in a pot and boil slow for a couple hours to make homemade chicken stock.

My cooking days are usually Sunday and Wednesday. I get a fresh produce delivery every Wednesday, so I am inspired. Here, I am going to outline several menus so that you can try. I like to make some sort of beans or lentils for protein as well so we don’t eat meat every meal. Another great tip is to freeze some of your dishes so you can pull them out in the weeks to come and just mix with fresh steamed veggies or salads.

Today, I am going prepare:
• Whole roasted chicken
• Boiled baby Yukon gold potatoes
• Green Jade rice
• Roasted Delecata squash
• Roasted yams
• Yellow lentil soup*
• Yellow lentils
• Sautéed Brussels sprouts*

Dinner Day 1:
• Chicken
• Mashed potatoes (I will only use half of the Yukon Gold I boiled)
• Butter lettuce salad
• Brussels sprouts

Lunch Day 2:
• Shredded kale with chopped roasted yams
• Chopped fresh veggies drizzled with a tahini dressing
• Yellow lentils with brown rice or over diced potatoes

Dinner Day 2:
• Yellow lentil soup
• Arugula salad with roasted Delecata squash

Lunch Day 3:
• Yellow lentils with two fried eggs
• Green salad

Dinner Day 3:
• Grilled fish or chicken
• Left over jade rice with fried veggies
• Steamed bok choy

Lunch Day 4:
• Remaining green soup
• Chicken salad with left over chicken
• Kimchi potato salad*

Hopefully, you are getting the idea of how to mix and match all these dishes substituting with fresh side dishes or proteins to make your meals fast and easy. I find if I have to cook meals from scratch twice a day, I end up not eating as healthy and fulfilling. Now, go enjoy your yummy food!

* See page 48 for recipes
The more you exercise, the more free radicals your body produces. Excess free radicals can easily overwhelm your body’s natural antioxidant defense systems, wreaking havoc on your performance and your health.

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**Sautéed Brussels Sprouts**

**Ingredients:**
- 2 lbs Brussels sprouts
- ½ cup slivered almonds
- ½ cup avocado oil
- ½ cup dried cherries

**Preparation:** In a heavy skillet (cast iron or enameled skillet is what I like to use), heat oil hot and put in washed sprouts. Let brown on each side so they get sort of crispy. Once they seem bright green with some caramelized sides, add cherries and almonds. Stir for a couple minutes so they get nice and hot. Remove from the flames and add balsamic glaze.

Other variations of this can be made using different fruits or nuts. Garlic and mushrooms can also be used instead of nuts and fruit for a more savory version.

**Yellow Lentil Soup**

**Ingredients:**
- 2 cups lentils
- 10 cups water
- 2 Rapunzel veggie broth cubes
- 2 Tbs avocado oil
- 1 large chopped onion
- 2 cloves minced garlic
- 2 Tbs chopped parsley
- 2 Tbs chopped cilantro
- 1 cup minced tomato
- ½ tsp turmeric dry powder
- ½ tsp whole cumin seeds
- ½ tsp whole coriander seeds
- ¼ tsp cayenne (optional)

**Preparation:** Inspect dry lentils to remove dirt or debris. Then put in 10 cups water and let soak 2-5 hours. (I often put them in to soak when I go to bed) Bring lentils and water to a boil and reduce to medium/low heat. Cook until lentils are tender and then add broth cubes. Remove from fire. In a separate skillet, heat oil and add onions and let cook a few minutes. When they start to brown, add tomatoes, garlic, and spices. Simmer to “temper spices” and bring out their flavor. Add this mix to lentils and add fresh herbs and salt to taste.

**Kimchi Potato Salad**

**Ingredients:**
- 2 lbs cubed cooked Yukon gold potatoes, cooled
- ¾ cup chopped kimchi
- ½ cup mayonnaise or veganaise

**Preparation:** Mix all ingredients together in a large bowl. Serve cold. Enjoy with a sandwich or grilled chicken.
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Brew to your health

Drinking coffee every day could help prevent dementia

According to a study published in The Journals of Gerontology, older women who drink two to three cups of coffee daily may be at lower risk of dementia and other forms of cognitive impairment.

The study, funded by the National Heart, Lung, and Blood Institute, was called the Women’s Health Initiative Memory Study (WHIMS). It looked at caffeine consumption of 6,500 women aged between 65 and 80. After ten years of follow up, research showed that participants who consumed more than 261 milligrams of caffeine a day (roughly two cups of coffee or 5 cups of tea) had a 36 percent lower chance of getting dementia.

“What is unique about this study is that we had an unprecedented opportunity to examine the relationships between caffeine intake and dementia incidence in a large and well-defined, prospectively studied cohort of women,” said lead author Ms. Ira Driscoll, a professor of psychiatry at the University of Wisconsin-Milwaukee.

“While we can't make a direct link between higher caffeine consumption and lower incidence of cognitive impairment and dementia, with further study, we can better quantify its relationship with cognitive health outcomes,” Driscoll said.

The research is not entirely conclusive and Ms. Driscoll added that further work could go a long way.

Research on this topic will be beneficial from a preventative standpoint and to help understand the underlying mechanisms and their involvement in dementia and cognitive impairment. With an aging population, there are predictions the number of people with dementia could quadruple in the next 35 years, the study claimed.
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Your Thyroid—its vital plea to avoid sugar

BY KIRSTIN LAURITZEN, DC

Inflammation — it gets a bad rap. Inflammation is a normal process the body uses in order to heal. However, constant inflammation, which is caused by sugar in the diet, stress and other factors like heavy metal toxins, encourages illness and disease. Athletes and non-athletes often do not recognize that high inflammation may be causing their joint pain, brain fog or digestion issues. In addition, there are a few organs that are affected by inflammation that are commonly overlooked, but are essential for maintaining good health.

So, let’s talk about the thyroid. Your thyroid is part of a group called the HPT axis. It links the hypothalamus (in the brain), the pituitary (a gland that produces and releases hormones in the brain), and the thyroid. The thyroid receives messages from the brain and produces two hormones, T3 (tri-iodothyronine) and T4 (thyroxine), that are then released into the body. These hormones are responsible for many processes that influence the metabolism in your cells by stimulating the mitochondria, your body’s energy system.

Sugar is consumed almost every day and it is eight times more addicting than cocaine. Sugar increases inflammatory products in the blood, which can disrupt these hormones and stunt the communication of the HPT axis. Increased inflammation means a decreased immune system, decreased recovery, healing, and an increased chance of getting sick and being unable to train. Although sugar gives you temporary fuel, it has a negative lasting effect on many organs, especially the thyroid.

Inflammation ultimately slows down your body. Both children and adults are having difficulty losing weight. If you are not producing healthy hormone levels for cells to increase their metabolism, then no matter how well you eat or how much exercise and sleep you get, the process of losing weight and increasing your daily energy will be a far greater challenge. Boosting the metabolism is common for weight loss products, but they do not fix the problem: the hormone imbalance.

Low thyroid symptoms can range from low energy (fatigue) to brain fog, cold extremities, poor wound healing, increased cholesterol, cramps, joint pain, depression, and unhealthy aging. Eating more sugar will only bring long-term fatigue.

Many apparently “healthy” adults show symptoms of low thyroid function, but are not deficient enough for it to show up on a blood test. If something larger is going on in the body, let’s say from chronic inflammation due to increased and constant sugar intake, then you may be unknowingly straining your thyroid.

Though some common thyroid treatments do work, in many cases, in order to fix the thyroid, you have to fix the body. Most often, the inflammation and sugar intake is affecting the pancreas, the adrenals, the gut and other organs, which in turn are also affecting the thyroid. Tackling the source of the larger issue by changing your diet and lifestyle through foods and high quality supplements that support a healthy body, thyroid, and immune system (avoiding sugar at all costs), just might save your thyroid and your health.

Learn more about the thyroid and other nutrition information at www.discoverfunctionalnutrition.com
"I usually skip the free sugary drinks during the races and grab the water because of the terrible aftertaste I would get drinking the other major brand name sports drinks. After trying Endurolytes FIZZ®, I will never drink anything else. It does not leave a bad aftertaste and just sweet enough."

Endurolytes Fizz is a convenient, refreshing way to replenish electrolytes for those who do not want to take capsules. Our new and improved formula doesn’t leave a white residue, is 100% gluten-free and has brighter and bolder flavors.
Mitochondrial Health

Mitochondrial dysfunction is the root cause of many diseases that are bewildering in their variety and complexity. They include rare genetic disorders in children, some forms of heart disease, and most likely, many cases of Parkinson’s disease. A 2017 study at the University of Helsinki shines more light on the subject.

The health of your mitochondria, your cells’ energy-producing “furnaces,” is arguably one of the most important keys to achieving your best potential athletic performance. Even those athletes who understand the importance of proper fueling often fail to realize the key role of mitochondria in athletic performance and overall health. As the mitochondria age, deteriorate, and/or become dysfunctional, athletic performance declines and the risk for age-related diseases, such as cancer, increases.

As Bill Misner, Ph.D., summarizes, “The longer you can stimulate the lifespan or health of the mitochondria, the longer you will live and the better you will perform in endurance events. The athlete who has the most healthy/efficient mitochondria is the athlete who performs at their best.”

Research: Magnesium and Colorectal Cancer

In 2016, nearly 135,000 diagnoses of colorectal cancer are expected, with an estimated 50,000 deaths occurring. A study in Japan involving over 40,000 men found that those who had the highest intake of magnesium 50% reduced risk of contracting colon cancer. Certainly, magnesium should be looked to as a powerful weapon against this disease.

Another study from the Netherlands showed a 19% reduction in colorectal adenomas (precursors to colon tumors) for every additional 100 mg increase in magnesium intake. The researchers also noted that each additional intake of 100 mg of magnesium corresponded with a 12% reduction in colorectal cancer risk.

Unfortunately, nearly 75% of Americans are deficient in magnesium. While it’s available in certain food such as nuts and seeds, supplementation with magnesium is an easy way for you to guarantee sufficient amounts. As is the case with both pancreatic and colorectal cancer, only a modest increase in magnesium imparts significant cancer risk reductions.

With five different sources of highly bioavailable magnesium in easy-to-take capsules, Essential Mg is the ideal way to ensure that you’re receiving enough of this essential-for-life mineral. Get yours today!
# Make Your Workout Count

Hammer athlete Steven Terry fueled exclusively with Hammer during the 10 Hour Dawn To Dusk Arizona Race. Photo: Action Media

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Every year, the Marine Corps’ Athlete of the Year is awarded to one male and one female active duty Marine. Marines who have excelled in varsity, All-Marine, national and international completions are eligible to be nominated for the award. Winners are chosen based on their athletics skills and how well they embody Marine Corps values.

In 2016, Hammer Sponsored Athlete Colonel Stephen Armes received this prestigious award. Armes was honored alongside 1st Lt Mollie Hebda, also from Camp Pendleton. Both were both recognized at the Commandant’s Combined Awards Ceremony held at Marine Corps Base Quantico, Virginia on February 8, 2017.

“There are three very important traits that separate a good athlete from a champion: dedication, passion and perspective, ” says long time friend Brian Walton. “Steve lives and breathes these traits on a daily basis. Whether it’s running Marines half his age into the ground, keeping up with his kids at the track, in the pool or simply pushing himself within a daily workout. A few years ago, Steve’s doctor told him that he would not be able to compete in running anymore. His dedication and dogged determination proved the naysayers wrong. Within a year, he was competing for the USMC at CISM. His passion and perspective to stay strong when Marines were in much worse places at the moment is what truly makes him a champion.”

Armes started running in 1997 and has been doing so ever since. Stephen struggled to find a nutritional product that didn’t tear up his stomach during competition. But when he tried Hammer Gels he said they were perfect. In 2006, Stephen became a Sponsored Athlete with Hammer. His wife and two boys are runners and triathletes and it is their only source of fuel in training, competition, and recovery.

Armes has represented the All-Marine National Team at numerous races in the US and Japan, the US & Canada Armed Forces Triathlon Championships, and at the world level where the team earned a bronze medal. What started out as a way to be active and spend time outdoors with his family has developed into a way of life.

“Our family is a very active family and my husband Stephen, leads us by example. He has taught our son and myself, that hard work, determination, focus and setting goals is more than winning,” says his wife Karla Armes. “Despite being a United States Marine for over 24 years, Stephen has found a way to commit himself to excelling in all he sets out to do, while keeping it fun. Both Stephen and I now coach athletes that it is a lifestyle, not just a sport. I am incredibly proud of Steve and so excited that he is being recognized by the Marine Corps.”

Hammer Nutrition is proud of him as well. Hammer on!
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“At first I was skeptical that Clear Day would work. I have been using OTC products for years due to allergies. After the first day, using up to four capsules, I could tell there was a difference. Highly recommend.”

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Trans Andes Challenge

By Loren Mason-Gere

Like any good adventure, it started as a harmless conversation. “Trans Andes Challenge seems like a cool stage race.” “Oh yeah, those are some insanely steep stages – you ever been to Chile?”

I’ve been through these conversations with my friend Nelson before, so I shouldn’t have been surprised that by Monday morning I’d arranged for two weeks off the coming January.

Wait... January? Of course, the first thing you realize when you decide to race in another hemisphere is that the seasons are opposite of our own. While this seemed like a minor detail when we signed up, preparing for a bike race during the height of Montana’s winter got increasingly interesting as race day approached. Nonetheless, before I knew it, we were loaded up and headed to South America for five days of steep, tough, and highly competitive racing.

The Trans Andes Challenge takes place in the Huilo Huilo Nature Preserve in the heart of the Central Andes Mountains. The surroundings are breathtaking – clear mountain lakes, steep densely forested mountains and incredible volcanic peaks typify the area. Each stage started from base camp and averaged 35-45 miles and 7-8 thousand feet of climbing. The courses were tough, rocky, steep affairs that ended with brake-pad melting descents. Nearly 500 competitors came from around the world to participate.

Each day held its own unique adventure. Though there were rough days (adapting to the heat was a unique challenge, only possible with the help of Endurolyte Extreme), and few minor mechanical issues, we considered our week a success. After what seemed like a blur, an amazing week had passed and we emerged 3rd masters team and 9th team overall. Not bad for a couple gringos coming out of the depth of winter!

Mountain bike stage races are growing in popularity around the globe. While Costa Rica’s La Ruta and South Africa’s Cape Epic make the most headlines, smaller and less commercialized events can be found on every continent. If you’re ready to get outside your comfort zone and have an epic race, take the plunge. As I learned, signing up is easy and from there it’s just holding on and enjoying the ride. As you do so, here are a few things you may want to keep in mind.

1. Accept Your Preparation. With one of the harshest winters in memory, my training was accordingly creative. While blocks of long training rides would have best prepped me for the challenge at hand, it was not possible. Instead, I resorted to specific and intense intervals on the trainer. For me, this was a response to weather, but it’s the same technique successfully used by many time-strapped athletes across the country. Maybe it’s not ideal, but it’ll do the job. Accept what you can do, and do it all out. It’ll be worth it in the end.

2. Fine Tune Your Nutrition. While I couldn’t train exactly how I wanted, nutrition is one area where we have better control. Use your training as an opportunity to figure out how to use premium fuels and supplements to maximize your gains and increase your rate of recovery. For me, this meant Fully Charged before each workout and Endurolytes and Hammer Gel during. Directly after my workouts I’d knock down my Recoverite along
continued from previous page

with Endurance Amino, Race Caps, and Super Antioxidant. A quick dose of Premium Insurance Caps with my next meal finished things off. While I was unsure how my training would play out, some races are never predictable. For multi-day events, nothing could be more important.

3. Plan Ahead. Traveling to a remote location with a bike and all your gear is a complex endeavor. Block out time (and energy) to prepare. Make time to book your flights, pack your bags, and check airline rules and procedures for oversized baggage. Have your bike prepped and packed well before your departure.

4. Don’t overthink it. With so many details to iron out and things outside your control, something will inevitably go wrong. You can minimize, but not eliminate these risks. This is the nature of adventure. Plan your best, cover your bases, then let go and enjoy the ride.

5. Learn some Lingo. Regardless of your familiarity with the local language, make sure you’ve brushed up on race-specific vocabulary. If you can’t say “on your right,” “on your left,” “passing,” “let’s go,” (or some quick understandable version of “go faster or move”) “good job” and “thank you,” in the local language, learn now. Of course, tone often matters most. If you come upon a race worker shouting and waving their hands - slow down! Though I’d forgotten that “puente” means “bridge” in Spanish, had I not responded to such a warning I would not be writing this today.

6. Go Hard. There are no easy days in mountain bike stage racing. There is no drafting, hiding, or otherwise getting around the hard work at hand. If you’re in it to enjoy the trip and complete the challenge – awesome. Start towards the back and enjoy the ride. If you hope to be competitive, show up mentally prepared to go hard every day. If you’re not racing at 100% off the line and lying in a pile in the shade at the finish, you’re doing it wrong.

7. Respond to the elements. When I left home in Montana it hadn’t been above 20 degrees in months. On race day, it was 90. My performance suffered accordingly. Luckily, I knew to increase my consumption of Endurolytes and slightly decrease my caloric intake (digestion slows when the body is over-heated).

8. It’s all about Recovery. This is how you win. Your result will depend on your ability to crush it, recover, and do it again. After each stage, recovering must be your highest priority. If you aren’t armed with Hammer Nutrition’s arsenal of recovery aids, you owe it to yourself to call for a consultation today. I cannot imagine completing an event this grueling without the aid of Recoverite, a high quality supplementation plan, and the use of my beloved EMS machine.

9. Make some friends. The people surrounding you aren’t just competition. They are amazing and unique individuals from across the globe. Enjoy the opportunity to share your love of riding with people from around the world.

10. Enjoy the Ride. Anything can happen in a race this long and hard. If luck isn’t on your side, respond your best and keep smiling. These are amazing opportunities for stretching ourselves, meeting people, and making memories. Life is more than race results.
Brazil Ultra Running
Kelly Agnew tackles the tough Brazil 135

Tackling the Brazil 135 is an ambitious goal, with 30,000 feet of climbing in oppressive heat and humidity and no aid stations along the course. Running 130 miles to get to the start line, running the Brazil 135, then running another 82 miles after the race to complete the entire 347 mile Caminho da Fe, goes way beyond ambitious. Kelly Agnew and his friend Chris Roman did exactly that.

The Caminho da Fe is a religious pilgrimage trail that starts in Soa Carlos, Brazil, and ends inside the Shrine of Our Lady of Aparecida. The route is intended to inspire suffering and sacrifice as religious pilgrims migrate to Aparecida to pay their respects in the Basilica.

Agnew and Roman set out on a three day run to cover the 130 miles to the start line of the BR135. Daily temperatures were over 100 degrees and the humidity was at 95%. A small crew that carried their nutritional needs and extra running gear in 4x4 crew vehicle met them along the route every 5 kilometers, fearful the runners might suffer dehydration if they stretched much further than that. Fueling on Hammer Gel, HEED, Perpetuem, and Hammer Endurolytes, they covered the 130 miles right on schedule and lined up to compete in the BR135.

Tackling the Brazil 135 is an ambitious goal, with 30,000 feet of climbing in oppressive heat and humidity and no aid stations along the course. Running 130 miles to get to the start line, running the Brazil 135, then running another 82 miles after the race to complete the entire 347 mile Caminho da Fe, goes way beyond ambitious. Kelly Agnew and his friend Chris Roman did exactly that.

There was no shortage of suffering and sacrifice to found along the way.

Kelly and Chris pushed their bodies hard through those miles, sticking with a strict fueling regimen, fighting off exhaustion and total physical depletion. The course is mountainous and relentless, and they already had pushed their bodies to the extreme before the race even started.

Together, they crossed the finish line in Parisopolis, finishing in 6th place overall and 1st place International Runners, a result much better than anticipated and a true accomplishment.

After sleeping for two hours, they were immediately back on the trail, heading for Aparecida. The last 82 miles were covered over two days. The first day, they continued through the mountains and on the final day, they dropped into the farm valleys below to finish the final 50 kilometers.

“I knew the South American heat would be a challenge,” said Agnew. “But one thing I didn’t need to worry about was my nutrition. I was even able to share a Hammer Bar with my interpreter and he loved it.”

The running team continued the fuel strategy that had been so successful and entered Aparecida right on schedule. A once in a lifetime adventure was realized.

Kelly Agnew and Chris Roman ran over 300 miles sticking with a strict fueling regimen. Photo: Courtesy Kelly Agnew
The Old Navy Rugby team, made up of members of the Chilean Navy, during their participation in the Seven A Side championship in Reñaca, Chile. They played against top world teams from Argentina, New Zealand, South Africa, Fiji, among others. Sponsored by Hammer Nutrition Chile, they use HEED and Hammer Recovery Bars. Captain José Iturrieta highlights the positive effects that Hammer Nutrition products have had on recovery after demanding workouts and matches. Photo: Courtesy Hammer Nutrition Chile

Hammer Athlete Kamil Lesniak traveled to Czantoria Wielka, a mountain on the border of Poland and the Czech Republic to compete in the Eliminator. He finished 3rd overall at this famously grueling race, part of the League Racing Mountain Dare2B festival. Photo: Andrzej Olszanowski

Peter Boronkay is a multisport athlete from Kecskemét, Hungary. Last summer, he won the paralimpic gold medal on the 5i50 race in Budapest. In September, he placed 9th in Paratriathlon at the 2016 Summer Paralympics in Rio. In November, he won the ITU Cross Triathlon World Championships in Australia too. Then in December, Boronkay was named a Sport Athlete of the Year. He also volunteers with the Champions Way Foundation, a non-profit dedicated to supporting future champions with the realization of their dreams and promoting the spread of health-conscious lifestyle of everyday life. Here he is at a training camp in Spain. Photo: Delly Carr/ITU Media courtesy Istvan Csutka

Hammer Athlete Fabs Corona at her first race of the year, the Ultra Marathon MTB Sierra Gorda, Queetaro. The course is 105km with almost 3,000 of ascent on top of the heat, sand, rocks, and river crossings. Fueled with Anti-Fatigue Caps, Hammer Gels, and Hammer Bars, she is triaing for the Cape Epic in 2017. She has been racing since 2000, including winning a gold medal at the Centromarican Games in 2006. Her signature drink is her “cosmofabs,” a combo of Perpetuem and Fizz. You can follow her journey at her blog: http://www.fabiolacorona.com.mx Photo: Courtesy Fabs Corona
# The 10 **BEST** and **WORST** Foods for Health and Longevity

BY DR. JOEL FUHRMAN

<table>
<thead>
<tr>
<th><strong>10 BEST</strong></th>
<th><strong>10 WORST</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Leafy Vegetables</strong></td>
<td><strong>Smoked, BBQ, or Conventionally Raised Red Meat</strong></td>
</tr>
<tr>
<td>Leafy greens pack a micronutrient punch. This category includes dark</td>
<td>Contains cancer-promoting hormones and increases production of cancer-promoting</td>
</tr>
<tr>
<td>lettuces, kale, collard greens, arugula, and watercress.</td>
<td>hormones in humans. Cooking process produces carcinogens.</td>
</tr>
<tr>
<td><strong>Cruciferous Vegetables</strong></td>
<td><strong>Commercial Baked Goods</strong></td>
</tr>
<tr>
<td>Broccoli, cauliflower, Brussels sprouts, and radishes contain</td>
<td>Refined carbohydrates made from white flour, sugar, and oils are linked to</td>
</tr>
<tr>
<td>phytochemicals that modify hormones, detoxify compounds, and prevent</td>
<td>depression as well as dementia. Avoid margarines, shortening, and fast</td>
</tr>
<tr>
<td>toxins from damaging DNA.</td>
<td>foods, which also may contain trans fats.</td>
</tr>
<tr>
<td><strong>Berries</strong></td>
<td><strong>Butter</strong></td>
</tr>
<tr>
<td>Berries support heart health, improve blood glucose levels, and reduce</td>
<td>Butter is linked to higher cholesterol, higher rates of heart disease deaths,</td>
</tr>
<tr>
<td>inflammation. Enjoy all berries including blueberries, raspberries,</td>
<td>and higher rates of invasive cancer, such as breast cancer.</td>
</tr>
<tr>
<td>strawberries, and blackberries.</td>
<td></td>
</tr>
<tr>
<td><strong>Beans</strong></td>
<td><strong>Pancakes and Donuts</strong></td>
</tr>
<tr>
<td>Satisfying and versatile, beans and legumes contain high levels of</td>
<td>They are high in white flour, sweeteners, and oil (a triad of danger) and</td>
</tr>
<tr>
<td>soluble and insoluble fiber and resistant starch.</td>
<td>then fried – all of which magnifies your risk of heart disease and cancer.</td>
</tr>
<tr>
<td><strong>Mushrooms</strong></td>
<td><strong>Soda</strong></td>
</tr>
<tr>
<td>White button, Portabello, shiitake, oyster and other varieties protect</td>
<td>The phosphoric acid in colas may cause calcium loss. Artificial sweeteners</td>
</tr>
<tr>
<td>against respiratory infections and breast cancer.</td>
<td>in diet sodas disrupt the body’s connection between taste and nourishment.</td>
</tr>
<tr>
<td><strong>Onions</strong></td>
<td><strong>Fried Foods</strong></td>
</tr>
<tr>
<td>Onions, leeks, scallions and garlic supply anti-cancer,</td>
<td>Fried foods form acrylamides and other dangerous inflammation-promoting</td>
</tr>
<tr>
<td>anti-inflammatory, and antioxidant compounds.</td>
<td>compounds as they cook, which can cause genetic mutations and increase</td>
</tr>
<tr>
<td><strong>Nuts</strong></td>
<td>the risk of cancer.</td>
</tr>
<tr>
<td>Walnuts, pistachios, pine nuts and almonds are rich in sterols, stanols,</td>
<td><strong>Highly Salted Foods</strong></td>
</tr>
<tr>
<td>fiber, minerals, and other health-promoting nutrients and protect against</td>
<td>Excess sodium is linked to high blood pressure, strokes, heart enlargement,</td>
</tr>
<tr>
<td>heart disease.</td>
<td>and heart attacks, autoimmune disease, kidney disease, and stomach cancer.</td>
</tr>
<tr>
<td><strong>Seeds</strong></td>
<td><strong>Hot Dogs and Luncheon Meats</strong></td>
</tr>
<tr>
<td>Seeds provide the advantages of nuts and provide omega-3 fats (flax, chia,</td>
<td>These processed meat scraps with chemical preservatives and coloring agents</td>
</tr>
<tr>
<td>hemp) and anti-cancer lignans (flax, chia, sesame).</td>
<td>are linked to early death and childhood cancer when consumed during childhood</td>
</tr>
<tr>
<td><strong>Tomatoes</strong></td>
<td>or by parents before conception.</td>
</tr>
<tr>
<td>Tomatoes have strong antioxidant and anti-inflammatory properties that</td>
<td><strong>White Sugar and Calorically-Dense Sweeteners</strong></td>
</tr>
<tr>
<td>help to protect against cancer and disease.</td>
<td>All caloric sweeteners have effects that promote weight gain, heart disease,</td>
</tr>
<tr>
<td><strong>Pomegranates and Cherries</strong></td>
<td>and diabetes. This includes maple syrup, honey, and agave. Concentrated</td>
</tr>
<tr>
<td>These fruits protect against heart disease, cancer, cognitive impairment,</td>
<td>sweeteners are linked to cancer.</td>
</tr>
<tr>
<td>and reduce oxidative stress.</td>
<td><strong>Sweetened Dairy Products</strong></td>
</tr>
<tr>
<td></td>
<td>Ice cream, low-fat ice cream, and frozen yogurt are high in dairy protein</td>
</tr>
<tr>
<td></td>
<td>and concentrated sweetening agents. They are linked to elevations in</td>
</tr>
<tr>
<td></td>
<td>growth-promoting hormones and certain cancers.</td>
</tr>
</tbody>
</table>
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Our client advisors are the best in the business! Call today and we will walk you through selecting the exact products to meet your needs.

★★★★★
Our Customers Say It Best
“Great products, amazing service, and as always, Hammer Nutrition’s fueling advice was ‘spot-on.’”

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www.hammernutrition.com
Fish and New Dietary Guidelines

BY JESSICA EVANS

“It’s all about eating and enjoying fish of the right kind and in the right amounts.” Elizabeth Southerland, Ph.D.

In January, the U.S. Food and Drug Administration and the U.S. Environmental Protection Agency issued final advice regarding fish consumption. This advice is geared toward helping women who are pregnant or may become pregnant. It also applies to breastfeeding mothers and parents of young children.

An FDA analysis of fish consumption data found that 50 percent of pregnant women surveyed ate fewer than 2 ounces a week, far less than the amount recommended. Because the nutritional benefits of eating fish are important for growth and development during pregnancy and early childhood, the agencies are advising and promoting a minimum level of fish consumption for these groups. The advice recommends 2-3 servings of lower-mercury fish per week, or 8 to 12 ounces.

To help consumers easily understand the types of fish to select, the agencies have created an easy-to-use reference chart that sorts 62 types of fish into three categories:

- Best choices (eat two-three servings a week)
- Good choices (eat one serving a week)
- Fish to avoid

Fish in the “best choices” category make up nearly 90 percent of fish eaten in the United States. Choices lower in mercury include some of the most commonly eaten fish, such as shrimp, pollock, salmon, canned light tuna, tilapia, catfish and cod. However, all fish contain at least traces of mercury, which can be harmful to the brain and nervous system if a person is exposed to too much of it over time.

When updating the advice, the agencies took a cautious and highly protective approach to allow consumers to enjoy the benefits of fish while avoiding those with higher levels of mercury, which is especially important during pregnancy and early childhood. The advice took into account more than 220 comments received from academia, industry, nongovernmental organizations, and consumers, as well, and an external peer review.

It identified seven types of fish that typically have higher mercury levels: tilefish from the Gulf of Mexico, shark, swordfish, orange roughy, bigeye tuna, marlin, and king mackerel.

“It’s all about eating and enjoying fish of the right kind and in the right amounts,” said EPA Director for Water Science and Technology, Elizabeth Southerland, Ph.D. “This joint advice not only provides information for fish consumers who buy from local markets, but it also contains good information for people who catch their own fish or are provided fish caught by friends or relatives.”

To ensure that you and your family get optimal amounts of healthy omega-3’s, turn to Hammer Nutrition’s EndurOmega. EndurOmega is derived from molecularly distilled and deodorized Atlantic menhaden and is regularly tested via third-party, independent laboratories for potency and purity. With so many positive properties of fish oil, adding this to your diet is not only good for your general health, but essential for you to reach peak performance as well.
Every Day Essential

We all need more omega-3s in our diet and fish is the ideal source. But consuming sufficient amounts of high-quality fish on a regular basis can be difficult and expensive. That's why adding EndurOmega to your daily supplement regimen is more than just a good idea—it's essential!

- Protects cardiovascular health
- Supports healthy joints
- Enhances brain function
- Stabilizes mood

180 Softgels
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ORDER TODAY! Use Promo Code EN104HG

Get two FREE new formula Apple Cinnamon and Tropical Hammer Gel singles, value $2.80
Limit one per customer, while supplies last / Expires 6.9.17

hammernutrition.com 800.336.1977
Hammer Asia Sponsored Athlete Wong Ho Chung earned 1st Place at one of the most difficult 100km races in what has become the world’s leading trail running city.

The Garmin 100 consists of four separate highly technical trails rarely given permits to race on. The course officially comes in at 104km with 6,376m of elevation gain. With virtually no soft surface trail in Hong Kong, it is simply a brutal course to complete. Following 70% of the already extremely challenging The North Face Hong Kong 100 race course, at one point, the sold out 100km category of 400 racers already had a 50% DNF rate with still many hours left to the cut off.

Chung ran a smart and smooth race from the beginning and built a lead over British breakout elite trail runner Tom Robertshaw, the top runner of the HK Salomon team. Luckily, Chung was never pressed too hard allowing him not to risk a recently recovered ankle injury and ITB issue.

The weather was surprisingly hot for February and at one point, after lying in a stream to cool down, Chung’s ITB seized up. Fortunately, there was no pain going uphill and he could manage going downhill without going too fast, using quick stops to massage.

Chung finished in 14:33 with a 40 minute lead, ending near the summit of Tai Mo Shan, Hong Kong’s highest peak.

The North Face Adventure Team consists of a small group of Asia Pacific endurance sport champions based in Hong Kong, Mainland China, Malaysia, Thailand, and Philippines. Team members strive to live out their passion for adventure, travel and international competition, while helping to promote the value and protection of Asia’s spectacular outdoor areas.

Follow Chung and other team members as they strive for more in 2017.
**Hammer Masters National Team Wins Chico Stage Race**

The Chico Stage Race has become one of America’s premier pro/amateur races.

With 4 stages including Thunderhill Raceway and a 90 mile road race with two 4-mile intense gravel sections, this race is often on a cyclists radar. This year Dan Shore and Hunter Ziesing (4th over all) took 1st and 2nd in the road race. Dan also won the Thunderhill race and even lapped the field in the downtown Chico Criterium. Hammer’s Masters National Team’s Cale Reeder also took 3rd in the masters category age 45+.

**White Dumpster**

White Dumpster fuels in the backcountry of the Pacific Northwest. Here, Kyle Haugen enjoys a Hammer Bar during a 6-hr ride with his team mates Tory Baughan, Travis Berro, and Zac Andrews. On average, this team covers 50 miles of terrain a day. “When you are 20 miles into the wilderness, there is no substitute for proper fueling,” he says.

With the first event of the season a little ways away, training has started for Eddie Kraft of WKR. Once the weather breaks, he’ll be out on the single trails as much as possible, along with riding a dirt bike on dirt track. The team is preparing for their next event at Grattan Raceway in Belding, Michigan, on May 5-7, riding a Yamaha YZF-R1. Kraft fuels with Fully Charged, HEED, and Anti-Fatigue Caps during races.

**Witchkraft Racing**

Montana snowmobiling team White Dumpster fuels in the backcountry of the Pacific Northwest. Here, Kyle Haugen enjoys a Hammer Bar during a 6-hr ride with his team mates Tory Baughan, Travis Berro, and Zac Andrews. On average, this team covers 50 miles of terrain a day. “When you are 20 miles into the wilderness, there is no substitute for proper fueling,” he says.

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**Jodie Ramey racing her way to a first place finish in Master Women Cat 1. Photo: woodenvillebicycle**

Jodie Ramey racing her way to a first place finish in Master Women Cat 1. Photo: woodenvillebicycle

West Side Mountain Bike Series is the leading mountain bike race series in the greater Seattle area. Within the first three races, Hagens Berman EY Society has already secured seven race wins! Congratulations to Jodie Ramey, Kenda Super, Kent Hu, and Tomas McIntosh.

**Top of the podium, Kent Hu takes the win in Cat 2 Single Speed Men. Photo: Courtesy Hagens Berman Society**

Top of the podium, Kent Hu takes the win in Cat 2 Single Speed Men. Photo: Courtesy Hagens Berman Society
WE SUPPORT: YOUR SPORT

Whatever your sport, you’ll find plenty of challenging Hammer Nutrition-sponsored events to choose from this spring. We’ve already got more than 120 events on our calendar for the upcoming months — covering pretty much everything associated with endurance — and more requests for sponsorship support are pouring in daily. Here’s just a sampling of the exciting spring events that we are honored to support:

SWIMROUND LIDO KEY (OPEN WATER SWIM)
SARASOTA, FL
This is a 7-mile open water swim race around the beautiful island of Lido Key. Swimmers can enter as a solo swimmer, 2-person relay, or 3-person relay.
www.swimwithoutlimits.com
APRIL 22, 2017

RAGE TRIATHLON
BOULDER CITY, NV
The 15th annual Rage Triathlon will take place at Lake Mead. Hundreds of athletes will gather at Boulder Beach to compete in one of the most talked about triathlons in southern Nevada.
www.bbsctri.com/rage
APRIL 22, 2017

HUNGRY MOTHER (ULTRA RUN)
MARRIOT, VA
This 50K is two laps of a 15.6 mile course with approximately 3,500 feet elevation gain per lap. The park consists of some well-groomed and more technical trail sections.
APRIL 22, 2017

EXPLORING SAND HILL (EQUESTRIAN ENDURANCE EVENT)
HUTCHINSON, KS
Sand Hills State park, a 1,123 acre natural area, has been preserved for its sand dunes, grasslands, wetlands and woodlands. It’s a rolling sand prairie with well-maintained trails suitable for barefoot horses.
APRIL 22, 2017

COHUTTA 100M (MOUNTAIN BIKE)
COPPERHILL, TN
Racers are challenged by over 12,000 ft of elevation gain through extreme single track and demanding fire roads.
roostracingllc.com
APRIL 29, 2017

BLACK FORK GRAVEL GRINDER (ROAD CYCLE)
GLENNMONT, OH
This must do gravel road event spans some of the most scenic, grueling, and diverse gravel roads in Ohio.
blackforkgravelgrinder.com
APRIL 29, 2017

THE WILD HORSE (MOUNTAIN BIKE)
SALT LAKE CITY, UT
The Wild Horse course will travel around and over the Cedar Mountain Wilderness with zero miles of pavement. All dirt and gravel roads. You will cover 76 miles and climb 5,000 feet.
RideWildHorse.com
MAY 6, 2017

BIG 6 SHAMROCKS (MOTOCROSS)
PRIMM, NV
Round 5 of the District 37 AMA MSR Big6 Grand Prix Series hosted by the Sunland Shamrocks MC at Buffalo Bills Resort & Casino “State Line” Primm, NV.
www.big6racing.com
MAY 6, 2017

ICE AGE 50 (ULTRA RUN)
WHITEWATER, WI
The terrain consists of mostly single track dirt and rocky and tree rooted trails that runs through pinewoods, hardwood forests, and rolling prairie lands.
www.iceagetrail50.com
MAY 13, 2017
Continued From Previous Page

KANSAS CITY TRIATHLON
KANSAS CITY, MO
This is a fast course that travels through the scenic terrain of Jackson County, Missouri. The event will feature a duathlon, sprint, Olympic elite and Olympic relay race options.
http://ultramaxsports.com/races/kctri/
MAY 14, 2017

CACTUS TO CLOUD (ULTRA RUN)
CLOUDCROFT, NM
The course will take you from the scrubland of the Chihuahua desert, through juniper-piñon red clay, and into the forest and clouds. Enjoy epic climbs, stellar views, small town charm, and single track bliss at the first and only mountain race in Southern New Mexico!
https://cactustocloud.wordpress.com/
MAY 15, 2017

THE GRITTY (PADDLE SPORT)
LAWRENCE, KS
Bare sandbars you could camp on a few years ago are now forests of cottonwoods. Cornfields that used to line cut banks are now part of the river, and deep channels that you used to count on for easy passage have swapped places with gravel riffles that grab your boat and make you doubt your memory.
www.midwestpaddleracing.com
MAY 20, 2017

ST. LOUIS TRIATHLON
MARYLAND HEIGHTS, MO
Taking place at the scenic and local favorite, Creve Coeur Park, the St. Louis Triathlon is ideal for both veterans and those new to the multisport experience.
www.stlouistriathlon.com
MAY 21, 2017

VETERANS MEMORIAL
150 HONOR RUN (ULTRA RUN)
LUDINGTON, MI
This event will be a 150-mile run across the state of Michigan over Memorial Weekend 2017. The run will start on the beach at Lake Michigan in Ludington and end at the Saginaw Bay in Bay City.
www.vm150.com
MAY 27, 2017

ROCKIN CHOCOLOCCO 50K
(ULTRA RUN)
SYLACAUGA, AL
This race has beautiful terrain consisting of lovely rolling hills and exquisite lake views around many turns. The trail runs parallel along a sparkling creek which ensures plenty of small creek crossings throughout the course.
www.pinhottrailseries.com
MAY 27, 2017

MEMORIAL DAY MAYHEM @
BLACK DIAMOND (OCR)
COLUMBUS, OH
The time trial format with more than 30 obstacles allows you to race the clock rather than the people in your wave. You will get wet and muddy and you’ll have a great time doing it.
runsignup.com/Race/Ohio/Columbus/BlackFridayBlackDiamond
MAY 29, 2017

FLEET FEET AQUATHON SERIES
MADISON, WI
The Fleet Feet Aquathon series is compromised of five events held at Warner Park beach. Perfect for mid-week training with the bonus of chip timing and series prizes for the top finishers!
www.madisonaquathon.com/event-info
MAY 25, JUNE 8, JULY 6, JULY 20 & AUGUST 10, 2017

APPLE CENTURY (ROAD RACE)
WENATCHEE, WA
Your registration fees help fund scholarships, hunger & disaster relief, Polio eradication, international student exchange programs and dozens of community projects.
www.wenatcheesunriserotary.org/apple-century-bike-ride-home
JUNE, 3, 2017

MOHICAN MOUNTAIN BIKE RACE
LOUDONVILLE, OH
The Mohican 100 features both a 100 mile and a 100 kilometer option with five fully stocked aid stations plus self-serve water stops.
www.mohican.net
JUNE 3, 2017

BLANKET CREEK 6 HOUR MTB
(MOUNTAIN BIKE RACE)
CANTON, GA
The race course will be approximately 8.3 miles and include a portion of Van Michael Trail (VMT Race Cut, including the “420 Climb”) and the entire Dwelling Loop. None of the South Loop will be used in the 2017 event. We have shortened the laps to allow racers to complete more laps of the course in the 6-hour time limit.
mountainpassadventures.com/blankets6hour
JUNE 3, 2017

LAKE MILLS TRIATHLON
LAKE MILLS, WI
This sprint distance race includes a 400M swim, 16 mile bike ride and a 5K run. It is a wonderful introductory event for beginner racers and the flat, fast course provides a competitive atmosphere for experienced racers as well.
http://www.lakemilstri.com
JUNE 4, 2017
This February, Ben Lustgarten, a Hammer Sponsored Athlete from Burlington, Vermont, represented America on the US Ski Team at the FIS Nordic World Ski Championships.

To attend this prestigious event, Lustgarten had to first earn a spot on the team. He did so in January after earning his first National Title at the 2017 US Cross Country Nationals in Soldier Hollow, Utah. There, he won first place in the men’s 30km classic mass start race. This was his third event of the National Championships and was after racing a 15km skate, where he finished 17th (13th American), and a classic sprint event where he qualified 10th (5th American), he moved past quarterfinals for the first time, and finished 10 overall (5th American).

When the U.S. Ski and Snowboard Association named the 17 athletes who would go on to compete in the International Ski Federation’s 2017 Nordic World Ski Championships in Lahti, Finland, five of the skiers were from Vermont. With the exception of Lustgarten, these athletes have all competed at World Cup Championship and Olympic levels. Lustgarten is also the youngest athlete in the group to earn a spot on the team.

A Hammer Sponsored athlete, he credits his fueling and nutrition to give him such an advantage. “As an endurance athlete, I spend hundreds of hours with hard physical training to be as strong and prepared as I can be for my competitions. In order to maximize the effectiveness of each workout, I try to fuel my body with exactly what it needs in order to both feel as good as possible during the workout, minimize body break down, and speed up recovery for my next workout. Hammer fuels and recovery supplements simply work. I use them every day because I feel a real difference when I use them. I also really like that they have no simple sugars, are all natural, and not full of artificial colors, flavors, sweeteners, etc. My energy feels stable, and my recovery time is shortened using Hammer Nutrition. I have developed a solid routine for standard training as well as race prep that works well for me.”

A member of the Craftsbury Green Racing Project in addition to competing at the World Ski Championships, he also qualified to represent Team USA for two World Cup races. Those races are in Norway and Estonia.

In order for skiers in the US to qualify for the World Cup, they must be a period leader by points on the US SuperTour list (there are four periods per racing year). With Lustgarten’s consistent top results and US Nationals win, he secured the US SuperTour lead for Period II and Period III, which gave him starts at both the Estonian World Cup and the Norwegian World Cup races.

Lahti is a regular stop on the World Cup tour and will be holding the Championships for a record seventh time, with the first dating back to 1926. Over 700 athletes from more than 60 nations will take part in cross country, nordic-combined, and ski jumping. A quarter-million spectators are expected over the 12 days of the Championships.

At press time, Lustgarten was planning to compete in the 30km Skiathlon, 15km classic, the 50km skate, and the 4x10km team relay. After the event in Finland, the team will prepare for the classic sprint and 50km classic World Cup races in Norway, scheduled for Wednesday March 8th and Saturday March 11th, respectively. Stay tuned for updates about Ben on Hammer’s social media.
Hammer athlete Kelvin Busienei flying through a Friday track workout. Photo: Courtesy Kelvin Busienei

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Hunger Buster

- Reliable, long-lasting energy
- Great taste
- Easy to digest

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Innovation Spotlight

BY JESSICA EVANS

Here at Hammer Nutrition, we’re constantly striving for improvement and innovation. In addition to managing our inventory of over a thousand important and delicious products, we are happy to take every opportunity to improve our line of groundbreaking endurance fuels and supplements.

Endurolytes Fizz

Our most recent innovation is related to one of our most popular and essential products, Endurolytes Fizz. In 2010, when Fizz was introduced, it revolutionized the industry and redefined what an effervescent tablet should be. Hammer’s product was the first to not include simple sugars, petrochemicals, excess salt, or artificial flavors or dyes.

Since then, athletes all over the world have come to rely on Fizz to balance their electrolyte levels. These aren’t your average tablets. While other products are simply salt tablets, Hammer Nutrition’s proprietary blend is a full-spectrum formula designed to meet all your electrolytic mineral needs.

You may be using a similar electrolyte product. Check the label. You’ll see that most only contain two or three minerals and unhealthy amounts of sodium. Many also contain artificial sweeteners, flavors, and coloring. What’s more, some also include polyethylene glycol, a petroleum derivative that is sometimes used in antifreeze and laxatives.

Some brands have mirrored Hammer’s decision to provide an all-natural, low-sugar, low-salt, and more comprehensive electrolyte recipe. If it hadn’t have been for Hammer’s leadership away from those elements in the marketplace, they’d probably still be selling their original version. They say imitation is the best form of flattery and we can’t help but agree. Hammer is proud to influence other companies and lead the pack towards optimum nutrition without any unwanted additives.

One improvement to our 2017 formula for Endurolytes Fizz will be the removal of the tyrosine, the cause of the foam and the white residue that the current Fizz produces. Tyrosine was added to increase absorption, but the majority of it was being left behind on the glass or on the walls of the water bottles. Removing it to improve drinkability was a worthwhile trade off.

While the old Fizz was technically gluten-free because it had less than 5 parts per million of wheat germ oil (used to help the table easily pop out of the tablet press), the new Fizz is 100% gluten-free. We completely removed the wheat germ oil and will instead be using avocado oil and all celiac concerns are further relieved.

Additionally, the new version will now include monk fruit to enhance the taste. We added this ancient, real food ingredient to make our yummy fruit flavors more pronounced. Now, the Lemon-Lime is brighter, the Grapefruit is more accurate and precise, the Grape is more bold, and the Mango’s tropical notes are even more delicious. Our formula took months to perfect and we are absolutely psyched with the results.

Remember, each rapidly dissolving Endurolytes Fizz contains the equivalent dosage of two Endurolytes capsules. And as always, Endurolytes Fizz is the superior product on the market, free of refined sugars and artificial ingredients. Why use anything else?!
**Hammer Gel**

Since 1995, Hammer Gel has been the benchmark of concentrated carbohydrate energy, primarily because of what it doesn’t contain. Hammer Gel has no added refined or simple sugars. It also doesn’t have artificial colors, flavors, or sweeteners. Even still, we are always looking for ways to improve perfection at Hammer Nutrition.

One thing we have wanted to do for a while now was find a better preservative than potassium sorbate. While this food-grade preservative has been given generally recognized as safe (GRAS) status and though its toxicity is extraordinarily low (about the same as table salt), we are always looking for even more-natural alternatives to provide the preservation properties that are required and FDA-approved.

We found just the thing in MicroGARD® CS1-50 cultured dextrose. It’s all natural and as effective as potassium sorbate (some even say more so). While the word “dextrose” appears in the name, once it is altered by the culturing process, its no longer the same as a simple sugar.

We also replaced the citric acid/malic acid/sodium acid sulphate combo in Hammer Gel with ascorbic acid (Vitamin C). Now, one Hammer Gel serving will contain 60-200% of the Daily Value for Vitamin C, a powerful antioxidant.

A third change was swapping the potassium chloride to potassium carbonate. This allows us to standardize the potassium content for all of the flavors of Hammer Gel at 35 mg per serving. Lastly, we are now using even more-natural flavors in Hammer Gel (more naturally natural, so to speak) to replace any processed natural flavorings that may have been used. You’ll love the new version of your old standby. They taste great!

**Hammer Bar**

Over the last year, we took customer feedback into consideration and made some modifications to our line of real food bars. It was a process and sometimes we missed the mark. Now, we’re happy to say that Hammer Bars taste better than ever and improve performance even more. Here’s the run down:

**Hammer Bars:** For our first reformulation, we removed all agave and rice protein and transitioned to tapioca and pea protein. The second generation had a more subtle, savory flavor, but some said it was too dry and chalky, with too few accent ingredients. This middle bar, while better than the one before still wasn’t perfect. We put it on clearance in the spring to make room for the next generation.

Now, we believe that we have hit the bullseye. The third generation is here and better than ever. We added date paste and improved the ingredient ratios and the taste. Now, Hammer Bars are decadent, silky, and not dry in the slightest. They’re also full of more real foods like raisins, apples, and organic cacao.

**Whey Protein Bars:** This bar got smaller (down to 40 grams), but we upped the protein to 11 grams using 100% grass-fed, hormone- and antibiotic-free whey. Made with the purest whey protein isolate available, this cold-pressed premium protein source boasts the highest Biological Value possible: 154! This bar is great as a post-recovery fuel and a healthy snack.

**Vegan Bars:** While the five core Hammer Bars are vegan too, these two bars have extra vegan protein added. The exciting addition is found in the Almond Cacao and Chocolate Peanut bars. They contain sacha inchi, a Peruvian superfood that contains all nine essential amino acids and is considered a complete protein source (you can find it in our Vegan Protein powder too).

As always, all of our bars are still made with real foods like peanuts, cacao, and nut butters. They still contain only wholesome carbohydrates and are free of any refined sugars and preservative-free, gluten-free, GMO-free, and organic. Keep ‘em handy and Hammer on.
Celebrating 30 Years of Endurance In Style

New 30th Anniversary Apparel

This year, Hammer is proud to celebrate our 30th Anniversary. To commemorate the occasion, our casual wear apparel features American-made fabrics and our limited edition anniversary seal.

Classic Tee
Limited 30th Anniversary Edition. 100% fine jersey cotton.
$14.95 S-XL | Slim Fit COLOR: SLATE

Fuel Retro Tee
Limited 30th Anniversary Edition fuel tee. 100% fine jersey cotton.
$14.95 S-XL | Slim Fit COLOR: ROYAL BLUE

Headsweats® Visors
$14.95 COLORS: WHITE, BLACK

Long Sleeve Tee
Limited 30th Anniversary Edition. 100% fine jersey cotton.
$19.95 S-XL | Slim Fit COLOR: HEATHER GRAY

Men’s Hooded Sweatshirt
Limited 30th Anniversary Edition hoodie. 100% fine jersey cotton.
$39.95 S-XL | Slim Fit COLOR: BLACK

Short Sleeve Tech Tees

Men’s Runyon Tech Tee
$19.95 S-XL | Slim Fit Men’s not pictured

Women’s Runyon V-Neck Tech Tee
$19.95 S-XL | Slim Fit
Our Almond Raisin and Chocolate Chip bars weren’t quite right and we’ve already fixed them with a third generation bar. Now, our 2nd generation bars are on clearance for only one dollar each. If you’re a fan of subtle flavors and great prices, stock up now. **When quantities are exhausted, these will be gone for good.**

Offer good on Chocolate Chip and Almond Raisin second generation flavors only.

**Order Yours Today!**

[Hammer Nutrition logo]

*hammernutrition.com  800.336.1977*
According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), insulin resistance is when muscle, fat, and liver cells do not respond properly to insulin and thus cannot easily absorb glucose from the bloodstream. As a result, the body needs higher levels of insulin to help glucose enter the cells. Over time, insulin resistance can lead to type 2 diabetes and pre-diabetes because the beta cells fail to keep up with the body’s increased need for insulin. Without enough insulin, excess glucose builds up in the bloodstream, leading to diabetes, pre-diabetes, and other serious health disorders.

Researchers observed the groups prior to treatment, for a three-month treatment period receiving the doses, and for a period after the study ended. Researchers measured data in a number of areas including fasting blood glucose, fasting insulin, insulin resistance index, T-lymphocyte messenger RNA levels of glucose transporter 4 (GLUT4, a protein that transports insulin), and the GSK3beta enzyme.

The group that received both chromium and magnesium showed the best results. Their fasting blood glucose, fasting insulin, insulin resistance index, and GSK3beta levels were significantly lower at the end of the study. Additionally, a 2.9-fold increase in GLUT4 was observed only among those who received both chromium and magnesium.

Lead researcher, Dr. Mei Dou, stated, “As anticipated, we found that combined chromium/magnesium supplementation ameliorated insulin resistance more effectively than chromium or magnesium alone, and this effect was likely related to the regulation by combined chromium/magnesium of the expression of GLUT4 and GSK3beta. The results of the present study suggest the therapeutic potential of combined chromium/magnesium therapy in insulin resistant individuals.”

Hammer Nutrition’s Chromemate and Essential Mg provide a potent research-supported combination. Together, this pair helps ensure that one’s insulin is working properly to keep blood glucose levels stable. This is vitally important to avoid insulin resistance and the possibility of pre-diabetes and diabetes. With over 54 million people in the United States diagnosed with pre-diabetes, this exciting research has the potential to improve and save many lives.

Suggested dosing: Take 1 Chromemate and 1 Essential Mg with Recoverite after a workout. This will significantly enhance glycogen synthesis/storage capabilities. Take another dose of 1 Chromemate and 2 Essential Mg with your two main meals. Hammer on!
Gravel Grinders 101:  
The nitty gritty on a popular new bike experience

An emerging style of riding is taking the cycling community for a wild ride. Gravel Grinders and Gran Fondos are growing in popularity, and to understand the experiences and differences, Hammer Nutrition sits down with Reuben Kline, the head of the Gran Fondo National Championship Series to learn more.

EN: Hi Reuben. Thank you for taking the time to talk with us. So, what is a gravel grinder in general?
RK: It’s an emerging style of cycling that uses unpaved, backcountry roads covered in crushed limestone, granite, flint, or whatever rock happens to be around. They are as much a ride experience as they are races.

EN: What is a gran fondo?
RK: Gran Fondo translates into “Big Fun” and is a style of riding started in Italy. Today in America, there are many events that describe themselves as gran fondo. Similar to gravel grinders, our rides are more adventurous and experiential in nature. Part personal challenge and part serious competition, the series allow riders to choose their length (30, 60, or 100 miles) to match their goals. Similar to a gravel grinder, our gran fondos focus largely on the ride experience. Our events do not focus on the riders’ start to finish time like traditional racing formats, but rather on the timed sections count towards riders’ competition time. And of course, there are plenty of Hammer Nutrition fueling stations along the way!

EN: What advice would you give to someone considering their first gravel grinder?
RK: Sign up for the Golden race! Both gran fondos and gravel grinders are all about the grassroots racing. We are competitive, but we are also about fun and not about the elitism found in other series or styles of cycling. Everyone is scored, everyone can race, even if you’re in cargo shorts and a sleeveless tee. It’s inclusive rather than exclusive and a great community. Gran fondos are a bit more street bike focused and gravel grinders are a bit more friendly on a crossbike. One might want to join a forum or visit granfondoguide.com to learn more about what intricacies make the two different.

EN: Can one participate in a gravel grinder and it not be part of the Gran Fondo network?
RK: Yes. There are many gravel grinders across the country that are not gran fondos. However, there are definitely many gran fondo races that incorporate a lot of the gravel experience. Specifically, the Golden Gran Fondo coming up in August is a great one to ride if someone wanted a taste of a gravel grinder. Named one of the Top Ten Rides by Outside Magazine, the Golden route takes racers on a historic circuit through the Rocky Mountains while tracing the route of the inaugural USA Pro Cycling Challenge. It’s a rugged yet rewarding race that is a great hybrid of these styles.

EN: What does 2017 look like for Gran Fondo?
RK: Each year, GFNCS puts on seven events that comprise our series, with the seventh being the National Championship. We also factor in times and scores earned at selected independent events across the county. Additionally, to bring out an elite group of competitors for the championship, we offer the winners of any long distance gran fondo held in the USA the opportunity to join us for free at the National Championship in September. The first events of the year have been a blast and there are some really great riders out there. I should also add that though there is a highly competitive field of riders that come to our events, all the events in the series are very user friendly and are great for riders of all abilities to come out and have some “Big Fun” on their bikes. Join us!

Former pro rider Reuben Kline has over 22 years of experience in the bicycle industry. In 2010, he was featured in the award-winning documentary Ride the Divide and is also founder of www.bicifitness.com, a cycling tours and training website. He has been directing GFNCS since 2013.
FROM OUR ATHLETES

For the last thirty years, our athletes have been the heart and soul of Hammer Nutrition. Our mission to bring a unique line of effective and healthy endurance fuels and supplements to the market was founded on the desire to empower athletes and help them reach peak performance. Our “From Our Athletes” section features submissions from athletes at every level, ranging from elite pros who have been competing for decades to beginners completed their very first race. This is just a small cross section of the thousands of Hammer athletes around the world who are establishing Hammer’s reputation for having safe, natural, and performance-proven results. Congratulations to everyone here on their accomplishments. We look forward to hearing from everyone else as they Hammer strong in 2017. Best wishes to all!

Chris Christman
2016 District 14 Enduro B overall champion
Great 2016 season and looking forward to this year in the A class.
Photo: Courtesy Chris Christman

Jason Poole
Training run
A morning run from Echo Lake to 12,216’ Goliath Peak. Some deep snow trails and high winds (60mph+) added to the excitement. Perpetuem Solids pushed him through!
Photo: John Knotts
Albert Wimer III
Second Place Single Speed Solo - Old Pueblo
Congrats to the hard men of the Vassago Legion! They tore it up this weekend at the 24 hours of Old Pueblo. Albert Wimer III 2nd place in SOLO SS! Albert came in 1st, but after his teammate caught up, they took 2nd over all.
Photo: Tom Vassal

Phillip Pawlukovich
The Beast of Burden 100 & 50 Miler Ultra Marathon
1st Overall with a time of 16h 36min. Hammer fueled the event with HEED and gels at the stations, and also a water bottle for every entrant! Perpetuem and Endurolytes extreme in my jet pack.
Photo: Ken Pawlukovich

Katie Miller
Bear Bait Ultras 50k
Ran the Bear Bait Ultras 50k and Hammer Nutrition was available. HEED, Fizz, and Huckleberry Gel were a few products at the aid station and given in our packets. Was able to stay strong and finish strong!
Photo: Courtesy Katie Miller

Matt Sommer
2nd Place Finish Frosty 50k
Race day success! Second place overall and a new personal best for 50K (31.1 miles). Hammered the course in 3:54.
Photo: Courtesy Matt Sommer
Endurance News 104  Celebrating 30 Years of Endurance!

FROM OUR ATHLETES

**Kelly Agnew**
Top 100 Fastest time for 100 mile race in 2016
After returning home from Brazil last night, I was flipping through the new Ultra Running Magazine and learned that I posted one of the top 100 fastest 100 mile finishes for 2016. My endurance usually trumps my speed, but I’ll take what I can get these days!

Photo: Courtesy Kelly Agnew

**Doc Smith**
1st place IXCR Championship series
Doc Smith will be competing for his third consecutive Peewee class championship and 2nd Peewee Overall championship as a Hammer Nutrition Sponsored Athlete in the IXCR series.

Photo: Stacy Mundy Photography.

**Tonya Keyes-Christianson**
Coldwater Rumble
100 miles of pure pain, pure heart and soul. 21 hours and first female in the Coldwater rumble 100 miler, and first female Sonora 200.

Photo: Courtesy Tonya Keyes-Christianson

**Jack Finucan**
Masters of All Terrain 50k
Masters of All Terrain 50k Ultra Run today. 60° and foggy at start. Flat course but grass was thick in spots. Got warmer after 16 miles and the sun was hot. I enjoyed myself but it was tough. Finished 3rd in the 50-99 Age group with 6:33:38

Photo: Courtesy Jack Finucan
**Beverly Enslow**
1st place Frozen Fat Fondo Fest (4xF)
Photo: Courtesy Beverly Enslow

**Cody Kurtz**
3rd place AMA National Hare and Hound Championship youth series.
Photo: Kyle Kurtz

**Dean and Lily Schwickerath**
1st and 2nd in age group Freezer 5k
Photo: Jill Leistikow Schwickerath

**Ericson Santana**
1st overall Coconut Cup Series
Photo: Courtesy Ericson Santana

**Dean Schwickerath**
powers his way to a 1st place finish in the No Coast Trail Series.
Photo: Kyle Helland

3 hours prior: One banana and one Hammer Gel. I always sip on HEED if the race is longer than 2 hours.
45 mins prior: 2 Anti-Fatigue Caps, 2 Endurolytes
30 mins prior: Fully Charged
10 mins prior: One Hammer Gel
During longer races: One Gel, 2 Anti-Fatigue Caps, 2 Endurolytes each hour, and HEED
After: Chocolate Recoverite

**Luke Sinak**
5th overall and 1st age group Wildwood Frozen Feet 13.1
Photo: Courtesy Luke Sinak

**Amber Reece-Young**
2nd Female Uwharrie Mountain
Photo: Carolina Snapshot Sports Photography

**RESULTS**
First Place. This is a nine race series with fierce competition. Race difficulty ranged from prairie, gravel roads, and single track trail. These races weren’t your ordinary road run, so being consistent is key. For the second year in a row, I placed first in the Masters Trail division.
Thomas Maximus Shahinian getting his dose of vitamin D while winter training in Oahu, HI.

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

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

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Our Customers Say It Best ★★★★★

“It’s been a long road back from marathon recovery and injury since early December through rest, acupuncture, EMS, Tissue Rejuvenator, and Hammer Balm. I have finally been able to run consistently with minimal discomfort and no pain for two weeks now.”

-Tyler Underwood

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60 Capsules 120 Capsules 3 or more
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Tissue Rejuvenator is a powerful, dual-purpose product that promotes rapid tissue repair.

Tyler Underwood on a Wednesday morning training session. Photo: Nick Scarpello

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