

Spring training issue

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ENDURANCE NEWS

APRIL/MAY 2013

#84

The stretches every cyclist should be doing!

The right way to carbo-load

Why I'm a believer in EMS



Product spotlight #1 : Tissue Rejuvenator

Product spotlight #2 : Mito Caps

The informed athlete's advantage since 1992



"Love my Hammer Nutrition! Not only will I not train or race without the products, but I sport the logo everywhere!" - Connie Price

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Products - Powerful, safe, natural, and undeniably effective! They will do exactly what we say they will and outperform the competition every time . . . Guaranteed!

Knowledge - Using our time-tested, science-based fueling protocols will provide you with the best possible performance . . . Guaranteed!

Service - Second to none, the best you've ever had! We treat you like you are important to us, because you are . . . Guaranteed!

ON THE COVER

Robin Buckles, Hammer Nutrition-sponsored athlete and certified triathlon coach, trains in the new Hammer Nutrition clothing colors in Maui. Photo : Scott Buckles

ENDURANCE NEWS

The informed athlete's advantage since 1992

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Our Mission

The objective of Endurance News is to provide you, the serious endurance athlete, with a valuable resource that you will find informative, educational, thought provoking, and helpful in your ongoing pursuit of optimum performance and health.

Endurance News features insightful articles on diet, nutrition, training, and other topics of interest for endurance athletes - written by our staff as well as professional and elite amateur athletes and other experts in the area of nutrition and exercise.

In reading this and future issues, please remember that the views expressed in this publication will always be biased in favor of a healthy diet and hard training that emphasizes quality over quantity, and prudent supplementation to improve health and performance. But above all, we at Endurance News believe that there are no shortcuts and that success can only come from hard work.

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LETTERS

Send your letters to letters@hammernutrition.com for possible inclusion in a future issue of Endurance News.



Good things

I didn't know that so much goodness could fit in two boxes. My dining table and bench were overtaken by Hammer Nutrition products. It takes great fuel to be a great endurance athlete. Thanks for the support!

Ryan Bak

Familiar faces

WOW! What a surprise I had when I was reading the recent Endurance News. (I do read all of the articles, front to back.) When I turned the page and the pictures of Tim, Tina, Pierre, and myself jumped out at me, I nearly fell out of my chair! It was a very proud moment when first I got a call from Tina, then Tim, and now others through Facebook and beyond! Thank you so much for printing our story.

Have a great day & Hammer On!
Lauren Chapple

First impressions

I've been reading over Endurance News recently, and I'm impressed at how helpful the magazine is as a reference for athletes' fueling needs. I think you guys are doing a great job of providing valuable information.

Ben Horan

(Ben submitted a great article about backcountry skiing. Read it on page 56.)

Corrections

The editorial staff of Endurance News carefully reviews each issue in an attempt to ensure that all of the information presented is correct and complete. Occasionally, however, mistakes sneak past us and make it into print. We apologize for any inconvenience the following error may have caused you.

In Endurance News #83, due to an editing error, Bob Pair's "How injury and Hammer Nutrition helped me get back into competitive sport" inaccurately represented his Storm the Fort Triathlon race results. It stated that during the run leg, Bob "was able to pass him [a fellow competitor] eventually, as well as everyone else in front of me," when in actuality he was the 18th place runner. He was, however, the overall triathlon winner, surpassing all other competitors in regard to overall finish times.



Brian and Mike Freeman during the February Hammer Camp.
Photo : Joe Frank

Welcome to the 84th issue of Endurance News.

Ready or not, spring is here and it's time to get out and swim, bike, run, ride, drive, paddle, or whatever you have been craving to do outdoors for the past few months. As we have been for 26 years and counting, we'll be there every step of the way to give you the best fuels, supplements, customer service, and know-how on the planet. I know that's a big claim, but I can back it up with over a quarter century of blood, sweat and tears—we are endurance. In this current cycle of "new, latest, greatest, most advanced" me-too products that are now flooding the market, our course and mission remains unchanged. You can rest assured that we will never abandon our "principles before profits" pledge—no, Hammer Blocks won't be coming out anytime soon.

I'm sure that you've also noticed the plethora of new products I'm referring to that includes energy drinks, bars, proteins, recovery aids, etc. The rest of the world has woken up to the "endurance athlete" market, and they are going after you with a vengeance. Believe it or not, I relish the competition and comparisons that inevitably follow, because we always win! Sure, they are well-capitalized and throwing money around with glossy ads, pro athlete endorsements, and the like. Undoubtedly, these have caught your attention and tempted you to "try something new" to see if they really are better than Hammer Nutrition products.

I'll simply throw out a "caveat emptor" by suggesting that you read the labels and evaluate the company as well as the products. From what I've

seen, without exception, these new products fall into one of two categories. They are either your classic "sell the sizzle" hype window dressing that masks cheap, run-of-the-mill sugar- and chemical-filled products, or the burgeoning me-too healthy products. Reading sales literature and reviewing lists of ingredients gives one the distinct impression that they've heard it before: void of artificial colors, flavors, sweeteners, and chemical additives while using plant-based sweeteners like stevia leaf extract, or natural lubricants like wheat germ or sesame oils instead of polyethylene glycol, etc. They talk about their healthy, gluten-free, no refined sugars, natural formulations. Gosh, it all sounds so familiar . . . I know I've heard it all somewhere before. Hey, I can think of two companies off the top of my head that have appropriated my "sustained energy" trademark to sell their products—any guesses? Yes, imitation is the sincerest form of flattery, but it does beg the question as to why one would choose the imitator over the imitated. Either way, I'm just glad to see the healthier direction that the industry is going.

Like the previous 83 issues, this Endurance News is chock-full of good stuff to help you succeed and enjoy the ride along the way. Our athlete contributions just keep getting better and better. Keep 'em coming, we love it! This is also the time of year when our eagerness for training and fitness can cause us to forget some things that we shouldn't (see below).

As we do every year, we've introduced several new products in 2013, and your response has been overwhelmingly favorable. Thank you! The new plant-based Hammer Vegan Protein and Hammer Vegan Recovery Bars are in stock and flying off the shelves, as are the new Vanilla Recoverite and Strawberry Hammer Whey Protein. There were no surprises on the latter two—popular products + popular flavor options = winners, but I've continued to be surprised by many athletes' responses to our vegan products, basically saying, "I'm not a vegan, so I'm not interested in those products." Certainly all of the vegan, vegetarian, and soy, lactose, or dairy intolerant athletes have been thrilled, but if you happen to be one of those "other" athletes, we should talk.

- continued on page 5

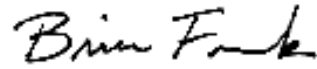
I'm not a vegan either, but I am realistic about my diet and the types of foods that predominate. I can honestly say that I could use more plant-based foods in my diet, for sure, even though I think I eat a lot more than most omnivores. So, even if you eat animal, dairy, soy, or other protein sources, these vegan products warrant your consideration. They taste great, mix up/chew up easily, have all the right numbers, and provide a bit of relief from animal/dairy-based proteins. Since most of us don't get the 1/2 gram of protein per pound of bodyweight that we need each day, these products can easily help you round out your protein needs while giving you a nice boost of plant-based nutrition; minerals, enzymes, phytonutrients, and more are a great option for increasing protein and plant-based nutrients in your daily diet. When it comes to the human diet, variety really is the spice of life. Eat the rainbow—every color of fruit, vegetable, protein, and starch you can find. The more "diverse" the colors, the better.

Two early season pitfalls to avoid

As I alluded to earlier, this is the time of

year when our enthusiasm and muscle memory can get us into some trouble. Avoid these scenarios and your spring will be much more enjoyable. The first thing to remember is that it takes connective tissue a lot longer to regain "fitness" than it does your muscles. Be sure not to overdo your first hard efforts of the year, inadvertently relying on "muscle memory" to exercise at a higher level of intensity than your connective tissue and joints can handle. This is why we see so many injuries this time of year—hamstring and calf pulls, ankle, knee, and hip inflammation, and the like. This is also the time when we get deluged by athletes who've just done their first warm-to-hot weather ride of the year and cramped up badly. It takes several weeks to acclimatize to heat stress and additional electrolytes (Endurolytes!) should be consumed to compensate for the disproportionate losses you can expect to incur during your first few hard efforts in warmer temps. For these first couple of warmer workouts, take extra Endurolytes along with you and use freely—cramping is so '80s.

Well, I've rambled long enough. It's time to go out and put some miles on the bike . . . and trials bike . . . and shifter kart! Enjoy the read and be sure to tell at least one friend the good news about Hammer Nutrition!



Brian Frank
Proprietor

We're hiring!

We are looking for talented people to fill a number of positions. Are you creative? Are you motivated? Like to multitask? Check out our Careers page online to see if you fit the bill!

Buy Endurolytes Fizz Get one **FREE!**

SPECIAL OFFER!

Purchase a 13-tablet tube or 25-count bag of Endurolytes Fizz, and get another one FREE! No limits! Ad code EN84ELF. Offer expires 5/9/13. A \$4.95-\$12.95 value! Valid while supplies last.



CHEMICALS

WARNING! If you use another effervescent electrolyte product, read the label before you consume another tablet! The product may contain one or more of the following chemicals: PEG (polyethylene glycol), acesulfame-K (consists of methylene chloride, a carcinogen), sucralose (a synthetic chemical with a chlorinated core), or other artificial sweeteners, flavors, or colors.

MSRP
\$4.95 - 13 Tablet Tube
\$4.75 - 3 or more
\$12.95 - 25 Wrapped Singles
Flavors: Grape, Grapefruit,
Lemon-Lime, Mango

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HAMMER
NUTRITION

Product Spotlight #1

Tissue Rejuvenator

Maintain healthy joints safely and naturally

BY STEVE BORN

It's that time of year. Athletes are increasing training volume and intensity, with key races coming up in the not-so-distant future. Usually, the negative effects of this increase are nothing more than a bit of post-workout muscle soreness. Unfortunately, many athletes stray beyond that expected-but-still-unpleasant muscle soreness to one of the worst scenarios that can happen in training: a joint-related injury from doing too much volume and/or intensity too soon (aka "overtraining").

Whether it's increased post-workout muscle soreness or a joint injury, many athletes reach for an over-the-counter (OTC) pain reliever/analgesic. When used sparingly and only when necessary, most of us agree that these NSAID (non-steroidal anti-inflammatory drug) products have a rightful place in our medicine cabinets. Unfortunately, it appears to be becoming more and more common for athletes to rely too heavily on these medications to relieve common joint, connective tissue, and/or muscle tissue pain brought on by exercise, or to try to accelerate the recovery process when injured. In fact, it's not all that uncommon for athletes to preload large doses of NSAIDs prior to a tough training session or event in the hopes of staving off inflammation and joint pain.

However, these commonly used, readily available products can potentially have some very unpleasant side effects, such as nausea, diarrhea, constipation, dizziness, headache, and fluid retention. In fact, a 2007 study by Boston's Brigham & Women's Hospital [1] indicates another potential and arguably more serious side effect: hypertension. That's right—high blood pressure!

Numerous athletes have suffered from these undesirable effects—and may be putting themselves at risk for a plethora of health-related issues attributed to hypertension—by nonchalantly consuming large and/or too frequent doses of NSAIDs. Don't let this happen to you.

Tissue Rejuvenator - The safe and effective alternative

Fortunately, you have another option in Tissue Rejuvenator, a powerfully effective alternative to NSAID medications. In addition to its pain-alleviating properties, Tissue Rejuvenator also supports optimum cartilage, joint tissue, and ligament health, because many of its nutrients get to the heart of the problem and aid in overall healing and restoration, instead of merely masking the pain (i.e., "putting a bandage on it"), which is the primary effect of NSAIDs.

Whether you are aiming for prevention or doing everything possible to return to normal training after an injury, you need a consistent supply of nutrients that provide the raw materials needed to promote rapid tissue repair. Tissue Rejuvenator has these components and also helps reduce inflammation, soreness, and pain—without the potential undesirable side effects of NSAIDs.

Consistent use for maximum benefits

At this time of the year, with training volume and intensity ramping up significantly and important races on the horizon, no athlete wants to lose valuable

training time or miss an important race. Unfortunately, this sometimes happens, especially when athletes stray from the safe haven of "optimum training" into that inhospitable territory called "overuse injury." If that's where you are currently, it's time to put the powerful, safe Tissue Rejuvenator formula to work for you right away. Remember that the benefits of Tissue Rejuvenator are cumulative, meaning that you won't build up a tolerance to the product. Consistent use is vital to achieve the best results and get you back in action as soon as possible.

If you're not injured but want a safe, effective product to help protect against joint-related injuries, or if you're simply looking for a NSAID alternative for pain relief after your workouts, Tissue Rejuvenator is ideal for those applications as well and can be taken daily.

For years, Tissue Rejuvenator has been one of Hammer Nutrition's top-selling supplements—both via direct orders and in the retail stores that carry Hammer Nutrition products. The reason is simple: Tissue Rejuvenator is an extraordinarily effective product that works extremely well! It's time to get off the NSAIDs and give all-natural Tissue Rejuvenator a thorough try. As thousands of satisfied clients have already experienced, you'll receive the benefits you're looking for, but without the unwanted side effects. We guarantee it! **HN**

REFERENCE:

[1] Forman JP, Rimm EB, Curhan GC. Frequency of analgesic use and risk of hypertension among men. *Arch Intern Med.* 2007;167:394-399.

Tissue Rejuvenator's "All Star" components for joint health and pain relief

Glucosamine sulfate is generally considered to be the primary "building block/raw material" in joint cartilage, ligaments, and tendons. Glucosamine sulfate plays a major role in the synthesis of collagen, cartilage, bone, skin, and various lubricating fluids in joints. It helps promote elasticity of joint movement and also functions as a mild anti-inflammatory.

Chondroitin sulfate is a natural component of several tissues in the body. Like glucosamine, chondroitin sulfate is an important "building block" for the repair of damaged cartilage and has the ability to block the activity of enzymes that break down cartilage. This helps reduce inflammation and protects cartilage from further damage. Chondroitin sulfate also promotes lubrication and cushioning in the joints.

Methylsulfonylmethane (MSM) is an organic form of sulfur, which is necessary for proper synthesis and maintenance of tissues such as skin, hair, nails, tendons, and cartilage. MSM has been reported to reduce arthritic joint pain, enhance wound healing, and reduce allergic symptoms.

Tissue Rejuvenator's **Enzyme Blend** of peptidase,

bromelain, papain, amylase, lipase, cellulase, and phytase not only aids in the complete absorption of the nutrient components in the product, it also provides potent anti-inflammatory benefits.

Boswellia serrata is an Ayurvedic herb that has been used extensively as an anti-inflammatory for the treatment of arthritis. Its primary active ingredients are triterpene acids, which may also be useful for treating exercise-induced asthma and irritable bowel syndrome.

Devil's Claw is a South African herb containing iridoid glycosides, substances that have anti-inflammatory properties. It is also purported to help relieve mild stomach upset.

Yucca Root is frequently used to combat osteoarthritis and rheumatoid arthritis

symptoms. It contains high levels of beneficial phytochemical compounds known as saponins, which are reported to provide antiviral, antifungal, and antibacterial benefits.

Turmeric (*Curcuma longa*) contains a substance called curcumin that not only has anti-inflammatory properties, but also provides liver-protecting, antibiotic, and antioxidant properties.

Quercetin, a water-soluble flavonoid typically found in food sources, is both a potent antioxidant and anti-inflammatory, and has antihistamine properties as well.

Undenatured Type II Collagen (UC-II™) is a patented, extensively studied dietary ingredient derived from chicken sternum cartilage. Through a complex process called oral tolerization, UC-II™ works with the immune system to promote healthy joints and increase joint mobility and flexibility.



It's what's inside that counts!



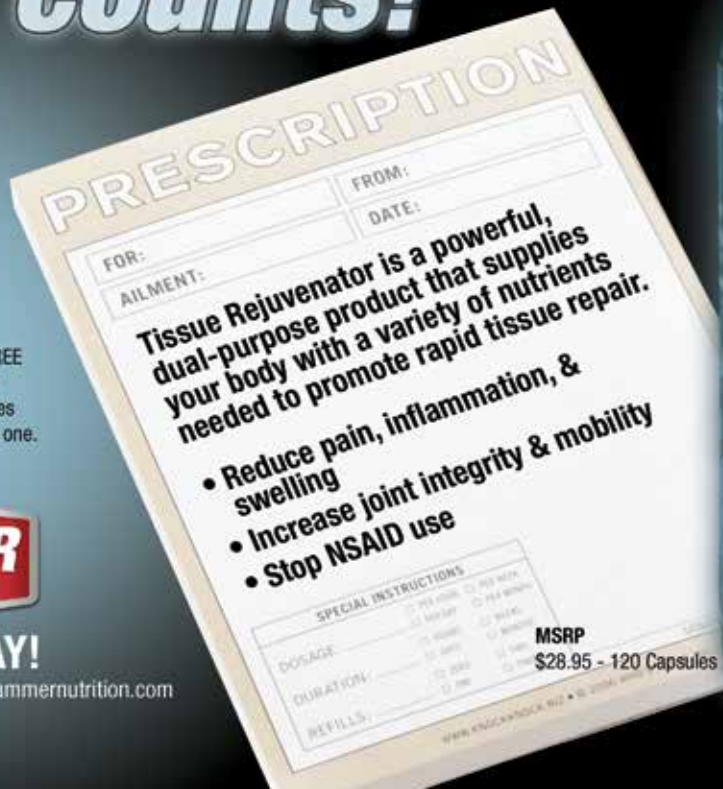
SPECIAL OFFER!

Purchase a bottle of Tissue Rejuvenator and receive a FREE small tube of Hammer Balm. Ad code EN84TR. Offer expires 5/9/13. A \$4.95 value! Limit one. Valid while supplies last.



ORDER TODAY!

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Product Spotlight #2

Mito Caps

Strengthen health and performance with a strong nutrient foundation

BY STEVE BORN

Of the nearly two dozen products that currently make up the Hammer Nutrition supplement line, three are designated as not only essential but Daily Essentials: Premium Insurance Caps, Race Caps Supreme, and Mito Caps. The reason for this special designation is because we believe:

- These three products provide the widest range of benefits for both athletic performance and overall health.
- The beneficial effects of these supplements are cumulative, meaning the more consistently you take them (ideally daily), the more benefits you receive.

While all of the products in the Hammer Nutrition line are effective, providing specific benefits and fulfilling specific needs, I personally believe that Mito Caps is the most valuable supplement that Hammer Nutrition has ever produced for promoting enhanced athletic performance and overall health (with a VERY close second awarded to Race Caps Supreme). Here's my rationale:

Sometimes it seems as though many scientific discoveries aren't terribly applicable for you or me, at least in terms of impacting us directly. Every once in a while, though, a tidbit of promising scientific research comes through and creates a spark of interest. And then, every once in a blue moon a study's results are so profound in their scope that it literally can, and should, change how athletes—all humans

actually—perceive nutritional science and nutritional supplements. In all of the time I've studied supplementation, to this day nothing has gotten me as excited as the remarkable discoveries that resulted from the studies of Dr. Bruce Ames and his associates regarding the issue of mitochondrial aging and regeneration.

The whole amazing story of mitochondrial function is quite complicated and could thus go on for pages, but I'll simplify the matter to a few relevant points:

- Mitochondria, the energy-producing organelles, make Adenosine Triphosphate (ATP) from food molecules (sugar, fatty acids, and amino acids) and oxygen.
- While the number of mitochondria in each cell varies from less than one hundred to several thousand, it's safe to say that there are literally several million (if not more) in the human body.
- Energy production also creates free radicals, which damage mitochondrial DNA.
- Mitochondrial function decreases and free radical production increases with age. This "double whammy" contributes to the aging process, an ongoing cycle of decreased mitochondrial functioning, increased free radical production, and damaged mitochondrial DNA.
- The resulting decay in mitochondrial functioning, along with increased



production and accumulation of free radicals, has obvious negative effects on athletic performance. The body's ability to make energy decreases while free radicals increase.

- Mitochondrial aging and decreased function result in health decline and disease processes affecting the heart and brain. To quote Dr. Ames, "Oxidative mitochondrial decay is a major contributor to aging."

All of these reasons are why athletes should be particularly interested in maintaining the optimal functionality of the mitochondria. We want to maintain high-quality, consistent energy production, while also protecting against the deterioration of mitochondrial function and its associated negative health consequences. The key question is, "What can we do to make this a reality?" Dr. Ames and the other researchers found that two nutrients—acetyl l-carnitine (ALC) and R-alpha lipoic acid (R-ALA)—significantly and positively influenced mitochondrial function in mice. In fact, when Ames and his researchers fed older rats these two nutrients, the results surprised even them.

Not only did the older rats perform

- continued on page 10



The unique & potent Mito Caps formula

Acetyl L-carnitine (ALC)

L-carnitine is a derivative of the amino acid lysine and is synthesized in the body by five different enzymes involving lysine and methionine (both amino acids), iron, vitamin C, vitamin B6, and the reduced form of niacin (NAD). Small amounts—roughly 10-50 mg—of L-carnitine are synthesized daily, which is adequate for preventing deficiency problems. However, these amounts are most likely insufficient for athletes. One nutritional scientist writes, “Although the body makes L-carnitine, it may not make an optimum amount for athletes, because muscle carnitine levels are rapidly depleted even during moderate exercise.”

This would make supplemental L-carnitine essential for endurance athletes. Acetyl L-carnitine (ALC) is arguably the premier form of this nutrient for two reasons:

- It provides L-carnitine, the key nutrient involved in shuttling fatty acids into the mitochondria for energy production.
- It also provides acetyl groups that may be used in the formation of the neurotransmitter acetylcholine, which is involved in cognitive function.

R-alpha lipoic acid (R-ALA)

R-ALA is intimately involved in the complex process of energy production. It is an essential cofactor for several multi-enzyme complexes (primarily the dehydrogenase complexes) that catalyze (increase the speed of a chemical reaction) critical energy metabolism reactions inside the mitochondria. It's safe to say that the combination of R-ALA and ALC dynamically influences energy production.

However, energy production, especially increased energy production, comes at a cost: more free radical production. Fortunately, the body has a variety of antioxidant mechanisms that counteract and neutralize the negative effects of free radicals. Increased energy production, as well as longer-term high level energy production (such as what endurance athletes do) increases the volume of free radicals that are produced, which can easily overwhelm the body's built-in antioxidant defenses. This is the reason why consumption of a variety of antioxidants is recommended and perhaps none are stronger or provide a wider range of benefits than R-alpha lipoic acid. R-ALA is commonly known as the "universal antioxidant" because it functions as both a water- and fat-soluble antioxidant, with the ability to neutralize several different types of free radicals, perhaps more than any other antioxidant known to man.

NOTE: For more information about acetyl L-carnitine and R-alpha lipoic acid, please read the article "What Makes Mito Caps so Essential?" located on the Mito Caps page on the Hammer Nutrition website. (Click on the Related Articles link.)

DMAE and PABA

Dimethylaminoethanol (DMAE) is a naturally occurring nutrient found in fish. It stimulates the production of choline, which in turn allows the brain to optimize production of acetylcholine, a neurotransmitter involved in learning and memory. DMAE has been reported to inhibit the formation of the pigment lipofuscin, formed by the inefficient metabolism of fatty acids. Lipofuscin accumulates with age in all body tissues; in the skin it appears as liver spots. DMAE not only prevents the formation of lipofuscin, but also has been observed to remove liver spots completely. This may be equated with internal removal of aging cells by long-term supplementation with DMAE. One study evaluated the life extension effect of DMAE on old mice. Oral DMAE administration in drinking water resulted in a reduction of mortality rate and an increase in both mean and maximum survival time in rats.

Para-amino benzoic acid (PABA) is a B-complex vitamin that acts in a structural role with folic acid and also functions in the formation of red blood cells. It is also a potent neutralizer of singlet molecular oxygen, a free radical that is a common by-product of metabolism. PABA's free radical neutralization is a most powerful effect because it retards collagen cross-linking, promotes flexibility, and promotes healthy cell structures and membranes. Glycosylation (or glycation) is the process of glucose molecules attaching themselves to proteins, eventually resulting in protein binding, or cross-linking, which alters their biological and structural roles. Cross-links, also known as advanced glycosylation end products (AGEs), have been linked to the loss of flexibility and deterioration of connective tissue associated with aging.

All of that said, DMAE and PABA exist primarily in Mito Caps to amplify and potentiate the ALC and R-ALA components. The amounts of the latter two used in Ames' studies are extremely high, and supplementation with those amounts is not only impractical but would be unbelievable expensive. DMAE and PABA are a nutrient substitute for the anti-aging "drug" GH-3 and mimic its effects (providing substantial benefits of their own). Dr. Misner writes, "By adding essentially what is a GH-3 formula, the resulting effects of ALC and R-ALA are remarkably multiplied." In other words, thanks to

the effects of DMAE and PABA, less ALC and R-ALA are required to achieve noticeable benefits.

Vitamin E & Vitamin B6

Vitamin E is a well-known fat-soluble antioxidant, which is one of the reasons for its inclusion in the Mito Caps formula. However, the primary reason that both vitamin E and vitamin B6 are in the product is because, in the words of Dr. Misner, "in order for the GH-3 like effect to be secure, these two nutrients must be present and available." Put another way, for DMAE and PABA to yield their benefits, adequate amounts of both vitamin E and vitamin B6 are necessary.

Ascorbyl palmitate

In addition to its many benefits, primarily as an antioxidant, vitamin C enhances the bioavailability of L-carnitine, resulting in greater fat utilization capabilities. Vitamin C is also available in a variety of other forms, including the fat-soluble form known as ascorbyl palmitate.

Ascorbyl palmitate is a synthetic and non-acidic form of vitamin C that, due its lipid (fat)-soluble nature, has the ability to reach specific areas of tissue that ascorbic acid—an acidic, water-soluble form of the vitamin—cannot. Ascorbyl palmitate and ascorbic acid work in entirely separate areas of the body, and only ascorbyl palmitate is beneficial for aiding in the prevention of peroxidation of the lipid areas of the body.

Vitamin E

This vitamin has so many beneficial properties; it's most important one arguably being as a powerful fat-soluble antioxidant. It is included in the Mito Caps formula to provide additional free radical neutralization support, with the R-ALA component in Mito Caps helping to recycle "used up" vitamin E, thus extending its powerful effects.

Enzyme Enhancement System™ (a proprietary blend of Amylase, Lipase, and Protease)

The saying, "it's not what you eat, it's what you absorb," is the rationale behind the inclusion of this trademarked blend of digestive enzymes. Having these enzymes in Mito Caps helps maximize absorption of all of the nutrients in the product, simple as that!

- continued from page 8

better on memory tests, they had more vigor and the mitochondria in their cells worked better. Dr. Ames is even quoted as saying, "With the two supplements together, these old rats got up and did the Macarena." He went on to say, "The brain looks better, they are full of energy—everything we looked at looks more like a young animal." Another researcher commented, "The animals seem to have much more vigor than animals not on this diet, signaling massive improvement to these animals' health and well-being."

In very basic terms, the take-home message of these studies is that the combination of these two nutrients "tunes up" the mitochondria. Tuning up human metabolism is likely a hugely impactful way to minimize DNA damage, improve health (not to mention athletic performance), and prolong lifespan. Ames' studies found that ALC and R-ALA did this "tune up" by improving mitochondria activity and cellular metabolism.

Dr. Bill Misner emphasizes the importance of this by stating, "So

few substrate molecules function biochemically inside mitochondria cells. Endurance athletes should realize how incredibly important it is to affect mitochondria . . . 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 active mitochondria is the athlete who performs at his/her best."

That's why Mito Caps was produced, and now you understand why I consider it to arguably be the most important product in the Hammer Nutrition line. I am also strongly convinced that it could very well be the most important supplement that you'll ever take.

Summary

It would be difficult, if not impossible, to find another product that contains a variety of nutrients that have so many benefits, both singularly and synergistically. No other product, in my opinion, has so many benefits that apply to both enhanced athletic performance and overall health (though Race Caps Supreme comes darn close in that

regard). That's why I consider Mito Caps to be such an important product, one that every person—athlete and non-athlete—should take every day for life. The benefits you receive are cumulative, meaning you won't build up a tolerance to the product but instead enjoy ever-increasing benefits.

Long ago I took to heart the words of Dr. Bill Misner, and I hope you do as well: "Mito Caps is a plausible and safe supplemental intervention that may reduce mitochondria substrate depletion imposed by age and endurance exercise stress. I have taken these substrates without any known side effects except less fatigue, better endurance performance, and less required sleep. Very few substrate molecules function biochemically inside mitochondria cells. Endurance athletes should realize how incredibly important it is to effect mitochondria and that everything formulated in this compound influences mitochondria cell biochemistry function synergistically and remarkably. Mito Caps is a product that I recommend to be taken year-round." **HN**

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- Antioxidant support
- Potential increase in longevity

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Steve's faves : Seat Saver

BY STEVE BORN

I recently attended the third Hammer Camp, and not having been able to ride outdoors for 4+ months, one of my biggest concerns going into camp was how my body (mainly my behind) would feel after doing lots of miles each day. I brought a large jar of Seat Saver with me, hoping that it would once again literally save my skin. I'm happy to report that after six days of riding, NOT ONCE did I have any problems with saddle sores or other similar issues. What really impressed me was that I didn't need to use very much to enjoy its protective benefits.

If you spend much time on a bike, you know that one of the most important pieces of equipment is something that you wear. It's not clothing, however, but rather a cream that helps protect that area where "butt meets bike seat." Take it from someone who has spent thousands of hours on a bike – suffering

from skin irritation and saddle sores is no fun at all. What should be an enjoyable time can become a real pain in the... well, you get the idea.

Over the years I have used nearly every type of skin protective cream available, but once I tried Seat Saver, I knew I had found THE best product of its kind. I firmly believe that once you try it, you won't ever go back to whatever product you're currently using.

Dr. Bill Misner writes, "Cycling in the heat creates significant pressure, friction, and an increased risk of skin irritation to an enclosed skin-to-seat area. Moisture, heat, and friction in an environment [that is] potentially rich in microbial proliferation are a formula for disabling trauma. Reduced friction added to reduce microbial proliferation is accomplished by a light application of Seat Saver to the chamois pad and another coat to the skin

surfaces before riding. Science supports that these ingredients are highly effective anti-microbial and lubricating mediums."

The natural skin-protecting, lubricating ingredients that comprise Seat Saver are extremely effective: pure olive oil, shea butter, distilled water, calendula, yarrow, chamomile, comfrey, stearic acid, beeswax, zinc oxide, vitamin E oil, basil oil, clove oil, lavender oil, peppermint oil, and tea tree oil.

Seat Saver is unsurpassed in terms of effectiveness, and it's so easy to use! Apply as Dr. Misner suggests, and re-apply as necessary, remembering that a little goes a long way. With Seat Saver your rides will be more enjoyable because you'll have an essential "comfort factor" fulfilled. It's a truly potent anti-chafing/anti-bacterial cream, ideal for runners, triathletes, and other endurance athletes, helping protect the skin from the discomforts of chafing. I've used this product extensively, it once again proved it works phenomenally well, and I have no doubt that you will appreciate it. Definitely give Seat Saver a try... you'll thank yourself that you did! **HN**

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Pre-loading sodium Bad idea!

(As copied from the 9th Edition of *The Endurance Athlete's GUIDE to SUCCESS*, pages 45-48.)

BY STEVE BORN

Courtesy of an article written by a registered dietician, one practice now being considered, and even adopted by many athletes, is to "... increase sodium in the diet by preloading 3-4 grams of sodium about 12 to 24 hours before the race."

What is bothersome about this recommendation is that one would think that a registered dietician ought to be well-versed on the health consequences of a high-sodium diet (which the overwhelming majority of Americans consume). Yet this particular person advocates additional sodium in the diet prior to a race. The question is: "Is this a safe and healthy practice?"

A number of references are provided in the article, apparently to solidify these recommendations:

1) Eichner, E.R. "Genetic and Other Determinants of Sweat Sodium." *Current Sports Medicine Reports* 7.4 Supp 1(2008): 236-S40.

Comment: Our interpretation of Eichner's statements/conclusions is that the more sodium in the pre-event diet, the more plasma aldosterone level is suppressed, resulting in a higher rate of sodium loss in sweat during the event. Our position is that suppression of aldosterone prior to events by increasing sodium intake is counterproductive to keeping natural body homeostatic controls in the healthy norm range, which means consuming a low sodium diet of under 2,300 mg daily.

Bottom line: More sodium in the diet equals more sodium lost during exercise.

2) Murray, R. and L. Kenney, "Sodium Balance and Exercise." *Current Sports Medicine Reports* 7.4 Supp. 1 (2008): S1-S2.



Comment:

Our position is that over 2,300 mg/day results in harmful consequences to health proportionate to predisposed individual sensitivity, while a large majority of the human population reacts negatively to >5,800 mg/day.

Bottom line: Keeping sodium intake levels between 1,500-2,300 mg/day will support sodium requirements without taxing the aldosterone pathway or the kidney organ's role in homeostasis.

3) Stachenfeld, N.S. "Acute Effects of Sodium Ingestion on Thirst and Cardiovascular Function." *Current Sports Medicine Reports* 7.4 Supp. 1(2008): S7-S13.

Comment: The human body is constructed to be sensitive in monitoring homeostatic electrolyte balance. This suggests that a consistent intake of small amounts of fluids and electrolytes help to prevent severe deficits of fluids and loss of electrolytes.

How the body controls serum sodium

Aldosterone is a hormone that controls the rate of sodium circulated in the human body. When sodium levels dip too low, via loss in perspiration or urine, aldosterone is released, stimulating the kidney tubule cells to increase reabsorption of sodium back into the blood. In basic terms, the body has a very complex and effective way of monitoring, recirculating, and thus conserving its stores of sodium.

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Besides contributing to many health problems, high-sodium diets encourage faster sodium depletion during exercise.

5. We recommend that as a start, you try 1-3 Endurolytes capsules/ scoops or 0.5-1.5 Endurolytes Fizz per hour, and adjust from there.

6. For light and/or short duration exercise, the modest electrolyte component in HEED might be sufficient.

7. NEVER, ever, use salt tablets. Never.

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Start making the list below on page 44

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High sodium intake will suppress serum aldosterone, whereas low sodium intake will elevate serum aldosterone. In other words, too much sodium—be it via diet and/or during exercise—will suppress and neutralize aldosterone's sodium recirculation (and thus sparing) effects, causing more sodium to be lost. Conversely, a low-sodium diet and a more conservative sodium intake—in tandem with other depleting electrolytes—during a workout or race creates an environment where lower amounts of sodium are lost in sweat and urine.

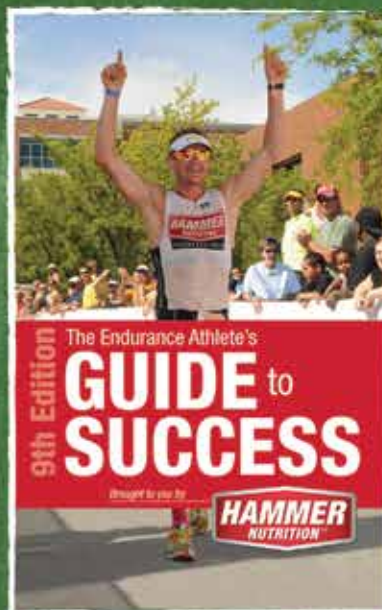
This is also why “sweat rate” figures can be deceiving. You'll find many a coach or researcher stating something to the effect of “I've seen athletes lose up to several grams of sodium during a one-hour training session.”

That may very well be true for some athletes during such a short-duration bout of exercise,

especially if it's under a controlled environment (such as riding a stationary bike in a warm room with no circulating air). However, that doesn't mean that those losses are sustainable hour after hour; again, the body's built-in chemical messengers and hormones (namely aldosterone) help prevent those losses from continuing down the same path. Yes, the body does need sodium replenishment but it has to be an amount that works in cooperation with aldosterone's “sodium recirculation/conservation” effects. A high-sodium diet and/or too-high sodium intake during a workout or race effectively negates aldosterone's desired effects, which means greater sodium losses.

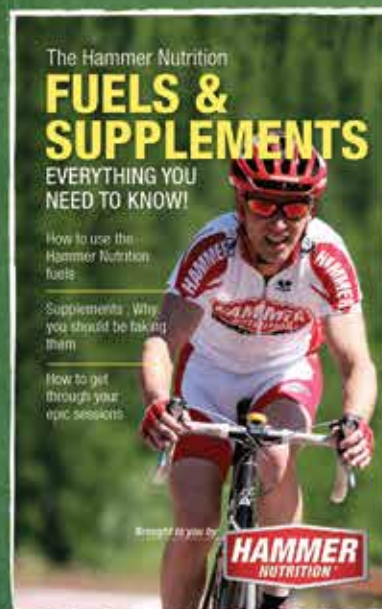
Bottom line: Instead of adopting a recommendation that more and more sodium be added to the already too-high and unhealthy amounts in the diet, athletes should focus more on lowering their daily sodium intake. It is almost virtually guaranteed that each and every one of us consumes far more sodium than we need on a daily basis, and the harmful effects of oversupplying the body with sodium above its daily needs is a real and present danger which will compromise optimal health. Lowering your sodium intake in the diet—keeping it in the range of 2,300 mg or less—is not only a more appropriate recommendation/protocol for general health purposes, it will also benefit athletic performance as well. Definitely do not pre-load sodium in the days leading up to a race. **HN**

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Team Hammer Nutrition/Charity of Choice spends time in spring training. Photo : courtesy of Hunter Ziesing

Must-do stretches for cyclists

BY DRS. RYAN WIGNESS AND TORBEN JENSEN

The average person spends their day in what is called a flexion dominant posture. This is the posture we assume when we are flexed at our ankles, knees, hips, trunk, shoulders, elbows, and wrists. Picture your posture when you are sitting in your car, at the dinner table, or your office desk. Subjecting the body to prolonged flexion dominance is a major cause of movement dysfunction and pain in our muscles and joints due to the shortening of flexor muscles and weakening of their antagonist muscles. Cyclists take the flexion dominant posture and add repetitive movement and force. If we add extended saddle time due to the rigors of training and racing, the effects of flexion dominance become amplified.

Here we will identify muscles and joints in regions of the body that are commonly affected by cycling and illustrate effective ways to combat the

inevitable pain and discomfort that many experience while cycling.

Lower back

Low back pain, especially during long ascents, is one of the most common complaints that will cause a cyclist to seek therapy. Assuming the bike of the cyclist with low back pain has been properly fit by a trained professional, we must then address their dysfunction. With climbing, the rider must lean forward to balance their body weight evenly between their wheels; this position causes increased flexion in the lumbar spine. The incline of the hill will cause the rider to increase the force that is required to maintain velocity, thereby increasing the load placed on the flexed lumbar spine. To counter the effects of this increased spinal load into flexion, we can place the cyclist into

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Lower back



Lower back

- continued from page 14



Hip flexors



Hip flexors



Hip flexors

extension using McKenzie Extension Exercises. The easiest way for a cyclist to accomplish this is to stand with your hands on the small of your back, then lean backward and push your pelvis forward. Hold this position for 20 seconds and up to 10 times per day. This is especially important after a ride or sitting for extended periods of time. It is common to have slight discomfort with this, but there should not be any sharp or pinching pain.

Hip flexors

The hip flexors, or more specifically iliopsoas, are muscles that attach from the upper femur to the pelvis and lumbar spine. Hip flexors are also very commonly shortened and tight in cyclists. This is due to the fact that the cyclist's hip is rarely in any position other than flexion while riding, except possibly while standing up out of the saddle. The hip flexors' primary role during pedaling are to lift the thigh on the upstroke while turning over the pedals. Because of their attachment to the pelvis and lumbar spine, the hip flexors will also increase the effects of flexion dominance by pulling the spine into increased flexion. To lengthen short, tight iliopsoas and decrease their load on the spine, there is a simple stretch that can be performed. To stretch, kneel on the floor and place a towel under your left kneecap for cushioning (or if outside, find some soft ground). Place your right foot in front of you with both hands on your right knee for support. Let your hips descend toward the floor, keeping your right knee directly over your right foot. Engage your abdominals and lengthen your back, holding your torso as upright as possible. You should feel a stretch in the front of your left hip. To increase the stretch, bring your left arm above your head and lean your upper body to the right. Hold for 30 seconds and perform up to six times a day, especially after a ride.

Gluteus medius

Gluteus medius, one of the gluteal muscles that forms the gluteal mass in the buttock region, also becomes short and tight in cyclists. It attaches from the lateral brim of the pelvis to the upper femur. It is primarily a hip extensor during cycling and assists in pressing the femur downward during the down

stroke while pedaling. It also controls hip stability by keeping the knee tracking straight during pedaling. When gluteus medius becomes short and tight, it can cause buttock and lateral hip pain as well as abnormal compression at the hip joint. To stretch your gluteal muscles while sitting on the ground, keep your back straight and left leg in front of you. Then pull your right knee toward your chest and then to the opposite shoulder. After you feel a pull, tighten your abdominals and sit as tall as possible. It is most effective to stretch muscles that have been warmed up for 5-10 minutes and stretch those muscles for 30 seconds up to six times a day.

There are many variations to these stretches that also work great, but these are highlighted as they do not need any props and can be done anywhere after a long ride! **HN**

Dr. Ryan Wigness (pictured) is the owner of Whitefish Chiropractic Center in Whitefish, Montana.

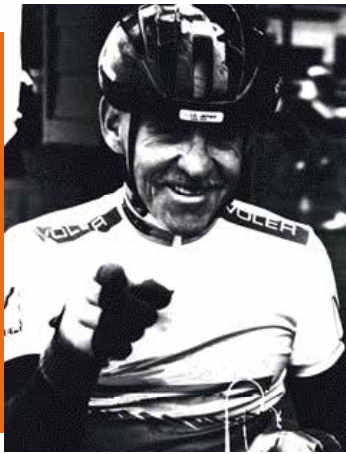
Dr. Torben Jensen is the owner of Active Edge Chiropractic in Canmore, Alberta.



Gluteus medius



Gluteus medius



ASK DR. BILL

From the archives of Bill Misner, Ph.D.

Question

Does the carbohydrate-to-protein ratio really matter when it comes to a recovery fuel?

ANSWER

Research has not determined the optimal ratio of protein to carbohydrates for recovery or muscle synthesis. A 1:1, 3:1, 4:1, 5:1, or even 7:1 carbohydrate to protein ratio is rational, but none are "proven conclusively." (NOTE: In liver disorders, scientists note that the maximum liver toleration is only 5:1 when "sick.")

Serum urea increases with exercise duration, suggesting that prolonged exercise may be analogous to starvation or that protein catabolism results. Excretion of urea in sweat during exercise-induced carbohydrate depletion shows a significant muscle protein cannibalization rate (10-15% of caloric energy demands), mostly when glycogen reserves are low. The maximal depletion rate of amino acids during intense endurance activities appears to be proportionate to muscle glycogen depletion. This rate ranges from 10-12% normally, but may on rare occasion peak to 14-15% of the calories recruited during endurance exercise.

Should an athlete spend their muscle

glycogen stores to relatively low levels in a multi-hour or multi-day event, replenishment is slow, but even fragmented amino acids may be selected for use systemically. The rate of carbohydrate expense is 11-14 calories per minute, while the rate of exogenous muscle glycogen replenishment via liver donation is only a sluggish 4 calories per minute. The expenditure to replenishment ratio of 11:4 is sure evidence that replenishment may delay fatigue state, but is subject to time required for substrate transmission by the individual systemic response to



Supplement Facts

Serving Size 2 level scoops (49g)
Servings Per Container 32

	Amount Per Serving	%Daily Value
Calories	170	
Total Carbohydrate	33 g	11%*
Sugars	2 g	†
Protein	10 g	
Calcium	92 mg	9%
Iron	0.1mg	<1%
Magnesium	38 mg	10%
Chromium	41 mcg	34%
Chloride	90 mg	3%
Sodium	60 mg	3%
Potassium	85 mg	2%
<hr/>		
Glycine 50 mg		†
L-Carnosine 60 mg		†
L-Glutamine 3 g		†
Tyrosine 17 mg		†

demand imposed.

One can make a case for either a 3:1 ratio or as high as a 7:1, ratio based on energy expense. The rate of protein degradation is 28-48 protein calories versus up to 240-280 carbohydrate calories burned during aerobic light exercise. This averages to 7 parts carbohydrates to 1 part protein recruited during light exercise demands. This "average" number will vary by size, gender, lean muscle mass, fiber types, fitness, exercise intensity, weather conditions, and age. However, one study in older resistance-exercise subjects reported positive muscle growth synthesis with only a 1:1 carbohydrate-protein ratio post-exercise meal. Therefore, data reviewed appears to favor 3:1 or 4:1 for repletion, though it is not wrong to use a 1:1, 5:1, or 7:1 carbohydrate-to-protein formula as long as your daily total repletion ranges 1.4-1.7 g/kg body weight.

For additional information, please refer to the article "Why We Use a 3:1 Ratio in Recoverite." You'll find it in the Advanced Knowledge link of the Knowledge section on the Hammer Nutrition website. **HN**

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Camperers at the February Hammer Camp enjoy a ride in the sun. Photo : Joe Frank

Red blood cell turnover

Nutritional considerations

BY DR. GARRET ROCK

Dr. Garret Rock is board certified in Colorado and Minnesota, and specializes in orthopedic chiropractic, biomechanics, and sports and exercise physiology. Dr. Rock works with many top professional triathletes, as well as several other professional endurance athletes, and is a Hammer Nutrition-sponsored triathlete and mountain biker.

Red blood cells are directly related to how well you perform in endurance events. These cells are responsible for carrying oxygen from the lungs to the muscles and other tissues of the body. The cells are rich in an iron-containing protein called hemoglobin, which binds to oxygen molecules as the red blood cells pass through the lungs. More red blood cells and more hemoglobin within each red blood cell means more oxygen delivered to the muscles. Greater amounts of oxygen delivered to the muscles directly correlates to improved performance.

Micronutrient (vitamin and mineral) intake has a significant effect on red blood cells. New red blood cells are formed in the bone marrow. As the final maturation of red blood cells occurs, vitamins B12 and B6, and folate/folic acid are essential for nuclear maturation and division, which is essential to making the red blood cells functional. Iron is required in the formation of hemoglobin. Other micronutrients, such as copper and zinc, can indirectly affect the process of red blood cell formation as

well. Therefore, it is vital to your success as an endurance athlete to ensure you are getting adequate amounts of these micronutrients on a daily basis.

The natural life cycle of a red blood cell lasts approximately 100-120 days in adults. The development of new red blood cells takes approximately one week. We are constantly turning over red blood cells. Cells die, new ones take over. In most people, red blood cells are turned over in a balanced fashion. However, increases in red blood cell destruction, blood loss, or a decreased rate of new red blood cell production can cause an imbalance in the normal turnover rate. This can lead to a decrease in the total number of functional red blood cells, hemoglobin, and thus oxygen delivered to muscles. In severe cases, this causes anemia, a condition characterized by severe fatigue. In milder cases it often goes largely unnoticed, and it is quite common in endurance athletes, especially long and ultra-distance triathletes.

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Training increases red blood cell destruction. Both oxidative stress and direct trauma (such as foot-ground contact during running) destroy red blood cells. Therefore, endurance athletes require a higher rate of new red blood cell production and maturation, and thus higher levels of the micronutrients essential to red blood cell formation. As heavy training loads ensue, there is often an initial decline in red blood cell numbers due to the increased cell destruction. The body must then produce many new red blood cells to make up for the loss and keep up with the increased rate of destruction. This requires high levels of essential micronutrients. If adequate levels are not present, the body cannot create enough red blood cells and/or hemoglobin. The result is often a decline in red blood cells, hemoglobin, and thus oxygen delivery to muscles through the remainder of training and racing season.

As a medical adviser to many of the world's top endurance athletes, including

many top professional triathletes, part of my job is to work with athletes on their diet and supplement needs in order to make sure they are always holding adequate levels of the nutrients needed for new red blood cell production. Having reviewed thousands of blood tests in athletes ranging from top tier pros to beginners, I have developed an understanding for the processes that occur in endurance athletes and how to both prevent problems and improve performance through optimizing red blood cell turnover, legally of course. Although I have always been a big supporter of the diet being your number one priority for replenishing micronutrients, I have found that in the vast majority of endurance athletes training for long distance events, supplementation of certain micronutrients is typically beneficial and often essential in order to keep up with the increased red blood cell turnover rate.

Here are some key components for optimizing red blood cell production during training:

1. Micronutrients – Although your primary focus should be on increasing dietary intake of the essential micronutrients, supplementation can help enhance levels. Be sure you are taking a high-quality supplement, as processing of supplemental ingredients does affect bioavailability.

2. Recovery – Recovery should be an important part of your training plan. Recovery means adequate sleep, time away from physical activity between training periods, and time away from stress. Also an essential part of recovery is post-exercise nutrition. I recommend using Recoverite immediately following your workout. Follow this up with a healthy meal consisting of foods high in folate, B vitamins, iron, and minerals such as copper and zinc.

3. Don't overtrain – Ramping up your training too quickly and/or implementing too much high-intensity training will result in greater red blood cell destruction. For age group athletes, both elite and recreational, 1-2 days of high-intensity training per week is typically enough. **HN**

Steve's additional suggestions for healthy red blood cells

Dr. Garret Rock thoroughly discusses the main nutrient needs for building healthy red blood cells. I would like to add mention about two nutrients, vitamin C and vitamin E, that are also considered to be key hematopoietic (blood-building) nutrients. In addition it's suggested, quite strongly in fact, that CoQ10 is involved in the process of increasing red blood cell production, most likely because it helps in the regeneration (and thus, "lifespan") of vitamin E in the body.

Vitamin C is important for so many reasons; in fact, a deficiency of this nutrient by itself will increase the potential for anemia. Vitamin C (ascorbate) is also important to help maintain optimal folate (folic acid) "status" by protecting this particular B vitamin from free radical oxidation.

Vitamin E also plays many important roles in the body, primarily as an antioxidant. However, it's also necessary for the efficient metabolism of vitamin B12 and zinc.

Taking all of these nutrients into consideration, the ideal Hammer Nutrition supplements for optimizing healthy red blood cells are:

Premium Insurance Caps - Provides vitamin B6, vitamin B12, folic acid, vitamin C, vitamin E (as d-alpha tocopherol), copper, and zinc

Xobaline - Provides folic acid and vitamin B12

AO Booster - Provides all 8 members of the vitamin E "family" - the 4 tocopherols and 4 tocotrienols

Race Caps Supreme - Provides CoQ10 and vitamin E





GMO food consumption

How dangerous is it?

BY STEVE BORN

Whether genetically modified foods are genuinely unsafe or not remains a hotly debated topic in the nutrition world.

Until recently, few studies had examined the potentially harmful effects that long-term consumption of GMO foods may pose to animals, let alone humans. However, the results of a study published in the *International Journal of Biological Sciences* showed the health of rats that consumed GMO foods to be greatly harmed [1]. Although the argument could be made that the study was “just on rats,” the implications that human health could be negatively affected as well can’t be ignored.

In this study, conducted at two separate labs and on two different dates, rats were fed using three varieties of commercially available, genetically modified corn.

One variety, NK603, was genetically modified to be tolerant to the commonly used herbicide Roundup. (Note that even

though the corn was “tolerant,” it still contained trace levels of the chemicals in Roundup.) The other two types of corn, MON810 and MON863, were genetically modified to synthesize to two varieties of the bacterium *Bacillus thuringiensis* (Bt), used as an insecticide. Two control groups of rats consumed diets of non-GMO corn, and in the same amounts as the rats fed GMO corn.

A total of 60 different measures of blood and urine toxicity were analyzed by researchers after weeks 5 and 14. After evaluation, the researchers found that the majority of the damage—often in the form of tumors—was in the rats' kidneys and livers. The rats (primarily the males) fed the NK603 variety of GMO corn had substantial damage to their kidneys and livers. The rats fed the MON810 variety of GMO corn experienced similar damage, although the majority of the rats in this instance were female. The rats (both male and female)

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that consumed MON863 GMO corn experienced the most damage; researchers observed 34 specific GMO-related effects in the kidneys and liver. Additionally, these rats exhibited significant increases in glucose and triglyceride levels and overall body weight, as compared to the rats in the control groups.

While kidney and liver damage were the most commonly noted effects, all rats fed any of the three varieties of GMO corn presented with problems involving adrenal glands, spleen, heart, and hematopoietic system (the bodily system of organs and tissues, primarily the bone marrow, spleen, tonsils, and lymph nodes, involved in the production of blood). The most startling, and arguably the most convincing, observation was that 50% of the male rats and 70% of the female rats fed GMO corn died prematurely as compared to the rats in the control group.

The researchers, headed up by Joël Spiroux de Vendômois, concluded, "Our data strongly suggests that these GM maize varieties induce a state of hepatorenal (kidney/liver) toxicity. This can be due to the new pesticides (herbicide or insecticide) present specifically in each type of GM maize, although unintended metabolic effects due to the mutagenic properties of the GM transformation process cannot be excluded."

Summary

As is the case with most animal studies, arguably the most commonly asked question by researchers is, "What are long-term effects of this substance in humans?" While a few studies have reported harmful

effects in animals, the specific effects in humans consuming "X" amount of a given substance over "X" amount of time is not known with complete accuracy.

With that in mind, our position is that, even though the jury may be out (at least to some degree) on the effects that long-term GMO food consumption has on humans, why take chances? We don't know with 100% certainty what kind of impact the results of this study will have on humans over the long haul—5, 10, 15, or 20 years down the line. But this particular study's results, though done on animals, is disturbing and, at the very least, suggests that consuming genetically modified/alterd food may very well lead to catastrophic health consequences. Do you really want to roll the dice on your health by consuming GMO foods? We sure don't, which is why our recommendation is, "Say no to GMO." **HN**

REFERENCE:

[1] De Vendomois JS, et al. *Int J Biol Sci.* 2009 Dec 10;5(7):706-26.

Garcinia cambogia (HCA)

Weight-loss nutrient extraordinaire

BY STEVE BORN

In the past couple of months, this particular nutrient has received a lot of positive press and publicity for its effects on weight loss. One popular nutritional scientist even referred to *Garcinia cambogia* as "the Holy Grail of Weight Loss." In all honesty and humility, this isn't really news to us. We've been touting the weight-loss benefits of *Garcinia cambogia* for many years . . . since February 2001 when we first introduced Appestat, to be precise!

Garcinia cambogia, oftentimes called Brindleberry or Malabar tamarind, is an orange-sized, pumpkin-shaped fruit native to Southeast Asia. Hydroxycitric acid (HCA) is a derivative of citric acid that is found in *Garcinia cambogia* and other tropical plants. Research suggests that HCA may facilitate weight loss by inhibiting an enzyme called citrate lyase, thereby preventing the conversion of excess dietary carbohydrates to fat. HCA also gently and safely suppresses appetite and reduces food intake without stimulating the central nervous system. (No unpleasant jitteriness!) Research published in the *Journal of Obesity* [2011] concludes that "Garcinia extracts/HCA can cause short-term weight loss." [1]

The type of HCA that is receiving the majority of the media attention is known as Super CitriMax®, made by InterHealth Nutraceuticals. This is the exact same HCA that we use in Appestat. While *Garcinia cambogia* is currently "all the rage," Hammer Nutrition has known about, and provided via Appestat, this phenomenal weight-loss nutrient for a long, long time! **HN**

REFERENCE:

[1] Igbo Onakpoya, Shao Kang Hung, Rachel Perry, Barbara Wider, and Edzard Ernst. *The Use of Garcinia Extract (Hydroxycitric Acid) as a Weight loss Supplement: A Systematic Review and Meta-Analysis of Randomised Clinical Trials*; *Journal of Obesity*, Volume 2011 (2011), Article ID 509038, doi:10.1155/2011/509038
<http://www.hindawi.com/journals/jobs/2011/509038/>

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HAMMER NUTRITION

Hammer Nutrition's healthy sweeteners

BY STEVE BORN

Anyone who's used Hammer Nutrition fuels for even a short period of time knows that we give a big "thumbs down" when it comes to the use of refined simple sugars (substances that end in "ose" – glucose, sucrose, fructose, etc.), artificial sweeteners (aspartame, sucralose, acesulfame-K, etc.), and high fructose corn syrup. This garbage has absolutely no business being in your body because these kinds of sugars and sweeteners provide ZERO benefits for athletic performance and overall health. Therefore, we strongly encourage you to read the label carefully when purchasing an athletic fuel or everyday food product to make sure it doesn't contain any added refined simple sugars, artificial sweeteners, or high fructose corn syrup. You don't need it, so don't eat it!

While you're at it, also make sure there aren't any artificial colors, flavors, or preservatives in the foods you buy and consume. Chemicals used in processing, such as polyethylene glycol found in some effervescent athletic fuels (not to mention antifreeze), are a definite "no no" as well. Like simple refined sugars and artificial sweeteners, avoid this junk like the plague!

Refined simple sugars? Artificial flavors, sweeteners, colors, or preservatives? Chemical processing agents? You won't find them in Hammer Nutrition fuels! Healthy options are the only options we want in our fuels and in your body! We have no doubt the following ingredients used in our fuels are undeniably better choices.

Energy Smart™ - While the production process of Energy Smart™ is a heavily guarded, trademarked secret, rest assured that the "end product" is not a simple sugar (like glucose or fructose), but rather a medium- to long-chain carbohydrate, made by combining naturally occurring, unrefined sugars from fruit plus specially developed medium-chain carbohydrates from grain.* In simplest terms, the proprietary process of making Energy Smart™ involves taking the short-chain sugar (saccharide) molecules from fruit and adding more saccharide molecules from grain. The FDA guidelines rate Energy Smart™ as an "other carbohydrate," neither simple nor complex. Dr. Bill Misner writes, "The unique biochemistry of Energy Smart™ raises blood glucose as fast as sucrose (table sugar) and faster than fructose and, when ingested, human physiology interprets the biochemistry of Energy Smart™ as a complex

carbohydrate, resulting in gradual but welcome increases to serum blood sugar levels."

*After reviewing the company's allergen chart (which states that, among other things, it is free of amaranth, barley, buckwheat, corn, kamut, millet, oats, quinoa, rye, spelt, triticale, and wheat), we ascertain that the grain used is rice.

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HAMMER NUTRITION

Xylitol - This natural substance that can be found in a variety of fibrous fruits and vegetables is also known as birch sugar, primarily because it is usually extracted/produced from birch trees. (It can also be extracted and produced from corn cobs.) The human body naturally produces over 15 grams of xylitol every day by way of normal metabolic processes.

Xylitol also promotes oral health, as it does not ferment and support the acid-producing bacteria that cause tooth decay. That's why you'll find this unique sweetener in gum, toothpaste, and mouthwash, and it's one of the reasons why we include small amounts of it in many Hammer Nutrition fuels.

Note that xylitol may cause stomach distress and/or have a laxative effect when consumed in high doses. It has no known toxicity, though; people have consumed as much as 400 grams daily for long periods with no ill effects. Generally, xylitol-induced gastric stress occurs as a laxative effect in xylitol-sensitive people who consume 30 grams in a single dose or multiple doses in a short period of time.

It is also believed that xylitol is unsafe for consumption by dogs; therefore, we do not recommend you feed your dog any xylitol-containing products, including HEED or Recoverite, nor any products that are made for human consumption.

Stevia - This extract (steviosides) is derived from the leaves of *Stevia rebaudiana*, a plant native to subtropical and tropical Central and South America. Stevia's sweet taste, considered to be up to 300 times sweeter than sugar, means that minimal amounts are necessary to sweeten a product. Stevia is non-caloric and does not affect blood sugar levels, therefore it is safe for diabetics. Stevia may help to lower elevated blood pressure while not affecting people with normal blood pressure. Like xylitol, stevia does not support acid-producing bacteria responsible for tooth decay. **HN**

HFCS consumption & Type 2 diabetes

BY STEVE BORN

Add another reason to your list of why high fructose corn syrup (HFCS) should be avoided at all costs. The results of a study by researchers from the U.S. and Great Britain show that consumption of large amounts of HFCS may be one of the primary culprits in the global epidemic of Type 2 diabetes. Published in *Global Public Health*, their research found a greater prevalence of the disease—an astonishing 20% higher rate of Type 2 diabetes—in the countries with the highest rates of HFCS consumption.

Disturbingly, the U.S. had the highest per-capita consumption of HFCS out of all 42 countries studied, an alarmingly high 55 pounds per year. You read that correctly—55 pounds annually! Though that amount is astronomical, it shouldn't come as too much of a surprise, considering that the U.S. is the largest producer of HFCS. What's also disturbing is that Mexico's HFCS intake has been on the rise, dramatically so, ever since the U.S. started importing HFCS after trade restrictions were lifted in 2008.

The lead study author, Dr. Michael Goran, stated, "High fructose corn syrup appears to pose a serious public health problem on a global scale. The study adds to a growing body of scientific literature that indicates high fructose corn syrup

consumption may result in negative health consequences distinct from and more deleterious than natural sugar."

Type 2 diabetes, the most common form of this disease, is caused by high levels of sugar in the blood. According to the Centers for Disease Control and Prevention (CDC), more than 150 million people around the world are afflicted with the disease. Clearly, thanks to the widespread availability of HFCS, this worldwide epidemic can become even worse. If you want to take a significant preventative step toward protecting yourself against Type 2 diabetes, avoid HFCS! **HN**

REFERENCE:

High fructose corn syrup and diabetes prevalence: A global perspective. Michael I. Goran (a), Stanley J. Ulijaszek(b), Emily E. Ventura(a)

(a) Department of Preventive Medicine, University of Southern California, Los Angeles, CA, USA;
(b) Unit of Biocultural Variation and Obesity, Institute of Social and Cultural Anthropology, University of Oxford, Oxford, UK



Proper preparation for the healthy endurance athlete

BY BRENDAN HALPIN

Our constant goal as endurance athletes is to improve performance, but oftentimes we lose sight of the process and an injury or illness occurs. Getting fit and fast is relatively easy, but doing so in a way that will keep you healthy can be very difficult. Obtaining peak fitness and performance requires walking a fine line that places you in danger of illness, injury, or burnout. As a professional triathlete, I've learned that by focusing on a few key components I can minimize the likelihood of experiencing these potentially season-ending issues.

Plan of attack

One of the most crucial steps is to have a plan that builds you toward your end

goal with periodization and proper rest. Endurance racing has become very popular, and the number of publications covering these sports has increased drastically. Athletes have access to so many avenues for information about training processes—it can be difficult to make sense of all this. Picking and choosing from multiple plans can lead to disaster and requires a huge learning curve. You have to consider the amount of time you can dedicate to training and be realistic in setting your expectations and goals.

An option for getting assistance in determining your plan and deciphering all this info is to attend a multiday or weeklong training camp, which can provide a boost in fitness and is good for time-crunched athletes. A camp or

block of focused work is highly effective in helping you focus and achieving a high training volume before returning to normal life. I recommend a camp like The Cycling House for anyone looking for a week without all of life's other distractions.

The key is to find a plan, believe in your plan, and execute your plan. One of the factors that can really help with execution is nutrition and supplements.

Sustaining your training level

When I'm hitting my rhythm in training and feeling really good, I recognize that this is the most important time to pay attention to my body and what I'm putting into it. I focus on eating healthy foods that are close to their original form throughout the year and especially when I'm hitting big volume or training hard. After years of trial and error I have come to rely on Hammer Nutrition's Daily Essentials supplements (Premium Insurance Caps, Race Caps Supreme, and Mito Caps) in my everyday routine throughout the year. Over the years I have added Salmon Oil, Tissue Rejuvenator, and Super Anti-Oxidant. The combination of these vitamins and minerals keeps all of my bases covered and really help reduce inflammation and provide the immune support that I need. Occasionally I throw in REM Caps if I really want to

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Brendan Halpin runs trails outside of Missoula, MT. Photo: Tom Robertson

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ensure a good night's sleep.

These supplements become extra critical in my biggest volume periods of training and as I get closer to a race. I find it easiest to set my habits during the early stages of my season and then maintain them during the big blocks of training. Building these habits early is best because once you hit your training rhythm, it's easy to forget about a few important elements because you feel so good! This is often the period when people get injured or sick. As I get older, I know that to prevent injury I need to take care of my body in more ways than simple endurance training.

Cross-training for injury prevention

I'm not that old, but after turning 28, a few real injuries hit me like a brick wall. Until that point, I felt invincible and knew that if I logged plenty of hours swimming, biking, and running, I would be fast. I thought I knew what injury was, but after several years of hard training my body craved more than just endurance training. Strength training became a big part of my routine.

Strength training in collaboration with electrical muscle stimulation (Compex) has provided the support that my muscles, tendons, and ligaments need. Repetition is huge part of endurance training, but it can take a big toll on the old (or young!) body. Compex Strength, Resistance, and Endurance programs provide what my muscles crave without all of the extra added stresses on already taxed tendons, ligaments, and muscles. Weights, yoga, and core work are all good, but Compex is the ultimate complement to strength workouts. I added Compex to my regular routine and noticed a muscular improvement quickly. In addition to the added strength, the Active Recovery program helps me recover from workouts, allowing me to get ready for the next workout more quickly.

I was told that "the key to a happy runner is a strong butt." Those words are certainly true, and I have learned that Compex is a great way to help strengthen glute muscles. Triathletes and cyclists can especially benefit from electrical muscle stimulation because we have a tendency to develop many muscle imbalances. Compex can isolate certain muscle groups while controlling the level of stimulation that each area receives. This is a great way to balance out muscle groups. Hammer Nutrition provides very valuable Compex consultations that will help you create an electrical muscle stimulation plan for this. As we get older, the importance of strength training becomes much more crucial, which is why I highly suggest adding Compex to your routine.

The happy, healthy athlete

Regardless of what other decisions you make in the training process, having some of these strategies in place can help strengthen your process. If you want to be a healthy endurance athlete, you need to be a strong one! The best way to do that is to build habits that will help you increase strength and keep you healthy for your next competition. Implementing a proper training plan with focused training blocks/camps, strength training, and supplements will lead to a happy, healthy endurance athlete. Happy training! *HN*

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Photo : Joe Frank

Get your derriere in gear!

BY JIM BRUSKEWITZ

Ask any physical therapist who assesses the strength of endurance athletes and they will tell you that, if not specifically trained, the gluteal muscle group that extends the hip does not fire while running or biking when it should. I liken it to the muscle going to sleep. A signal is sent for the muscle to fire, but the muscle doesn't respond accordingly. This has wide-ranging implications for the endurance athlete who does repetitive motions.

A weak link in the kinetic chain involving the core, hips, and leg, if stressed long enough, will give way to problems. When the hips are not working properly, problems below the knees often arise. In addition, hamstrings will fire when the gluteals should, and this overloads the hamstrings. Iliotibial (IT) bands can be overloaded, leading to IT band syndrome. Beyond possible injury-related issues, the gluteals are a large muscle group well-suited to endurance activities. My experience is that you'll feel the gluteals burn, but they won't shut down like quadriceps muscles sometimes do. Besides, who wants to

haul a mass of muscle like that over hill and dale when it isn't pulling its fair share?

Fret not, the gluteals can be awakened quickly. Conventional exercise works, but you have to go beyond exercise that incorporates the gluteals in conjunction with the other muscles in the chain. The gluteals must be targeted specifically. Targeting specific muscle groups is what Compex neuromuscular electrical stimulation does extremely well, and conventional exercise when compared minute-for-minute is no match for it. Waking up muscle is achieved by attempting to recruit it. Attempt to recruit all of it, and it will awaken more quickly. That is why athletes who are looking for increased strength in the weight room lift heavy weights. Greater amounts of force are generated when more muscle is recruited. If through training more muscle can be recruited, more force can be applied. Most of one's strength comes from getting as much of a muscle as possible to be recruited at any moment in time.

What makes Compex such a powerful

tool for building strength is that one can recruit more muscle with its involuntary contraction than with a maximal voluntary contraction. By increasing recruitment, you increase strength. A minimum of three weeks of Compex training is required to achieve a significant and measureable amount, and improvements will be felt in a couple of weeks. Once the adaptations start to kick in, I attest that running stride length is longer. That's not too surprising given that the gluteals help extend the hip. Climbing hills both running and cycling improves when the gluteals are working as they should.

If you are an endurance athlete using your legs, I recommend putting the gluteals and the quads at the top of the list of those muscle groups trained with Compex. I think you'll find that you have more strength during your performance, and you'll dodge some of the typical overuse injuries that take athletes out of the game.

How should you go about strength training with Compex? While many athletes like being told exactly what to do, there is no one way to improve strength with Compex. By keeping a few things in mind, you can incorporate sound training principles into your personal plan. Here are some constraints you should impose on your approach.

Each muscle group can be treated individually when it comes to strength training. You can apply one schedule to all of the muscle groups trained, or each muscle group could be on their own plan when it comes to timing the sessions throughout the week and which programs to choose. Whichever approach you choose, you should:

- Train a muscle group at least twice and not more than three times per week, always leaving at least one recovery day between Compex strength training sessions for that muscle group.
- Begin by scheduling your strength training sessions on the same day and after your hardest training sessions in your sport. See how you respond to this and adjust if necessary.
- Spend at least three weeks with a particular program. There are three that endurance athletes most

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commonly use: Endurance for training slow twitch muscle fibers, Resistance for training intermediate fast twitch muscle fibers, and Strength for training dedicated fast muscle fibers.

For the Resistance and Strength programs, train with each program for a maximum of eight weeks.

Gains are quickly felt, and they can diminish quickly as well. For this reason, maintain your training with the strength programs up to a week before your big competition. You'll have plenty of time to recover from the strength work, and you won't lose the gains that you've made for race day.

Most Compex users acquire their unit and then use the recovery programs. This is very understandable, since motivated athletes want to absorb as much work as they can and, as a result, are recovery challenged. Compex recovery programs flush out the waste products from exercise and make room for fresh blood to speed recovery. The programs also have an analgesic effect. They help increase endorphin production as well as promote relaxation of the muscle. The strength programs all have a recovery phase at their end. Anyone feeling the need to recover even more thoroughly can safely and effectively use the recovery programs as much as they like. Even multiple recovery sessions in a row have really helped athletes.

Get your derriere in gear with muscle stimulation, and get it working the way it's meant to. You'll notice the improvement! **HN**

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Snap Electrode Pads \$14.95
(set of four 2"x2" or set of two 2"x4")

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Snap Cables \$59.99
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(FREE with purchase!)
30-minute consultation

Discover the benefits of Compex

To gain the best possible benefits and value from this powerful device, you'll need to become familiar with the basic functions of your NMES, including charging the device, and proper cable and pad connection.

In addition, you will learn:

- Navigation through the various programs stored within your unit
- Placement of the electrodes over the muscles you plan to stimulate
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The Competitor - \$79.95
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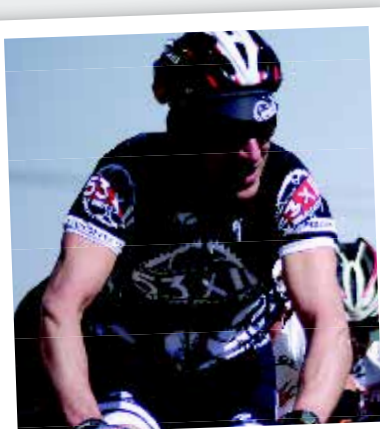
- Use all of the programs on your device
- Time weekly program use to benefit your sport
- Schedule your training utilizing an array of Compex programs to reach your peak at the right time
- Stack NMES workouts on top of conventional workouts to extend training efforts

The Expert - \$60.00*
60-minute consultation *Per hour

Become an advanced NMES user

After completing both the 30-minute and 60-minute initial consultations, additional consultation time can be purchased. You'll quickly become an advanced user and get the most out of your Compex device! With our advanced consultation, you'll learn how to:

- Tailor your Compex use to your unique needs
- Evaluate your progress and adapt your program
- Understand how the science and technology of NMES makes the Compex a very powerful tool



Jim Bruskewitz, NMES expert





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Compex is FDA-cleared.

Incorporating Compex Neuromuscular Electrical Stimulation (NMES) into your training routine will allow you to:

- Get the ultimate muscle warm-up
- Dramatically increase muscular endurance
- Optimize muscle recovery (minutes instead of days!)

Over the past 20 years, Compex has become the leader in electrotherapy through extensive research and innovation. Compex's flagship electrostimulation devices are an essential ally to healthcare professionals and the most demanding athletes in the world. For more than 25 years, Hammer Nutrition has been the leader in educating athletes to fuel properly and since 2006 has been the leader in NMES education in the U.S. Together, Compex and Hammer Nutrition are your best choice for all things NMES.

NMES technology is universally accepted and widely used in Europe for physical preparation, muscular recovery, injury prevention, rehabilitation, pain relief, muscular reinforcement, physical beauty, and more.

Whether you are a professional athlete, weekend warrior, or somewhere in between, Compex electrostimulation devices provide a potent tool to enable you to achieve, and even exceed, your highest athletic goals.

More benefits!

- Enjoy a "runner's high" endorphin flood anytime
- Increase muscle power & strength, size if desired
- Accelerate rehabilitation & injury recovery
- Avoid loss of muscle fitness during periods of inactivity
- Get a massage anytime you want

Real Compex Athletes, Real Compex Results!

"I have noticed a great improvement when I consistently use *Compex*. I also use it while traveling, and I don't get that achy, swollen leg feeling on a long flight." - Tiff K.

"My goals for 2012 were: (1) finish, (2) beat my 2010 time, and (3) go under 13 hours. I most definitely met all three goals and could not be happier. *Compex* worked and got me to another level in my training." - Scott S.

"The 15K went awesome! I was shooting to average 7:10's or so . . . and I ended up nailing it with an average pace of 6:54! My time was 1:04:14—3rd out of 1,162 in my age group and 35th overall women out of 9,067. I was so pleasantly surprised with the race! *Compex* training for running really paid off!" - Padra M.

"I was worried about my hamstring and IT band, but neither caused any issues. *Compex* saved me!" - Donna P.

Choose the Compex you need to reach your athletic goals

EDGE

Whether you're a competitive athlete, fitness enthusiast, weekend warrior, stay-at-home mom, or aging adult, Compex Edge can help you to achieve optimum health and fitness. When combined with your existing fitness routine, Compex Edge enables you to target your training and exercise more muscle in less time, so you can achieve peak performance and fitness. This unit provides a more efficient workout regimen, with less risk of injury to joints and tendons, and virtually no cardiovascular fatigue. Whether used for sports training, fitness workouts, muscle development, massage, recovery, or a warm-up, Compex enhances your muscle performance.

PRICE **\$399.99**

Programs include-Endurance, Resistance, and Active Recovery.



SPORT ELITE

The Sport Elite muscle stimulator is recommended for the competitive/high-performance athlete who has a rigorous training and exercise regimen. It features a total of nine programs with five levels of progression that will keep elite athletes challenged with every training session, resulting in a true competitive advantage!

PRICE **\$849.00**

Programs include-Endurance, Resistance, Strength, Explosive Strength, Potentiation, Pre-Warmup, Active Recovery, Recovery Plus, and Massage.

All models include a muscle stimulator, battery charger, user's manual, instructional DVD, electrode placement guidebook, drawstring bag, electrode lead wires (4X), and gel electrodes.

PERFORMANCE U.S.

The Performance U.S. muscle stimulator is recommended for the fitness enthusiast and/or the athlete who engages in frequent competition. It features a total of five programs with five levels of progression to help competitive athletes achieve the highest level of performance.

PRICE **\$579.99**

Programs include-Endurance, Resistance, Strength, Pre-Warmup, and Active Recovery.



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(Sport Elite and Performance U.S. models only)

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Priceless!

Complex vs. compression sleeves

The hands-down winner

BY JIM BRUSKEWITZ

Athletes' mad dash to recover more quickly to ready themselves for their next workout has not gone unnoticed by companies developing technologies available to the athlete to be used at home. Two technologies that are prominently taking their place in athletes' homes these days are Complex muscle stimulators and external dynamic compression sleeves. Is one better than the other? What follows is a comparison of the effectiveness, convenience, and cost of the two technologies.

Complex and compressions sleeves aim to flush the waste products produced from doing work while exercising. Lactic acid and other metabolites are produced in the muscle, and must be removed and processed before the muscle is ready

to optimally work again. Blood once in the muscles' capillary beds is stagnant. We move the blood out of the muscle and make room for fresh blood by

contracting the muscle. The blood is squeezed out of the capillary beds and makes its way through valved veins (that don't allow backflow) to the heart where it can be cycled to the body again.

How they work

Compression sleeves apply pressure externally to extremities and collapse some of the capillaries and veins to move blood out of the muscle and back to the heart. Complex stimulates muscle to twitch thereby squeezing blood out of the muscle. Recovery is not limited to just the extremities as it is with compressions sleeves. The twitch is a few thousandths of a second, so muscle is not worked as it was when the exercise was performed. Since the pulse durations are so short, a strong contraction that engages not just the muscle superficially, like a compression sleeve does, is possible without further fatiguing the muscle. The flush portion of the Active Recovery program is highly effective at shortening recovery time needed. This program does more than just flush blood. Part of the Active Recovery program generates the production of endorphins. The analgesic effect of endorphins alleviates the "dead legs" and sore-to-the-touch sensations commonly felt after hard training bouts. Yet another part of the program simulates massage and helps the muscle to relax. Compression sleeves move blood. Complex moves more blood and has the added endorphin production and massage feature. As a result, recovery with Complex is more thorough than recovery provided with a compression sleeve.

How convenient are they

The compression sleeves pump alone weighs about 9 pounds and measures ~10.5"x6"x7" without the foldable sleeves. A Complex unit is 5"x4"x1" and weighs less than 2 pounds. No matter where I go, in a car, on a plane, or to a race, I have my Complex with me. It's so convenient. Finding the room to stretch out isn't necessary either. I can sit in the back of a small car and run recovery programs for the length of a trip, even a long trip.

The cost

Compression sleeve units cost about \$900-\$1,700. All Complex models have the Active Recovery program and range in price from \$399- \$849. While comparing costs, let's look further into what you get. For less than the least expensive compression sleeve product, you can have a Complex Sport Elite. With that unit there's not just one, but three recovery programs. Not only are you getting at least one recovery program with any Complex model, you are also getting strength and warm-up programs too!

In conclusion, Complex outdistances compression sleeves when it comes to the scope of the recovery enhancement, the convenience of using it at home or on the road, and the fact that it is not just for recovery, but for building strength and warming up as well. **HN**



NATE'S CORNER/ From the Hammer Nutrition Forum

Undertraining?

BY NATE LLERANDI

Steve's Note: "Nate's Corner" has long been a part of Endurance News, and he also posts tips and insight on the Hammer Nutrition Forum. The goldmine of wisdom that Nate has shared over the years has helped countless numbers of athletes, including me; I've saved every "Tip of the Week" email from him since September 2000!

We hear a lot about avoiding overtraining. Yet our goal as athletes is to always push the envelope and see how much we can squeeze out of ourselves without falling into that abyss of overtraining. To a certain extent, this makes sense.

When I hear comments from people who are/were overtrained, they talk about how tired they feel in general. When they discuss their workouts, they talk about how they "sucked." But that's about as far as it goes. To be clear, when you're overtrained, there will be days you feel good and there will be days that you perform well. But the more deeply you fall into the abyss, the fewer and farther between those good days are. Even during poor days, you'll still be tired and panting, and have most of the sensations of "working out hard" if you decide to challenge yourself. This is where something like a power meter can be really handy. If you track power, then you can see in real time that your output is quite a bit lower than normal. If you're overly fatigued, you may feel like you're killing yourself in your interval workout, but your power just will not be where it needs to be. Your heart rate sure might be (but even that can be suppressed when overtrained), but your power won't be.

So, what does overtraining have to do with undertraining? It's simple. To avoid overtraining, my suggestion is to strive for being slightly undertrained. Being undertrained can be defined by a lack of volume and/or intensity. The reason is

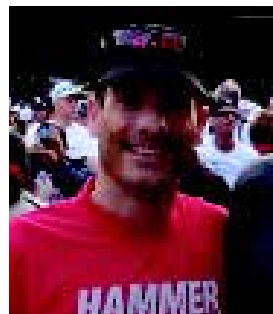
that I think we as athletes get more out of ourselves than we realize during periods of challenging training. And I believe we largely discount—or forget—the fact that most of us have been athletes the vast majority of our lives. All of that stored up fitness doesn't just evaporate. It sticks around, and we can draw upon it more than we know.

At the end of April 2012 when I was preparing for the Tour of the Gila (a 5-day, 325-mile mountainous stage race in southern New Mexico), I did a two-day block of training one weekend. Day 1 went well, but Day 2 not so much. The following weekend I did a similar two-day block, with significantly better results. On the third weekend I did a three-day block and the results were absolutely stellar. In the span of 16 days, my fitness took two big steps forward. My point is that our bodies respond quickly to stimulus; they adapt to survive. We don't need a year of preparation to excel in a particular event. We can probably NOT be so focused over time and simply focus for a finite period of time—4-12 weeks max, depending on the nature of the event. In my own example, in the span of just over two weeks, I went from wondering what the heck I had gotten myself into, to knowing I would be able to attack the race and do well . . . from second thoughts to a high level of confidence.

I'm not saying that you can eat bonbons for 48 weeks and then focus for 4 weeks heading into a marathon or Ironman. I'm not suggesting athletic suicide here.

What I am suggesting is that we try to temper our Type A personalities a bit and work on ebbing more than flowing. Allow for more relaxation day-to-day, week-to-week, and month-to-month. Thinking out of the box can be as much about what you don't do as what you end up doing.

Happy Training,
Nate Llerandi
HN



Nate Llerandi, Hammer Nutrition-sponsored athlete and longtime ambassador, has been coaching endurance athletes since 1990. He draws from his extensive experience as a world-class triathlete, including ranking as Top American and 6th place in the prestigious ITU World Cup Series. Nate's most recent competitions include the Pike's Peak Marathon, and the Dead Dog Classic Stage Race and Sunshine Hill Climb Challenge road cycling events.



Join the forum and get your questions answered!

You can access Nate's knowledge—as well as get your questions answered by Steve Born and others—by joining the Hammer Nutrition Forums. It's easy, there's no cost whatsoever, and there's no annoying pop-ups or commercials. Click "Community" near the top of the Hammer Nutrition website home page, and then choose "Hammer Forums" for information on how to become a member.

EMS - Why I'm a believer

BY BRIAN FRANK

I get asked quite frequently why I devote so much energy to the promotion of a technology that has yet to be accepted in the U.S., despite its presence for almost ten years. So, I thought I'd share a bit with those of you who are still being vexed by this question. I'm referring to Electro Muscle Stimulation (EMS), aka neuromuscular electrical stimulation (NMES). Whatever you call it, it's a truly amazing technology housed in a convenient, portable, handheld device that can literally change your life. It did mine, and that's why I'm a believer and the leading promoter, despite the fact that I have better things to do that are far more lucrative. Putting it bluntly, I don't need to promote these technologies or devices; we make almost nothing on their sale, once the expenses incurred in promotion and demonstration are calculated in. Here's a little more background that may help to explain why I'm a cheerleader for EMS.

It all started back in the early 2000s. As many of you know, I'm addicted to riding bikes in Italy and France with my adopted families over there. Round about 2001, I noticed that many of my friends had these little devices with cables that they would attach to their legs and make them jump as if they were being "shocked." Of course, I inquired about what they were doing and got to use one a few times, and noticed that my legs felt significantly better the next day, every time I used it. At that time, it was intriguing, but since these machines were not available in

the U.S., that was as far as it went. Then, in January 2004, I ruptured L4 and L5 in my back from a combination of structural/neural damage, heavy stress, and an unfortunate run-in with a snowblower. These injuries were actually small tears; with a few months of PT and rest, I should have been good to go, but I wasn't—nothing would alleviate my constant back spasms. For more than a year, I took to lying on the floor of my office with a laptop propped on my knees. It seems that I had severe neural inhibition in specific muscle groups resulting from repeated concussions in my younger years. Then EMS came to the U.S. and I began using it on my spinal erectors for decontracture and on my abs using the Strength program. I immediately began achieving results that I had not seen with conventional rehab. Within six weeks, I was at my desk 8+ hours a day and riding pain-free!

At the same time, I saw that the companies attempting to market this technology and associated products were completely clueless. You have to experience it to believe it, which requires education and very labor-intensive post-event demonstrations. They wanted none of this—that's not how Madison Ave. works—but their approach to marketing didn't work, so today the technology remains one of the big mysteries and untapped advantages for endurance athletes. Below are some of the salient points that I believe make this technology/product, a must-have for every athlete, from hard core to weekend warrior, strength to ultra distance.



Here are my "5 Big Reasons Why You MUST Start Using EMS":

- 1. Muscular recovery** - Using the Active Recovery, Recovery Plus, and/or Massage programs is like getting the best sports leg rub you can imagine, flushing out all of the acid and waste-filled blood and recharging the muscle with fresh, clean, oxygen-rich blood. EMS does this as good or better than any massage therapists in the world. The convenience of having access to these benefits whenever you have time makes the device worth its price two or three times over.
- 2. Muscle strength imbalances** - We are all asymmetrical, having one leg or arm that is stronger than the other. Over time, these imbalances can lead to ingrained pathologies resulting in pain and discomfort in the hips and low back. Using conventional methods, there is almost no way to correct these imbalances without risking further injury—except with EMS. By using the Resistance or Strength programs, you can not only identify, numerically no less, the differential between two muscle groups, but you can correct it by increasing the input levels on the weaker muscle. This is totally unique, justifying the price in and of itself.
- 3. Reversing neural inhibition** - Believe it or not, most or all of us have some degree of neural inhibition somewhere in our body. It is a lingering effect from injuries

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and surgeries. From my personal experience and after working with countless athletes applying EMS over the past eight years, I have not found another method for reversing it, let alone one as effective as EMS. It's always fun when I do an EMS demonstration on an athlete; just by seeing how their muscles respond, I can almost always tell whether they are right-side or left-side dominant, and whether or not they've had a major injury to either or both legs, knees, hips, back, etc.

4. Changing your muscles, for the better -

One of the more fascinating and controversial aspects of EMS is increasing muscle fiber recruitment. You've probably heard that even world-class athletes utilize far less than 100% of their muscle fibers in any given muscle, an estimated range from 30-40% to no more than 70-80%. On top of that, each muscle has a percentage of slow twitch and fast twitch fiber that will determine whether they are more naturally suited to being a strength or endurance athlete. We've also been told that there is no way to change these numbers—until now, by using either strength- or endurance-orientated programs (technically, hertz ranges < 50 reach type I slow twitch fibers and > 50 reach type II fast twitch fibers), you can actually increase recruitment of type II muscle fibers, which will in turn help with your sprint, kick, and other similar movements. Likewise, focusing on the endurance programs allows for increased recruitment of type I slow twitch fibers, which will help with endurance.

5. Lower back/neck stiffness - In this modern world where we sit for most of the day and then sit some more on the bike, aches, pains, and stiffness in the lumbar, thoracic, and cervical spine are almost universal. If you or your partner regularly experience this discomfort, you've got to get on the EMS plan. The Massage program will change your life, and you can do it anytime that you have 30 minutes to sit or lie in one place.

I have no doubt whatsoever that you could benefit from at least three of the above mentioned reasons. EMS is what you need—just do it. **HN**

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LEVI

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CASEY

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- Galen M.

Just wanted to let you know how helpful Casey was with my order and answering questions. He was a joy to work with! I find it very rare to find someone helpful and polite in customer service these days.
- Shannon M.

Cross-training and injury prevention with Pilates

BY CINDY GABRIEL, CERTIFIED PILATES INSTRUCTOR

As athletes, we train for hours each week trying to reach peak performance in our chosen sport leading up to an event. In doing so, we are requiring our bodies to repeat the same pattern of movement endlessly to hone and perfect that movement. This repetition incorporates the same muscle groups and can lead to overuse and potential injury.

CYCLING: A cyclist maintains a forward, flexed position that places stress on the low back, neck, shoulders, elbows, and wrists. The rider develops strong quadriceps, hip extensors (glutes and hamstrings), and calves while tightening the chest muscles. This leaves the upper mid back muscles weak and elongated (which leads to overstretched tightness and poor posture).

SWIMMING: The swimmer develops strong shoulder and arm muscles while creating low back and hamstring muscle tightness. In addition, with poor technique or fatigue, the risk to rotator cuff muscles increases.

RUNNING: A runner places great stress on the low back, knees, ankles, and pelvic region while creating tight quadriceps, hamstrings, calves, and Iliotibial (IT) bands.

Cross-training becomes essential to rebalance the body's musculature, helping to prevent overuse and allowing us to excel in our sport. As a cyclist and Pilates instructor, I have seen amazing results through the use of Pilates and in the last several years through the incorporation of GYROTONIC® movement.

Both Pilates and GYROTONIC® movement work on balancing the body with low or no impact on the joints. Benefits include increased energy, strength, flexibility and range of motion, improved posture, and stress reduction. You can gain the competitive edge as mind/body awareness allows you to take control of what the body is doing.

Focus is placed on a three-dimensional core engagement (transversus abdominis, pelvic floor, and multifidus). These



Cindy demonstrates Gyrotonic Pilates. Photos : courtesy of ActiveLife Pilates



are all deep postural endurance muscles that stabilize the pelvis, protect the low back, elongate the spine, and generate power from the center of the body. A strong core is essential for a powerful swim stroke, for stabilizing the hip muscles during a runner's stride to reduce forces on knees, ankles, and feet, and for allowing a cyclist to stay in a streamlined position without back or shoulder pain. Stamina is increased by stimulating the body to move with fluidity, rhythm, and coordinated breath to build endurance. Exercises lead to reduction in muscle tightness and tension, stiffness, and pain. Improving spine suppleness is a major goal of both systems. An immobile spine is as much a detriment to athletic performance as a weak or

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underperforming muscle.

While the practice of Pilates might be familiar to many athletes, GYROTONIC EXPANSION SYSTEM® and GYROKINESIS® are relatively new but just as beneficial. After injuries and illnesses that limited his athletic pursuits, Hungarian-born Jului Horvath created these movement principles and techniques. Horvath is a former professional dancer, swimmer, gymnast, yogi, and wood sculptor (evidence of his earlier self-built equipment).

GYROKINESIS (stool and mat work) works the entire body without equipment, while GYROTONIC® exercise uses apparatus to support the body and create resistance during movement. Both forms allow the body to work in continuous, flowing movement synchronized with breathing. Spiraling and circular patterns through different planes of motion are the foundation. Movements are taken from swimming, tai chi, yoga, gymnastics, and dance. The exercises strengthen and elongate muscles, stimulate connective tissue in and around the joints, and improve

balance, coordination, and flexibility. In a few words . . . exercises that produce “movement with ease” and eliminate gripping muscular effort, both extremely beneficial to endurance athletes.

Fueling for cross-training success

Whether training in your primary sport or cross-training, proper fueling is essential, as I have discovered firsthand over the years. For eight years I have owned and operated a small Pilates and Gyrotonic Movement business. In addition, my life has been active in skiing, hiking, yoga, and running. Two years ago, I decided to take up cycling to add more aerobics without adding more joint compression. I began riding and quickly upgraded to a carbon fiber road bike and also purchased a mountain bike. About a year ago, a friend and avid cyclist introduced me to Hammer Nutrition products. At first, I was hesitant as I am gluten and dairy intolerant, and I eat whole, organic foods for nutrition excellence. After researching Hammer Nutrition, I tried the products. I was excited and pleased to see my stamina and performance

increase. And I felt great!

I had struggled to ride longer distances but now, with the support of HEED during and Recoverite after, I am able to complete those distances without the digestive bloating, lack of endurance, stiffness, and soreness I would feel. My clients were having some of the same problems, and I introduced them to the products and they have enjoyed the same results.

I personally use HEED, Recoverite, Hammer Whey Protein, and Hammer Bars, and have seen tremendous improvement in my daily Pilates and GYROTONIC® movement practice as well. Thanks Hammer Nutrition!

Successful injury-free athletes train hard, fuel properly, and cross-train often. Wishing all of you many years of engagement in the activities you love!

Best of health,
Cindy Gabriel
HN

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environmental condition or rider skill. Side-to-side control is not as precise, and also reaction time are greatly increased when having to go from the aero position to reach the brake levers when necessary. Safety is the concern here, not whether you can handle your bike. People are not comfortable in this situation—it's not personal!

I must say that most riders recognize these dangers and refrain from riding in a paceline or in the middle of the field on aero bars.

Cycling skills with Mike Freeman

Peloton and paceline etiquette (revisited)

BY MIKE FREEMAN

Spring is the perfect season to revisit group riding skills. I discussed this in my column in EN79 and wanted to follow up with some additional thoughts as we begin a summer of riding.

We all must agree that cycling is a dangerous sport. When you add testosterone, ego and outside forces into the mix, groups rides can sometimes be life-threatening.

One problem that comes up from time to time is the riding of aero bars in a group or paceline setting. Riding aero bars in a moving group situation can be very dangerous. Overall handling is questionable at times, due to

Bottom line:

Please stay off your aero bars in a group or paceline. If you must ride on them, stay behind the field. We will all be safer.

Everyone in the group must be on the same page and be vocal about unsafe practices; you must be supportive of those who will speak out. If someone is unresponsive, ask that rider to leave the ride and continue on his or her own.

Be kind to your fellow cyclist. You could be the difference between someone having a safe ride vs., at the very least, caring for some road rash.

Peloton

There are far too many crashes that cause severe injury. Some of these are caused by inattention, poor bike handling, and failure of the peloton to point out obstacles and changing conditions in the roadway.

Point out potential hazards. Potholes, debris, cracks in the asphalt, and other hazards can grab a wheel and cause a crash. Remember that it's not just the first rider who goes down, it's the collateral damage gathered up behind the crash that usually causes the most

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injuries, especially if the speed is high.

Whose responsibility is it in the peloton to point out these potential hazards? Everyone's! Well, initially it's the rider(s) on the front. Secondly, it's the responsibility of everyone behind them to point it out. Point it out down the line and then move around it with no sudden moves to the side just in case someone is overlapped, so no front wheels are taken out. Move over slowly and smoothly around the hazard.

Some cyclists advise not calling out the obstacle or changing conditions (situations). I don't agree; I say point it out and call it out, but pointing it out is a must. Calling it out alone is not sufficient.

Ride with your head up! Be alert. Watch what's going on in front of you. Use your peripheral vision to see side to side. Turning your head will cause you to drift in that direction. If you're in a two-up line and want to talk with your neighbor, don't look at them while you converse. Speak while looking forward. Many overlapping and rear-end crashes are caused by oversocializing and not paying attention to the front.

Group rides are not a race. Attacking the group is a no-no. Group rides are a perfect opportunity to work on paceline skills, riding closely side-by-side, getting comfortable riding close to the wheel in front of you, and moving around without crashing or causing a crash.

Most group rides follow a pre-determined route, and yes, there are points where accelerations will take place, like over rollers or on a particular stretch ascending a road to the top.

Have regroup points. Stop for flats or mechanicals, or a least have someone stay with the problem until it is resolved. If the group agrees that it's a no-drop ride, stick to it. On the other hand, if it's a drop ride, make sure everyone understands that. On older established rides, these rules are already in place. If you're new to the ride, ask the question.

Paceline

If you're going to ride and participate in a rotating paceline, be prepared to pull through and off, even if it's just a token

pull. If you think you are not strong enough or are too tired to pull through, stay on the back out of the line and enjoy the ride. Don't go to the front of the line and not pull through. Always leave enough room for those riders rotating to move over and rotate in front of you. Tell the last person rotating back that you're sitting in. This will allow them to move over and not have to fill a gap that will occur when he/she thinks you are pulling through.

Be alert for gaps in the line. Fill into the gap immediately, whether it's alongside or in front of you. Adjust your speed to the line's speed and move in slowly. Make sure you're not cutting someone off. You can look for a front wheel that may be coming up by looking down between your arm and body, not turning your head.

While we are talking about not turning your head, we might as well talk about spitting and blowing your nose. Some people don't get it, but it's just common sense. Being spit or snotted on by some idiot is not my favorite thing. Have some respect, please. If you need to spit, you don't have to pull out of the line. Do it to the side and down. How do I do that? Well, spit between your arm and body straight at the ground away from the cyclist next to you. That will keep the person behind you dry also. What did Jim say? "Don't spit into the wind!"

Blowing your nose is a different game. You must move safely to the side or to the back of the group to accomplish this task. You can tell an experienced or savvy cyclist by the way he or she handles this situation. Don't hesitate to educate those who fail to do any of this incorrectly.

Just a note:

Most roads or highways are maintained by state, county, or city maintenance departments. Do not hesitate to contact them by phone, website, or in person. You can request road repair or debris removal to eliminate dangerous or potentially dangerous conditions for us cyclists.

Happy and safe cycling!
HN

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Photo : Kelly Pris

New challenges for the new year

BY SCOTT GAISER

A year ago almost to the day I wrote in this same column that the skies were gray, snow was falling, and snow covered the ground. I went on to say how important routine and consistency were in training as one looked toward racing results in June, July, and August.

A year later, the Northwest Montana sky is gray again, a few snowflakes are in the air, and the ground is covered with snow. As they say, "What a difference a year makes." Maybe not true for the weather in Montana, but as for this year I want to explore new experiences; rather than routine and consistency, I will be seeking change and challenge.

In some ways, not having specific goals is a liberating experience, or at least I am trying to tell myself that. Having a specific goal and following a plan to achieve that goal has always been an important inspiration and motivation for me. But rather than trying to qualify for Kona, podium at a particular race, or achieve age-group All-American status, my goal this year is change, challenge, and to have fun.

For 2013, I've registered for the obstacle course Sprint Spartan Race in Kalispell, MT, in May, and plan to do XTERRA triathlon for the first time. I also hope to participate in numerous trail run races, including at least one ultra. Along the way, it would be interesting to jump into a few of the triathlons in which I have

consistently competed as a comparative measure of my fitness.

The greatest challenge for me will be to generate workout routines that break the mold of the previous ten years of swim-bike-run. After finishing my season in Kona last October, I made myself stay away from any form of training for two weeks. This forced reprieve was meant not only to rest my repetitively worked muscles, ligaments, and tendons, it was also intended as a mental and emotional break, with the hoped results of rejuvenation and new energy for the new year.

Unfortunately, the extra minutes of bedtime were way more enjoyable than early morning laps in a cold pool, as were the guilt-free evenings of not getting that run or bike in when I had to stay at work. Fortunately, I was able to break the grip of the warm covers and am on my way to preparing for challenge and change.

I've added two elements to my exercise routine that are new to me but have been helpful toward achieving my fitness goal: CrossFit and an activity rubric. In thinking about my training plans, I had seriously considered joining a CrossFit gym. My wife, Heidi, has been a member of CrossFit Flathead for nearly a year. To say she is addicted would be an understatement. She religiously attends workout sessions, and through her I have learned a great deal

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about lifting technique, stretching, and different exercises. Recently, I attended a guest day workout, which kicked my butt. There is no doubt that I would benefit in aspects of strength and power from attending CrossFit on a regular basis. Unfortunately, my present schedule is not conducive to a membership; however, it is possible for me to adapt (with guidance from my wife) the “workout of the day” into my weekly routine. I feel that CrossFit falls short regarding endurance training, but when it comes to a quick all-body workout, it is hard to beat.

One other influence from my wife and CrossFit is the paleo diet. Though I find it nearly impossible to turn down a chocolate chip cookie, our diet at home has been influenced greatly by the paleo plan. I have been eating very few grains and dairy, and a lot of meat and vegetables. As a result I feel like I am eating a lot but keeping my weight in check despite the reduced workout hours. I make a few exceptions to the paleo diet (besides the occasional cookie); I still make a smoothie in the morning after my workout consisting of Hammer Whey Vanilla, coconut milk, spinach, a banana, and berries of choice. However, I plan to switch to the new Hammer Vegan Protein, which will be a great alternative to the whey and give me more options for healthy protein intake.

I also created an activity rubric in order to track my workouts and to help me focus on variety/change. On the horizontal axis are the days of the week and on the vertical axis is a list of activities. Swim, bike, and run are included in the list, but so are rowing, CrossFit-like workouts, cross-

country skiing, stretching, yoga, Compex, lifting, abdominal exercises, and others. I record the time spent in each activity as well as my daily and weekly time totals. In this way, I can see where I am spending my time and adjust accordingly. Through this process, I can also see how, without a plan, you can lose valuable time training in specific elements as the days turn quickly into weeks and weeks turn quickly into months.

I am struggling to put time toward workouts on the bike trainer. My hybrid CrossFit workouts and the rowing machine have replaced some of the need for my bike trainer workouts. This will change as spring approaches. I am also hopeful that incorporating Compex leg sessions (strength and endurance) will also compensate for less bike time. I try to swim at least twice a week, alternating workouts with a speed focus, tempo focus, and then a long steady focus. I have found, however, that it is important to run consistently. Not only do I feel I get the best bang for the buck regarding fitness and calorie burn, it is my best stress reliever.

I know myself well enough to say the general goal of “just keeping fit” will not get it done. But, with my job and new responsibilities in my first year as principal of a local high school, the obsessive drive to be the best is not realistic either. I hope that my goal of challenging myself with change and having fun will help me achieve balance and satisfaction in my endurance sport adventures this year. **HN**

Date:	Monday	Tuesday	Wed	Thursday	Friday	Saturday	Sunday	Total
Run	X				X			2
Bike		X					X	2
Swim		X		X		X		3
Yoga	X							1
Lift				X		X		2
Compex			X		X		X	3
Stretch		X				X		3
Abs/PU				X	X			1
Row	X							1
Cross-Fit			X				X	2
Other								
Total								
Date:	Monday	Tuesday	Wed	Thursday	Friday	Saturday	Sunday	Total
Run								
Bike								
Swim								
Yoga								
Lift								
Compex								
Stretch								
Abs/PU								
Row								
Cross-Fit								
Other								
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Carbo-loading

How to do it right *(Hint: it's NOT a pasta feed the night before.)*

BY STEVE BORN

Ever since first research on the subject in the mid-60s, many athletes have adopted a variety of carbo-loading methods in the week prior to their race, in the hopes of obtaining an edge on race day. The key questions are:

Does carbo-loading work and, more importantly, what do you need to do in order to gain the desired edge that carbo-loading—more appropriately defined as maximizing glycogen stores—will provide?

One of the most widely utilized carbo-loading protocols is known as the Astrand Method, named after the Swedish scientist Per-Olof Astrand. In this particular regimen, an athlete will spend the week prior to the event:

- Performing exhaustive, glycogen-depleting exercise for 1-2 days
- Doing easy workouts for the next 1-2 days
- Engaging in another 1-2 days of exhausting, glycogen-depleting exercise

During these days, the athlete consumes a diet containing only 10% carbohydrates, the purpose being that no glycogen replenishment can take place. For the final 1-3 days prior to the event, the athlete trains minimally, while consuming an extremely rich (80%+) carbohydrate diet with a goal of increasing glycogen stores.

Unfortunately, there are a few problems associated with this particular regimen:

- When preparing for a lengthy event, the last thing you want to do the week prior is a workout that taxes your system (i.e., an exhaustive, glycogen-depleting workout). If you're not fit come the week prior to an event, there's little-to-nothing you can do to make positive influences to your fitness. Doing any lengthy, arduous training sessions in the week prior will only diminish your performance the day of the event, potentially even ruining it.

• If you're still training several days just prior to your event AND severely cutting back on carbohydrate intake as well, you can't replenish glycogen stores. Your body desperately wants those carbohydrates, but this particular method requires carbohydrate deprivation. As a result, no glycogen restoration occurs and your body is forced to burn fat and muscle. Burning a little fat isn't usually a major problem for most of us . . . unless, of course, you're doing a long-duration event, which is where the calories from fatty acid stores will definitely come in handy, satisfying up to two-thirds of your energy requirements. Additionally, in the week prior to an event, burning lean muscle tissue is especially undesirable. Not only will you produce a ton of fatigue-causing ammonia even before the gun goes off, your body will literally be eating its engine long before you toe the line.

Other carbo-loading methods have come and gone. Research by Dr. David Costill is arguably still the most widely accepted protocol. In this particular regimen, the tough, glycogen-depletion workouts that the Astrand Method requires are not utilized (though I believe workout duration and intensity is still a bit high in Costill's protocol). Costill's main focus is on the percentage of carbohydrates one consumes. During the first 4-6 days prior to an event, carbohydrate intake comprises 50-60% of the daily intake. In the final 1-3 days, the percentage of carbohydrate intake increases to 70% of the daily intake.

Aside from exercising with any significant duration or intensity in the week leading up to an endurance event, I don't have a problem with Costill's protocol. My main concern is with athletes overconsuming calories in general (ditto for water and salt), under the belief that, "Hey! I'm a camel and I'm going to store all of this excess food, water, or salt. I'll be good to go!" Adopting this mentality is flat-out wrong, and far too many athletes have watched their efforts go down the drain, simply because they overdid it with food, water, and salt

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intake in the few days leading up to their event. Just as it's true when it comes to training prior to the event, if you haven't carbo loaded (i.e., maximized glycogen stores) during the weeks and months of training prior to the start of your event, there's little-to-nothing you can do to positively influence things. You can, however, throw a major monkey wrench into everything.

OK, I get it! What's the best way to carbo-load?

I'm convinced that the right way to truly carbo-load is to do it g-r-a-d-u-a-l-l-y. Think of it this way: When you start your training season, you don't bust out with super-long rides, hill repeats, and high-intensity speedwork from the get-go, do you? No, you do base miles and then gradually increase the duration and intensity of your training so that your body becomes more accustomed to the stress you put on it, thus becoming fitter as the weeks go by. Additionally, you don't wait until the week before an event to start training, do you? Of course not! These principles can be applied to i.e. maximizing glycogen stores as well.

Maximizing glycogen stores – How it works and what you need to do

Along with insulin, which regulates blood sugar levels of ingested carbohydrates, an enzyme known as glycogen synthase converts carbohydrates from food into glycogen and stores it in muscle cells. This also drives the muscle repair and rebuilding process. However, to maximize recovery, you need to take advantage of glycogen synthase when it's most active. Carbohydrate and protein replenishment as soon as possible after exercise, when the body is most receptive, maximizes both glycogen synthesis and storage.

The process is easy; here's all you need to do:

- You train intelligently and consistently . . . NO training ("training" meaning exercise bouts of any significant duration or intensity) in the week prior to an endurance event.
- You "refill the tank" with high-quality carbohydrates and protein ASAP after ALL of your workouts in the weeks and months leading up to your event.

That's it! That's what carbo-loading is all about. It is NOT what you eat (or how much) in the week before the event, especially the night before. It is the replenishment of carbohydrates and protein in the first 60 minutes after ALL of your workouts in the weeks and months leading up to the event. Before you get out of your sweaty workout clothes, hit the shower, and then go horizontal to take a nap, "strike while the iron is hot" and put some fuel back into your body ASAP after each and every training session. Do that, taking advantage of the glycogen synthase enzyme when it's most active, and you will enjoy a huge advantage over athletes who either blew off post-workout refueling or waited too long to refill the tank.

Summary

Most carbo-loading techniques, especially the Astrand Method, are complex, hard to follow, and don't allow your body to fully recover prior to an endurance event. Additionally, while some of these methods may (key word "may") work for some athletes, there's no guarantee they'll work for you. Dr. Bill Misner states, "Carbo-loading does not work with predictability and may cause fat gain or gastric stress." With that in mind, why put your event in jeopardy by trying a carbo-loading protocol in the week just prior to the event, not knowing whether or not it's going to work?

A high-quality solid food meal or a recovery product such as Hammer Nutrition's post-workout fuels (Recoverite, Hammer Whey + a quality carbohydrate source, or Hammer Vegan Recovery Bars) will help you refill your tank, effectively replenishing and maximizing muscle glycogen stores. That, in my honest opinion, is the true definition of carbo-loading. The time to begin the process is now, even if your key events may not be happening for several weeks to months. I have no doubt that if you consistently follow my suggestions your body will thank you, and the improved quality of your workouts and event performance will be your proof. **HN**

References available upon request.

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- Protect lean muscle tissue
- Immune system support

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\$37.95 - 3 or more

Photo: Herb Freeman keeps it fun with his aerodynamic time trial helmet made out of recycled milk jugs and illuminated pipe cleaners!



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STRAWBERRY
24 Servings
Net Wt. 1.37 lbs (620g)

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PIT ROW

Some of the faces of Hammer Nutrition's 2013 motosports team



Mike Sigety

Mike Sigety will tell you that he lives to race off-road motorcycles. He's been named A Class National Enduro Champion eight times and has competed in the AMA National Enduro Series for 12 years. Racing has taken him to Portugal in 1999 and Brazil in 2003, where he received a silver medal as part of Team USA at ISDE Brazil (International Six Days Enduro). Mike became one of the faces of Hammer Nutrition motorsports a few years ago after looking for a solution to electrolyte depletion.

"For no apparent reason, my cramping got very bad a few years ago and I tried everyone's favorite remedy, but nothing worked. I was at the point where I wanted to quit competing," Mike said. "I was introduced to Endurolytes and it immediately eradicated all of the cramps! Now I use Endurolytes Fizz and happily race without pain. I also use Recoverite religiously. I even have some friends who don't believe in supplements, and when they tried my Recoverite, they agreed that it really works! I don't know how I functioned without it!"

Below : Ryder Sigety follows in the footsteps of his Dad. "Ryder loves HEED, and he always asks for it when we are riding," Mike says.



Matt Goerke

By the age of 16, Matt Goerke had racked up more than a dozen Amateur National Championship titles. In 2008 he moved up to the 450 class and placed 5th in his debut race at Southwick. Unfortunately, his competitions in recent years have been marred by numerous injuries, including a shattered wrist and broken pelvis. Last year Matt picked up momentum again and took the overall win in MX1 at the Canadian Outdoor Championship. For 2013, this Hammer Nutrition-sponsored rider is currently 10th in the points series for 450SX class in the AMA Supercross Series.



Austin Politelli

At 18 years old, Austin Politelli is taking on the pros in the AMA Supercross and Motocross series. He got his best finish of the season in February with a 4th place overall at San Diego SX, quite an accomplishment for a younger rider. Austin's racing resume includes previous Top Ten finishes in Supercross and 3rd place in the 2011 Canadian National Series.





Photo : MXheroes.com

Jimmy Povolny

At the age of 5, I started riding and racing motocross. By the time I was in high school, I realized that motocross was going to be something more than just a fun sport to do in the summer. After going through the amateur national events at Loretta Lynns, I went full-steam ahead with the dream of becoming pro and earned a top 100 national ranking after my first season. I then held a top 100 ranking for 13 straight years with the best finish for a season of 37th, best overall lites Supercross series finish of 7th, best overall Supercross series finish of 20th, and several top 10 overall event

finishes. I ended my stretch as a full-time professional in 2010.

During my 17 years as a professional racer, health and fitness was a vital part of being the best racer possible. There were many nutrition products on the market over the years, but none of them really seemed to make a difference. I found out about Hammer Nutrition through their support of the Fellowship of Christian Athletes Motocross Ministry. It took no time at all for me to see the huge benefits of

Hammer Nutrition products. The only unfortunate thing for my career as a racer is that Hammer was not in my program sooner.

I now have my hand in many aspects of the sport of motocross. I'm racing the amateur level events around the Midwest and at Loretta Lynns, coaching young riders, building amazing tracks, and continuing forward with my company, Horsepower Motosports. I hope to help spread the word to all of the moto industry about the amazing products from Hammer Nutrition.

NWRK race results



The NWRK/Hammer Nutrition team pulled off a dominating weekend with a double podium in the new, growing PGP class. Jerrett Cangie came from behind in the main and took the win, and his NWRK teammate Ben Duclose finished in 3rd place.



Hammer Nutrition and Northwest Race Karts claimed another win Feb. 2 at the first 2013 winter race at Sumas, WA. John Wright placed 1st in his class. (Chris Wilberg, 2nd place, also in the photo.) "After a long winter off, getting back into shape will take some work via practice and racing. Tissue Rejuvenator will be our friend after these races. Hammer Nutrition products work well for providing that competitive edge on race day. Thank you Steve Perdue of Northwest Race Karts and Brian Frank of Hammer Nutrition for all of your support and for helping to make this happen," John said.



Photo : Shan Moore

Russell Bobbitt

Hammer Nutrition-sponsored Russell Bobbitt finishes in the money at 3rd place in the Pro category in the 2013 AMA National Enduro Series at Cherokee.

Photo : Shan Moore

PIT ROW

Destry Abbot

Hammer Nutrition is definitely a huge part of my racing program and especially at my age (40). I know I couldn't stay on top of my training like I do without HEED, Perpetuem, and Hammer Gel. I only put the best race fuel in my race bikes, and I want to make sure I put the best sports nutrition "fuels" out there in my body!

For the 2013 King of Motos, I feel I came into this year's race a lot more prepared than last year, and it paid off! The race was two loops of 80 miles each, and you could not have outside assistance with your bike. My plan was to not push it too hard early on, stay in a nice heart rate zone, and save my body for the miles toward the end.

The three guys who beat me are all phenomenal riders, so I can't complain about finishing behind them. Most importantly, I was happy with my ride even with the few small problems I had. I really only went down once in the race besides a couple small tip-overs, and just had a nice flow all day!

I've been racing for a long time at this level and am happy to say that Hammer Nutrition is a huge part of keeping me feeling young!



Photo : Kenny Jones

Joe Bacal (below)

In the weeks following his Baja 1000 Stock Full class solo win, Joe Bacal was approached by many fellow motorsports competitors asking how he fueled for 38 hours of racing. "I was at an event in Arizona, and several people came up to me wondering how I raced for that long solo. Many racers couldn't believe it. I spoke to several top racers, and they don't think much about what they put into their body," Joe said. Joe "ironmaned" the distance, meaning that he drove the entire race. His co-drivers rode with

him in the car, but did not drive a single mile; typically drivers alternate as a team throughout a race of this distance.

Even the folks at *Car & Driver* reached out to Joe to see how he combatted fatigue and maintained energy for so long. (See the "In-Car Refueling" sidebar in the March issue of C&D). Hint: Joe's 80 oz. of powdered energy drink is Sustained Energy. The 190 nutrient tablets they reference? Perpetuem Solids!



Hammer Nutrition joins BRM in support of Steve Jenkins' 2013 race season



Glenview, IL- February 26, 2013- Hammer Nutrition and Steve Jenkins today announced a partnership for the 2013 racing season.

Steve Jenkins, the owner and driver of the #28 4 Feathers Racing/ Fall-Line Motorsports Porsche 997 GT3 Cup Car running in the competitive GT2 Class of the SCCA Safe Race National Series, is excited to add another company to the long standing support of BRM Chronographs for the 2013 season. "It's so great to have companies whose product I already use and love come aboard and support my racing. What a feeling to be able to represent people you believe in, and to have them believe in you! I have used Hammer Nutrition products for a while now, as daily supplements, in the weight room, and on my bicycle. It's only natural that they should be involved in a sport that requires the endurance and focus it takes to drive these cars."

Hammer Nutrition brings great products for endurance athletes of all kinds to the auto-racing paddock for the first time. From their award-winning, high-energy electrolyte sports drink HEED, to their post-workout RECOVERITE and many other naturally healthy supplements, Jenkins will surely be benefiting from the partnership both on and off the track! Founder and president of Hammer Nutrition, Brian Frank, had this to say: "As Hammer Nutrition products become more widely known and used in the world of motorsports, we are excited to be associated with Steve Jenkins and Fall Line Racing in 2013 and beyond. Steve is a prime example of the fitness and endurance required to excel in sports car racing, and we are honored that he chooses to fuel his body with Hammer Nutrition products."

Returning for the 5th consecutive season of support is BRM Chronograph. With motorsports inspiration and manufacturing techniques, their watches are a favorite of Jenkins: "I just love BRM watches! The extent of the detail in the machining of the cases, and the exotic materials they are using is so similar to race cars."

The #28 car will again be adorned with a watch on the hood that matches the watch on the driver's arm. This year the case of this watch will be made of Makrolon, a high-tech polycarbonate used in automotive headlights and racing windscreens among other places. It is an ultra lightweight material, making the BRM MK series of watches the lightest automatic chronographs in the world.

After finishing with a record number of points in the T2 class of competition in 2012, Jenkins moves up to the faster GT2 class in 2013. The new car will continue to be run by the highly regarded Fall-Line Motorsports in Buffalo Grove, IL, where Jenkins is the in-house driver coach.



2013 Sponsors

Hammer Nutrition - Founded in 1987 by Brian Frank, Hammer Nutrition offers a comprehensive line of fuels and supplements designed specifically for unique needs of endurance athletes, including racecar drivers. Besides being heavily used by traditional endurance athletes such as triathletes, cyclists, and runners, Hammer Nutrition products have become increasingly popular in the Paddock area of all forms of motorsports—from endurance racing to Baja 1000 to shifter karts—used while driving and in cross-training to improve energy, endurance, and recovery.

BRM Chronograph - With 25 years of watch-making experience, Bernard Richards Manufacture is steeped in spirit. The racing spirit, in its purest form, profoundly anchored in the BRM spirit, distinguishes Bernard Richards' creations from any others.

Fall-Line Motorsports - Fall-Line Motorsports is a premiere builder and fabricator of racecars for all levels of competition. Fall-Line specializes in BMW, Porsche, Audi, and other high-performance makes.

Common coffee myths, debunked



BY VANESSA GAILEY

Approximately 54% of American adults have at least one cup of joe daily, according to the National Coffee Association. That's more than 125 million coffee drinkers each day in the U.S. With so many connoisseurs, you'd think that most of us would be better educated as to the facts about coffee, but the popular myths abound. Here's a look at some of the common ones, debunked!

Bulk coffee beans in bins at the grocery store are the best to buy.

MYTH! – Beans stored in supermarket display bins are exposed to oxygen and light, some of the worst factors for degradation of a bean's flavor. Also, the bins can become covered with coffee oils, which turn rancid over time. For the freshest beans, buy directly from micro-roasters like 53x11 Coffee.

There's more caffeine in dark roasts than in light roasts.

MYTH! – Caffeine is a component of the bean, and while roasting coffee to different degrees helps develop different tastes, it does not affect caffeine significantly. In fact, a lighter roast will have approximately 0.1% more caffeine content than a dark, a negligible amount. How much caffeine your morning cup contains is much more affected by your choice of brewing method and varietal.

Coffee has no health benefits.

MYTH! – Coffee has been making headlines for the past several years due to its high amounts of antioxidants and number of potential health benefits, including prevention of prostate cancer, Type 2 diabetes, and Parkinson's disease. Every workday morning, we brew 53x11 Coffee in the employee lunchroom at Hammer Nutrition for a 100% organic, Fair Trade Certified start to the day. Our advice? Skip the sugary, artificially flavored sweeteners and creamers that so many people add to their coffees. Instead, brew a quality cup of 53x11 and enjoy a coffee so delicious, you won't want to add anything to it—all of the potential health benefits and none of the empty sugar-laden calories.



Join the club!

(We won't even make you learn the special handshake)



53x11 Coffee of the Month Club

Have these supreme coffee beans automatically shipped to your door each month! Just follow these three easy steps.

Step 1

Select how many bags you would like to receive, in any combination of our delicious blends, in either ground or whole bean.

Step 2

Receive a FREE "Perfect Cup of Coffee" Kit valued at \$19.95!

Step 3

Enjoy delicious coffee every morning plus HUGE discounts on 53x11 cycling and tri clothing!

Short Sleeve Jersey
Retail price - \$39.95
Club member price \$28.00

Cycling Bibs
Retail price - \$72.95
Club member price \$55.00

Tri Top
Retail price - \$42.95
Club member price \$30.00

Tri Shorts
Retail price - \$42.95
Club member price \$30.00



Check out the complete offering online.



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Special Offer!

Receive a FREE pair of 53x11 cycling socks when you join the club. Ad code EN84CMC. Offer expires 5/9/13. A \$12.50 value! Valid while supplies last.



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FIZZ

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CHEMICALS

Purchase a 13-tablet tube or 25-count bag of Endurolytes Fizz, and get another one FREE! No limits! Ad code EN84ELF. Offer expires 5/9/13. A \$4.95-\$12.95 value! Valid while supplies last.

MSRP
\$4.95 - 13 Tablet Tube
\$4.75 - 3 or more
\$12.95 - 25 Wrapped Singles
Flavors: Grape, Grapefruit,
Lemon-Lime, Mango

WARNING!

If you use another effervescent electrolyte product, read the label before you consume another tablet! The product may contain one or more of the following chemicals: PEG (polyethylene glycol), acesulfame-K (consists of methylene chloride, a carcinogen), sucralose (a synthetic chemical with a chlorinated core), or other artificial sweeteners, flavors, or colors.

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57g Bar **\$2.95**
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2013 Price List

Endurance Fuels

Endurolytes - 4 Capsule Sample	\$1.05
Endurolytes - 120 Capsules	\$19.95
	3 @ \$17.95
Endurolytes Powder - 150 Servings	\$19.95
	3 @ \$17.95
Endurolytes Fizz - 13 Tablet Tube	\$4.95
	3 @ \$4.75
Endurolytes Fizz - 25 Wrapped Singles	\$12.95
	4 @ \$10.00

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

Hammer Bar	\$2.50
	12 @ \$2.40

Hammer Bar Flavors : Almond-Raisin, Cashew Coconut Chocolate Chip, Chocolate Chip, Cranberry, Oatmeal Apple

Hammer Whey Recovery Bar	\$3.50
	12 @ \$3.25

Hammer Whey Recovery Bar Flavor : Peanut Butter-Chocolate

Hammer Vegan Recovery Bar	\$2.95
	12 @ \$2.75

Hammer Vegan Recovery Bar Flavors : Almond Cacao, Chocolate Peanut

Hammer Gel - Single Serving	\$1.40
	12 @ \$1.30

Hammer Gel - 26 Servings	\$19.95
	3 @ \$17.95

Hammer Flask - 5 Servings	\$1.95
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Hammer Gel Flavors : Apple-Cinnamon, Banana, Chocolate, Espresso, Montana Huckleberry, Orange, Raspberry, Tropical, Unflavored (26-serving only), Vanilla

Hammer Soy Protein - Single Serving	\$2.95
Hammer Soy Protein - 24 Servings	\$31.95
	3 @ \$29.95

Hammer Soy Flavor : Vanilla

Hammer Vegan Protein - 26 Servings	\$44.95
	3 @ \$42.95

Hammer Vegan Flavors : Chocolate, Strawberry, Vanilla

Hammer Whey Protein - Single Serving	\$3.25
	6 @ \$2.95

Hammer Whey Protein - 24 Servings	\$39.95
	3 @ \$37.95

Hammer Whey Flavors : Chai (24-serving only), Chocolate, Strawberry, Unflavored (24-serving only), Vanilla

HEED - Single Serving	\$1.95
	6 @ \$1.80

HEED - 32 Servings	\$28.95
HEED - 80 Servings	\$54.95

HEED Flavors : Lemon-Lime, Mandarin Orange, Melon, Strawberry, Unflavored (32-serving only)

Perpetuem - Single Serving	\$3.25
	6 @ \$2.95

Perpetuem - 16 Servings	\$28.95
Perpetuem - 32 Servings	\$47.95

Perpetuem Solids - 6 Tablet Tube	\$3.95
	3 @ \$3.50

Perpetuem Solids - 90 Tablets	\$37.95
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Perpetuem Flavors : Caffé Latte, Orange-Vanilla, Strawberry-Vanilla, Unflavored (16-serving only)

Recoverite - Single Serving	\$3.25
	6 @ \$2.95

Recoverite - 32 Servings	\$54.95
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Recoverite Flavors : Chocolate, Citrus, Strawberry, Vanilla

Sustained Energy - Single Serving	\$3.25
	6 @ \$2.95

Sustained Energy - 15 Servings	\$32.95
Sustained Energy - 30 Servings	\$54.95
	3 @ \$51.50

Sustained Energy Flavor : Unflavored

When ordering multiple single-serving sizes of a product, you may mix and match flavors.

Endurance Supplements

Anti-Fatigue Caps - 90 Capsules	\$18.95
	3 @ \$16.95
A0 Booster - 60 Capsules	\$32.95
	3 @ \$28.95
Appestat - 90 Capsules	\$27.95
Boron - 90 Capsules	\$14.95
Chromemate - 100 Capsules	\$13.95
Digest Caps - 60 Capsules	\$16.95
Endurance Amino - 120 Capsules	\$29.95
Endurance Amino - 240 Capsules	\$52.95
Energy Surge (ATP 100) - 30 Tablets	\$17.95
	3 @ \$15.95

Mito Caps - 90 Capsules	\$24.95
Phytomax - 90 Capsules	\$22.95
	3 @ \$19.95

Premium Insurance Caps - 120 Capsules	\$19.95
Premium Insurance Caps - 210 Capsules	\$33.95
PSA Caps - 60 Capsules	\$24.95
	3 @ \$22.95

Race Caps Supreme - 90 Capsules	\$47.95
	3 @ \$44.95

Race Day Boost - 64 Capsules	\$17.95
Race Day Boost - 32 Servings	\$19.95

REM Caps - 60 Capsules	\$19.95
	3 @ \$17.95

Super Antioxidant - 60 Capsules	\$32.95
	3 @ \$27.95

Tissue Rejuvenator - 120 Capsules	\$28.95
	3 @ \$26.50

Xobaline - 30 Tablets	\$9.95
	3 @ \$7.95

Carlson Salmon Oil - 180 Capsules	\$19.95
iFlora - 60 Capsules	\$25.95

Kits

Complete Powder Sampler Kit **\$29.95** Save \$13.30

1 packet of each flavor of Recoverite, Sustained Energy, Perpetuem (excluding unflavored), HEED (excluding unflavored), Whey (excluding unflavored and chai), and Soy.

Hammer Gel Sampler Kit **\$7.95** Save \$4.65

1 pouch of each flavor, 9 total.

New Product Sampler Kit **\$9.95** Save \$2.45

1 packet of Vanilla Recoverite, 1 packet of Strawberry Whey, 1 Chocolate Peanut Vegan Recovery Bar, 1 Almond Cacao Vegan Recovery Bar.

Long Fueling Starter Kit **\$84.95** Save \$21.30

1 jug of Huckleberry Hammer Gel, 8 pouches of Hammer Gel, 6 packets of Sustained Energy, 6 packets of Perpetuem, 3 packets of Recoverite, 1 bottle of Endurolytes, 1 Capsule Dispenser, 1 Flask, 1 Water Bottle, and a Product Usage Manual.

Short Fueling Starter Kit **\$74.95** Save \$15.70

1 jug of Huckleberry Hammer Gel, 8 pouches of Hammer Gel, 12 packets of HEED, 3 packets of Recoverite, 1 bottle of Endurolytes, 1 Capsule Dispenser, 1 Flask, 1 Water Bottle, and a Product Usage Manual.

1-Month Daily Essentials Kit **\$94.95** Save \$11.90

1 PIC (210), 1 Race Caps Supreme, and 1 Mito Caps.

3-Month Daily Essentials Kit **\$269.95** Save \$50.60

3 each of PIC (210), Race Caps Supreme, and Mito Caps.

Body Care

Cool Feet 0.1 oz.	\$1.50
Cool Feet 2.7 oz.	\$15.95
Hammer Balm 0.3 oz.	\$4.95
Hammer Balm 1.5 oz.	\$21.95
Hammer Balm 4.0 oz.	\$34.95
Hammer Lips 0.15 oz.	\$2.95
	6 @ \$2.75

Hammer Lips Flavors : Wildberry, Wintermint

Pelle Eccellente 0.3 oz.	\$3.95
Pelle Eccellente 2 oz.	\$19.95
Pelle Eccellente 4 oz.	\$32.95
Seat Saver 0.3 oz.	\$2.95
Seat Saver 2.0 oz.	\$12.95
Seat Saver 4.0 oz.	\$19.95
Soni-Pure 2.0 oz.	\$9.95

Complex Units & Accessories

Compex Sport Elite	\$849.00
Compex Performance U.S.	\$579.99
Compex Edge	\$399.99
SPORT ELITE, PERFORMANCE U.S., & EDGE ACCESSORIES	
Charger	\$44.99
Battery Pack	\$49.99
Snap Cables (4)	\$59.99
Snap Electrode Pads (4X - 2"x 2")	\$14.95
	6 @ \$13.50
	12 @ \$12.50
Snap Electrode Pads (2X - 2"x 4")	\$14.95
	6 @ \$13.50
	12 @ \$12.50

Quick Start Guide for Sport Elite	\$14.99
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Multimedia CD for Performance U.S.	\$14.99
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Charger	\$19.99
Battery Pack	\$39.99
Pin Cables (4)	\$39.99
Snap-On Conversion Cables (4)	\$44.99
Pin Electrode Pads (4X - 2"x 2")	\$9.99
	6 @ \$8.95
	12 @ \$7.95
Pin Electrode Pads (2X - 2"x 4")	\$9.99
	6 @ \$8.95
	12 @ \$7.95

GENERAL ACCESSORIES

Electrode Placement Guide	\$9.99
Spectra Conductivity Gel (8.5 oz.)	\$7.95
Spectra Conductivity Gel (2 oz.)	\$4.95
Drawstring Bag	\$19.99
30-Minute Consultation	\$49.95
60-Minute Consultation	\$79.95
Advanced Consultation	\$60.00/hour

2013 Price List continued

Voler Men's Cycling / Tri Clothing

Sleeveless Jersey	\$39.95	s-xl
Short Sleeve Jersey	\$39.95	s-xl
Long Sleeve Jersey	\$59.95	s-xl
Wind Vest	\$43.95	s-xl
Wind Jacket	\$69.95	s-xl
Thermal Vest	\$72.75	s-xl
Thermal Jacket	\$99.95	s-xl
Cycling Shorts	\$68.95	s-xl
Cycling Bibs	\$72.95	s-xl
Compression Bibs	\$89.95	s-xl
Cycling Skinsuit	\$99.95	s-xl
Arm Warmers	\$29.95	s-xl
Giordana Cycling Gloves	\$23.95	s-xl
Aero Shoe Covers	\$19.95	s-l
Thermal Booties	\$29.95	s-l
Downhill/BMX Jersey	\$45.95	s-xl
Cyclocross Skinsuit	\$124.95	s-xl
Tri Top	\$42.95	s-xl
Tri Shorts	\$42.95	s-xl
Tri Skinsuit	\$98.50	s-xl

Bergamo Men's Cycling Clothing

Hot Weather Short Sleeve Jersey	\$49.95	s-xl
Hot Weather Long Sleeve Jersey	\$59.95	s-xl
Premium Cycling Bibs	\$89.95	s-xl
Knee Warmers	\$18.95	s/m, l/xl
Leg Warmers	\$21.95	s/m, l/xl

Voler Women's Cycling / Tri Clothing

Short Sleeve Jersey	\$39.95	s-xl
Long Sleeve Jersey	\$59.95	s-xl
Wind Jacket	\$69.95	s-xl
Cycling Shorts	\$62.75	s-xl
Cycling Bibs	\$66.95	s-xl
Arm Warmers	\$29.95	s-l
Tri Top	\$42.95	s-xl
Tri Shorts	\$42.95	s-xl

Voler Kid's Cycling / Tri Clothing

Cycling Jersey	\$27.95	s-xxl
Cycling Shorts	\$27.95	s-xxl
Tri Top	\$27.95	s-xxl
Tri Shorts	\$24.95	s-xxl

Socks

Men's Cycling Socks	\$5.95	m-xl
Women's Cycling Socks	\$5.95	s-l
Unisex 4" Compression Socks	\$13.95	s-xl
Unisex 12" Compression Socks	\$24.95	s-xl

Running Gear

Cool-Tee	\$27.95	s-xl
Long Sleeve T-shirt	\$29.95	s-xl
Singlet	\$24.95	s-xl
Trail Shirt	\$24.95	s-xl
Men's Running Shorts	\$29.95	s-xl
Women's Short Sleeve	\$27.95	s-xl
Women's Running Shorts	\$29.95	s-xl
Women's Running Skirt	\$49.95	xs-xl

Casual Wear

Men's Est. 1987 Hooded Sweatshirt	\$39.95	s-xl
Men's Est. 1987 Long Sleeve	\$19.95	s-xl
Men's Est. 1987 Short Sleeve	\$14.95	s-xl
Men's Baseball Short Sleeve	\$14.95	s-xl
Men's Retro Surfer Short Sleeve	\$14.95	s-xl
Women's Est. 1987 Hooded Sweatshirt	\$35.95	s-xl
Women's Est. 1987 Long Sleeve	\$19.95	s-xl
Women's Est. 1987 Short Sleeve	\$14.95	s-xl
Women's Yoga Pants	\$24.95	s-xl
Kid's Est. 1987 Casual Tee	\$14.95	2-12 even

Headwear

Pace® European Cycling Cap	\$12.95	os
Pace® Mesh Helmet Liner	\$12.95	os
Race Ready® Mesh Cap	\$12.75	os
SweatVac® Ventilator Cap	\$13.95	os
SweatVac® Winter Beanie	\$19.95	os
Halo Headband	\$12.95	os
Halo Headband II	\$12.95	os
Halo Protex	\$21.95	os
Halo Antifreeze	\$16.95	os
Baseball Cap	\$19.95	os
Headsweats® Visor	\$14.95	os
Reversible Knit Beanie	\$12.95	os
Latex Swim Cap	\$3.95	os
Silicone Swim Cap	\$9.95	os

Swimwear

Men's Briefs	\$34.95	28-34 even
Men's Jammers	\$34.95	28-34 even
Women's Swimsuit	\$59.95	28-36 even

Tents

Racing Team Tent	\$675.00	10'x10'
Semi-Custom Tent	\$795.00	10'x10'

Accessories

Hammer Gear Bag	\$64.95	
Bike Mount Flask Holder	\$12.35	
Double Clip Flask Holder	\$10.75	
Blender Bottle	\$7.95	
Fizz Water Bottle	\$2.95	21 oz.
Hammer Water Bottle	\$3.50	24 oz.
Nalgene Bottle	\$8.95	32 oz.
Polar Water Bottle	\$10.95	24 oz.
Small Purist Water Bottle	\$8.95	22 oz.
Large Purist Water Bottle	\$10.95	26 oz.
Hammer Flask	\$1.95	
Gel-Bot Soft Flask	\$9.95	
Tattoos	\$0.35	
Wrap Pack	\$8.35	
Hammer Patch	\$1.45	
Sticker Pack	\$0.50	
HEED Cooler	\$39.95	5 gal.
Pint Glass	\$3.75	
Sport Towel	\$2.95	
Beach Towel	\$29.95	
Hammer Sack	\$8.95	
Hammer Banner	\$25.95	
Bike Mount Tri Box	\$14.95	
Bike Mount Seat Bag	\$14.95	
Gel Pump	\$5.95	
Capsule Dispenser	\$0.50	
Quick Coin	\$0.95	
Large Capsule Organizer	\$4.35	
Small Capsule Organizer	\$2.95	
Zip-Lock Capsule Bag	\$0.10	

Books

Endurance Athlete's GUIDE to SUCCESS	\$7.95
Fuels & Supplements	\$4.95
Consumer Education Guide	\$2.95
Product Usage Manual	\$1.00
Food Is Your Best Medicine	\$7.95
Healing Back Pain	\$11.95
Healthy Bones	\$11.95
Killer Colas	\$12.95
Suicide by Sugar	\$12.95
Treat Your Own Back	\$9.95
Treat Your Own Neck	\$9.95
Water: The Shocking Truth	\$11.95

53x11 Coffee

The Big Ring 2 oz.	\$2.95
The Big Ring 12 oz.	\$13.95
The Chain Breaker 12 oz.	\$13.95
The Down Shift 12 oz.	\$13.95
The Early Break 12 oz.	\$13.95

53x11 Brew Essentials

Porcelain Coffee Brewer	\$19.95
Bistro Electric Coffee Grinder	\$34.95
Bistro Electric Water Kettle	\$44.95
Chambord French Press	\$49.95
53x11 Coffee Mug	\$12.95
Natural Brown Filters (40)	\$2.95
Single Cup Top Brewer	\$4.95

53x11 Cycling Clothing

Short Sleeve Jersey	\$39.95	s-xl
Long Sleeve Jersey	\$59.95	s-xl
Wind Vest	\$43.95	s-xl
Wind Jacket	\$69.95	s-xl
Thermal Vest	\$72.75	s-xl
Thermal Jacket	\$99.95	xs-xl
Cycling Bibs	\$72.95	s-xl
Arm Warmers	\$29.95	s-xl
Cyclocross Skinsuit	\$124.95	s-xl
Cycling Gloves	\$23.95	s-xl
Premium Wool Socks	\$12.50	s-xl

53x11 Tri Clothing

Tri Top	\$42.95	s-xl
Tri Shorts	\$42.95	s-xl

53x11 Casual Clothing

Red Tee	\$14.95	s-xl
Black Tee	\$14.95	s-xl

53x11 Headwear

Euro Cycling Cap	\$12.95	os
Helmet Liner	\$14.95	os
Mini Cycling Cap	\$14.95	os
Headsweats® Visor	\$19.95	os

Hammer Nutrition and 53x11 Coffee Clothing Return Policy

Aside from trying on an item for fit (with protective undergarments), all clothing returns must be in new and salable condition, with original tags attached, and enclosed in the original packaging. Clothing items do not qualify for a return or exchange if they have been used, washed, or had the original tags removed. Special Note: Swimwear will be fully inspected upon receipt and a return/exchange may or may not be granted, at the discretion of management.

Apparel Sizing Charts

VOLER / Men's Cycling and Tri Clothing					
Height	Waist	Inseam	Chest	Weight	Size
5'4" to 5'8"	29-31	9	35-37	120-145	Small
5'7" to 5'11"	32-34	9.5	38-40	145-170	Medium
5'10" to 6'2"	35-37	10	40-42	170-190	Large
6'1" to 6'5"	38-41	10.5	42-44	190-220	XL
6'3" and up	42-45	11	44-46	220-250	XXL

VOLER / Women's Cycling and Tri Clothing					
Height	Waist	Hips	Bust	Weight	Size
5'2" and under	22-24	31-32	30-32	95-115	XS (0-2)
5'1" to 5'5"	25-27	34-36	32-34	110-120	Small (4-6)
5'4" to 5'8"	27-29	36-38	34-36	120-145	Medium (8-10)
5'7" to 5'11"	30-32	39-41	36-38	140-165	Large (12-14)
5'10" and up	33-35	42-44	39-41	160-185	XL (16)

Voler Team Apparel offers "European" sizing, which is smaller than U.S. sizing. When choosing Voler racewear, you should go up one size if you are unfamiliar with the smaller European sizing. Likewise, if you are between two sizes, choose the larger size.

VOLER / Kid's Cycling and Tri Clothing					
	Small	Medium	Large	X-Large	2X-Large
Age	6-8	8-10	10-12	12-13	13-14
Waist	18-20	20-22	22-24	24-26	26-29
Weight	55-65	65-75	75-85	85-100	100-120
Height	40-45"	45-50"	50-55"	55-60"	60-65"
Chest	25-27	27-29	29-31	31-33	33-35
Inseam	7	7.5	8	8.5	9

GIORDANA / Cycling Gloves	
Size	Measurement
Small	7-7.5"
Med.	8-8.5"
Large	9-9.5"
XL	10-10.5"

Measure around the widest part of the hand, not including the thumb.

DEFEET / Cycling Socks		
Sock Size	Men's Shoe	Women's Shoe
Small	NA	6-8
Medium	7-9	8 1/2 - 10 1/2
Large	9 1/2 - 11 1/2	11 - 13
XLarge	12+	NA

SWIFTWICK / Compression Socks		
Sock Size	Men's Shoe	Women's Shoe
Small	3-5 1/2	5-7 1/2
Medium	6-9 1/2	8-10
Large	10-13	10 1/2-14
XLarge	13 1/2-16	14 1/2-16 1/2

RACE READY / Men's (Unisex)		
Waist	Chest	Size
26-29	34-36	S
30-33	37-39	M
33-35	40-42	L
35-37	43-45	XL

RACE READY / Women's			
Dress Size	Waist	Size	Unisex
Size 4-5	24-27	S	XS
Size 6-8	27-29	M	XS or S
Size 9-12	29-31	L	S or M
Size 12-14	32-34	XL	M or L

BERGAMO / Premium Bibs and Jerseys				
Height	Chest	Waist	Hips	Size
67.5-69.5	34.5-36	30-31.5	34-35.5	Small
69-70.5	36-38	31.5-33	35.5-37	Medium
70-71.5	38-40	33-34.5	37-38.5	Large
71.5-73	40-41	34.5-36	38.5-40	X-Large

Bergamo garments fit a little snug. If you're not sure what size to get or if you're between sizes, please order the next size larger.

AMERICAN APPAREL / Women's Yoga Pants				
	S	M	L	XL
Size	0-2	4-6	8-10	12-14
Waist	25-26	27-28	30-32	33-35
Inseam	30	32	33	34

American Apparel garments fit snug to flatter almost any body type. If you're not sure what size to get or if you're between sizes, please order the next size larger.

DISTRICT THREADS / Women's Sweatshirt				
	S	M	L	XL
Size	3-5	7-9	11-13	15-17
Bust	30-32	33-35	36-37	38-39

BELLA / Women's Tee Shirts				
	S	M	L	XL
Size	0-4	4-8	8-10	10-12
Bust	31-33	34-36	37-39	39-41

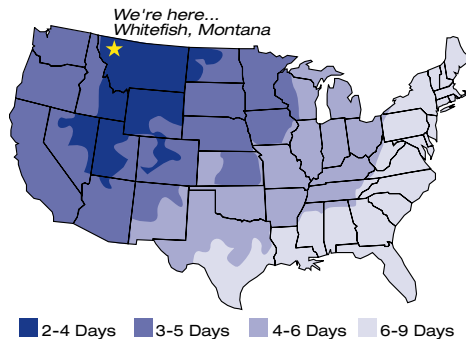
AMERICAN APPAREL / Men's Tee Shirts				
	S	M	L	XL
Chest	39-41	41-43	43-45	45-47
Pant	30-31	31-32	33-34	34.5-35

HARDCORE SPORTS / Women's Swimsuit					
	28	30	32	34	36
Size	5/6	5/6	7/8	9/10	11/12
Bust	33	33	35	36 1/2	38
Waist	25	26	27	28 1/2	30
Hips	35	36	37	38 1/2	41
Torso	58	61	63 1/2	66	68 1/2

Bust: Measure the fullest part of chest going over shoulder blades at back.
 Waist: Measure narrowest part of torso.
 Hip: Measure around fullest point of the hip point of shoulder, run keeping tape parallel to the floor.
 Torso: Start at high back to starting point.

HARDCORE SPORTS / Men's Brief and Jammer				
	28	30	32	34
Brief	28	30	32	34
Jammer	30	32	34	36

Waist: Measure about 1" above the natural waist or just above the hip bone.
 Jammers: The jammers are made to fit snug and add compression to the thigh.



Shipping Information

Time in transit for packages shipped via ground delivery will range from 2-9 business days, depending on the carrier and distance in transit. If you must have your package by a certain date, call or email to determine whether ground shipping or one of the air delivery options will work best for your needs.

Special Shipping Notes

All orders to Alaska and Hawaii ship via USPS Priority Mail. 2-day and next day air are also available to some locations in these states. Published rates will be charged based on weight and zone of delivery address.

Military Addresses

APO, AE, AP, etc. are sent via USPS mail service. USPS Priority Mail rates will be charged for these shipments.

In a Hurry?

3-day, 2-day, and overnight delivery are available, calculated based on package weight and zone of delivery address, and will be billed at published rates.

International Orders

We ship orders to over 25 foreign countries on a regular basis. Call or email us for a quote on shipping.

Order total	Ground FedEx
\$0 to \$39.99	\$4.95
\$40 to \$99.99	\$7.95
\$100+	FREE!

Get the VIP treatment

Join the HAMMER AUTOSHIP Program today!



FREE cycling kit, triathlon kit, running top and shorts, or swimwear with swim cap and a large towel!

What is it?

The HAMMER AUTOSHIP Program offers the ultimate in convenience and VIP treatment with scheduled shipments and discounted pricing.



FREE clothing!

Receive a free Hammer Nutrition clothing kit with your first order! Select one of our sport-specific kits: cycling jersey and shorts, tri jersey and shorts, running top and shorts, or swimwear with a swim cap and a large towel. Ask a Client Advisor for more information.

How does it work?

Call our 800# to have one of our friendly Client Advisors help you select the correct Hammer Nutrition fuels and supplements to meet your needs and goals. We'll then ship your products every 90 days (free ground shipping!) without you ever having to pick up the phone again.

An advisor will also call or email you approximately ten days before your scheduled ship date to see if you'd like to add anything to your order to take further advantage of free shipping and discounted pricing.

*Sorry, international clients are not eligible for this program; only valid for U.S. residents.



Call Katey to sign up for the Autoship Program and start saving today!

What do you get?

- 1 - A special team of advisors assigned to your account and special access to our experts.
- 2 - Automatic resupply of products every 90 days.
- 3 - On your first AUTOSHIP order, we'll send you a clothing kit for FREE. Ask your advisor for details.
- 4 - On your second AUTOSHIP order, you'll receive a FREE softgoods item of your choice, up to \$20 in retail value.
- 5 - FREE goodies on every future shipment as well.
- 6 - Discounted pricing, exclusive offers, and much, much more!
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A Few Restrictions

Shipping charges are not included in discounts or rewards. • We cannot offer retroactive rewards. Your friend must mention your name or client number at the time of ordering. • The person being referred must not have ordered anything from us before. • Do not refer your spouse or have a friend be the new client and place an order for you. • Not applicable to members of the same household. • Cannot be used with another offer. • We reserve the right to end this program or refuse any individual at any time without notice. • Referral rewards will expire after one year. • Valid referral cards are always available free of charge. • This rewards program does not apply to EMS unit purchases. Visit www.hammernutrition.com/deals/ems-referral-program/ for EMS-specific referral program.

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From the kitchen of

Laura
Labelle



Beet and Apple Salad

- 1 small bunch baby beets
- 1 large Braeburn apple
- 1 large head butter lettuce
- ¼ cup toasted, seasoned sunflower seeds

Dressing:

- 3 tablespoons virgin olive oil
- 1 tablespoon seasoned rice vinegar
- Salt and pepper to taste

Wash lettuce thoroughly. Core apple and cut into slices. Peel beets and cut into quarters. Toss all with dressing and toasted sunflower seeds.

Garlic Beets

- 2 bunches medium beets
- 2 tablespoons virgin olive oil
- 1 tablespoon chopped parsley
- 2 cloves finely minced garlic
- Himalayan salt to taste

In a large pot, bring water to a boil. Wash beets and add to boiling water. Boil until cooked enough to pierce with a fork, and then run under cold water to remove the skins. Slice beets and cover with remaining ingredients. Serve warm as a side dish to any healthy protein or carbohydrate, or serve cold as a salad. I also enjoy these served cold, tossed with farro or quinoa.

Pear Quinoa

- 1 cup pear juice (or apple juice)
- 1 ¼ cups water
- 1 Bosc pear
- 1 cup quinoa

Core pear and cut into large chunks. Bring pear juice, water, and pear chunks to a boil in small saucepan. Add quinoa and reduce to a simmer. Cover and cook until liquid is absorbed, approximately 20 minutes. Remove from heat and let stand 5 minutes.

Garnish with trail mix, almond milk, and/or agave if desired.

Here's what's cookin!



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\$1.95 - 5 Serving Flask



Spring musings

BY BEN HORAN

It's usually around mid-March when the brooding, foggy, contemplative winters of Missoula, MT, begin to take their toll on the athlete's spirit, and the old and familiar doubts creep back into our wayward thoughts. Occasionally the unmolested sun will break the drear with staccato brilliance for an afternoon, but inevitably the inversion sets in again and we wretched troglodytes retreat to our dens. "We've still got two months of this," it's easy to think, as freezing rain and coarse grime cover the roads with an abrasive patina, and most of the trails will be encapsulated in hardpacked ice until the middle of May. The powder skiing is now ever rare, and spring corn is weeks away. We find ourselves scrolling listlessly through photographs of our young snowbird friends, logging huge miles in the Tucson desert and pining for just a brief reprieve from the short, gloomy winter days.

And yet, while it never hurts to secret away for a week or two at a time to a Hammer Camp with The Cycling House crew, it is seasonal mood swings like these that keep things fresh and exciting. Ski season yields to early spring road races, which eventually give way to mid-summer mountain biking, which blends into cyclocross season and before long it's time to blow the dust off the skis again. Having an annual progression of sports ensures that we remain grateful for the opportunities that we have.

With this transience of focus in mind, it's surprising to me that I've been having such a hard time letting go of skiing this year. The days are getting longer and the watercooler banter is beginning to include more French and Flemish cyclists' names. The sprinters are sorting themselves out on the way from Paris to Nice; with Milano-San Remo around the corner and the classics season about to begin in earnest, the natural progression is to reach for the road bike. But my eyes have been turning still to the Bitterroots, that spine of huge alpine faces and secret, hidden couloirs. As spring takes hold and we're accustomed to relinquishing the ski edge for the bike wheel, it is easy to forget that long days and warm temperatures are prime for heroic tours and mammoth descents in the comforting quietude of the snowy wilderness.

With big days in remote locations, staying sharp and well-fueled means more than the difference between a good day and a bad day. In tight, steep chutes and on exposed faces, rescue is a long way away and any slip can be disastrous. This is part of the allure of recreating in the backcountry. It forces a very real feeling of self-reliance and responsibility that so easily absents itself from our daily lives. But needless to say, senses and instincts being blurred by a bonk are out of the question. It's rare that I can be found leaving the house without a jump start of 53x11 Early Break espresso, and I like to keep the ball rolling with a flask of Espresso Hammer Gel and Caffé Latte Perpetuem Solids. When I'm on a bike I take liquid Perpetuem, but the fast and light alpine ethic rewards the lightweight simplicity of Solid chews. I like the simplicity of having a day's worth of fuel so readily accessible. They're easy to keep in a hip-belt pocket or easily accessible in the pack, and provide the consistent, slow-burning energy that keeps me focused on the task at hand. **HN**



Photo : Ben Brunsvold

Sometimes more is better!

BY STEVE BORN

When it comes to proper fueling, we're pretty adamant about "more" not necessarily being "better." There is an exception to that, however—when purchasing your favorite Hammer Nutrition fuels and supplements. You'll save money when you buy multiple quantities of some of your training and racing essentials.

PRODUCT	SINGLE ITEM	QTY DISCOUNT
Hammer Gel Jugs (26 Servings)	\$19.95	3 @ \$17.95
Hammer Gel (Single Serving)	\$1.40	12 @ \$1.30
HEED (Single Serving)	\$1.95	6 @ 1.80
Sustained Energy (Single Serving)	\$3.25	6 @ \$2.95
Sustained Energy (30 Servings)	\$54.95	3 @ \$51.50
Perpetuem (Single Serving)	\$3.25	6 @ \$2.95
Perpetuem Solids (6 Tablet Tube)	\$3.95	3 @ \$3.50
Endurolytes (120 Capsules)	\$19.95	3 @ \$17.95
Endurolytes Powder (150 Servings)	\$19.95	3 @ \$17.95
Endurolytes Fizz (13 Tablet Tube)	\$4.95	3 @ \$4.75
Endurolytes Fizz (25 Wrapped Singles)	\$12.95	4 @ \$10.00
Recoverite (Single Serving)	\$3.25	6 @ \$2.95
Hammer Bar	\$2.50	12 @ \$2.40
Hammer Whey Recovery Bar	\$3.50	12 @ \$3.25
Hammer Vegan Recovery Bar	\$2.95	12 @ \$2.75
Hammer Vegan Protein (26 Servings)	\$44.95	3 @ \$42.95
Hammer Whey Protein (Single Serving)	\$3.25	6 @ \$2.95
Hammer Whey Protein (24 Servings)	\$39.95	3 @ \$37.95
Hammer Soy Protein (24 Servings)	\$31.95	3 @ \$29.95
Anti-Fatigue Caps	\$18.95	3 @ \$16.95
AO Booster	\$32.95	3 @ \$28.95
Energy Surge	\$17.95	3 @ \$15.95
Phytomax	\$22.95	3 @ \$19.95
PSA Caps	\$24.95	3 @ \$22.95
Race Caps Supreme	\$47.95	3 @ \$44.95
REM Caps	\$19.95	3 @ \$17.95
Super Antioxidant	\$32.95	3 @ \$27.95
Tissue Rejuvenator	\$28.95	3 @ \$26.50
Xobaline	\$9.95	3 @ \$7.95

Now that the season is coming into full swing, you definitely don't want to run out of the fuels and supplements you know you need, so why not stock up on them? All of these products have a long shelf life; so there's no concerns about expiration prior to the end of your race season. Seriously, by stocking up on these products, you'll have one less thing to think about and we'll save you some money to boot . . . sounds like a good idea!



All Hammer Nutrition products are gluten-free!

Whether you adhere to a gluten-free diet for medical reasons or just aim to minimize your intake for optimal health, you can rest assured that all Hammer Nutrition fuels and supplements are 100% gluten-free and can be consumed by even the most gluten-intolerant of individuals!



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Mindy and Jen enjoy the day at the Pemberton 50K.
Photos : Ian Torrence

Going the (50K) distance

BY MINDY PRZEOR

In preparation for upcoming marathons, my running buddy Jen and I were making plans for our last long run, a 29-miler.

That's when Jen noticed that the Pemberton Trail 50K was scheduled for about the same time. We weighed the pros and cons, and decided that the benefit of having aid stations and moral support along the way outweighed the fact that it was two miles longer and on trail. This was my first trail event (I know, crazy to start with a 50K!); it was fun to see how laid-back they are in comparison to road races. There were no chips or timing mats, just a foam starting line, and when it was time to take off, someone yelled, "Start!"

And, like that, we were off. Jen and I agreed to run this like our normal longer runs, which meant we would run 4 minutes and walk 30 seconds. The goal was to keep the pace over 10 min./mile. We stayed together, stuck to our plan, and it felt great.

This was a two-loop course, which allowed us to leave bags near the start/

finish line and access them between laps. We both left half of our nutrition and replenished our stock when we stopped. I wore my Hammer Nutrition Race Ready running shorts with pockets across the back—love them! There's plenty of room for my Perpetuem Solids, Hammer Gel, Endurolytes, and Anti-Fatigue Caps, and I don't have to wear a fuel belt.

Fueling was made even easier at the three aid stations on course, all stocked with water, HEED, Hammer Gels, Hammer Bars, and Endurolytes. In any sort of endurance event, it is important to have a plan and be consistent throughout your training and racing. I have been using Hammer Nutrition products for a few years and have had great experiences with them, so that's what I stuck with:

- Close to race time I had a bottle of water with Grape Endurolytes Fizz.
- At one hour prior to the start, I took two Anti-Fatigue Caps. I then took one of these with an Endurolytes capsule every hour during the event.



· About 10-15 minutes before the start, I had a Hammer Gel. Jen was good about keeping us on schedule during the race, having our gels about every 45 minutes.

· During the race I also ate Perpetuem Solids. I prefer these to the drink version. With events longer than two hours, I always bring these along to get some protein.

· At the aid stations I drank HEED, grabbed another gel or two, and always topped off my water bottle.

Having a running buddy helped me stay strong; luckily we hit our low points and high points at different times, so we were always able to help one another. Plus, the constant conversation kept time moving and kept us away from the dreaded negative self-talk. Hammer Nutrition-sponsored Pemberton 50K is a fun course, and it was a great time of year to be out on the trails in Arizona, conquering my first trail race. **HN**

Keep on truckin'!

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- Minimize lean muscle tissue cannibalization



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MSRP
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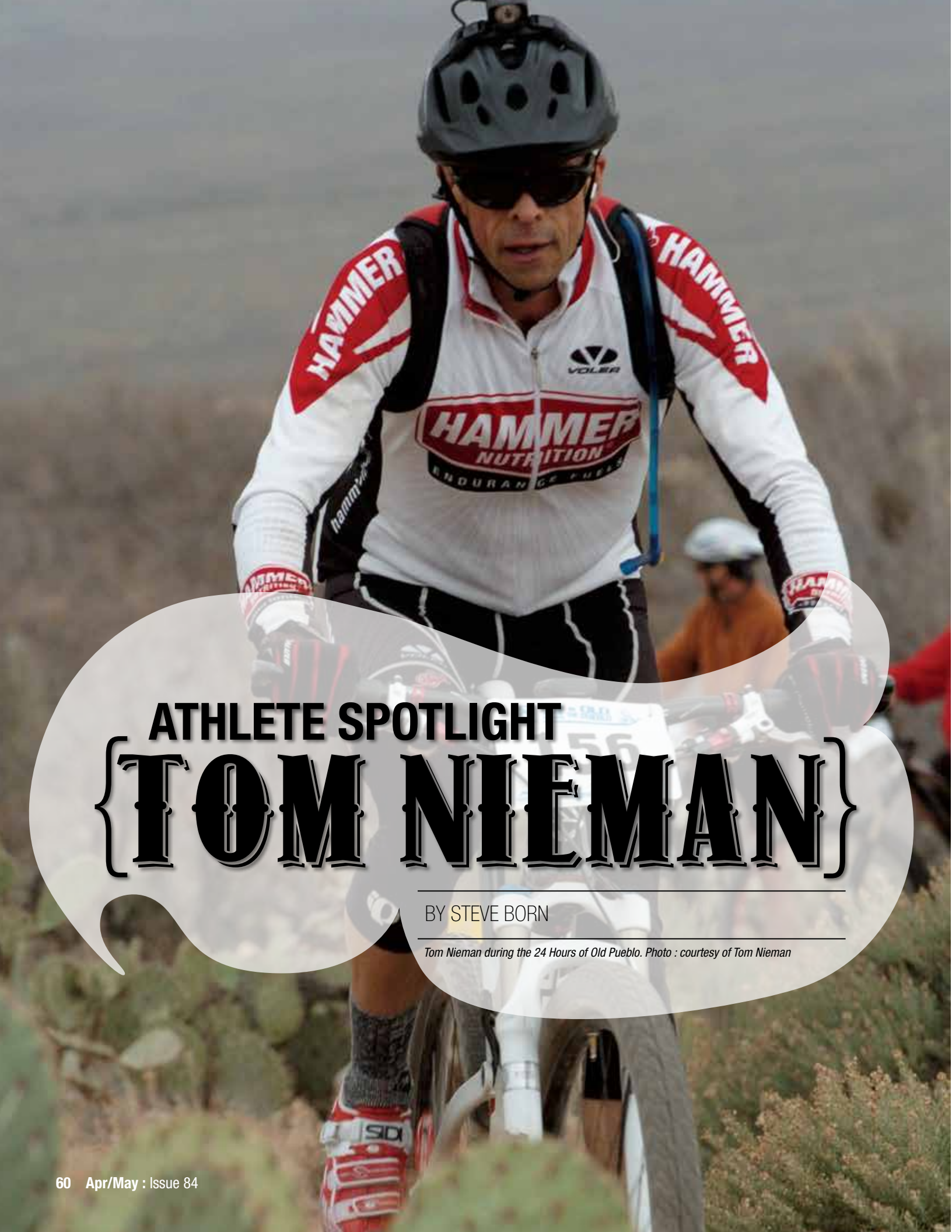
Special Offer!

Purchase a 16- or 32-serving container of Perpetuem or a 90-tablet container of Perpetuem Solids and receive a FREE tube of Perpetuem Solids. Flavor of your choice. Ad code EN84P. Offer expires 5/9/13. A \$3.95 value! Valid while supplies last.



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ATHLETE SPOTLIGHT

{ TOM NIEMAN }

BY STEVE BORN

Tom Nieman during the 24 Hours of Old Pueblo. Photo : courtesy of Tom Nieman

In this edition of Endurance News, we're pleased to spotlight Tom Nieman, a longtime Hammer Nutrition client

and a darn good athlete as well. Tom's primary sport is ultra cycling (he and I raced against each other in the 1994 and 1999 editions of the Furnace Creek 508), and he's also an accomplished runner, having completed over 45 marathons during the early part of his athletic career. After developing some running-related knee problems, Tom caught the ultra cycling "bug" and set some pretty impressive Ultra Marathon Cycling Association (UMCA) records, many of which still stand over 15 years later!

Arizona, West to East / 343 miles - Nevada/Arizona border to Arizona/New Mexico border. Set new UMCA record of 17 hours, 27 minutes, breaking old record by 4 hours, 14 minutes.

Arizona, North to South / 477 miles - Utah/Arizona border to Arizona/Mexico border. Set new UMCA record of 27 hours, 59 minutes, breaking old record by 4 hours, 56 minutes.

STEVE: Tom, it's great to have a chance to chat with you. I trust that things are going well and that you've got some ambitious plans for 2013. In fact, rumor has it that you'll be competing in the Mt. Lemmon Marathon, and that you and your wife are considering having a go at setting the Arizona West to East border-to-border record on a tandem.

TOM: I absolutely expect 2013 to be a great year, but it's starting out with some injury recovery time, for both me and my wife, Yvonne. In December, I injured my knee, not due to running as would be expected, but a slip rushing down some stairs! This has delayed my running comeback, as I'm being very cautious since I don't want it to affect my cycling. I just want to take sufficient time to let it recover before boosting the miles necessary for longer distances. My wife is still pushing me to attempt the Arizona West to East border-to-border ride, but she's now recovering from a fractured wrist from a recent snowboarding adventure. My real dream for this ride is to wait a bit until our daughter Annabelle is old enough to drive, and have her crew for our ride. That would be an incredible family affair! Another great thing about this record attempt is that we'd be the first tandem, so just finishing it would set a record. Yvonne insists that we can beat my previous record . . . and I think she's right!

This year, I'll make some adjustments to my goals, likely adding some cycling hill climb events later in the year, including the Arizona State Championships, in which I placed 3rd a couple years ago. My riding buddies and I are planning our annual weeklong trip to Colorado where we'll ride Mt. Evans, Trail Ridge Road, Rabbit Ears Pass, and some of the other classic Colorado summits. We even have a stop planned in Moab, where we'll ride the Big Nasty!

STEVE: After being away from running for so long, something like 20 years, you've decided to come back. What has made this possible? I know that one of the things you've mentioned is "minimalist running," and I wonder if you could please explain that for our readers.

TOM: Running was my first endurance sport and deep down my favorite. There's something about the simplicity of running that makes it so pure. I've always kept my eye on various equipment advances and discovered that a few manufacturers were experimenting with "less" shoe. I think the true "minimalist" concept is based on running barefoot, or with a shoe that's pretty much a thick rubber sock. The shoe I'm using is very different from a traditional shoe in that it has very little mid-sole, and the mid-sole it does have is flat. A traditional running shoe has a 12-15% drop from back to front, with a lot of

El Tour de Tucson / John Marino Ultramarathon Ride, Tucson - Set new record of 434.73 miles in 24 hours, breaking old record by 17 miles.

12-Hour Road UMCA & World Record, Phoenix - Set new UMCA and World Record of 266 miles in 12 hours, breaking old record by more than 10 miles.

As you can see, Tom not only broke the existing records, he shattered them!

In 2005, Tom was diagnosed with lymphoma. Fortunately, after immunotherapy and chemotherapy, he's remained in remission, and we all hope that it remains that way . . . he's a really good guy and we'd like him to be around for a long, long time! Tom freely shares his knowledge of Hammer Nutrition products with pretty much everyone he meets; he's an outstanding ambassador for Hammer Nutrition, and we've been honored to not only sponsor him since 2010, but to call him our friend.

cushioning, causing a heel-to-toe running style.

My new shoes are made by Altra, a small company in Utah. Their footwear offers runners the world's first fully cushioned, foot-shaped shoe without an elevated heel. This unique design allows for a more natural foot strike and a more efficient stride. I truly felt the difference from day one. A couple friends who experienced similar overuse running injuries in the past that are also trying them with good success. I look forward to returning to running, even if it's just a few miles a week.

STEVE: Tom, you've been a regular client of ours since 1997 . . . that's a long time! What first piqued your interest in Hammer Nutrition?

TOM: Given your ultra endurance experience, I expect that you remember the adage, "If the furnace is hot enough, anything will burn." We believed that we could eat anything . . . and we often did! There were lots of ideas out there, but most of them were based on individual trial and success and were typically very inconsistent from event to event and rider to rider. During my early days of long distance training and racing, there were virtually no products out there that consistently worked well. They typically had too much simple sugar and/

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or fat. In addition, I think we tried to replace as many calories as we could, not understanding that the body couldn't handle it. It wasn't uncommon to have my crew van stop at a McDonalds for an Egg McMuffin or a cheeseburger and shake.

Those were the days of a lot of stomach troubles and DNF's. I'm sure that if you look at the results of most races longer than a century, you'd see that most of the DNF's showed "stomach" as the problem. The true problem wasn't the stomach, but what we were putting in it.

I think Hammer Nutrition was the first to really study athletes and their nutritional needs. Hammer Nutrition developed their principles relating to proper calorie intake, hydration, electrolyte needs, and recovery. As I learned more about the company and the products, it just made common sense to me. As I started using the products, I realized that they worked and they worked consistently! I have to be honest, old habits are hard to break and it took me a while to fully trust that they'd work. Once I learned how to utilize Hammer Nutrition products, it made a world of difference.

There is no question in my mind that the most important component of success in any endurance sport, and most any sport, is that of nutrition. I can't begin to tell you about all of the cyclists I've recommended your products to, even giving them some of mine to try, who have also become believers and customers due to the success they've had.

STEVE: Oh yes, I definitely remember those "Hey, we're riding a ton of miles so we can eat anything we want and however much we want" days . . . I think we've both learned our lesson the hard way! With that said, you're obviously a big believer in Hammer Nutrition products. Which ones are you currently using?

TOM: The list is definitely long! In addition to wearing Hammer Nutrition cycling clothing on all of my rides, I use a lot of Hammer Nutrition products: Premium Insurance Caps, Race Caps Supreme, Super Antioxidant, Anti-Fatigue Caps, Endurance Amino, Tissue

Rejuvenator, Endurolytes, HEED, Perpetuem (Caffé Latte is fantastic!), Hammer Gel (Montana Huckleberry and Espresso are my favorites!), Recoverite, and Hammer Bars. The cycling clothing is exceptional, both in comfort and

I would spend about 60 to 90 minutes after each day's ride running through all of the recovery programs. The next day, my legs felt as fresh as when I started. I must say that some of that was also due to my nutrition program on and off

the bike. My favorite time to use Compex, and what seems to be the most effective, is right after a



Tom Nieman and his cycling group on an annual weeklong trip to Colorado for high elevation riding. Photos : courtesy of Tom Nieman



durability. The summer-weight clothing has been phenomenal here in Arizona, where we often ride in 100+ degree temperatures. I now have so many friends riding in Hammer Nutrition clothing that our group has been referred to as the "Mt. Lemmon Hammer Heads."

STEVE: I know that you also have a Compex unit and use it frequently. If you could give us some insight as to what a week or two of the "Tom Nieman Compex Routine" looks like, I'm sure our readers would be quite interested.

TOM: I must admit, I got my Compex for one main reason—the recovery programs. Given the typical miles I put in and my various time constraints, I haven't utilized the strength programs as much and as regularly as I should, but I live by the Active Recovery, Recovery Plus, and Massage programs. I can't even begin to tell you how effective those programs are. During a six-day, 600-mile road cycling adventure in Colorado climbing several of the highest passes, and riding my full suspension mountain bike (23 lbs. with fat tires),

ride.

Given my schedule and need to get to the office in the morning, I often find myself using it later in the evening, also with great results. Another great benefit I've found is recovery from injury. It's helped me recover from some minor trauma from mountain bike crashes and overuse injuries, and currently I'm using it on my back and neck from a recent snowboarding body-slam! The portability is also a great feature, having taken it with me when traveling and to 24-hour mountain biking events. Over the last couple of years, several of my riding buddies have also purchased Compex units, and all are experiencing the same fantastic results.

STEVE: Your wife and 11-year-old daughter use a variety of Hammer Nutrition products for cycling and equestrian activities. Everyone knows that cycling can be an exhausting activity, but not everyone may realize that about equestrian pursuits. Can you tell us what products they use in their

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equestrian activities and how they help?

TOM: As I like to put it, my wife and daughter went to the “dark side” a number of years ago. They traded some of their time in the bicycle saddle for the horse saddle. My wife sticks to trail rides with her horse, Justin, and my daughter is working her way up in the ranks of hunter-jumper competition. They ride, train, and compete all year long, with much of it during Tucson’s long, hot summer. Being on a bicycle moving at 20 miles per hour can be difficult enough,

but imagine sitting on a big, hot animal in an uncovered arena with the hot sun boring down on you. They use Endurolytes and HEED, with Lemon-Lime being their favorite flavor. They also like Chocolate Hammer Gel.

STEVE: Back in 2005, you were diagnosed with lymphoma. I would imagine that, along with specific treatments and therapies, it took a lot of intestinal fortitude—not to mention the love and support of your family—to see you through that most-undesirable experience, and to help keep that disease in remission to

this day. Would that be an accurate statement?

TOM: Absolutely! I was very blessed in my finding the cancer early, having great support from my family and friends, and having excellent medical help. It’s kind of crazy when the cure makes you feel sicker than the disease does, but medical science is amazing and truly saved my life. I did try to ride my bike as much as possible, which was pretty easy through the early chemotherapy cycles, but as time went on, the multiple treatments took a toll. One of my riding buddies has just gone through a similar experience, although his cancer returned after his initial treatment and he had to complete a second series of even more intense treatments. I was amazed at his attitude and perseverance throughout his challenge. He is a real inspiration to me and our entire group.

STEVE: Although it’s been awhile now (where does the time go?), I remember competing against you in the 1994 and

1999 Furnace Creek 508. In fact, in both races you arrived at the time station in Trona (155 miles into the race) several minutes in front of me, and you were definitely well on your way to a top finish in both of those races. I believe that it was sickness, such as the flu, that kept you from finishing, perhaps even winning on both occasions? Do you entertain the idea of giving the Furnace Creek 508 another shot in the future?

TOM: In a word, NO! And I was wondering when you would finally bring this up. As I remember, you placed 1st and 2nd those two years and then you did your Double 508. You’re a maniac! In 1994, I came into the race a bit overtrained from my June and August Arizona State crossing records and was a bit under the weather, but my real problem was improper pacing and poor nutrition. The 1999 race was more of a mental thing, but again improper pacing and poor nutrition contributed heavily.

Furnace Creek was a different kind of race for me. All of my previous rides were solo time trial type events. At Furnace Creek, I was racing with other cyclists, and I found it difficult to stick with a pace, feeling convinced that I could go just a bit faster to stay ahead of someone, or push a bit harder to catch someone. As you know, in those long distances, the true race is with yourself. If you’re riding your pace and your race, you typically finish. You may not always win, but your chances of finishing are much better. If you don’t finish, you can’t win.

In addition, I was still dealing with how to eat properly. Like I said before, nutrition is the primary factor of success. I don’t care how fit you are, without proper fueling, you can’t take advantage of that fitness.

The 1999 Furnace Creek 508 was my “ride of epiphany.” During this ride, while nearing the summit of Townes Pass (you remember that little hill), I came to the realization that I was done with ultra-distance racing. Up until then, I thought that cycling was only about counting the miles, watching the speed, monitoring my pulse, and consuming calories. I had forgotten the real reason I rode a bike—because I like it. Simple as that! Since then, I’ve come to love riding my bike more than I ever have. That doesn’t mean that I don’t want to compete or train hard, it just

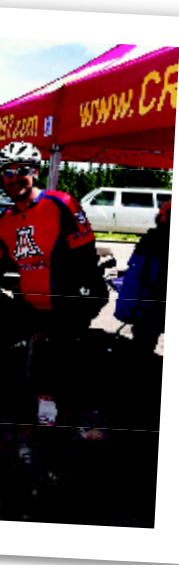
means that I no longer measure “me” by the stats in my training log.

STEVE: Aside from the aforementioned Mt. Lemmon Marathon and the possible Arizona border-to-border tandem record attempt, are there any athletic goals that you’re considering for 2013, perhaps beyond? Also, if someone were to break one of your Arizona border-to-border records (which is highly unlikely, as they are REALLY fast!), would you feel compelled to try and re-establish the record?

TOM: I think I’d have to say no to this one too. All of my records still stand, with the exception of the 12-Hour Road Record, which was broken a few years ago by a cyclist in Slovenia. I’ve often thought about this cyclist. We’ve never even met, but I feel this connection with him, having shared the same amazing challenge and accomplishment, 15 years and half a world apart. You know, my life has changed a lot since the 500-mile weeks and an almost total focus on training and competition. I have a wonderful family with both similar and differing interests, a great career, and community commitments that keep me very busy. At this point in my life, I would find it very difficult to commit to the time required to train for those challenges. I still love the opportunity to ride a great century, and I still love to hit the road at 5 a.m., in the dark, then race the shadows of the rising sun up to mile post 20 on Mt. Lemmon, and then cruise back down in time to get to work. A weekly average of 250 miles is plenty now. I am truly enjoying the pleasure of riding, running, and being healthy.

STEVE: Tom, thanks for taking the time to talk with me. We appreciate all that you do to help spread the word about Hammer Nutrition and Compex, and it’s an honor to sponsor you again this year. Best wishes from all of us at Hammer Nutrition!

TOM: Thank YOU Steve and everyone at Hammer Nutrition. I can’t begin to tell you how much I appreciate everything you do for me, my family, my friends, and athletes everywhere. I truly believe that you offer the best products and knowledge available for athletes, enabling them to develop the best individualized nutritional, fueling, fitness, and recovery program for training and competition. **HN**



Getting ready for ultrarunning season

With Kelly Agnew

BY VANESSA GAILEY

Hammer Nutrition-sponsored ultrarunner Kelly Agnew finished his first race of the season in January, the Coldwater Rumble 50-Mile, in 5th place overall despite taking a wrong turn in the first few miles of the run. Kelly and a few others went from the front of the pack to the back in their 20-minute detour, but Kelly made up the lost time by passing all but four competitors in front of him.

The Coldwater Rumble is an early-season desert race that poses a challenge due to high temperatures at a time of year when most participants have been training in winter conditions. Participants are faced with the very real threats of overheating and lack of conditioning. With the great “dangers of ultrarunning debate” in the media recently, we asked Kelly his opinion on the matter, after his successful day at Coldwater.

“I view the potential health risks associated with ultrarunning in the same manner that I would view the risks associated with any other endurance athletic endeavor. I recognize the importance of preparation by managing a very healthy lifestyle, coupled with the appropriate training for the sport.

Diet is critical. I'm a vegetarian and I focus on eating whole foods consisting of grains, fruits, and vegetables. I also eat a healthy amount of eggs and dairy, while supplementing my

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Photos : courtesy of Coldwater Rumble/Aravaipa Running



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high protein demand with soy products (specifically Hammer Soy). Since becoming a vegetarian, I have seen a noticeable improvement in my athletic performance.

Proper understanding of nutrition during these long training runs and races is also very important. This begins with understanding the caloric and nutritional expenditure of the task and having a well-established plan to replenish these deficiencies in the proper manner. For the Coldwater Rumble 50, I never stopped at an aid station during the entire race. This is a loop race, so I had fuel waiting for me at the start/finish each lap. I fueled exclusively with Perpetuem in three handheld bottles, each pre-measured with the correct amount of Perpetuem for the length of that particular lap. My wife, Jo, mixed each bottle right before I came into the start/finish station. I used Endurolytes Fizz in my hydration pack and deliberately tried to drain the contents during the race, as I have neglected my electrolyte intake in the past and paid the price for it.

In addition to nutrition and fueling, I devote a significant amount of time to conditioning my body. To stay healthy and avoid injury while running a 100-mile race, it's essential to train my body for the repeated stress associated with the incredible distance. It takes time and distance to condition the muscles, joints, connective tissue, and bones to handle this sport. However, with enough long distance training runs developed slowly over a period of time, the body will respond well to this kind of conditioning and running these ultra distances begins to become quite manageable.

Lastly, I place a high value on my relationship with my doctor. I have a complete physical at least once per year and have performed heart stress tests in the past, just to ensure that I am maintaining my body in a sufficient manner and that I am healthy enough to safely participate in my sport." **HN**

Running Kelly's numbers from 2012

2012 Training Stats

Total Miles - 3,100

Total Running Days - 336

Total Rest Days - 29

Avg. Miles/Running Day - 9.22

2012 Race Stats

Total Races Ran - 36

Total Miles Raced - 1,392

Average Distance

Raced - 38.66

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2013 Hammer Camps

Another great year!



Brendan Halpin leads the group through Saguaro National Park.

The 2013 editions of our pioneering Hammer Camps are in the bag and they were more than great. We saw a great mix of "veterans" as well as a solid group of "rookies." They all got along and quickly meshed into tight groups, and a good time was had by all. After seven years of doing these camps, we have them pretty well figured out, so there were no surprises this year, no crashes, and lots of changed lives. Evidently, our camp model—private home, healthy food, and super-friendly staff with 5-star service from start to finish—is one that is quite appealing and worthy of duplication. Hammer Camp is the original and still the hands-down winner for an amazing winter training experience in Tucson. Our dates are already posted for the 2014 camps, so take a look and start making plans now.



Eldon Brown enjoys the climb and the views up Gates Pass.



After six days of riding, a Hammer Camp group celebrates with Fiesta Night.



Jim Bruskewitz and Mike Landreville take turns at the front on the way back up to Oracle.

Hammering all the way to the top!

I want to let you know that I just returned from a week at The Cycling House in Tucson. I applied all of the Hammer Nutrition protocols for fueling and certain supplements, and had a very encouraging series of rides—21,000 feet of climbing overall! The ascents were epic, and the descents awesome.

For the record, here is my current strategy/regimen for a long ride.

- 1) Eat three hours before I ride, about 300-400 calories.
- 2) An hour before, I take 2 Endurolytes, 3 Anti-Fatigue Caps, and 2 Endurance Amino.
- 3) Have a Hammer Gel 10 minutes before riding, and sip some Perpetuem within 15 minutes of starting.
- 4) Take 2 Endurolytes, 2 Anti-Fatigue Caps, and 2 Endurance Amino every hour, beginning right before getting on the bike at the start of the ride.
- 5) Carry extra Endurolytes, Anti-Fatigue Caps, and Energy Surge.
- 6) Consume one Hammer Gel every hour, or more often if needed.
- 7) Carry one 26 oz. water bottle with Perpetuem (1 scoop per hour) and one 26 oz. bottle of plain water.
- 8) Carry one Hammer Bar for a reward after a particularly big climb prior to a long descent.

I'd love to get to a Hammer Camp sometime to really learn more. Thanks again for some great products!

- Mike McDonald

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February 25-March 2 (Tue-Sun, 5 nights)

March 11-16 (Tue-Sun, 5 nights)

www.hammernutrition.com/camps/



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Heidi and Donna Peters enjoy a scenic break during camp.

Photos : Joe Frank



Making snow angels on Mt. Lemmon.



Running for his life

BY GEORGE ANDERSEN

My journey to a healthy lifestyle, endurance athletics, and Hammer Nutrition began at my doctor's office. I was bragging about my future plans for my grandson . . . how his father and I were planning for a good college education for him. At that point my doctor was reviewing my medical history, which included how I had consistently gained about 10 pounds a year for the past few years. I was also suffering from some of the other symptoms of being overweight, like blood pressure, cholesterol, digestive, kidney, and liver problems. I continued to brag about my grandson, and he continued to evaluate my unhealthy habits. I was 55 at the time and weighed in at 240 pounds on a 5'7" frame. My nickname at work had become "Mini Rush," after the radio and TV host Rush Limbaugh—and I did look like him!

My defining moment came when the doctor told me that at the rate I was going, "You might never see your grandson graduate high school, let alone see him through college." We all search for a moment of clarity, and for me that was it. His words changed my life. He advised, "Whatever you put in front of you, just eat half of it. Even if you make yourself a sandwich, just eat half. No matter what it is, just half." He said that portion control was the first step, as it is for most Americans. He was right. In six months I had lost 60 pounds and was amazed.

After that substantial weight loss, he instructed me to start walking and jogging. A few coworkers bet I could not do a 5K, so I took the bet and was able to finish. Next, I set a goal of five 5Ks for being 55 and accomplished that.

I joined a local running club and received more encouragement to get

healthy. This is about the time I started using Hammer Nutrition products in 1996, beginning with Hammer Gel. As my training and activity increased, I added quite a few Hammer products. By the end of that year I had completed the Portland Marathon and, needless to say, was hooked on marathon competition! Since then, my wife and I have completed a marathon on all seven continents and on December 1, 2012, we completed running a marathon in the last of all 50 U.S. states.

The change in lifestyle has also brought about changes I never anticipated. Along the way I was diagnosed with a brain tumor. After it was removed, I only spent two days in the hospital and was able to run a marathon 60 days later. In April 2012, after a marathon in Hawaii, I noticed a little shortness of breath. It turned out that I have a genetic problem and suffer from thin-walled veins. Two days later they performed open heart surgery and did a quadruple bypass. I was in the hospital for three days and ran a 5K ten days later. In the nine months following, I completed a half marathon and four full marathons, completing my 50-state goal.

My quality of life and recovery from events that I had no control over has been nothing beyond spectacular, and I owe a lot of that to Hammer Nutrition products. The message I am trying to relay is that with a little exercise and eating right, you can not only change your life and live better each day, but you will be better prepared for those unfortunate events in life that we don't plan for.

Today I am 70 years young and still running. I have plans to compete in several marathons and triathlons this year. This is my way of thanking you for all of the help Hammer Nutrition has provided along the way, and to maybe help at least one person find a way to get healthy by example. Along with eating right, a key factor for me was finding the right combination of healthy foods and supplements, and that is where Hammer has helped so much. I have tried a lot of products over the years, and there is no substitute for the quality and effectiveness of Hammer Nutrition.

If you exercise, eat healthy, and supplement your diet correctly, your life will change in so many ways. Mine has

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changed drastically, from being warned that I might not live to see my grandson graduate college (currently in high school) to becoming a healthy role model for many members of my family. My oldest daughter completed the Las Vegas Marathon and fuels with Hammer Nutrition. My niece has embarked on doing a half marathon in every state and so far has crossed 20 off the list. Her daughter also ran the LV Marathon, fueled by Hammer. My granddaughter placed 1st at the Long Beach 5K at 12 years old. I am now one of the happiest men on earth, and you can see why! **HN**



*George and Monique Andersen cross another continent off their marathon list at the Great Wall Marathon in China. They've completed a marathon on all seven continents!
Photo : courtesy of George Andersen*



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The atypical [Hammer] athlete

For 2013 we've introduced a new column to Endurance News, highlighting some of the less conventional ways athletes are using our products. From professionals in the firefighting business, to adventurers doing things the rest of us only dream about, Hammer Nutrition products are used far and wide. Beyond the bike and the running shoes, here are a few examples of the "atypical athlete."

[Chris Latta]

After two years of logistics planning and training, our six-person MiBSAR Arctic Ocean Expedition team is headed to the lower reaches of the Arctic Ocean for two weeks of expedition sledging! I'll be fueled by Hammer Nutrition products and sporting the red and white Hammer logo to the great "white north" lower reaches of Hudson Bay.

I was drawn to join this experienced, able-bodied group of individuals, all members or friends of Michigan Backcountry Search and Rescue (MiBSAR), due to their directive of helping those in need while also going places that most people would not. Sledging expedition is unique in that it is self-sustaining, which means that at no time will we resupply along the way. All food, fuel, and shelter is carried by crosscountry skiing and pulling a supply sledge for the duration. Each sledge weighs 100 lb or more, and the only way forward is to ski and maintain a strong will!

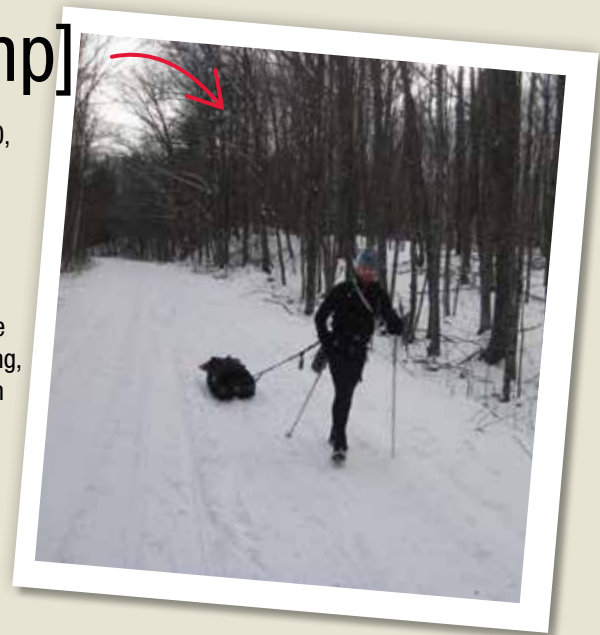
We'll be participating in a case study facilitated by faculty at Andrews University of Berrien Springs, MI, on the "internalized subjective meanings experienced while engaged in strenuous and high risk-laden outdoor wilderness activity." Mother Nature will be our greatest obstacle, with temperatures reaching as low as -40°F and windchills even lower. For an expedition like this, nutrition and health are paramount. We'll be burning between 5,000-7,000 calories a day, so keeping the body fueled is key. With the aid of Hammer Nutrition I will be supplementing my diet to ensure a safe experience and a healthy, well-fueled body!

Chris Latta
Hammer Nutrition-sponsored
ultrarunner and arctic expedition
adventurer

[John Storkamp]

I set the course record at the Tuscobia 150, a self-supported winter ultramarathon on icy, snow-covered trails that took place in January. I went on to place 2nd at the Arrowhead 135 on an especially brutal year that saw only 7 foot-finishers out of 42 starters. Now I am training to tackle the Iditarod Trail Invitational 350 with Matt Long, another big Hammer Nutrition fan. I rely on Endurolytes and Hammer Gel for a large portion of my nutrition during these winter races.

John Storkamp
Race Director and Winter Marathoner
Rocksteady Running LLC



Are you an atypical Hammer athlete?

Send us your story, and you might be featured in the next issue of Endurance News! [athleteupdates@hammernutrition.com]

[Andrea Koenig]



I raced two skimo (ski mountaineering) races during the first week of February. At the first event, the COSMIC Sprint Race and SIA Uphill/Downhill Challenge at Winter Park, CO, I surprised myself by placing 2nd in the Elite Race, though I'd not done this race before. Later that week I competed in the Vail Winter Mountain Games in the Advanced Category. I had mentioned in my Hammer Nutrition sponsorship application that my goal was to make it onto the podium for this race in 2013, and I'm very happy to say that I did! I got 3rd, with a time of 5 hours, 3 minutes. The race had about 4,500' of gain and was 12 miles long. I actually had the 1st place spot after the first climb, but the descents in this race are heinous—the first was very steep with backcountry-tight Aspen trees, and the second

was down "Highline," a double black diamond run with huge moguls. I fell back from 2nd when a Vail ski patrol woman skied past me down Highline. (I'd caught her and passed her going up the second ascent.)

It was a fun race, but long and cold. My Strawberry-Vanilla Perpetuem almost froze, but thankfully didn't, and that as well as my water saved me from bonking. I used Recoverite afterward, as I do after races and all workouts, which is almost daily. Your products do make a difference in my training and racing; they help me do well. I continue to tell my friends, competitors, and anyone who asks how great your products are!

More atypical [Hammer] athletes on page 73!



Iron Horse Endurance Runs

Above : Chavet Breslin paces her way to a 10:46:09 finish in the 50-mile.

Below : Rob McKisick refuels with HEED at the Start/Finish aid station before heading out for the next 25-mile loop.

BY CHRIS RODATZ

The 2013 Iron Horse 100-Mile, 100K, and 50-Mile races were again a great success, thanks mostly to Hammer Nutrition and the fuel you supplied. In the 100-Mile, 143 runners finished. Mike Morton, fueled by HEED, raced to a 13 hour, 14 minute victory. The temperatures were perfect for an ultra with a high in the 70s during the day and in the mid-40s at night. However, in Florida we do like to add a wee bit of humidity to the mix. All three aid stations in the forest and on the Rail Trail had ample HEED, Endurolytes, and Hammer Gel. This got the northern and western runners over the humidity issue.

I can honestly say that we had a bunch of happy and well-fueled runners. No medical issues, thanks to the fueling this year. At the prerace briefing when runners were informed about Hammer Nutrition products on the course, a sigh of relief went up. Those who were not already using your products became converts by race end.

Hopefully Hammer Nutrition will be there again in February 2014 when we expect a minimum of 200 runners. In the meantime, yours truly will continue to use Hammer Nutrition products (Espresso Hammer Gel, HEED, Hammer Whey Protein, and more) in my training and daily life as I have for the past 20 years.

Thanks again and keep up the good work with your quality products.

Chris Rodatz
Iron Horse Endurance Runs Race Director



The atypical [Hammer] athlete

[Brian Pidduck]

[Charlene Proctor & Blake Kish]



While I would like to convey a great start to 2013, January was a tough month for training! I had a bout with the flu that kept me from getting in much meaningful training on the trails or on the rock. It was a good learning experience though, of listening to my body and finding the right balance of some light workouts without overtaxing the system. I focused on good nutrition and hydration, and figured I would be back to running and rock climbing when my body was ready. Toward the tail end of my recovery, I started taking Mito Caps. I only wish I had started taking them sooner to improve my recovery even more.

The following may surprise you! We are definitely atypical Hammer Nutrition athletes.

We are Pro/Am ballroom dancers who compete across North America. Last year, we did 27 competitions and won the National Dancesport leaderboard and Global Dancesport Series circuit, and took 1st and 3rd place in the Dancers Cup Tour. We also brought home a Triple Crown Championship title.

Competitive dancing at this level requires a huge amount of strength, flexibility, and skill, as well as physical and mental discipline. We train every day for 3-4 hours, 5 days a week and cross-train in the gym with weights when we are not on the road. At a comp, we are up by 5 a.m. and on the dance floor by 7:30 or 8 a.m. To dance competitively with this

kind of stamina, we use Hammer Gel, HEED, Perpetuem, and Endurolytes Fizz. Hammer Bars, Endurolytes, and Anti-Fatigue Caps ensure us the fuel and boost we need to keep going. Recoverite and Whey, along with the rest of a well-calculated, clean diet, give us an advantage that other competitors do not have, as we must recover quickly. We are fierce competitors and love to win! At our age (47 and 53) we can outlast the 30-year-old dance athletes and continue to show the Pro/Am ballroom dance community that age is only a state of mind.

Currently, we are in the 2013 season with our sights set on winning the World Pro-Am Dancesport Series again! Thanks to Hammer Nutrition products and loving what we do, we are both in 1st place on the leaderboard.

The hardest part of the month, however, was sustaining a hand injury from rock climbing just before coming down with the flu. I was training dynos on my indoor wall, and after latching onto a hold one-handed, full-body swinging free, I felt a tear in my left ring finger. I was hopeful at first that it wasn't that bad and iced it extensively as soon as possible. The pain I felt next morning confirmed the tear. I immediately began to take Tissue Rejuvenator and continued an icing regime along with lots of water. Now, one month later, I am thoroughly delighted to be climbing again without any pain. This was the fastest I have ever healed from a tendon injury, and I feel that this was one of the more severe hand injuries I have ever experienced. I think I owe a lot of my recovery to Tissue Rejuvenator. Last week I was in Joshua Tree National Park taking 14 people rock climbing, as well as getting in some good climbing myself. I was careful of climbing anything too hard, but climbed up to 5.11d on the Snickers Formation near Echo Rocks. I look forward to piling on the training—my tendons seem ready!—and preparing for the spring and summer climbing season. Climbing is one of those sports that requires a lot of hard work each training block to attain goals, and I love putting in the hard work.

Thanks again, Hammer Nutrition, for the invaluable nutrition and superb resources on fueling and overall health. I am a better athlete for it, a better teacher and guide for it, and proud to represent Hammer Nutrition.

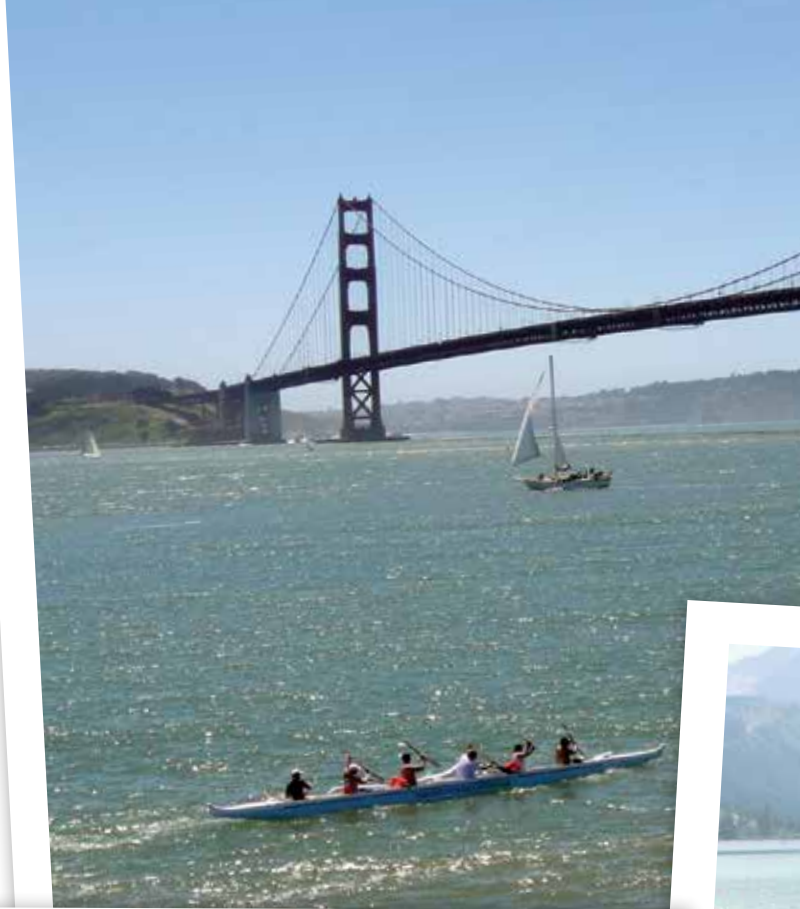
Where are they now?

Catching up with Melanie Mociun #6567

With intro by VANESSA GAILEY

For the past 26 years and counting, we've had the pleasure of getting to know some incredible athletes, people who we not only consider longtime clients, but longtime friends as well. Our 214,000th client placed an order in early March, and while we celebrate the new customers, it is always fun to catch up with those athletes who've been with us for a long, long time as well.

Since her first phone call to Brian Frank back in 1991, Melanie Mociun has been a part of the Hammer Nutrition family. She was one of Hammer's sponsored triathletes in 1996 and was recently awarded a sponsorship position for 2013. After more than 22 years of racing, Melanie has not lost her passion for competition—nine age-group triathlon wins in 2012! On the cusp of her 2013 season, we asked Melanie for some insight into what got her started in endurance sports and what “fuels” her drive to continue.



I am motivated to train and race at this level because it simply makes me feel good. In fact, it always has. In junior high school I swam competitively, and I remember loving the thrill of pushing myself to get to the wall first—it was just second nature. I returned to competitive swimming (open water swims and master's pool races) around 1986 or so. I had injured my back, was prescribed water therapy, and as it turned out, I enjoyed swimming laps again.

Also in 1986, I entered my first running race, the Sausalito Scenic Bay Run. I truly just wanted to finish the race, so I pushed as hard as I could and, to my surprise, ended up taking 1st place in my age group. I went home with a trophy and was

- continued on page 75

- continued from page 74

bit by the competitive bug again in a big way. I began entering lots of races at that point and was introduced to E-Caps (now Hammer Nutrition) at a Rhody Co. running event in San Francisco. I started using Race Caps Supreme and a few other race-specific supplements in 1991 and noticed a difference in my sustained energy levels. I do remember calling Brian Frank at E-Caps to ask if Race Caps Supreme was legal in racing, because they helped me SO much! I was assured that, yes, every ingredient was (and still is) legal.

My first year of sponsorship with E-Caps was 1996. My season was going quite well, as I'd just completed Wildflower Long Course and the Spring Lake Mile swim.

training for my first marathon. I completed the Honolulu Marathon in December 1996, six months after the accident.

Since then, I've completed nine marathons and countless triathlons, and taken up a new sport, outrigger canoe racing. 2012 was a stellar year for me; I entered nine triathlons and took home nine age-group wins! Also, my 6-person master's women canoe team placed 1st in a 9-mile race near Santa Cruz. With Hammer Nutrition, I have a tried and true formula for daily and race supplementation. My usual daily pile of vitamins includes Premium Insurance Caps, Race Caps Supreme, Mito-Caps, Super Antioxidant, Tissue Rejuvenator, and Xobaline. About an hour before a race, I take at least three Race Caps Supreme and three Endurolytes, and I drink at least 12 oz. of HEED. If it's a hot day, I'll take more Endurolytes during the race. In longer races, I take more Race Caps Supreme as well.

In addition to staying on top of nutrition, I think one of the most challenging aspects for endurance athletes who compete year after year is to keep things in perspective. You have to prioritize individual athletic pursuits and goals versus other demands in your life. There has to be a balance . . . otherwise, the lifestyle can be unrealistic and unsustainable. In 1978 the first Ironman was held in Oahu, Hawaii. I was in the area at the time, working for Hawaii Bound as a guide, and I remember thinking that it was way too much to do in one day. Over 20 years later, there I was, competing in an Ironman in New Zealand. Go figure! I believe that time and determination can change everything. **HN**



CLOCKWISE FROM ABOVE LEFT
Near the Golden Gate Bridge training with the Tamalpais Outrigger Canoe Club.
Photo : Jody Cox

Melanie and her fellow competitors on the podium at June Lake Triathlon.
Photo : Kathryn Biglow

2012 was a GREAT year! I won my age group in every triathlon I entered—nine for nine!
Photo : courtesy of Melanie Mociun

On Bike-to-Work Day, I got in a tangle with a car on Wolf Grade in San Rafael, and the car won. My right humerus was shattered and dislocated by 180 degrees. I remember watching the paramedics cut off my favorite red wool cycling jacket and thinking, "I don't think I'm going to get to my swim workout this evening." Brian Frank was extremely supportive after the accident. Following his suggestion, I took Boron to help with the bone repair. Since my legs were not compromised, I started

In the beginning . . .

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"Hammer Nutrition is a vital aspect in a whole and balanced life. The autoship programs insures that I am always provisioned."

In 2005, three things happened: My beloved father died. I got severe double pneumonia, which permanently changed my abilities to breathe. And lastly, a close cyclist friend made promises to be there for me in the midst of these trials and then broke those promises, sacrificing our friendship on the altar of competition and racing.

At about the same time, I found Hammer Nutrition. I began to use the products and found my strength returning, my breathing became better, but most important, I rediscovered the joy and sacred flow inherent in cycling. My church became my saddle, and my cathedral the mountains and trees and clouds.

Hammer Nutrition played such a significant part of this . . . oriented toward health and wholeness, it was my manna in the wilderness. As the years went by and I watched the competitors in the catalogues, I couldn't help but wonder if they are finding the riches I have found.

Hammer Nutrition is a vital aspect in a whole and balanced life. The autoship program insures that I am always provisioned. The program is easy, completely tailored to my needs, and staffed by people who are a delight to work with.

So what are my plans this season? I am training to be ready for the early mornings in the summer, heading out for the 8-hour MTB rides and the 200-mile road rides, where I take Hammer Nutrition in my jersey pockets, my courage in hand, and mount my steed to meet with God.

Sincerely,
Budd White

Be a VIP

Get with the (Autoship) program!

We have long believed in rewarding loyal Hammer Nutrition clients for their adherence to a healthy, informed approach to fueling and nutrition. Rewarding this commitment was our intention more than 25 years ago when we introduced the Hammer Nutrition Autoship VIP program. Little did we know that the program would grow exponentially every year, and that by 2013, clients would be joining the program almost daily. It's not surprising to see such a large membership in the Autoship program, however. Hammer Nutrition athletes who join receive lots of perks: free clothing, discounted pricing, free gifts on each quarterly shipment, convenience of regularly scheduled shipments (which saves time spent ordering and ensures a steady supply of much-needed product during training and race season), and more.

Plus, Hammer Nutrition Client Advisors develop a relationship with these valued clients, getting to know their goals and needs from year to year. We are able to play a more active role in their success. Budd White and Mark Thompson, both Autoship VIP program members, recently shared their successes with us (at right). We celebrate both of these hard-working athletes, as well as all of our other valued program members, as they kick-off their 2013 season!

Get with the (Autoship) program cont'd.

"I am a part of the autoship program for many reasons, but most importantly because of the products. . ."

I wanted to update you on my 3rd place AG (35-39) finish at the Bay Breeze 10K. I'm in the attached picture, taken with my camera. It was a great race with the 2nd place guy. I caught him with half a mile to go and started to pass when he put the hammer down and left me behind. I didn't give up and chased him to the finish line, then sprinted past for a 1-second win (but his chiptime was faster).

I am a part of the autoship program for many reasons, but most importantly because of the products. Before trying Hammer Nutrition products, I researched options and was most impressed with Hammer Nutrition and how every ingredient in every product had a specific reason, both for performance and overall health. I think what sets Hammer Nutrition apart is the focus on both. Many products, legal and otherwise, can improve performance but at the cost of your overall health. I also love that Hammer Nutrition is anti-sugar.

Over the next three months I'm running the Hellyer 5K, Santa Cruz Half Marathon, and the Berry Creek Falls 25K. I don't plan to race this summer, but will still need Hammer Nutrition through my autoship supply as I spend three months backpacking along the Pacific Crest Trail with my three kids (ages 7, 7, and 9).

Sincerely,
Mark Thompson



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- Exclusive offers

For more information, go to
www.hammernutrition.com/deals/autoship-program/



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Destination Montana

Racing in the Big Sky State

BY VANESSA GAILEY

Hammer Nutrition is proud to call Montana “Home Sweet Home,” and we are always willing to share our favorite trails, rides, and runs to those visiting our area. (If you have ever stopped by Hammer Nutrition headquarters, you know this to be true!) It is with the same enthusiasm that we share a few of our favorite Montana endurance events. So if you thought your busy training and racing schedule might preclude a summer vacation, think again! Sign up for one of the following Hammer Nutrition-sponsored races or events, train hard, and challenge yourself in the Big Sky state.

Trail Rail Run June 22, 2013

This will be the inaugural event for this 50 Mile/50K/30K/10K run, and it is sure to become a popular annual Montana race. All distances of the Trail Rail Run utilize old railroad grades of dirt and gravel surfaces, and the 50 Mile tops out at 4,700’ on Lookout Pass, near the Montana-Idaho state line in Northwest Montana.

Registration: Early registration for reduced fees ends May 31, but late comers can still register until June 21, 2013, at trailrailrun.com.



Butte 100 July 27, 2013

Although there's already a waiting list for 2013, we just have to share some information about this epic MTB race. Now at 250 riders and known as the most difficult MTB race in the country, The Butte 100 gains more than 15,800 feet of elevation as racers navigate dense Montana forest and high-altitude desert environment. For those looking for a somewhat gentler introduction to the area's MTB riding, there's a 50-mile version as well. The views are just as epic!

Registration: Mark your calendar for 2014—registration typically begins the first weekend in March. To add your name to the 2013 waiting list, visit butte100.com.



Crystal, Chad, and Katey work the Hammer Nutrition tent at the Hammer Nutrition Two Bear Marathon.

Le Grizz Ultramarathon October 12, 2013

When the race brochure states “. . . that it takes 1 1/2 hours to drive to the starting point from the closest town of Hungry Horse” (about 13 miles east of Hammer Nutrition headquarters), you know this is a Montana ultra run that's definitely “off the grid.” This 50-mile—Montana's first ultramarathon—has been taking place since 1982. If you're interested in a challenging, scenic race, and if you don't mind the possibility of encountering wildlife (“Deer, elk, moose, black bear, mountain lion, bobcat and coyote are common,” the brochure mentions), the Le Grizz Ultramarathon may be just what you're looking for!

Registration: For more info, check out www.cheetahherders.com/LeGrizz.html.

Don't Fence Me In Trail Run May 11, 2013

Billed as “No ordinary race!” by its organizers, Don't Fence Me In Trail Run starts in historic downtown Helena, MT, and hits the trails and elevation gain immediately. The event includes 5K, 12K, and 30K distances; 12K and 30K runners follow some of Helena's most scenic trails to ridgelines and summits overlooking this beautiful area of Montana.

Registration: Registration is open through May 10, 2013. To register, visit www.pricklypearl.org and click the Events Calendar to be directed to online registration.

Reid Divide 25/50 August 3, 2013

If sweet, flowy singletrack in pristine Montana wilderness sounds like a good time, put the inaugural Reid Divide 25-Mile/50-Mile on your calendar for August. This area is the training grounds for several Hammer Nutrition staffers, and for good reason: the riding is just good, clean fun. Reid Divide race route follows roughly 50% singletrack/50% fire road (for recovery!).

Registration: To register, visit reiddividefifty.wordpress.com.

Hammer Nutrition Two Bear Marathon & Half Marathon September 15, 2013

Mix and mingle with Hammer Nutrition employees at this Whitefish, MT classic! We are there as participants and volunteers at this full and half marathon, and the start line is just a few miles from Hammer Nutrition headquarters. The half marathon follows a local paved road overlooking Whitefish Lake, and the full marathon begins with 6 miles of singletrack, followed by about 8.5 miles of dirt road/singletrack mix—if you run the marathon course any day other than race day, you would be smart to carry bear spray. The last 11+ miles follow the half marathon course.

Registration: Registration is open until Sept. 13 at www.twobearmarathon.org, but register early! Limited to 200 marathon runners and 250 half marathon runners

Le Tour de Koochanusa August 10, 2013

The ultimate vacation weekend for the road cyclist . . . the route consists of 83 miles of virtually empty Montana roads circumnavigating Lake Koochanusa, only 30 miles from the U.S.-Canada border. The day ends with a post-ride riverfront blues festival in nearby Libby, MT. Le Tour is a favorite among Hammer Nutrition staffers!

Registration: To register, visit www.letourdekoochanusa.com/registration.php.

Hammer Nutrition-sponsored teams

Early-season victories on the road



Wes Holloway fueled by Hammer Nutrition.
Photo : Roger Millikan

CashCall Cycling

BY WES HOLLOWAY

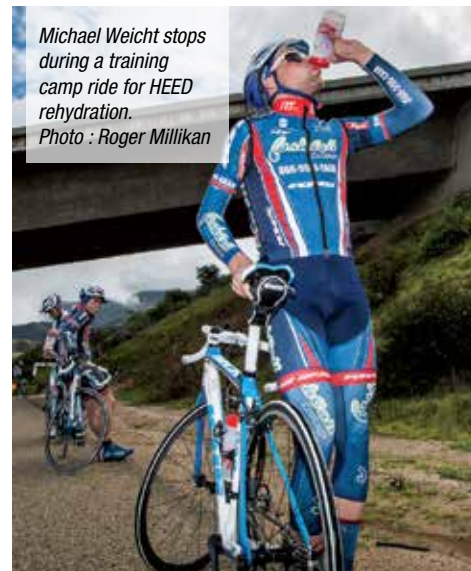
In February, Hammer Nutrition-sponsored Cashcall Mortgage Cycling Team had the privilege of racing in the most prestigious road race Southern California has to offer, Boulevard Road Race. It was a 90-mile race that took the peloton through dry and desolate terrain just outside of suburban San Diego.

We used a variety of HEED, Hammer Bars, and Hammer Gels, which helped us sustain energy for the relentless four hours that we raced. I personally went through about a bottle of HEED per hour, which in hindsight ended up giving me an ideal amount of electrolytes. Our zeal for victory that day was made a reality by my teammate David Santos, who conquered the talented Men's Pro 1 field, relentless wind, and difficult terrain . . . all on the consumption of Hammer Nutrition products.

One week later, my teammates and I raced the Roger Millikan Criterium in Brea, CA. This course offered the conventional four corners with a slight uphill on the back straight and a slight downhill on the finishing straight. Prior to the start of criteriums, I typically consume a Hammer Gel just before the start to ensure my body is supplied for the task at hand.

During the race, the team and I tried on a number of occasions to be a part of a successful breakaway. Unfortunately, these attempts were demolished by the peloton's inherent fate for a field sprint. On the bright side, our attacks made the race difficult and in the process undermined the legs of our competitors. During the race, I consumed one bottle of HEED to help keep the energy sustained to the very end when it was needed most. In the final laps, our leadout train usurped the front of the peloton to lead out our sprinters, Fabrizio Von Nacher and Justin Williams. In the end, their celerity proved no match for the rest of field, resulting in a superlative 1-2 finish for CashCall Cycling.

On both weekends, CashCall Cycling overcame unexpected difficulties, held our composure, and forged to victory. None of us could perform to our full potential without Hammer Nutrition products. These products did their job so we could do ours. Thank you Hammer Nutrition for making essential yet delectable products for us cyclists! *HN*



Michael Weicht stops during a training camp ride for HEED rehydration.
Photo : Roger Millikan

Spring Races

Boulevard Road Race
Feb. 2, San Diego, CA

Red Trolley Criterium
Feb. 3, San Diego, CA

Merco Cycling Classic
Feb. 28-March 3, Merced, CA

Tour De Murrieta
March 8-10, Murrieta, CA

San Dimas Stage Race
March 22-24, San Dimas, CA

Delray Beach Twilight Festival
March 23, Delray Beach, FL

Redlands Classic
April 4-7, Redlands, CA

Presbyterian Hospital Invitational
April 13, Charlotte, NC

Sea Otter Classic
April 18-21, Pacific Grove, CA

Joe Martin Stage Race
April 25-28, Fayetteville, AR

Athens Twilight
April 27, Athens, GA

A full podium at the Cantua Creek Road Race. Photo : courtesy Hunter Ziesing



2013 Podiums

(as of March 5, 2013)

Steve Heaton

1st place AG,
Central Coast Series Circuit race

Cale Reeder

3rd place AG, Merco Road Race

Dirk Himley

1st place Men's Masters Cat1/2/3,
Snelling Road Race

Dirk Himley

1st place AG, Cantua Creek Road Race

Cale Reeder

2nd place AG, Cantua Creek Road Race

Steve Heaton

3rd place AG, Cantua Creek Road Race

Hunter Ziesing

2nd place AG, Pine Flat Road Race

Steve Heaton

1st place AG, Cherry Pie Crit

Dirk Himley

1st place AG, Knights Ferry Road Race

Hunter Ziesing

2nd place AG, Knights Ferry Road Race

Steve Heaton

1st place AG, Central Coast California Circuit
Series 1

Dirk Himley

1st place, Early Bird 40-mile Road Race

Hunter Ziesing

3rd place, Early Bird 40-mile Road Race



Dirk Himley and Hunter Ziesing celebrate their 1-2 finish at the 86-mile Knights Ferry Road Race. Photo : courtesy of Hunter Ziesing

Team Hammer Nutrition/Charity of Choice

BY HUNTER ZIESING, Team Rider and Charity of Choice CEO

Five races with five wins in four weeks . . . Team Hammer Nutrition/Charity of Choice is feeling very good about the start to our season. The fifth win came after a hard-fought battle at the Cherry Pie Crit in February. The announcer was going wild, naming the Hammer Team the entire race. It was one of our most visible wins ever and in front of a big crowd.

While early in the season, Cherry Pie Crit is one of the most competitive criteriums on the winter calendar. With five us racing (Dirk Himley, Craig Parker, Steve Heaton, team captain Kurt Bickel, and I), we figured we would easily get much of the team in an early break, but at the start we could not help noticing that we had 12 national champions in our field of 66 competitors in the 45/55+ combined.

At the outset, Kurt elected to have us follow breaks and keep the field tight instead of trying to start one. The plan was to deliver Steve to the bottom of the finish hill. Early on and for most of the race, Team Specialized took control of every break with Dirk surfing nearly eight of them. It was a showdown with constant attacks. At the end, it was a four-man lineup to the finish with Team Hammer on the front for the final lap lead-out. First, Dirk took control for half of a lap with a 34 mph pull, followed by Kurt in to the final corner. I then pulled Steve to the bottom of the last hill for Steve's 1,597-peak wattage sprint to the finish, a decided win, and our fifth win in a row. **HN**

FROM OUR ATHLETES



Team Hammer Nutrition Super Masters.
Photo : Nellie Freeman

Team Hammer Nutrition Super Masters

BY VANESSA GAILEY

Longtime Team Hammer has a new name and an expanded roster as they head into the height of 2013 race season. Now competing as Team Hammer Nutrition Super Masters, this 13-person team will be racing in masters road cycling events, building upon their highly successful 2012 that included seven medals for state and national Championships and a total medal count of 23. With six new riders (three A team and three B team), they are focused on dramatically increasing the medal count this year. Team Hammer Nutrition Super Masters has six current and past National Champions on the roster.

Dan Taylor, new to the team this year, set the tone for 2013 with a win in the 65+ class at the Mt. San Bruno Hill Climb on January 1, the first race of the 2013 NCNCA season. Fellow teammate Russell McCrary also had a strong ride on New Year's Day and placed 5th in the 55+ category. Super Masters met in February in Napa Valley for the two-day annual team ride with Brian Frank, proprietor of title sponsor Hammer Nutrition. **HN**

Team Roster

Mike Freeman, Team Captain

Longtime Hammer Nutrition ambassador, sponsored athlete, and accomplished road cyclist. On the Road Race podium at 2012 USA Cycling Masters Road Nationals and 2012 CA State Road Race AG Champion

Richard Shields

Past National Champion and 2nd place in 2012 USA Cycling Masters Nationals Road Race

Jim Fox

Past National Champion (Climbing is his forte!)

Larry Wolfe

Current National Track Champion

Jack Kelso

Current National Track Champion and 2nd place in 2012 USA Cycling Masters Nationals TT

Russell McCrary

Another climbing specialist, new to the team this year

Bob Brooks

Former USA Cycling Elite Masters Road Champion and Northern CA/NV TT Champion (Still super fast at 71!)

Cesar Esqueda

Road, crit, and TT race experience since 2007

Dan Taylor

Started 2013 off with a 1st place in the San Bruno Mtn. Hill Climb TT

Glenn Rennels

Longtime racer whose resumé includes 4th at the 2012 CA State Road Race Championships

Jay Kinney

On the podium at the 2012 Masters District State Championships for 2K, Points, and Team Pursuit

Joe Lemire

Already earned a podium spot for 2013 with 2nd place finish at Boulevard Road Race

Lloyd Rath

Committed to a full race schedule—more than 100 USA Cycling races since 2004!

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WARNING!

If you use another effervescent electrolyte product, read the label before you consume another tablet! The product may contain one or more of the following chemicals: PEG (polyethylene glycol), acesulfame-K (consists of methylene chloride, a carcinogen), sucralose (a synthetic chemical with a chlorinated core), or other artificial sweeteners, flavors, or colors.

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\$4.95 - 13 Tablet Tube
\$4.75 - 3 or more
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Flavors: Grape, Grapefruit,
Lemon-Lime, Mango

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HAMMER
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No pain, all gain at the HURT 100

BY GARY ROBBINS, Hammer Nutrition Canada sponsored ultrarunner

When I departed for the 2013 HURT 100 in Hawaii on January 16, it was with one goal in mind: win HURT, break my own course record, and be the first person to ever break 20 hours on this course. It had been some time since I attempted 100 miles; a 2011 training week in Hawaii ended with a helicopter ride after managing to crawl to a retrieval point on the course. I was told that I might not be able to run 100's again due to the resulting repeat fracture of my foot. Now, after having spent over eight and a half months of that on crutches, my return to 100's was finally underway.

The HURT course is a 20-mile unrelenting loop with 5,000 feet of climbing and descent per loop; your competitors can keep pretty close tabs on you throughout the race as there are three out and back sections per loop. With 12 miles left to go, I was completely surprised to learn that I suddenly had a 47-minute gap over the second place runner, as we had been neck and neck for the first 15 hours of the race. My first 100-mile race in over two and a half years was about to end exactly how I dreamed it could. I relaxed ever so slightly for about an hour to take in the whole experience, ending a journey that had been almost three years long. With just six miles left to go, I kicked it up

a notch again and was completely over the moon when I eclipsed the finish line in a new course record of 19 hours, 35 minutes!

For my course record win in Hawaii I consumed approximately 40 Hammer Gels, 40 Endurolytes, 4 Hammer Bars, a few Fizz, and I made two quick applications of Seat Saver. Though Seat Saver is primarily marketed toward cyclists, I've honestly never found any running lube that is even close to being as effective. This alone has made my long distance running much more enjoyable—or at least a little less painful! I have been sponsored by Hammer Nutrition Canada for a few years now. I have a gluten allergy, and it was Hammer Nutrition's gluten-free product line that actually helped facilitate my migration to the brand. I've had great racing success and very little stomach distress since switching to Hammer Nutrition products, even while running for up to 24 hours at a time, nonstop. Thank you Hammer Nutrition for

the continued support. I couldn't do what I do without your incredible product line!" **HN**

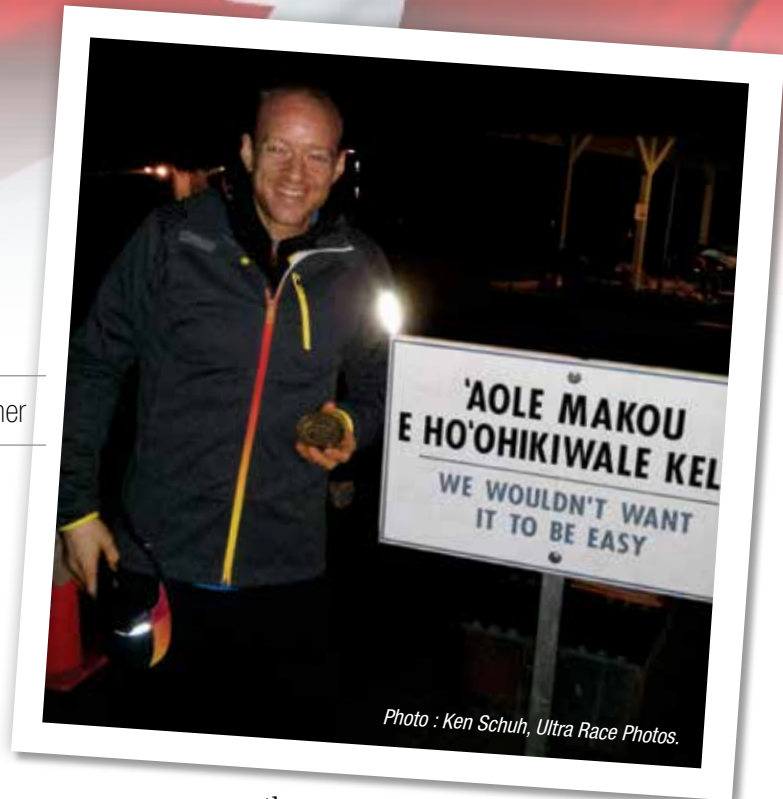


Photo : Ken Schuh, Ultra Race Photos.



"Though Seat Saver is primarily marketed toward cyclists, I've honestly never found any running lube that is even close to being as effective. This alone has made my long distance running much more enjoyable—or at least a little less painful!"
- Gary Robbins

A second chance

Canada's Janelle Morrison

Janelle Morrison is a walking, running, swimming, and biking testament to modern medicine and the powers of determination. In November 2010, while driving to Calgary for a Spin-a-Thon fundraiser, this Hammer Nutrition Canada professional triathlete was involved in a head-on collision that left her with every major bone in her body broken. It was a miracle that she survived, and even more miraculous that she recovered and returned to competition.

After spending the majority of 2011 having surgeries and in extensive rehab, she completed three triathlons and finished Ironman Canada with a 3rd place finish in 2012. We followed up with Janelle after seeing her on the cover of Western Canada's IMPACT magazine, in which she was named one of their IMPACT Heroes of the Year.

"When a company partners with you after a near-death car accident because they want to support your comeback to professional-level sports, even

when doctors are saying it will never happen, that's saying something. My accident was in November 2010, and my partnership with Hammer Nutrition Canada began in the spring of 2011. I couldn't be more pleased to represent Hammer Nutrition, not only because of the healthy, clean, organically based products, but also because of the people behind the company. They provided belief and support when there was so much reason to doubt ever seeing me back on the podium.

When it comes to selecting my favorite Hammer Nutrition products, I'm not sure where to start, as there is a mountain of goodness to choose from, but I'll give it a go!

Supplements: I focus in on diet, but when you're asking so much of your body, it's easy to come up short. I take several Premium Insurance Caps daily to ensure that I am replacing the vitamins and minerals that have been used in a day's workout. In addition, I take things a notch higher by taking Race Caps

Supreme.

Training/Racing: Hammer Gels are the best on the market. My favorite training flavors are Chocolate and Banana, but I tend to opt for Vanilla in a Hammer Flask for race day, along with Mandarin Orange HEED, which tastes like a creamsicle—enough said! During longer rides I take an assortment of Hammer Bars with me as well, but I'll admit that my newest favorite is Oatmeal Apple. During the heat of the summer I also use Endurolytes Fizz to replace those lost electrolytes.

Recovery: Peanut Butter-Chocolate Hammer Whey Recovery Bars are a winner. These dense and tasty bars provide adequate fueling after some of my hardest sessions and allow recovery to take place immediately. Chocolate Recoverite is also awesome!" **HN**

The story of Janelle's two-year recovery was documented in the Canadian film "A Second Chance," which premiered in November 2012.



Photos : Van Pratt



Accolades for Arthur!

BY STEVE BORN

All of us at Hammer Nutrition want to send out a mighty "Congratulations!" to our friend and sponsored ultrarunner, Arthur "The Grinder" Webb. His amazing effort at the 2012 Badwater Ultramarathon was named "best male age-group performance" of the year by *UltraRunning* magazine.

At age 70 and once again fueled by Hammer Nutrition, Arthur's other-worldly time of 33:45:40 at Badwater—one of the toughest, if not THE toughest, running races on the planet—not only smashed the age-group record, it placed him 29th overall out of 96 starters in this grueling 135-mile race.

Something equally as noteworthy is that this was The Grinder's 15th consecutive Badwater finish. Incredible!

According to Arthur, "Hard work, a truck full of heart, and Hammer Nutrition products paved the way

to that incredible success."

And if you thought he'd be resting on his laurels, think again! In addition to possibly another Badwater Ultramarathon, Arthur's goals for 2013 include:

- A Top Three finish in his age group at his first-ever Boston Marathon
- Demolishing (Arthur's words) the 100-mile age-group record, which he believe hovers around 24 hours (Steve's note: Considering that Arthur completed the first 100 miles of Badwater in 23:54, breaking the 100-mile age-group record may just be a formality.)

From all of your friends at Hammer Nutrition, congratulations again, Arthur, on this well-earned, well-deserved recognition! **HN**



One 'lucke' guy

BY BOB LUCKE

I would like to thank everyone at Hammer Nutrition headquarters. You all were very helpful on lining me out with super products, and the Nordic kit is fantastic. HEED is my go-to drink during winter and summer training or racing. It's the best. I'm headed to Asiago, Italy for Masters World Cup February 12-28 representing Montana, USA, and Hammer Nutrition. There will be more than 1,500 participants from 27 countries there.

Post Italy update : I'm back from Asiago and Masters World Cup. I skate skied three distances, 30K-10K-45K, and relied on Cranberry Hammer Bars, Perpetuem Solids, and my go-to energy drink HEED. Hammer Nutrition products got me some great results! My best time was in the 45K on my last day of competition. **HN**



"Thank you for your excellent customer service and follow-up on my first order." - Robert W.

A 'master' cyclist at 80

In February I moved from cyclocross to crosscountry mountain biking. (Racing in Texas starts early!)

We've had three races so far, and I've finished in the money once. Our oldest Cat 1 age group is 60+, so some of these guys are young enough to be my sons. I don't expect to beat them, but I can make them sweat. While I was warming up on the trainer, several guys came by and noticed the Hammer Flask mounted to the top tube of my bike. They thought it a good idea, and I told them to just call Hammer Nutrition!

My wife (who is an enthusiastic recreational rider) tried HEED for the first time last weekend. She had the same sense that I did when I tried it initially, that she had more energy after two hours than she's had before with other sports drinks. So, even though she's not racing, she'll use it on long rides in the future.

By the way, Masters Masters I went by two of the three dedicated bike shops here in Waco recently, and both carry Hammer Nutrition products. I commended them for that and reported how much I feel they help me. My wife and I also presented an impromptu information session to the Waco Bicycle Club on my experiences with endurance nutrition, and included some of the Hammer Nutrition philosophy. *HN*

Fred Schmid
80-year-old Hammer
Nutrition sponsored athlete



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- Buffer lactic acid
- Help prevent cramps
- Light and mild, not too sweet

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\$28.95 - 32 Servings
\$54.95 - 80 Servings



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Hammer Nutrition sponsored events

April and May are usually considered the “early season” when it comes to competition, mainly because a lot of “A” races are later on in the year. However, when it comes to the number of events that Hammer Nutrition sponsors, we rarely have an off-season or early-season . . . it seems like we’re always busy supporting events and athletes across the country

With more event sponsorship requests coming in daily, our current total of 260 sponsored events for April and May is sure to increase significantly. To stay up to date on what events we’re sponsoring—one of them may be near you!—go to www.hammernutrition.com/events/ and click on “EVENTS CALENDAR.”

Here are a couple of key events and series that we’re partnering with in 2013, and planning to continue supporting for many years to come.

Mt. Hood Cycling Classic

We’re a little ahead of ourselves but we just can’t help it—we had to announce it in this issue! Hammer Nutrition is honored to be the official nutrition sponsor of this prestigious stage race, one of the most scenic and challenging cycling events in the country. We’ll be supplying Hammer Gel for the goody bags, and HEED will be the on-course drink on each stage.



Stage #1 starts in the dry reaches of Eastern Oregon as the course winds its way through miles of wheat country and prairies east of The Dalles. This flat stage will allow sprinters to showcase their talents as the climbs are relatively moderate.

Stage #2 is the Scenic Gorge Time Trial. This 19-mile course, consistently labeled as the best time trial course in North America, will challenge the competitors as they race against the clock *and* the infamous Columbia Gorge winds that can range from 20-30 mph.

Stage #3 is the Full Sail Brewing Criterium, taking place in the afternoon on the same day as Stage #2. One of the most technically demanding courses in the Northwest, the elevation, technically challenging corners, and stiff competition will make for some very exciting action.

Stage #4 is nothing less than a brute. The Three Summits Road Race, starting at Cooper Spur Mountain Resort Lodge and finishing at the Cooper Spur Ski Area, will see racers covering nearly 100 miles and nearly 10,000' of climbing, mainly on super-narrow single lane roads that wind deep into the Mt. Hood National Forest. Both the scenery and the route itself will take a cyclist's breath away!

For more information, please visit www.mthoodcyclingclassic.com.



Athleta Iron Girl Triathlon Series

We’re excited to announce that we’re partnering with this great triathlon/duathlon series, the largest all-women’s multisport race series in the world. We’ll be providing Hammer Gel pouches for the goody bags, and HEED will be the official on-course drink. For 2013, there will be a significant increase in the number of Athleta Iron Girl triathlons and duathlons, with a total of 15 races tentatively scheduled:

Columbia, MD
Atlanta, GA
Syracuse, NY
Cherry Creek, CO
Seattle, WA
Rocky Gap, MD
Bloomington, MN
Lake Las Vegas, NV
Houston, TX
Lake Zurich, IL
Orlando, FL
New Jersey
Madison, WI
Boston, MA
Austin, TX

Some dates are still TBD, so please visit www.irongirl.com for more information.

Look online for the calendar of ALL of our sponsored events!

www.hammernutrition.com/calendar/





A first time for everything

BY DIANE WILHELM

I discovered your products in June 2012 while training to run my first marathon to support the Leukemia & Lymphoma Society. A fellow runner recommended your products and I have been hooked ever since. Prior to the 2011 Waddell & Reed KC Marathon, I had not run more than 10 miles and frankly, the last time I did that I was 20 years younger. I relied heavily on your website, Endurance News, and calling your customer service line to learn more and understand the best way to fuel during the marathon. I ran that first marathon using a HEED/Sustained Energy mixture, Endurolytes, Perpetuem Solids, Hammer Gel, and Anti-Fatigue Caps. My goal was to beat the 6-hour cutoff, which I did in 5:24:27.

Although I fully expected to be a "one and done," I discovered during my training and confirmed during the race that I LOVE endurance running. I ran a half marathon that November and have since run in two more half marathons in 2012, setting a PR each time. With a full year of training and a full year of using your products under my belt, I again tackled the KC Marathon in 2012. My goal was to beat my 2011 time and finish strong. I used the same suite of products as the 2011 race, but this year I started using Race Caps Supreme and Endurance Amino. I also ditched the single-serving Hammer Gel packets for the flask, which I carry on my belt. I finished my second marathon in 5:05:43, cutting 19 minutes off my time from last year and placing 16th in my age division!

I love your products and recommend them to everyone! Thanks for your great products and awesome support. *HN*

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electrolytes and
keep cramping at
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CHEMICALS

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By the Numbers

BY VANESSA GAILEY, Hammer Nutrition sponsorship coordination team

Improving athletic performance is a numbers game. Revolutions, repetitions, watts, weight, distance, minutes, seconds . . . athletes monitor an endless series of numbers in pursuit of their training objectives. While so many of you are logging the stats behind the start to your 2013 season, the team at Hammer Nutrition is tracking your collective results as Hammer-fueled athletes. We'll be sharing the numbers behind your successes in each issue of Endurance News.

Hammer Nutrition-sponsored athletes started off the year with solid finishes at events across the country and ranging in a wide variety of sports disciplines:

- Tara Geraghty Moats - 2nd place, Junior Women's 10K Pursuit and 7.5K Sprint at Junior World Biathlon Trials (Minnesota)
- Andrea Koenig (pictured) - 1st place overall, Heavy Metal category at the

Heathen Ski Mountaineering Challenge (Colorado)

- Jaelin Funk - 1st place overall, HITS Naples Open Triathlon (Florida)
- Fred Schmid - 1st place AG 80+ and National Champion AG title at U.S. Cyclocross Nationals (Wisconsin)
- Brendan Halpin - 1st place overall, Coldwater Rumble 50K (Arizona)

Whether you are a sponsored athlete or not, email us with your training and race accomplishments! Throughout the year in "By the Numbers," we will be recognizing not only sponsored individuals and teams, but also countless Hammer Nutrition-fueled athletes who demonstrate our shared commitment to a healthy, fit lifestyle.

We look forward to hearing from you all as you help us set a PR in our podium count for 2013! **HN**

Send news of your successes to athleteupdates@hammernutrition.com



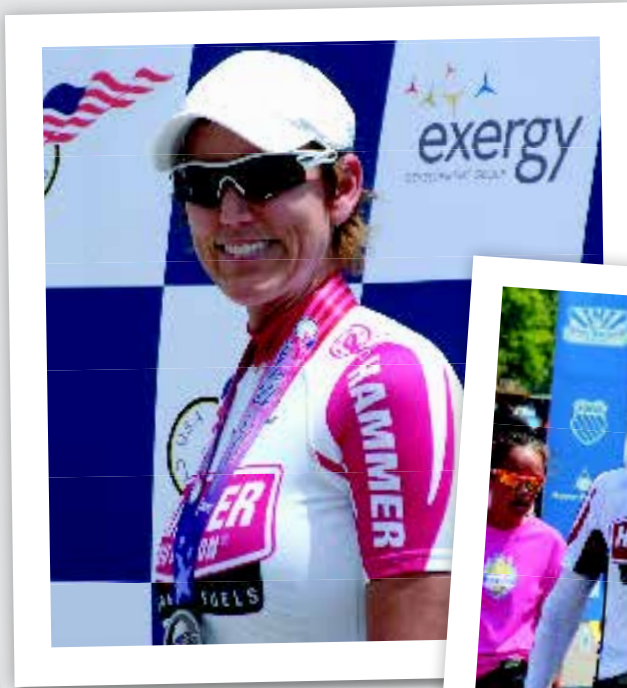
2013 By the Numbers

Month	Podiums	AG wins	Overall wins
Jan.	29	16	7
Feb.	51	25	12



"I earned two more podiums for Team Hammer Nutrition in closing out a very successful and fun 2012. This was a 5K race followed by a 10K race, with 25 minutes between races. For the 5K, I raced just fast enough to secure a podium finish while saving energy for the 10K race. Thanks to my HEED, Hammer Gel, and Perpetuem, I was able to podium in the 10K as well. I'm looking forward to an even better 2013!"

- Charlie Coe, sponsored athlete



Left to right : Just a few of the 2012 Hammerbucks winners - Traci Falbo, Shane Ellis, and Greg Taylor

HAMMERBUCK\$

Turn race day into **payday!**

Almost \$40,000 in cash and credit awarded in 2012 . . .

you could be next! www.hammernutrition.com/deals/hammer-bucks/

New for 2013—Announcing the Hammer Nutrition “Master Swimmer” Rewards Program!

Hammer Nutrition rewards swimmers who race in our logo gear, use our fuels and supplements in training and racing, and celebrate their hard work with a “victory pose” on the podium in their Hammer Nutrition logo gear. You can win up to \$1,000 in cash or product compensation!

To earn your “Master Swimmer” rewards, visit the Hammer Nutrition booth at the USMS event prior to your race. Complete a program application detailing your races at the meet, and make sure you have your Hammer Nutrition swim cap and temporary tattoos applied for each race. Fuel right, swim fast, and celebrate with a victory pose on the podium!

For complete details on the “Master Swimmer” Rewards Program, submit a request to hammerbucks@hammernutrition.com. Athletes who meets all terms and conditions of the program can win cash and/or free Hammer Nutrition product credit.

PRIZES:

- 1st place – \$200 product credit or \$100 cash*
- 2nd place – \$100 product credit or \$50 cash*
- 3rd place – \$50 product credit or \$25 cash*

Additional rewards can be earned by achieving any of the following:
National Record – an additional \$50 credit or cash
World Record – an additional \$100 credit or cash
BAS Title – an additional \$100 credit or cash
Age Group Champion – an additional \$100 credit or cash

*Max annual earning amount per applicant is \$1,000 in credit, cash, or cash/credit combination.



Left : Jonathan and Dasha display their medals.
Below : Jonathan in his full-body cast.
Opposite : Jonathan and Dasha perform with focus.
Photos : Sara Proescher

Taking the lead in competitive dance

BY DR. SARA PROESCHER

When Jonathan was 5 years old, he was literally walking from one room to another and fell down. It was discovered that he had a unicameral bone cyst in his hip, which resulted in a pathological fracture. After surgery to insert a screw and metal plate into his leg, he was immobilized in a body cast for seven weeks. Over the next two years, he had two more surgeries to repair the cyst with bone grafting and eventually remove the hardware.

For Jonathan, this was relatively life-changing—he would not be riding a bike in triathlon or competing in running races. He also would not be allowed to do any other "typical" sports like most kids his age. Fortunately, he had his swimming and considered that his outlet. The surgeon advised us to avoid all contact sports. Many of the things that I (the "Mom") enjoy, such as triathlon and horseback riding, were now off-limits to him.

One day, however, he tagged along with his grandparents to a senior citizen social ballroom class. Quite frankly, it was the

start of something wonderful for him. We quickly realized that there was more to dancing than social ballroom and discovered International DanceSport (competitions comprised of ten dances: cha-cha, jive, rumba, paso doble, samba, foxtrot, quickstep, Viennese waltz, waltz, and tango). In 2012 Jonathan began lessons with a former world professional competitor, and now, at 8 years old, he has competed in various competitions. In a February event, he and his partner, Dasha, won 1st place in all eight dance events they entered.

Most people do not realize how athletic a dancer has to be. Just like in ballet, there is great strength in grace. We find that, as with other sports, Dancesport athletes are not always as concerned about their nutrition/health products as they should be. Jonathan takes great care of his health and tells others about his favorite Hammer Nutrition products. He often wears his kid's Hammer T-shirt to practice.

Endurolytes Fizz and HEED are great drinks for the dancing athlete. During



lessons, Endurolytes Fizz keeps him going. Jonathan is also never without Hammer Whey Protein Vanilla. He has a protein smoothie every morning, which he prepares himself (for Jonathan's favorite smoothie, see column at left), and likes to make another smoothie for after dance lesson, since we drive a little over an hour to get home.

Incidentally, during my research about bone cysts, I found that there could be a connection to gluten intolerance. Since this all began, we have been gluten-free and appreciate the effort that Hammer Nutrition has made in creating gluten-free products. You will never find Jonathan ingesting candy, sugar, or any other "bad" food! **HN**

Jonathan's Peanut Butter Delight Smoothie

1 1/2 cups of organic almond milk,
vanilla

1 raw egg (*We use free range,
organic eggs for the high vitamin
and mineral content.*)

1 full (sometimes overflowing!)
scoop of Hammer Whey Vanilla

1 tablespoon of Navitas Naturals
raw cacao powder

1 tablespoon of organic peanut
butter

1 slice of pear or frozen banana

Mix well in the Vitamix!



Kayla Dunkel

Kayla Dunkel is 14 and races the “Mini B class” with the boys! She’s is a two-time Florida State Champ (2011 and 2012 series) and is currently going for three State Championships in row. Her sister Kya, 11, races in the 65cc Girls Class. With the help of Hammer Nutrition, someone from the Dunkel family team makes the podium spot every race weekend! HEED, Hammer Gel, Premium Insurance Caps, Race Caps Supreme, and Hammer Whey Protein keep us WAY AHEAD of the competition, especially when it really counts on that last lap!

Thank you for all your help!
Shaw Dunkel

From our athletes

Catching up with the stars of tomorrow



Syllas Schutt relaxes after the 15K classic race. Photo : courtesy of North Shore Nordic Junior Ski Team



A Hammer house

The three sons of our Canadian distributor Darren Thompson, sporting some pretty snazzy looking kid's clothing.

North Shore Nordic Junior Ski Team

Hammer Nutrition products have been awesome for training and racing. We shared some HEED with other teams at the Super Qualifier races in Soldier Hollow, UT. The afternoon sprint heats and the 15K distance race were held in very sunny, warm conditions, not what most of the athletes were used to in mid-winter. Suffice it to say that HEED was very much appreciated!

Chad Castren
Coach, North Shore Nordic Junior Ski Team

Tricommitment Camp

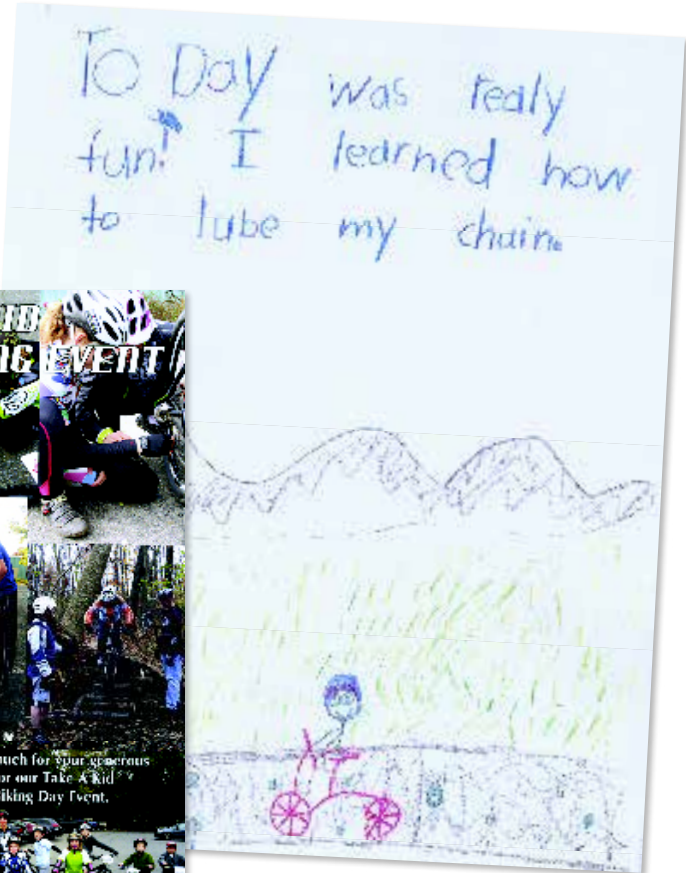
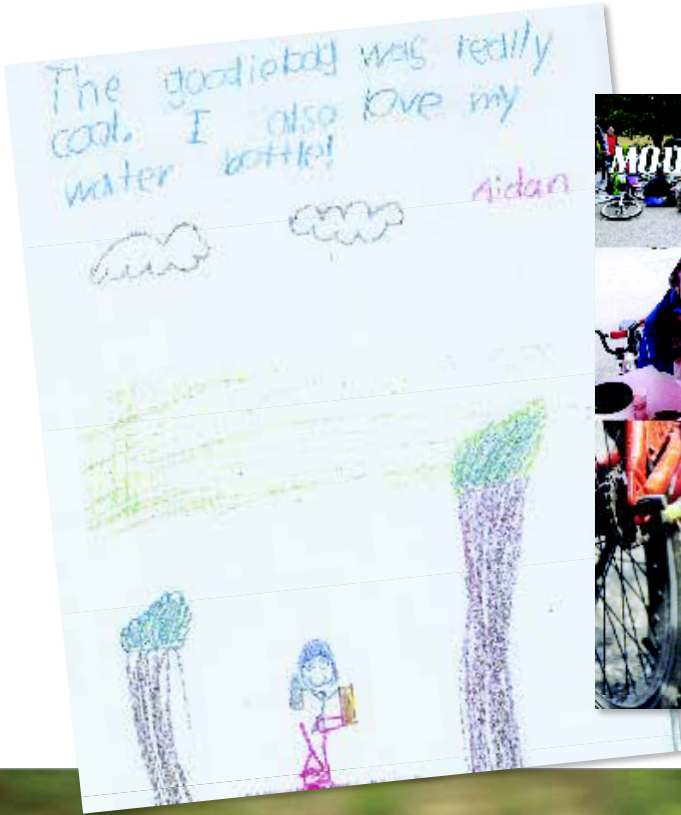
Tricommitment is a Calgary-based triathlon project spearheaded by Madi Serpico and Jordan Bryden. We have put together camps for athletes ages 6-12 that teach kids how to stay fit through our amazing sport. We are constantly working to create new events that bring the Calgary triathlon community together. Last fall we hosted an open-water swim race that was a huge success. We regularly focus on and organize kids triathlon camps that teach the fundamentals of triathlon in a fun and safe environment. The camps are fast-paced and allow for kids to realize that everyone has strengths and weaknesses.

Madi Serpico



Take a Kid Mountain Biking Day!

Hammer Nutrition is proud to have sponsored this recent event in Whitehall, PA. Thank you to the participants for these (and other) thank you notes!



We all want what's best for our kids. . .

Sam Tullis places 3rd overall and 1st in his age group at the 2012 IronKids Alpharetta.



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FROM OUR ATHLETES



Robin Buckles

Thanks to Hammer Nutrition, I set PRs in every distance up to 70.3 Ironman at Lake Stevens. Teaching four cycling classes a week, coaching several athletes, and working full-time in addition to my own training leaves me with a limited supply of energy. Hammer Nutrition products, such as Xobaline, Boron, AO Booster, Endurance Amino, and Anti-Fatigue Caps, keep me going and on the road. Of course, using HEED, Sustained Energy, and Recoverite benefits me in the obvious way! Thank you Hammer Nutrition for your excellent products, customer service, and desire to help athletes of all levels. Much Mahalo!



Hannah Stedge

Hammer Bars and Hammer Nutrition proteins and/or Recoverite have been my saving grace! Now that I'm doing multiple workouts a day, I've found it's absolutely necessary to replenish and recover immediately after my workouts.



Casey McKinney

I placed 4th in my age group and was the 1st place Military Division Men 40+ at Carlsbad Half Marathon 2013. Pre-race I had two servings of Espresso Hammer Gel and 8 oz. of HEED. During the race I had one Montana Huckleberry Hammer Gel and one Espresso Hammer Gel.

Photo : Denise McKinney



Tiff Koehn

Tackling a pass in Switzerland. Huckleberry Hammer Gel fueling the way!



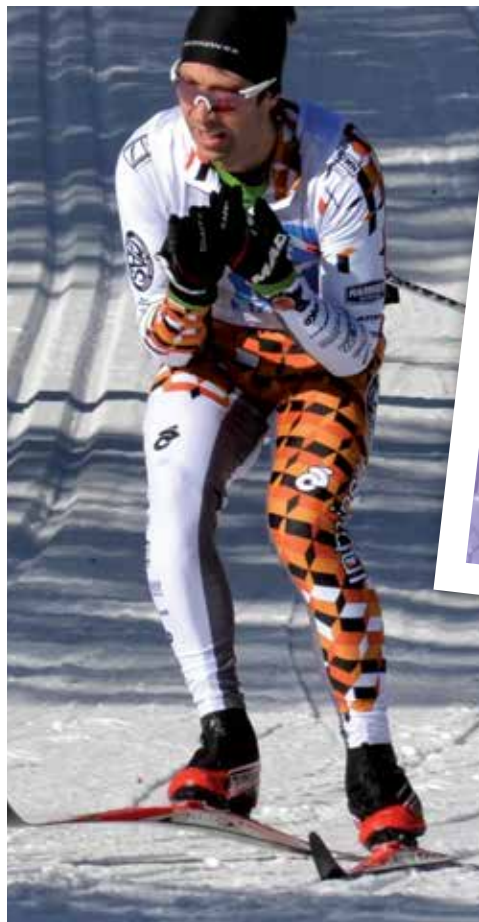
Melony Wilkinson

2nd place win in my age group today (10K). I worked hard for my yummy Hammer Whey Recovery Bar!

(Employee of Real Bikes Venice, one of our Hammer Nutrition retailers.)

Sebastian White

For the annual Sacagawea Classic, a 30K ski race at Bohart Ranch, MT, I used three scoops of Caffé Latte Perpetuem with one scoop of Endurolytes Powder in my water bottle. About 15 minutes before the start, I had a Raspberry Hammer Gel with six ounces of water to chase it down. My energy level was topped off well and good to go for the fast start. Perpetuem carried me through two hours of hard aerobic effort and the Endurolytes helped maintain power. A little trick I tried is using warm water for the mix in an insulated Polar® water bottle, kept upside down (in the lumbar pack) to keep the nozzle from freezing. It worked! It was another stellar racing experience using Hammer Nutrition products! Thanks!



EJ Harpham

After an age group win skiing the Birkie, and then two weeks later another age group win running the Catalina Island Marathon, all of the Hammer Nutrition products had made a difference—Hammer Gel, Endurolytes, Sustained Energy, and many more. To be honest though, the thing that made my day was the Complex after the marathon, and many a person was jealous!

Top-shelf quality, bargain-bin price!



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- Decrease perception of fatigue
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\$52.95 - 240 Capsules

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FROM OUR ATHLETES



Stephen Armes

I started off the 2013 season on February 3 with the Nago Half marathon in Nago, Japan. A couple thousand people gathered for the event under perfect conditions and warm temps.

I was the top American in the race until mile 10 when I was caught by Marlin Mullins.

Marlin and I went stride for stride over the next two miles, but he ran a brilliant race and pulled away in the last mile to take the top American slot.

Taylor Armes (right)

As you can see, for my ski trip to Vail, CO, I made sure to take Hammer Gel with me. It was the perfect pick-me-up around 2 p.m.! All of my friends were tired and ready to go home, but Hammer Gel gave me the energy to keep doing ski run after ski run!



Laura Bergman

Boston Marathon training + Tissue Rejuvenator = happy joints and muscles



Russell DeBarbieris

I am kitted up "Hammer Style" six days a week while doing my 225-300 training miles. Recently I received my new Hammer Nutrition cycling clothing, T-shirt, and hoodie! My wife is very tolerant and accepting of my saddle time, and she knows how important racing is to me, however with my Hammer "street clothes," she is wondering aloud if seven days a week in Hammer wear is normal for a 61-year-old man. Absolutely!

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60 Capsules

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athleteupdates@hammernutrition.com



Paul Smith

It was a beautiful 78-degree winter day for our 83-mile training ride here in Okinawa, Japan. This picture was taken at the southern tip of Okinawa at the Peace Prayer Park WWII Memorial Site. In the background are numerous walls of names of the Japanese and Americans who died during the battle at Okinawa.



Nina Silitch

Nina Silitch, Hammer Nutrition-sponsored athlete, won a silver medal at Ski Mountaineering World Championships in France. She is the first North American in history to win a medal at World Championships.



Lisa Dougherty

I rode from Glendale, AZ, to the climb into Prescott on a route that included a portion of the 3,000-mile Race Across America (RAAM) 2013 route. Of course, Hammer Nutrition products powered my ride. My favorite fuels are Melon HEED, Perpetuem, and Perpetuem Solids. I mix Caffé Latte and Strawberry-Vanilla Perpetuem together to enjoy a cool strawberry-flavored cappuccino while I ride.



Alvin Graham

It was awesome and a blessing getting to visit with the staff members (team) of Hammer Nutrition during the Seattle Cascade Bike Club Expo. Thank you for your support with Oatmeal Apple Hammer Bars and Hammer Vegan Recovery Bars in Chocolate Peanut. They taste and work GREAT! I rode from open to close both days of the expo on my sponsored inside ride rollers in support of Bike MS. Together we all made a massive difference.

ENDURANCE NEWS

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WARNING! If you use another effervescent electrolyte product, read the label before you consume another tablet! The product may contain one or more of the following chemicals: PEG (polyethylene glycol), acesulfame-K (consists of methylene chloride, a carcinogen), sucralose (a synthetic chemical with a chlorinated core), or other artificial sweeteners, flavors, or colors.

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