



endurance

NEWS

a newsletter for the endurance athlete

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The Complex EMS

A Complementary Training Technique

In contrast to the numerous 'fake' products sold worldwide which promise to help you lose weight and develop washboard abs all while sitting on your couch, neuro-electrical muscle stimulation (NEMS) is a serious technology developed and used by athletes concerned with improving their performance. Until recently, experience with electrical muscle stimulation (EMS) was limited to the treatments of atrophied muscles after an accident and EMS treatments for injured athletes by physiotherapists or in recovery medical centers. Now, this technique is being extended to the training of healthy muscles for improved performance.

First of all it's important to clearly identify the role of electricity. Electricity is not a

magical flow that improves the muscle tissue. Contrary to common wisdom, the electricity used in the electrical stimulation process has no intrinsically beneficial effect on our muscles. The truth is that the process of electrostimulation stimulates the muscle via the motor nerve. This is most efficient and effective for two reasons. First, electrical stimulation of a motor neuron requires much less current than would be needed for direct stimulation of the muscle fiber and, second, the surface excitation effect achieved by using the nerve to distribute the current to all muscle fibers transmits the flow deep into the muscle.

Electricity acts on the muscle by provok-

(see *COMPEX* on page 12)

Race Caps Supreme

by Steve Born

The ATP Production-Enhancing Product In An Even Stronger Formula

**Half The Capsules
More Benefits
Same Unbeatable Price**

The new Race Caps Supreme formula will be hitting the shelves in early spring so get ready! This new formula is the result of many, many hours of Dr. Bill's research, emails and calls exchanged between the three of us (Brian, Dr. Bill, and myself), and our meetings together. The end result, after countless hours of research and brainstorming, is a formula that is more powerful than ever, one that incorporates components of the current Race Caps and Enduro Caps formulas, but expands on those two formulas substantially. Best of all, we've got it in one product, which means that the amount of pills you take will be reduced by half, and your cost will be exactly the same as you paid for a bot-

tle of both the current Race Caps and Enduro Caps products.

**Why Everyone, Especially Athletes,
Needs Race Caps Supreme**

In simplest terms, in order to produce energy more efficiently and consistently from your food and oxygen intake, the body requires adequate levels of specific substrates to assist in this complex process. Naturally occurring levels of at least some of these nutrients diminish as an unfortunate part of the aging process and the demands of exercise also deplete them at an even more accelerated rate. Without adequate replenishment of these important nutrients the body cannot meet energy demands sufficiently. Quite simply, if your body's supply of these key substrates runs short, your performance will

(see *RACE CAPS* on page 4)



Dear Client,

Thank you for helping to make 2003 our best year ever! Without your enthusiastic support, none of it would have been possible. Your satisfaction and success is the driving force behind everything we do.

As I sat down to write this I thought I was having a total *deja vous* - Last year was a great year but the best is still yet to come, etc. But then I realized that it was not a *deja vous*, but instead it was another year of progressing down a very focused path. So, as we start our 17th year it is habitual to both look back at what we've accomplished and to look forward to where we are going in this new year.

2003 was a year of substantial growth for E-CAPS and Hammer Nutrition by any means you might choose to measure. It was also a year in which we were able to help more of you reach new heights and milestones in your athletic endeavours than ever before. Our very own Steve Born was inducted into the Ultra Cycling Hall of Fame. Hammer Gel was rated the #1 nutritional product by the readers of MTBR.com. Retail distribution and sales more than doubled and now most of our distributors are offering the complete Hammer Fueling line to the bike shops and retail stores they serve. So, in the near future, your favorite Hammer Gel retailer will likely be offering Endurolytes, Perpetuem and Hammer Pro Whey as well.

We introduced new products such as Perpetuem to rave reviews. Allen Larsen won RAAM using it and many other ath-

letes recorded breakthrough performances too. Watch for this product to become even more dominant in the ultra disciplines this year. In the E-CAPS product line, we introduced Mito-R Caps and REM Caps, which have been quite popular with our clients.

It also represented growth for us in terms of reaching international markets. Hammer Gel sales in Canada grew substantially. We also began full scale distribution of Hammer Gel in Puerto Rico and Australia.

Before going any further, I'd just like to thank you again for your support and helping to make 2003 our best yet.

Now, about 2004 - It's going to be an amazing year. We have some monumental product updates and consolidations afoot, brand new products that we think you'll enjoy and cutting edge technology that promises to launch your training into the 21st century. You can read more about all of this exciting stuff in the following pages of this issue.

We also have major technology improvements planned that will allow us to serve you even better than we have up until now. And, of course, we are feverishly working to improve our new web site to be the best it can be.

Lastly, I want to remind you that I receive and personally respond to all e-mail sent to suggestions@e-caps.com. If you have ANY suggestions that you think would help improve our products, service, support, web site or anything else related to doing business with us, please let me know. Your suggestions and feedback help me keep my finger on the pulse and it's the best way to ensure that we continue to provide you with the best possible products and service.

Happy New Year!

Brian Frank

Our Mission

The objective of Endurance News is to provide you, the serious endurance athlete, with a valuable resource that you will find to be 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 myself as well as professional and elite amateur athletes and other experts in the area of nutrition and exercise. In addition, Endurance News will include articles highlighting new and existing E-Caps products and how to get the maximum benefits from them.

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, hard training that emphasizes quality over quantity, and prudent supplementation to improve health and performance. But above all, we at Endurance News believe there are no short cuts, and success can only come from hard work.

Brian Frank
CEO

Back issues of Endurance News are available online at: www.e-caps.com

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

Real Fruit?

We've heard from several clients that another brand of energy gel has indicated that their product is the only gel on the market that contains real fruit. We felt it was worth mentioning that this is not the case. We have contacted this company and asked that they not say this in their advertisements, on their web site, or in press releases. However, we also wanted to inform you directly so you are not confused about the fruit content in Hammer Gel.

Since February 1998 when the Hammer Gel flavor offerings were expanded from the initial chocolate and vanilla to include three fruit flavors, only real fruit puree and or real fruit juice has been used. Those Hammer Gel flavors are Raspberry, Orange and Banana. It is notable that the other brand of energy gel did not introduce their reformulated gel containing real fruit until August of 2000, according to their web site. Apple-Cinnamon was the fourth fruit-flavored Hammer Gel, added in February 2001, which has also always been made using real fruit puree/fruit juice and real cinnamon.

We hope that this clarifies the matter for you.



Clothing Overstock!

10% off on all cycling clothes!

We've got too much clothing and we'd like to clean out the closets (so to speak). From now until it's gone all cycling clothing will be 10% off its regular price.

This is a fantastic time to get high-quality Voler cycling clothing at a really great price. From thermal jackets to arm warmers, cycling skinsuits to bibshorts, these clothes are unbeatable.

All apparel is quick drying and breathable, assuring you of a comfortable ride.

Get it before it's gone!
Limited to stock on hand.



Cycling Shorts



Arm Warmers



M's Tri Suit w/pocket



W's Shimmel w/pocket



Tri-Clothing Blowout!!

We're blowing out our entire stock of Voler-made, triathlete-specific clothing. Sale prices listed below...order today!

M's Top - \$29.00
M's Short - \$21.00
M's Skinsuit - \$50.00
W's Shimmel - \$18.00
W's Short - \$21.00
W's Skinsuit - \$47.00

Caught in Kona!

Is this you? We were in Kona for the Ironman Championships and saw a number of mystery athletes wearing the Hammer gear. (Which looked great!) We just want to know who you are!

So, if you recognize yourself give us a call, or send an email. We'd love to put a name with the face.



1.800.336.1977 or graphic@e-caps.com

(RACE CAPS from page 1)

be sub-par. The new Race Caps formula provides the body with a greater variety of these key substrates, more than ever before and now in even more superb amounts, to ensure consistent and efficient energy production.

Another important thing to note is that while energy is vital for life itself, the metabolism of energy is also a destructive process as well in that it produces massive amounts of free radicals. Left unchecked these excess amounts of free radicals are capable of damaging every type of molecule in the body. This rampant attack on cells and tissues is considered to be a primary cause of age-related diseases. Fortunately, the primary nutrients in Race Caps Supreme not only assist the process of efficient energy metabolism, they're also tremendous antioxidants as well, aiding in neutralizing excess free radicals.

The original Race Caps formula addressed two primary functions - enhanced energy production and antioxidant/general health support. With this new formula, these two primary functions have been addressed and resolved more powerfully than ever before. Any person, especially an athlete, would benefit greatly, in a variety of areas, with consistent use of Race Caps Supreme.

Here's what the new formula looks like and what these nutrients do...

**"Mito Matrix" -
A Vitamin E / CoQ10 / Idebenone
Proprietary Blend**

Although it's hard to give any of the ingredients even a slightly lower "status," arguably the key players in the formula have to be Coenzyme Q10 (CoQ10) and Idebenone. These two nutrients are the primary substrates involved in the Electron Transport Chain process of ATP production by the mitochondria. We've changed the dose of each of these nutrients and put them in a specific ratio in Race Caps Supreme. We believe the benefits of both these extraordinary nutrients have multiplied as a result of this change. Here's a brief explanation of why these two nutrients are the cornerstone of this formula...

As most of us know, mitochondria are micro organelles ("little organs") found in virtually all cells in the human body, except red blood cells. The 20-2500 mitochondria per cell produce the majority of the body's energy (ATP) by means of an intricate and complex process called cellular respiration. The production of ATP within the mitochondria involves two metabolic cycles known as the tricarboxylic acid (TCA) cycle, which is also called the "Krebs" or "citric acid" cycle, and the oxidative phosphorylation electron transport chain, commonly abbreviated as ETC.

CoQ10 is a vital catalyst, perhaps THE primary substrate involved in the mitochondrial electron transport chain. Without going into the complexities of this process, which would take several pages, we can truly say that CoQ10's importance cannot be understated because quite simply, without it, the chain of cellular energy production is broken. This is key not only for athletic performance but also for maintaining cardiovascular and brain health, and strong immunity in general. In regards to cardiovascular health, one well-known cardiologist is quoted as saying, "I have long considered CoQ10 a wonder nutrient because of its ability to support heart health." In addition, CoQ10 helps to lower blood pressure and may play a key role in the prevention of Parkinson's disease. For both athletic performance and general health applications, there is simply no question that the athlete MUST supplement with CoQ10.

Idebenone, also called hydroxydecyl Q, is an analogue of CoQ10 and a superb compliment to that remarkable nutrient. In fact, some experts even suggest it to be even more powerful in action than CoQ10. Dr. Misner explains, "Idebenone supplies all of the same benefits as CoQ10 plus some distinct advantages based on its more complex chemical structure. Though very similar in chemical make-up to CoQ10, its longer chain organic structure gives it extra powerful antioxidant properties making it a more effective "free radical quencher" resulting in less cell and tissue damage." In essence, Idebenone extends the already powerful benefits of CoQ10 and under hypoxic (low oxygen) conditions Idebenone's ATP generating capabilities are even superior to CoQ10.

Vitamin E, while not directly involved in the cellular respiration process, is a vital component in the Race Caps Supreme formula. The naturally derived, easily assimilated succinate form of this mineral supports CoQ10 and Idebenone in neutralizing free radicals, which, as mentioned earlier, are a naturally occurring metabolic by-product of energy production. Succinates are also a key component in the TCA (or "Krebs") cycle.

**"Oxy-Assist"
Optimized Oxygen Delivery / Energy
Enhancing Formula**

A precise blend of Trimethylglycine (TMG), inosine, and glycerol phosphate provide substantial benefits for enhancing oxygen utilization, optimizing fats-for-fuels capabilities, and for providing additional support for energy production and acid buffering.

Dr. Bill calls TMG a "Lipotropic Antioxidant Supreme" and writes, "Trimethylglycine is more commonly known as betaine, an alkaloid of beets. As an oxidation product of choline... it (TMG) also has been shown to perform lipotropic activity (fatty-acid utilization for energy production). It (TMG)...has been used to treat muscular weakness and degeneration... is a powerful antioxidant, which primarily acts as a methyl donor, enhancing the transport of oxygen to muscle tissues."

Dr. Bill writes, "Inosine, also known as an anti-fatigue nutrient, is a naturally occurring metabolic product that is readily utilized by the body. Inosine increases the oxygen-carrying capacity of the blood, allowing more oxygen to be delivered to the muscles, thereby reducing fatigue."

Phosphates (in the form of glycerol phosphate) are used in the muscle mitochondrial cells for the production of energy and are also beneficial for buffering excess acidity.

**"KCI Support"
A Proprietary Krebs Cycle
Intermediate Chelated Mineral Blend**

Earlier both the TCA and ETC cycles involved in ATP production were men-

tioned and that Race Caps Supreme's CoQ10/Idebenone combination fulfilled a major component for the ETC portion. For supporting the TCA (or "Krebs") cycle, the Race Caps Supreme formula supplies a precise amount of the Krebs Cycle Intermediates (KCI) Malate, Citrate, Aspartate, Lysinate, Glycinate, which are chelators for the minerals calcium, magnesium, and potassium. Another Krebs Cycle Intermediate, alpha ketoglutarate, has been added as well. With this KCI donation now a part of the formula, Race Caps Supreme provides key substrates to support and enhance both metabolic cycles involved in ATP production.

"Absorb-Assure"

Specific nutrient-absorption blend

Getting every bit of these valuable nutrients into the bloodstream is of prime importance so to enhance and maximize absorption Race Caps Supreme contains a potent blend of various digestive aids. One component of this unique nutrient-absorption combination is a proprietary formula called the Enzyme Enhancement System and the other is the well-researched standardized black pepper extract called Bioperine.

The Formula - A Guarded Secret

Since the beginning of E-CAPS, our policy has been to give full disclosure of the exact amounts of each nutrient contained in our products. As a result, other companies have attempted to duplicate certain formulas of ours. Now, copy may be the sincerest form of flattery but the new Race Caps Supreme formula is so unique and took so long to arrive at that we've decided to keep this proprietary formula "cloaked" a bit more, so as to deter copycat products from sprouting up. You can rest assured though, that the quality of this new product is at the same uncompromisingly high standards as all our products are. As with all E-CAPS products, the suppliers of our ingredients are extremely reputable (we work VERY closely with them). We make sure that each and every nutrient contained in all our products is the highest quality possible - fully potent and pristine. As it has been from the beginning of E-CAPS' existence, you have our guarantee of that.

Conclusion

A long time ago Dr. Bill wrote, "The objective in formulating the original Race Caps

was to provide the ultimate ergogenic aid not only for improved cardiovascular-musculoskeletal performance on the field of competition, but also to benefit the overall health of the athlete." This is still the objective of the Race Caps formula only now, with the arrival of the new Race Caps Supreme, the desired outcome of this objective has been realized in a greater way than ever before. Now more than ever we guarantee that you will not find any product comparable to Race Caps Supreme for the combined effects of improving athletic performance AND supporting overall health.

HOW SUPPLIED

Race Caps Supreme will come in bottles of 90 all-vegetable (vegan-friendly) capsules and will retail for \$59.95. This is roughly a one-month supply (depending on usage) and is equivalent in price to one bottle of the older Race Caps formula and one bottle of Enduro Caps (which will no longer be produced as it is no longer necessary).

SUGGESTED DOSES

Non-workout days & workout days up to 1.5 hours

Athletes weighing less than 150 pounds or ANY athlete under the age of 20 - 2 capsules daily

Athletes weighing more than 150 pounds - 3 capsules daily

Workout days over 1.5 hours

Athletes weighing less than 150 pounds or ANY athlete under the age of 20 - 3 capsules daily

Athletes weighing more than 150 pounds - 3-4 capsules daily

More detailed usage suggestions will be included with orders

NOTES

For even greater and more amplified benefits Race Caps Supreme should be taken with Mito-R Caps.

Cardio Caps & Enduro Caps

Thanks for the memories

With the release of the new Race Caps Supreme formula two long-time staples in the E-CAPS line will be no more. Because Race Caps Supreme improves upon the Race Caps/Enduro Caps combination and combines the two products into one, the current Enduro Caps product is no longer necessary and is being discontinued. With Race Caps Supreme you will derive even greater benefits than you did with the Race Caps/Enduro Caps combo, you won't have to take as many capsules to get these benefits, and the price remains the same...it's all good!

Cardio Caps was a tough one to let go of. Designed as "the younger athlete's Race Caps," Cardio Caps filled a specific need for both younger athletes and athletes looking for a less expensive alternative. However, the new Race Caps Supreme formula is so unique and so potent that it would be extremely difficult, if at all possible, to produce a similar Cardio Caps-like product that could match the original Cardio Caps price while still providing acceptable benefits. We do realize that the cost difference between a one-month supply of Cardio Caps and Enduro Caps and a bottle of the new Race Caps Supreme is substantial (\$37.95 vs. \$59.95). What was overwhelmingly apparent though is the superiority of benefits in the new Race Caps Supreme formula. We are so convinced that ALL athletes, regardless of age, will benefit more thoroughly with Race Caps Supreme compared to the Cardio Caps/Enduro Caps combination, that we chose to discontinue the Cardio Caps product.

If you're currently using the Cardio Caps/Enduro Caps combination we encourage you to give a bottle of the new Race Caps Supreme a try. We think you will find the substantial increase in benefits to more than justify the difference in cost.

For all you die-hard Cardio Caps or Enduro Caps fans, we still have a substantial amount of inventory available until the arrival date of Race Caps Supreme (due sometime in February). To make room for Race Caps Supreme we're selling existing supplies of Cardio Caps, Enduro Caps, and/or the Cardio Caps kit at reduced prices, no limits, while supplies last.

Enduro Caps	Reg. \$24.95	SALE - \$15.00
Cardio Caps	Reg. \$19.95	SALE - \$10.00

So, farewell to two long-time favorites. We're on to something even better for all athletes of all ages with the new Race Caps Supreme.

A Dirty Little Secret *Tony Schiller*

"Among the truly sacred places on this earth, you have to include Fenway Park, Wrigley Field and Kona." Dick Tomlin

In sharing that opinion with me via cell phone from Hawaii, Dick's reverent tone got my heart racing. 24 hours later I would be there as his roommate for the best and worst week in triathlon: pre race week at the Hawaii Ironman.

It's the best because so much happens - an entire week obsessed with everything triathlon. It's the worst because nothing happens - an entire week obsessed with everything triathlon. I'm not sure what you feel more of: total exhilaration or total overload; maybe both. Regardless, by Friday night you are raring to get the darn thing started.

Ironman Hawaii is known for its meticulous organization and attention to detail - a good thing. Unfortunately, the size of the field (now 1700) overwhelmed the system on race morning. Unless you were a pro or VIP, you likely spent 60-90 minutes standing in cattle corrals to get through body marking and to the swim start. Gone now is one of my favorite and most charming aspects of Ironman - the chance to walk out onto Allii Drive for final good byes, hugs, photos and well wishes from family and friends before heading into the water. Gone too is any quiet time and space athletes used to have to sit and stretch, to pray and meditate, and to gain one's composure before making way to the swim start. Instead, athletes are horded into steel fencing for a dreadfully slow procession toward the water's edge. For over 30 minutes we stood helplessly waiting with fear growing that we'd still be stuck on the pier when the cannon blasted the start. Thankfully, I reached the water and swam to the start with two minutes to spare; I doubt the hundreds of athletes behind me were as lucky.

That fiasco aside, everything else about the race was typical Hawaii Ironman... which is to say, the greatest triathlon of all. Where else can a 45-year-old-fart compete alongside the best athletes in the world as they contest the most important championship in their sport? The uniqueness of this race just overwhelms. Of the 600+ races I've done, it remains the only

one that brings tears to my eyes at the start. Perhaps that's because with only 4 attempts it's still special, or could it be my subconscious mind preparing for the pain ahead? Whatever, all I know is it's the race age groupers and pros want to conquer more than any other. I've won many races and several ITU world titles, with Kona always going down as my worst race of the year. That's hard to swallow and this year was going to be different. With a new age group, a relaxed and patient attitude, and an ironclad nutritional plan that included Perpetuem, there was no stopping me now.

Well let me just "blah, blah, blah" forward to the 7-hour mark...still very much in contention, feeling pretty darned good after running an easy 27-minutes for the first four miles and then, boom...a 15-minute next mile. What can I say? Doggone it if I didn't bonk hard again (like the Red Sox and Cubs to the World Series, I must be jinxed in Kona). About 40-minutes and 3-miles later I came upon my potential savior, Brian Frank of E-Caps fame. "Help me Brian. Please give me some advice. How can I turn this thing around?" "I don't know man, you don't look so good. It's Hot. Just heard DeBoom dropped out. Hang in there though, and um, pop some Endurolytes." I moaned back, "They don't seem to be working today." "Well, they're working for Jeff Cuddeback. Did you see him? He's kicking ass in your division - top amateur I think." "Yea, I saw him. What a stud. See 'ya later Brian."

And so I popped and popped but still felt pooped. A mile later I saw Tony Richardson, an ex-pro colleague who, like Brian, was smart enough to be watching the race. He said to me, "No matter what Tony, finish. It's the worst feeling being here and not finishing. It'll haunt you forever." (Yes, I was traveling slowly enough to actually carry on such lengthy interactions with spectators). Then he said, "You're still in the top 5 in your age group. Don't be down on

yourself. You're awesome man!" "Thanks Tony. I appreciate it."

That place didn't last long but his words picked up my spirit. Then the Endurolytes

kicked in and I was able to start running again, even if slower than scheduled. Whether it's a sign of strength or weakness, I'm not sure, but once I let go of the disappointment and started running sans goal, my energy and pace picked up. The rest of the race, though not fast, became surprisingly enjoyable.

That's where the "dirty little secret" comes in. In making my way along the Queen K and back toward the finish

in Kailua, I was contented by the wonderful realization (cover your eyes Steve Born) that, it's ok to go short! I don't have to go long or race Ironman to be fulfilled as an athlete. Yes, there is still unfinished business in Kona, and it'll just have to stay that way.

There are so many ways to enjoy endurance racing without pounding out the ultras. You won't see me ever again building a Hawaiian tropical vacation around self-inflicted torture. I am done with it, forever. Now I can focus on all the races I've always wanted to do.... "Hi hon, I'm home. Say, did you get that message I saved earlier for you on voice mail? It's from Jeff Cuddeback. He said to call if you'd like to come to Florida to train with him for Hawaii."

"Oh yea, did he leave a number?"

Despite his troubles in this year's Ironman Hawaii, Tony Schiller finished in 10:38, good for 20th in his division. He was the overall winner of 3 triathlons in 2003. Professionally Tony is a full-time motivational speaker/business consultant and a part-time triathlon coach. His website is www.talkingtony.com.



Not again!

Werner Schweizer E-CAPS' Mont-Blanc Conquering "Mountain Goat"

The first edition of the Ultra-Trail International Tour of Mont Blanc (67, 110 & 150 Km ultra runs) took place in Chamonix, France on Saturday, 30th August & Sunday, 31st August 2003. It sure doesn't sound like your typical ultra run though; check out what the race web site gives as "Race Details":

The Ultra-Trail International around Mont Blanc - through France, Italy & Switzerland. Passing 7 valleys, 71 glaciers and 400 summits (the Mont-Blanc massif). 400 Summits? Yikes! Well, unfazed by the length or difficult terrain (which involved 24,000 feet of climbing), long-time client and ultra runner extraordinaire Werner Schweizer conquered the challenging course, finishing a fantastic 5th overall (out of approximately 700 entrants) in a time of 24 hours, 15 minutes. Best of all - are you ready for this? -



Werner is 64 years old! No wonder we often refer to him as the "Ageless Wonder"!

We recently received a letter from Werner (who is one of the most humble athletes you'd ever meet) and he wrote, "With the help of someone above us, Jacqueline, and E-CAPS, I made the run of my life, finishing 5th overall, at age 64. Very bad conditions,

heavy rain and fog (the Americans said that they have never run in such bad conditions). I think this performance is the best testimonial that E-CAPS and Hammer Nutrition work."

An absolutely stellar effort from another terrific E-CAPS athlete. Congratulations Werner on a tremendous accomplishment!

Hammer Gel Given MTBR 2003 Choice Award Highest Rated Product in Nutrition Category



Viva Las Vegas!

Hammer Gel received the 2003 MTB Review Choice Award for highest rated product in the Nutrition Category. Steve Born accepted the award during the 2003 Interbike in Las Vegas. A big thanks goes out to all those who voted for Hammer Gel.

Photo courtesy of Gregg Kato

Nate's Corner

Nate Llerandi

Bouncing Back After Sickness

When athletes get sick we look at it as a death sentence to our fitness. Most of us stress out about missed workouts and deteriorating fitness. It's almost as if we can see our hearts shrinking, our waistlines bulging and our endurance plummeting. Well, the reality of it is something you might have heard me say in the past: Rome wasn't built in a day, and neither was your fitness.

The best thing to do when you are sick is to honor what your body is telling you. Back off and take some time off. Let your body spend it's energy in helping you get better rather than trying to cope with the workout hell you're putting it through. Your recovery will be quicker and more complete.

If you're sick for several days to up to a week (or more), then give yourself time to get back into your routine. I take the amount of time I'm sick and cut it in half. That's the number of days I give myself to build back into my routine in terms of intensity and duration. Don't just jump back in full throttle to "make up for lost time". You may find yourself in a relapse of the sickness.

In no time, you'll feel like your old self and you'll forget you were sick. Push too hard too soon and you'll rue the day.

Happy Training

Nate Llerandi is a former national champion class swimmer/world class triathlete. He has been coaching since 1990 and creates programs for athletes of all sports and ability levels. You can contact him at natellerandi@yahoo.com

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Why Should I Lift Weights In The Off-Season?

Jeb Stewart BS, CSCS, Coach

It is always humorous to hear the myriad mythological reasons athletes conjure up to avoid this stepchild of the endurance-training world. From the possibility of weight gain and the decrease of leg speed, to the infamous lack of time and fear of injury, endurance athletes find more excuses for not lifting weights than the means teen-agers can come up with to avoid doing their chores. The irony of the situation is that this simple and relatively painless activity can not only be fun, but may be the critical link for many athletes to have that extra edge that goes so far in enhancing athletic performance once the racing season rolls around.

There are the obvious reasons for incorporating weight training into your pre-season regimen. From maintaining or building up some of that vital lean mass that gets catabolized in the racing season, to gaining the strength necessary to turn over the gears to produce significant power on the bike, weight training produces a plethora of effects that the endurance athlete stands to benefit from. Never mind the fact that weight training can boost the metabolism, help regulate hormonal balance, and improve posture. How many times have you needed that extra kick at the end of the race? Weight training can play a major part in helping the athlete find the necessary power at the end of a fatiguing event that their otherwise lesser-trained competitors may not be able to muster. This slight advantage could mean the difference between the podium and getting dropped!

One of the other, more commonly heard reasons for not heading to the gym is the oft heard "I am a cyclist/triathlete/runner, not a body builder. Why should I lift weights? I do not want to get big and bulky!" This is where having a coach or at least someone vaguely familiar with strength training protocols designed in the current century comes in handy.

Just because you lift weights, does not mean you are going to get "big". The truth is, most people do not have the genetics to develop the size and bulk that many body builder types carry around. For those that do have a propensity in this direction, com-

mon sense and awareness of proper set/rep/rest and weight schemes comes in handy. Endurance sports rely on very specific muscular actions and combinations of functional movement patterns. This is where it is important to consult a coach or strength and conditioning professional to get the guidance necessary to keep you heading in the direction of your goals and not wasting time performing exercises that may not only be of little benefit to you, but may actually hinder your performance. A knowledgeable coach or fitness professional can guide you in setting up a strength training program that includes the appropriate set/rep/rest and weight schemes performed over time with progressive resistance that will give you the stability, strength, and power gains that will boost your performance and take you to the next level!

Finally, one of the most beneficial reasons for anyone, but especially for endurance athletes to incorporate strength work into their training programs is one that is rarely talked about in the general public. This not so well known but critically important benefit is the effect strength training can have, if done properly, in correcting muscular and postural imbalances.

This is a huge one for endurance athletes. The very nature of the posture found in cycling lends itself to turning the athlete into a hunch back with rounded, protracted shoulders and a forward head which causes all kinds of dysfunction, like cervical problems, head and neck aches, not to mention making many of us look like hunch backs! Runners and swimmers do not make out much better and often end up with postural abnormalities, muscle imbalances, and strength discrepancies that lead them to decreased performance and often season ending injuries that could have been otherwise avoided by incorporating the proper corrective and preventative strength exercises into their training.

The repetitive movements involved in our sport reinforce muscular imbalances like the ones mentioned previously due to overused, hypertonic antagonists and weak and elongated antagonists. The tick-

et is to be as smart about your approach to weight training as you are to your training on the bike. Using the same principles of specificity and progressive overload, the athlete can work on strengthening what is weak and what is functionally necessary for the movements involved in their sport. They can leave out many of the body building type exercises primarily aimed at hypertrophic (size) gains in parts of the body that just aren't crucial to performance in their sport.

The other key element in the off-season is getting involved in a proper integrated flexibility training program to complement the strength work and stretch the shortened overused muscles which make up the 2nd half of the imbalance equation. I agree that much of what is traditionally done in the gym has little to no relevance to what we do in our sports. However, there is much better knowledge out there today and incorporating this in the off-season and some of the in-season can make a huge difference in an athlete's performance and in the longevity of their career by decreasing the likelihood of pain and dysfunction, and performance limiting injuries.

Hopefully, by now, you are at least curious, if not convinced, that getting involved in a scientifically based, safe, and sport specific strength training regimen will help you in your athletic endeavors when the season rolls around. My hope is that any misconceptions you may have had about weight training prior to reading this article are now in question, if not completely dispelled, and replaced by a desire to improve your overall athletic performance by incorporating proper strength and flexibility work into your annual training plan. So step into the 22nd century and do not let strength training be the bogeyman that keeps you from going to the next level this season. Seek out a knowledgeable, certified, and experienced coach or strength and conditioning professional to help you put together an off-season program that will help you enjoy a longer athletic career and reach a peak level of performance this year!

(see **WEIGHTS** on page 9)



QUESTION:

I've had a conversation with a coach... he doesn't believe that we can absorb carb solutions greater than 8%. Can you point me toward some independent research that proves we can absorb much higher concentrations of large molecule carbs? Personally, I believe it, but my friend would like some proof.

ANSWER:

Your colleague is correct if he is referring to short-chain carbohydrates, simple sugars, which are absorbed between 6-8% solutions due to osmolar pressure generated by solution. However, long chain carbohydrates are absorbed immediately in 15-20% solutions. Maltodextrin is an example of long chains of simple sugars linked together, and when in as high as

15-20% solutions they are absorbed due to their osmolality of 280-303 mOsm, which duplicates transient body fluids osmolality. If you separate maltodextrin linked simple sugars, they must be diluted to 6-8% in order to achieve an acceptable absorption osmolar value of body fluids @ 280-303 mOsm. If the osmolality value of a carbohydrate solution is above normal body fluid levels of 280-303 mOsm, the gut must draw both fluids and electrolytes, namely sodium, in order to reduce the osmolar values down to body fluid levels of 280-303 mOsm. There is a great amount of research that establishes the given necessity for osmolality of a solution required for absorption.

This is basic research from Weber & Ehrlein - Glucose and maltodextrin in enteral diets have different effects on jejunal absorption of nutrients, sodium and water and on flow rate in mini pigs.

Dtsch Tierarztl Wochenschr. 1998 Dec;105(12):446-9:

"Absorption of glucose and fat from the maltodextrin diet was significantly greater than from the glucose diet, whereas absorption of protein was only slightly enhanced. A net water absorption occurred at perfusion of the isotonic solu-

tion with maltodextrin. Perfusing the hypertonic glucose diet, water was secreted. Therefore the flow rate increased from oligomer to monomer glucose source. With enhanced flow rate sodium secretion increased. However, the sodium concentration of the effluent was determined more by the transepithelial water movement than by the sodium secretion. The present results indicate that in enteral diets with interactions among different nutrients there is a 'kinetic advantage' in glucose absorption from maltodextrin compared to glucose. However, the reduced flow rate of the maltodextrin diet due to the lower osmolality contributed to the enhanced absorption."

The balance between electrolyte flux, fluid volume and the length of carbohydrate chains determines what solution will be receptively absorbed immediately. This report is a "given" from widely-accepted concluded basic science.

(WEIGHTS from page 8)

Jeb Stewart is a USA Cycling Expert Level coach and a Master's degree candidate in Exercise Science and Health Promotion. He is certified by the ACSM, The NSCA, and is the head assistant coach and a partner at the Peaks Coaching Group. He has a long history of competing in a variety of athletic endeavors at the national level and currently races on the road around the country annually. He specializes in coaching athletes of all walks of life using a holistic approach and is on the forefront of coaching cyclists with power. Jeb's passion for helping people go to the next level in all of their endeavors has led him to become a national presenter, writer, and consultant on anything related to training, performance, and wellness. You can contact Jeb directly at jeb@peakscoachinggroup.com or at (813) 230-2900.

E-CAPS/Hammer Nutrition enthusiastically sponsors Peaks Coaching Group. For

more information on subjects related to endurance training or for any of your coaching and training needs checkout Jeb and the rest of the coaches from the Peaks Coaching Group at www.peakscoachinggroup.com.

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Nate Llerandi &
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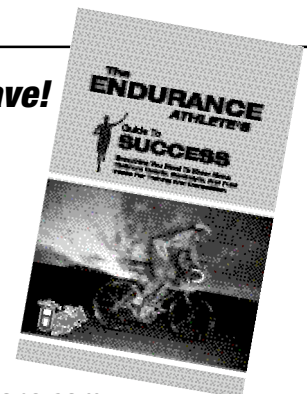
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Welcome to the first edition of Endurance News in 2004! I hope you're as excited about this upcoming year as I am, as all of us here at E-CAPS are. We've got a lot of great things in store and we know you're going to be stoked by what we've got planned.

The "Supplement Summit"

That's what I call the meeting that took place between Brian, Dr. Bill, and myself about week or so prior to Christmas. What a powerful meeting that was! We spent all day and part of the night going through the E-CAPS/Hammer Nutrition line, discussing new product possibilities and updates to current products. The research Dr. Bill shared with us was nothing short of astounding and needless to say, it's pretty exciting stuff.

I know I'm somewhat biased, having used E-CAPS products for over a decade and nearing the end of my fourth year of employment with the company. Still, I've been involved in the health food/supplement industry for a long, long time, nearly 15 years, and during that time I've dealt with a lot of companies. I've seen and tried a lot of products so I'd like to think I've got a pretty good handle on what's been going on in the industry. What I'm getting at is this...without a doubt, the updates we're doing to some of the E-CAPS products, Dr. Bill's ongoing research (just phenomenal stuff), and the new product possibilities that we've already come up with really drives home the fact that this company is unique and, in my opinion, even more advanced than any other company I know of. The term "cutting edge" is a too-often used phrase but it really is applicable with E-CAPS.

Simply put, the supplements we produce are the right products with the right

ingredients in them and in the right amounts. I truly believe these are the finest supplements available, ones that have benefits that go way beyond athletic performance enhancement. And after our "summit" I am even more convinced the products we're producing have no equal anywhere. We will of course keep you up to date on everything that's happening with E-CAPS/Hammer Nutrition and I can assure you that we've got some great things in store.

The New Race Caps Supreme

Whenever an existing product is updated, especially one as venerable as Race Caps, it's newsworthy. Even though the Race Caps formula many of you are now enjoying got a "face lift" not too long ago, it's going to be completely overhauled. And for all you Race Caps/Enduro Caps clients, one thing this change will do is make pill taking a bit easier for you. Here's how. After serious discussions between Brian, Dr. Bill, and myself during our aforementioned Supplement Summit, we're unveiling Race Caps Supreme - one product that incorporates components of the existing Race Caps and Enduro Caps formulas, plus some exciting new nutrients.

That's right, the new Race Caps Supreme will have a newer, more powerful formula (it's going to blow you away) and it will all be in one product. Instead of taking 1-2 Race Caps and 2-4 Enduro Caps, you'll now just have to take 1-3 of the new Race Caps Supreme. Best of all, a 90-count bottle of the new Race Caps Supreme will retail for \$59.95 so not only will you enjoy the benefits of an even more potent formula, one that cuts the amount of pills you need to take in half, you're not going to pay any extra for it. Sweet!

Special Recognition

There are so many phenomenal E-CAPS/Hammer Nutrition athletes out there that we could literally fill every issue (and then some) with nothing but race results. We always try to get as many athletes and their accomplishments "in ink" but I wanted to take the opportunity here to recognize a few specific athletes and congratulate them on their tremendous efforts. In no particular order:

Team Epinephrine - Paul Romero, Karen Lundgren, Darren Clarke, and Rick

Baraff - won the first ever adventure race on the island of Maui. Paul emailed me recently and said it was an absolutely brutal race. With only seven of 25 international teams that started able to finish, I'd call that brutal with a capital "B"! Great job Team Epi! More about their win can be seen on the team's web site at: www.teamepinephrine.com/html/news_index.html

Connie Gardner - She always comes up with such incredible performances that it seems like she's in every issue of Endurance News. This time her mention in EN is extra special though because we get to congratulate Connie on being awarded the 2003 Female Ultrarunner of the Year by the US Ultrarunning Association. What a great way to cap off a tremendous season...way to go Connie!

The complete story can be read at: www.ultramarathonworld.com/news_2003/n04de03a.htm

Suzy Degazon - On November 30, 2003 Suzy completed her 6th straight Ultraman World Championships race in Kona, Hawaii. For the uninitiated, this is a three-day ultra-distance triathlon consisting of a 6.2-mile swim, 261.4-mile bike, and 52.4-mile run. Suzy came in 9th overall with her best time to date of 31:50:49. Her story can be found at :

www.xtri.com/article.asp?id=1086

More about the race can be found at : www.ultramanworlds.com/2003/index.html. Congratulations Suzy!

Dick Weber - I know I mentioned Dick's accomplishment in the Furnace Creek 508 article elsewhere in this issue. I just thought it deserved special mention here because as most of you know, this race is of particular interest to me. It is such a difficult race that finishing it at all is a real honor. Dick not only finished, he destroyed a very good age-group course record by over an hour. Check out the Furnace Creek article in this edition of Endurance News for more.

Events!

Now is the time of year that a lot of us are thinking skiing and in this issue we've listed the many Nordic ski races we sponsor. That doesn't mean there aren't other events that we're involved in. Here are some of the ones we sponsor that are hap-

pening now or in the near future:

The Undercover Adventure Race

February 14-16 in Sarasota, Florida. This is one of three great races put on by Adventurous Concepts. Check out their web site at:
http://www.floridaraces.com/adventure_racing_news.html

The Swamp Stomp Adventure Race is the first event of the 2004 Jeep Adventure Racing Series. This 24-Hr race will begin at Noon on Saturday, January 31 and finish Sunday, February 1. For more info check out:

www.x-tremegear.com/newsite/html/stomp.html

The 10-race **Built Ford Tough Mountain Biking Series** kicks off on January 25 and we'll be sponsoring the **12 Hours of Razorback Team Competition** as well. More information about all the events can be found at:
www.goneriding.com/2003/2003events.htm

February 7th is the date for the inaugural **Saguaro Lake - Desert Rage Sprint I Adventure Race**. We're really excited to be sponsoring all the races in the Desert Rage Adventure Race Series and more information can be found at:
www.sierraadventuresports.com

It's never too early to start thinking "double century" (if you're a cyclist that is) and again in 2004 we're enthusiastic sponsors of the **Planet Ultra** cycling events (www.planetultra.com). Along with four century-length (100 mile) rides, seven classic double centuries such as the Death Valley Double and Tour of Two Forests make up the calendar of Planet Ultra, organized by Chris Kostman, the race director for the Furnace Creek 508 and Badwater Ultra Marathon (www.badwaterultra.com)

Great ideas, great products, great athletes, great events - that all adds up to a GREAT 2004!

I want to wish all of you the very best for a healthy and successful year. Thanks for being an important part of the E-CAPS family!

Sincerely -



Steve Born

Hammering the Nordic World

If you're lucky enough to live where winter means snow, chances are you're involved in Cross Country (a.k.a. Nordic) skiing during that time to maintain (and even improve) your fitness. Minute for minute, it's hard to match the kind of workout that Nordic skiing provides.

In addition to the Nordic skiers and biathletes we sponsor, Hammer Nutrition continues to support the Nordic Ski world through sponsorship of several events throughout the season. Participant levels at these events have increased astronomically over the years and it doesn't matter what level of skier you are; these races are seeded for skiers of all abilities.

Some of these events (listed with a *) are part of the American Ski Marathon Series, labeled as "North America's longest-running and largest citizen's racing and touring series," others are well-known regional races.

Here are the races and dates where you'll find Hammer Nutrition:

1/17/04 - Teton Ridge Classic - Driggs, Idaho
(www.tetoncomputing.com/tetonridgeclassic/index.php)

***1/24/04** - Noquemanon Ski Marathon
Marquette, Michigan (www.noquemanon.com)

1/24/04 - Great Nordeen
Bend, Oregon (www.mbsef.org/events.htm)

***1/31/04** - Pepsi Challenge
Biwabik, Minnesota (www.giantsridge.com)

***1/31/04** - Craftsbury Marathon
Craftsbury Common, Vermont
(www.craftsbury.com/ski/marathonintro.php)

***2/07/04** - Boulder Mountain Tour
Sun Valley, Idaho (www.bouldermountaintour.com)

2/07/04 - Alley Loop Nordic Marathon - Crested Butte, Colorado (www.cbnordic.org/calendar.html)

***2/14/04** - Minnesota Finlandia
Bemidji, Minnesota (www.minnesotafinlandia.com)

2/14/04 - Subaru North American Vasa
Traverse City, Michigan (www.vasa.org)

2/21/04 - Payette Lakes Ski Marathon
McCall, Idaho

2/29/04 - Great Glen To Bretton Woods Nordic Adventure - Gorham, NH (www.ggtobw.com)

3/06/04 - Rangeley Lakes Loppet - Rangeley, Maine (www.etravelmaine.com/rangeleyxcski)

DID YOU ENJOY THE HOLIDAYS?

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(COMPEX from page 1)

ing muscle work and the muscle progress is nothing but the result of that work. The electrical pulses excite the motor nerve, which transmits to the muscle the order to respond mechanically. These pulses must be prepared to pass through the skin without getting deformed and arrive practically "clean" to specifically excite, without producing burning or electrical pain. Though each current pulse corresponds to an elementary work order, the muscle fibers responding to this order do a muscle response (a work unit).

The number of working fibers, meaning the amount of progressing fibers, depends on the power of the pulse. Powerful pulses are needed in order to work the maximum number of fibers and get the overcompensation phenomenon on the highest possible percentage of muscle fibers. To achieve this result, an efficient electrostimulation must produce very powerful contractions. Normally, when we talk about powerful electrical pulses, we think of electrical danger and pain. So an innovative solution was required to provide powerful pulses and at the same time, comfort, with no electrical pain (burning, electrical discharges, etc.). Only a product using a sophisticated technology, along with high quality and accurate electronic components, can respond to the double challenge of power and comfort.

Having the quality electronics able to give an order to make the maximum number of muscle fibers work is not the only condition. It is also necessary to control the nature and the amount of work imposed on the fibers through stimulation. For example, the work done by the quadriceps of a sprinter is not the same work performed by the quadriceps of a marathon runner!

The physiology of the contraction and the muscle effort gives very precise information about the function of the different

types of muscle fibers (slow, fast, intermediates, very fast, etc.).

The different working regimes corresponding to the particular types of muscle performance are also known in a very detailed way. Trials on animals and human beings have established the correspondence between the frequency of the repetition of the pulses and the nature of the work obtained (strength, explosive strength, light or active endurance, resistance). The different programs and, within them, the different levels, correspond to the differences of nature and quantity of muscle work. By adapting the pulse frequencies, the contraction, rest duration and the total time of the ESM sessions, we get different working regimes and therefore different muscle trainings.

The Compex Sport

An EMS device, like the Compex Sport, which meets the requirements described above, provides an extremely powerful means for improving muscle performance. In fact, thanks to its different stimulation programs, one can impose exactly the required nature and quantity of stimulation for specific sport disciplines.

With this product one can:

Increase and improve the muscle recovery after a competition or an intense training session; Impose a considerable amount of work to the muscles, not limited by the mental and general physical fatigue; Recruit an amount of muscle fibers bigger than the one obtained by voluntary contractions; Improve the proprioceptive control; Modify the fibers' typology; Impose some beneficial work that the fibers can not do with a voluntary contraction; Improve the muscle elasticity; Increase the resistance; Increase the endurance; Increase the strength; Develop the explosive strength; Have a much better and faster warm-up

The training possibilities with EMS depend on the type of programs one can

find: Strength, Explosive Strength, Resistance, Endurance, Potentiation, Active Recovery

Strength Programs

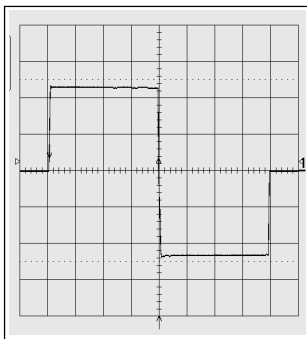
Classical programs of muscle reinforcement consist of tetanic contractions of the fast fibers alternating with long active rest periods. These programs are meant to improve the muscle strength and are recommended for the majority of sports where an increase in strength will improve the performance. For instance, they are often used in skiing and mountain biking, as a muscle training complement or even instead of the active muscle work out. These programs can be used during the season to reduce the general fatigue induced by the active muscle work out.

Explosive Strength Programs

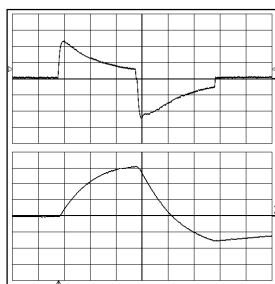
These programs are different from the classic strength programs, since they allow a supra-tetanic of the fast fibers. They are conceived to increase the explosivity of the strength and they are mainly useful for sports using enormous strength and velocity (jumps, sprints, throws, etc.). They are extremely beneficial since they impose activity regimes to the muscle fibers that usually can only be obtained in a voluntary way with terrific and maximum strength efforts, which are traumatic for the body.

Resistance Programs

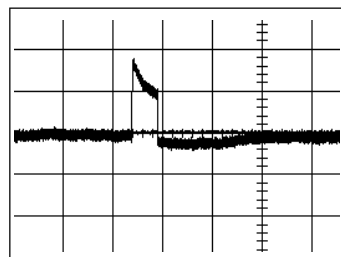
The resistance programs are composed of relatively long tetanic contractions and quite short active rest periods. With this, the stimulated muscles get a large quantity, as well as, a high intensity of work to be taken until the limit of their glycolytic metabolism. If, in the voluntary training, we wanted to achieve comparable levels, we would have to do physically and mentally exhaustive trainings. The resistance programs allow the athlete to replace grueling training sessions or go beyond what could be achieved in the resistance trainings.



Compex Square Wave Technology



The erratic patterns of other electrical EMS units.



The FDA has cleared Compex for the following 6 indications:

- Increased Muscle Strength/Density
- Increased Muscle Size
- Improved Endurance (VO2 max)
- Improved Explosive Strength (Velocity and Strength)
- Increased Speed of Muscle Recovery
- Ability to Warm-up Muscles

Endurance Programs

These are long programs with medium intensity efforts, but with a large amount of work imposed on the slow fiber of the stimulated muscles. The different levels offer great precision to progressively increase the working intensity. They give a complement of endurance training to most sports in which a good level of VO2max is necessary. They also may allow the reduction in total duration of endurance training sessions and may, perhaps, reduce the need for the number of long runs, which could reduce the osteotendinosis trauma, which is often a consequence of these long runs.

Potentiation

This program is not used to train the muscles; instead it is used as a super warm-up after the normal one. It is based on the physiological mechanism (not widely known as "twitch potentiation". A muscle with potentiated fibers releases greater velocity and reaches its maximum strength more easily and rapidly. It is primarily used before sprinting, jumping and throwing. Used shortly before a football, basketball, hockey, volleyball, or baseball player starts to play; it enables the athlete to compete at peak performance immediately after using it briefly before an event.

Active Recovery

This program is particularly efficient and appreciated by all the athletes. It is designed to speed recovery of the muscles after a strenuous workout or competition. It consists of a low stimulation frequency regime, without tetanic contractions. The frequencies progressively decrease automatically allowing for optimum recovery by accelerating the elimination of lactic acid without adding to the general fatigue that usually accompanies voluntary efforts. This program provides "massage like" pulses that increase blood circulation, and then provoke an endorphin analgesic effect resulting in a very intense muscle relaxation, so you feel better faster - and can resume training more quickly. This is much more than a simple means to mitigate the muscle inactivity of an athlete prevented from training due to an injury! The integration of ESM in a training program is not a substitute for the necessary training regime of any sport practice, but this technique, already used at the very high level, is now becoming a real training complement for all competing athletes.

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The 2003 Furnace Creek 508 An Amazing Anniversary

The 20th Anniversary of the AdventureCORPS Furnace Creek 508 bicycle race was held on October 11-13, 2003 and what a race it was. Ideal weather conditions throughout the majority of the race greeted the near record field. Considered by many to be the premier ultra marathon bicycle race in the world, the Furnace Creek 508 begins in Santa Clarita, California, passes through a large portion of Death Valley and surrounding desert areas, and finishes, after 508 miles and 35,000 feet of cumulative elevation gain, in Twenty Nine Palms, California.

Arguably the most competitive women's race in years took place this year and when the dust had settled, Lisa Marie Dougherty from Los Alamos, NM claimed the victory in 35 hours, 36 minutes, 41 seconds. Riding in close proximity for a good portion of the race were rookies Janet Christiansen (Poway, CA) and Carol Chaffee (Arvada, CO), with the three within an hour of each other at the Furnace Creek time station (252 miles). The battle between Dougherty and Christiansen was an epic one and it wasn't until after the last time station at the top of Sheep Hole Pass (479 miles) that Dougherty reeled in a tiring Christiansen and went on for the win. Christiansen finished second in 37:51:07 and Chaffee took third in 38:38:43.

The men's race looked like it was going to be a competitive one from start to finish but by the time Andrew Bohannon (Sunnyvale, CA), a former RAAM finisher and 508 champion, had crested the summit of Towne Pass, the race's toughest climb (a 10-mile, 3400' of elevation gain brute), he started pulling away from a deep and talented field. When Bohannon reached the time station at Furnace Creek (252 miles) the gap was close to 30 minutes and by the Shoshone time station (325 miles) he had built a two-hour lead. Bohannon claimed the victory in the very-fast time of 29:19:18, almost exactly two hours ahead of impressive rookie Jeff Landauer (Fair Oaks, CA) who finished

runner-up in 31:19:22, 19 minutes ahead of last year's winner Eric Ostendorff. 40 men in various under-50 age group categories started the race with 27 finishers including the youngest finisher ever, Bevan Barton (Piedmont, CA) who took 19th in a time of 42:37:38 (see Athlete Spotlight this issue).

In the 50+ division, Eric Wilson (Palmdale, CA) took the win from a highly competitive field in 33:10:05. Four of the eight entrants, including a couple very talented RAAM/508 veterans, succumbed to the fast pace being set or other various maladies and were unable to finish.

In the 60+ division, Dick Weber (Clackamas, OR), 61 years young, broke one of the 508's venerable course records, that of Jim Pitre, and broke it substantially. He not only won his division by nearly 10 hours, he broke the existing 60+ course record by over an hour, winning in 36:50:44, a time that placed him 13th overall.

Another course record was set by James Kern (Sunnyvale, CA) in the solo recumbent division in an incredible time of 33:43:15. Anyone who knows how mountainous this course is understands how difficult it is to do it in a recumbent, let alone in such a phenomenal time.

In the team divisions, the two-man team of Matthew Iness (Tempe, AZ) and Dan McGehee (Mesa, AZ) set a new course record of 25:38:08. The four-man team of Pat Tafoya (Redwood City, CA), Chris Hahn (Santa Barbara, CA), Kerry Ryan (Bakersfield, CA), and Mike Wracher (Santa Barbara, CA) took top honors in 23:46:30.

All in all, eight course records were set in various divisions in this, the 20th edition of this great race. The 2004 Furnace Creek 508 is scheduled for October 16-18 and more information, photos, results, and stories can be found at www.the508.com



Bevan Barton

The Furnace Creek 508 bike race is considered by many to be the most difficult ultra marathon cycling event in the country aside from RAAM itself. This year's race had many notable stories, perhaps none more than Bevan Barton's who became the youngest finisher in the history of this grueling race at the age of 16. In the men's field, 48 men started, 27 finished, and Barton came in 19th with a time of 42 hours, 37 minutes, and 38 seconds. The 508 was the culmination of Bevan's first season in long distance cycling:

200 KM Brevet - San Francisco - San Francisco Randonneurs - February 1, 2003
-Youngest finisher

Death Valley Double Century - Death Valley, CA - Planet Ultra - March 1, 2003
-Youngest finisher
-Course record, under 21

300 KM Brevet - Davis, CA - Davis Bike Club - March 22, 2003
-Youngest finisher

Solvang Double Century - Solvang, CA - Planet Ultra - March 29, 2003
-Youngest finisher

400 KM Brevet - Davis, CA - Davis Bike Club - April 19-20, 2003
-Youngest finisher

Furnace Creek 508 - (508 miles) - California desert - AdventureCorps - October 11-13, 2003
-Youngest ever finisher, only solo competitor in the 10+ category.
-Overall place: 19th of 52 male solo starters

Think about it; what were YOU doing when you were 16? Chances are you weren't thinking, "Yeah, I think I want to ride my bike through the desert for 500+ miles." Having done the 508 a few times myself (that being me, Steve Born), I can tell you that it really is a brute of a race and for someone so young to display the kind of maturity (not to mention endurance) it takes to complete such an arduous endeavor is definitely worth spotlighting.

Q: Bevan, first of all, how does it feel to be the youngest ever finisher (by several years) of the Furnace Creek 508?

A: It feels good. I had been training for this race for many months, and it was great to see my work pay off.

Q: That's such a hard race that everyone gets very nervous before the start, even the veterans who have finished it before. What was going through your mind prior to the start and did you feel any extra nervousness because of your age and the fact that no one that young had ever attempted the race before?

A: Seeing the RAAM veterans lining up at the start made me more than a bit nervous, but once we got started I found it pretty easy to focus on my riding and not those around (ahead of) me. However, not being a favorite to finish the race, I didn't have all that much to lose, which was a psychological advantage.

Q: Indeed, there were several 508 and RAAM veterans who had difficulties out there and some didn't finish at all. Most everyone involved in the 508 knows how important having a good support crew is. Who was on your support crew and did they have any experience crewing an ultra marathon cycling race before?

A: My support crew was my dad Dennis and my cousin, Omalley who flew in from Connecticut to crew for me. My dad did his first century when I did my first double, at the Death Valley Double last March. He hadn't crewed for anyone before, but has been very supportive in my cycling endeavors. My cousin didn't have any crewing experience either. Despite this,

they were a great team, and I credit my finishing to the motivation they gave me.

Q: What was your favorite part of the course?

A: Up until the Furnace Creek checkpoint (about mile 250), I was having a great time. The scenery the first day was very beautiful, and biking across the desert at sunset was awe-inspiring. I could say the same for the second day, but at that point my focus had shifted to my front wheel and the ground directly in front of it.

Q: What was the hardest part of the race for you? Did you take a sleep break during the race? When? Where? Was there ever a time (or times) when you thought, "You know, this is just too hard and I may not be able to finish?" If so, how did you work through those tough times?

A: The hardest part of the race for me was approaching Badwater (mile 260-70). The toughest climb of the course (Townes Pass) had taken a lot out of me, and being inexperienced, I skimped on my nutritional needs on the long decent, and through the Furnace Creek time station, so I was feeling very bad near Badwater. I was nauseous, and fatigue was setting in, so I decided that sleep would be necessary if I was to finish the race. I thought I'd sleep for an hour or so, but when my crew awoke me, I knew I wasn't ready to continue. I was very nauseous, and the fatigue was overwhelming. At that point, I didn't think I would finish, and even told my Dad that I couldn't do it. However, I decided to rest instead (any amount of sleep would be better than ending the race.) An hour or so passed before I decided to continue on again, but after about ten miles I knew I needed more rest if I was to finish. Finally, around seven o'clock Sunday morning I got on my way again and, surprisingly, was able to put in another 18 hours or so to the finish without too much hurt. I had about six hours of rest throughout the race.

Q: Yeah, that section through Badwater can be pretty demoralizing; I know it gets to me every time and motivation can be tough to find. How did you stay motivated during the race?

A: Staying motivated was nearly impossible at some points during the race. The first night was one of those times. During training I had attempted to prepare myself for moments like this, and I had a mental list of things to think about which kept me going. This strategy worked well, and I think if I had been more on top of my fuel consumption I could have made it through the first night without a long break. Encouragement from other competitors, their crews, and race officials also helped me stay on the bike, much more so than one might think.

Q: Definitely, getting the fuel thing dialed in is a primary key for success. What fuels/foods did you consume? Any supplements?

A: My main fuel was Perpetuem, which worked great. I was taking Anti-Fatigue Caps in my water bottle along with the Perpetuem every hour. I had phosphate loaded with Race Day Boost for four days before the race, and had taken the recommended amounts of Enduro and Cardio caps an hour before the start. I also had some Hammer Gel to get me through the last few miles of the race. I complimented these supplements with real food, such as sandwiches, plums, beef jerky, and diluted soda. I had planned to do the race exclusively on Perpetuem, but found that I craved real food during the second half. I was trying to get about 280 calories per hour.

Q: What kind of mileage did you do in training?

A: When I peaked, I was doing around 300 miles per week. My training was structured around a long and fast workout with reps up Mt. Diablo (3000' +), a ride of about 120 miles, which I'd do each week.

Q: What are your future goals?

A: My ultimate goal is to compete in RAAM before I turn twenty. I also plan to finish first at Furnace Creek and do the race on a team. As for my shorter-term goals, I hope to compete in Round Czech Republic (780 mile RAAM qualifier) this summer, time and money permitting.

Race Report

Catching Up With Our Amazing Athletes

Diane Van Deren

100 Miles In San Diego

Just a quick note to tell you that I won the San Diego Endurance 100 Miler (<http://members.cox.net/sandiego100>). I came in first place in the women's overall division, about 1 hour and 45 minutes ahead of second place. Ran against some tough ultra females. Also beat all the men but one...darn! So, I came in second place overall. Sustained Energy, Endurolytes, and Hammer Gel were proven again. I felt great the whole race. I can't tell you how many Endurolytes I passed out to the men. Hopefully they have learned their lesson and will do business with E-CAPS. Have a wonderful holiday season and thanks for all of your support.

Diane Van Deren

Christopher Weiland

Power Man

I have some excellent results to report from my season finale. At the E-CAPS sponsored Powerman Tennessee, I won the 40-44 age group to become the USAT National Duathlon Long Course Champion!!! I also earned an "All American" status to boot!

I can't thank you enough for choosing me to represent E-CAPS. Your sponsorship helped defray the cost of my training, which allowed me to travel to more "high profile" races this year.

I am looking forward to another good racing season next year. I am a strong believer in your products and am happy to promote them.

Christopher Weiland

Mark Hendershot

Traversing Traverse City

Brrr! Saturday, November 8, 2003 marked the 14th annual Iceman Cometh in Traverse City, Michigan. Six inches of snow and 25 degree temperatures made for an epic event in one of the largest point-to-point (mountain bike) races in the nation featuring more than 2000 racers. The freshly fallen snow even delayed the start one hour because automobile traffic was at a near stand still.

Determined not to let the frigid conditions get the best of me I bolted from the start and led most of the expert race. My first place finish beating out top pros like Rider Hesjedal, Steve Tilford, and Nate Ross was a rewarding way to end the season.

Peace,
Mark Hendershot

Another Adorable Baby Photo!



Many thanks to Faron Reed for this great picture of baby Annaka

Athletes....want the E-Caps/Hammer Nutrition community to know what you're up to? Have a great photo you want to share? Send a short email to graphic@e-caps.com (please put Race Report in the subject line) about your recent accomplishments and we'll try to include it in our Race Report

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Get to know Bevan Barton
- and much more!

The nd

Sponsored athlete Chris Timmon sent in the following account and picture of an alternate use for Hammer Nutrition products. Thanks Chris!

September 18, 2003
Hurricane Isabel.

I live in Poquoson, an area hit very hard by the hurricane. The power, water and phone service were out for over a week. As a result reliable food was a problem. No refrigeration, no ice, no fresh foods, no breads, well not much of anything was available.

I work for the United Parcel Service and had to work the day of the hurricane and those afterwards. Taking a bagged lunch was not really an option (I'd need a BBQ grill or canned goods). So I turned to the cycling supplies of Hammer Nutrition. I'd boil the water in the morning while making breakfast on the grill and used it for a Hammer Gel



mix and also Sustained Energy drink for lunch. So if you have a hurricane coming stock up!

Chris Timmon
James River Velo Sport
Poquoson, Virginia

An All-American

Just as this issue of Endurance News was going to press, we learned of an amazing accomplishment by long-time E-CAPS / Hammer Nutrition client Jeff Cuddeback and thought we should include it.

Jeff was recently named by the editors of *Inside Triathlon* as an All-American for the 45-49 age group and as the Amateur *Inside Triathlon* Man for 2003.

Jeff set an unprecedented third age-group record this year in Kona with a time of 9:12:09 smashing the previous record by six minutes. Jeff also holds the 35-39 (8:49:57 in 1993) and 40-44 (9:05:33 in 2000) records.

Congratulations Jeff!