



endurance

NEWS

issue
42

the newsletter for endurance athletes

April, 2004

contents

page 2

- Change Is Good
- Our Mission Statement

page 4

- The New Clothing is Here!
- Hammer Gel Receives Award

page 5

- Get FREE Product!

page 6

- Compex EMS
- Hammer Joe and the Compex

page 7

- Experiences Using the Compex

page 8

- Dr. Bill Weighs in on the Compex

page 10

- 3rd Annual Highline Hammer

page 11

- Super AO

page 12

- From the Saddle of Steve Born

page 13

- Odds and Ends - Product News
- The Move to Veggie Caps

page 14

- Athlete Spotlight
Get to Know Jim Donaldson

page 15

- Ask Dr. Bill

page 16

- Awaken the BreakAway
Competitor In You
- Web Site Update

page 17

- 2004 Powerman Alabama
- Race Report

page 18

- HFP Racing & Hammer Nutrition
- Super Steven

page 19

- Nate's Corner
- Save Now - Join the T.E.A.M.

Hammer H.E.E.D. Steve Born

We're changing the world of powdered sports drinks!

As powdered sports drinks have gained in popularity, we've received an increasing number of requests from our valued clients for a sports drink without artificial flavors, colors or simple sugars. We have given H.E.E.D. to your request. As the pioneer of economical, eco-friendly, no added simple sugar energy gel for endurance athletes, we are embarking on yet another first in the powdered sports drink market. Instead of making a "me too" product like the dozens currently available, we worked long and hard to produce one that would actually benefit endurance athletes. We think this product will be a great alternative for those who prefer sports drinks to gels for workouts and races that are less than 90-120 minutes.

With many months of testing behind us, we're excited to introduce the newest addition to the Hammer Nutrition line of



(see Hammer H.E.E.D. on page 5)

The NEW Tissue Rejuvenator Is Here!

Steve Born

Over the years, Tissue Rejuvenator has been a valuable ally for many athletes suffering from joint and tissue injuries, and those seeking to prevent them. As phenomenal as the original Tissue Rejuvenator formula was, it totally and completely pales in comparison to the NEW Tissue Rejuvenator. This updated formula provides your body with a mega-potent dose of a wide variety of nutrients, providing an extraordinary range of benefits. Whether you are seeking injury prevention and maintenance of healthy joints and connective tissue, relief from inflammation, aches and pains that oftentimes accompany heavy training, or providing key substrates for the repair of damaged tissue from over-use injuries, NEW Tissue Rejuvenator is here now and ready to go to work for you so you can get back into your training regimen faster and stronger.

THE JOINT-HEALTH COMPONENTS OF TISSUE REJUVENATOR

Glucosamine sulfate is classified as an amino sugar, a type of carbohydrate used for structural tissues instead of as an energy source. It is the basic 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. Glucosamine sulfate 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 one of the important building blocks for the repair of damaged cartilage. One of chondroitin sulfate's important functions is its

(see TISSUE REJUVENATOR on page 3)



Improvement Comes By Innovation And Change

Most of this issue of Endurance News is about improvements and innovations that we are introducing for your personal benefit. Most likely, you strive to continually refine what you do in your nutrition, supplements, and training to help you achieve your goals of being healthier, going faster, and maybe living longer, or at least enjoy a higher quality of life in your later years. I like to think that we are long term partners with you and a beacon of light in this quest.

Since 1987 my company has been focused on new ideas and innovations and it appears that a very large number of you have directly benefited from them. Off the top of my head, here are some of the innovations we've introduced in the past 16 years:

- Pioneered the concept of Endurance Supplements - nutrients and formulae specifically intended to meet the unique needs of high volume training endurance athletes. This has become an accepted product category with new players joining the fray daily.
- First company to market Coenzyme Q10 to endurance athletes to enhance performance, shorten recovery time, improve immune function, and maintain greater health. Today it is one of the most popular and widely used nutrients in the US and around the world.
- Introduced Race Caps and Enduro Caps in 1988. These remained unsurpassed in effectiveness for 15 years until we finally eclipsed them with Race Caps Supreme!
- One of the first to offer Leppin Squeezy, the original energy gel, in 1991.
- Introduced the first protein enhanced complex carbohydrate energy drink, Sustained Energy, in 1992. This product also allowed for an all or mostly liquid diet during ultras, another major innovation.
- Since 1990 advocated the need to avoid simple sugar, especially during prolonged events, in favor of complex carbs and limited protein.
- Advocated and promoted, since the early nineties, more protein and fat and less sugar and refined carbs for endurance athletes' diets.

- In conjunction with triathlete Mike Llerandi, introduced the "Super coach" program in 1993, one of the first remote coaching systems.

- In 1996 introduced the first energy gel in a bulk container specifically designed to work with a refillable flask.

There are quite a few more, but you get the idea.

I say all of this not to toot my own horn or be arrogant, and I hope you will not take it that way. My point is to try to impress upon you the irrefutable fact that we have a proven track record when it comes to innovation and new ideas. Most likely you are a client for this reason.

I hope that this list will also give you a very high degree of confidence that we are still the premier source for innovation and new technology in the field of endurance nutrition. As we move into our 17th year, we remain completely committed to staying on the leading edge of technology and far ahead of would-be competitors.

Our constant efforts to improve and innovate is the reason that we have bothered to reformulate some of our most popular formulae. For those who have relied on Race Caps and Enduro Caps for many, many years, I know it must alarm you to hear that these products have been discontinued, however, you must know that I would NEVER even consider replacing these two flagship products unless I was 100% certain that the replacement was better. In the case of Race Caps Supreme, the improvement is substantial.

Our future focus and constant search for the next technological breakthrough is also why we are leading the way in introducing you to EMS technology.

Please read the various articles in this issue that detail the changes, innovations, and new technology that we are bringing out this year - We've done it all for your benefit.

Be Healthy,



2003 CLOTHING ON SALE NOW!

Call or cruise the website for great deals on our remaining 2003 Voler cycling and tri clothing. Prices are limited to stock on hand.

CYCLING CLOTHES

- Arm warmers - xl, xxl
 - Red bib shorts - xl
 - Red cycling shorts - sm, xl
 - Men's cycling skinsuit - sm, lg, xl
 - Cycling jersey - sm
 - Sleeveless jersey - xl, xxl
 - Long sleeve jersey - sm, m, xxl
 - Thermal vest - sm
 - Wind vest - md, lg, xl
 - Wind jacket - xl, xxl
 - Sport top - sm, lg
 - Women's black cycling shorts - lg, xl
 - Women's red cycling shorts - lg, xl
 - Women's jersey - lg, xl
- #### TRI CLOTHES
- Men's tri shorts - sm, xl
 - Men's tri skinsuit - sm, lg
 - Men's tri top - sm, m, lg, xl
 - Women's tri shorts - lg, xl
 - Women's tri skinsuit - md, lg, xl
 - Women's tri top - lg, xl

1.800.336.1977 - www.e-caps.com

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.

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.

The FDA has evaluated none of the statements in this newsletter.

(TISSUE REJUVENATOR from page 1)

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, better known as MSM, is a metabolite of dimethylsulfoxide (DMSO), a well-known solvent, which has been used topically as an analgesic and anti-inflammatory. 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 provides its own potent anti-inflammatory benefits.

Boswellia serrata is an Ayurvedic herb that has been extensively used 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 substances called iridoid glycosides 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 may provide antiviral, anti-fungal, and antibacterial benefits as well.

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

Quercetin is a water-soluble flavonoid typically found in onions, apples, leafy vegetables, and other food sources. It is both a potent antioxidant and anti-inflammatory and may also act as an antihistamine.

Udenatured 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.

New Tissue Rejuvenator vs. Old Tissue Rejuvenator

	Old TR (3 caps)	New TR (4 caps)
Glucosamine Sulfate	1125 mg	500 mg
Chondroitin Sulfate	187.5 mg	500 mg
MSM	300 mg	500 mg
Enzyme Blend*	150 mg	400 mg
Boswellia	Trace	400 mg
Devil's Claw	Trace	200 mg
Yucca Root	Trace	100 mg
Turmeric	45 mg	400 mg
Quercetin	30 mg	20 mg
Udenatured Type II Collagen	NA	5 mg
Horsetail Herb	Trace	NA
Licorice Root	Trace	NA
DLPA	187.5 mg	NA
Sea Cucumber**	45 mg	NA
Vitamin C***	90 mg	NA
Manganese***	3.75 mg	NA
VCaps™	NO	YES

* The old Tissue Rejuvenator contained peptidase and bromelain. The NEW Tissue Rejuvenator contains both of these enzymes, plus papain, protease, amylase, lipase, cellulase, and phytase.

** Sea cucumber contains chondroitin sulfate. The new formula has a substantial increase in the total overall amount of this important substance, making this component unnecessary.

*** While both manganese and vitamin C are important components of healthy cartilage, you can obtain adequate amounts from dietary sources and Premium Insurance Caps

- Better-balanced glucosamine/chondroitin blend
- 20% more MSM per capsule
- Increased amounts and wider variety of anti-inflammatory enzymes
- Substantially increased amounts of potent anti-inflammatory nutrients Boswellia, Devil's Claw, Yucca root, and Turmeric
- 5 mg UC-II™ Udenatured Type II collagen
- Now in VCaps™

IT'S HEATING UP!

Don't let springtime heat-related problems ruin your training and racing. **Stop cramps now with Endurolytes!**



\$17.95
120 CAPSULES

Also in powder form

1.800.336.1977 • www.e-caps.com

The New Voler Clothing Is Here! *Angela Nock*

It's not often that the graphic designer gets to write an article for the newsletter...after all, I just put it together. But, as the staff talked about including a piece detailing the new cycling and tri clothing and the changes that have been made, I volunteered.

The first thing you'll notice about the clothing is the significant change in the artwork. The color scheme is similar to our old style with our signature red being prominent however, in this go 'round we've added a medium gray to the mix. It was my desire to clean up the old clothes and give them a more streamlined look.

As far as the technical side of the clothes, there have been quite a few changes. In an effort to make these clothes perform just as hard as you do we've changed fab-

rics on some pieces, made a better chamios (where the tri shorts are concerned) and added a new style jersey to the cycling line.

Material Changes

One request that we received over and over with the 2003 tri clothes was to make the tops out of a lighter material. The men's tri top is now made out of the form fitting SQ2 lycra mesh. The women's tri shimel is made out of Ventana micro mesh, a lightweight, quick drying poly/lycra.

Another noticeable change that we've made in the tri clothing is to redesign the chamios. The tri chamios no longer contains a bulky pad but rather a quick drying, dark colored fleece type material. This new chamios should eliminate the

common problems, such as holding water and bunching, that occurred with the previous tri shorts.

Long Sleeve

Summer-Weight Jersey

There are days when it's a little too cool for your short sleeve jersey and a little too warm for your long sleeve jersey. To help in that situation we've added the long sleeve summer-weight jersey to our cycling line. The name describes it perfectly. This long sleeve jersey is made out of the same lightweight material as the tri tops which gives it superior breathability and a lightweight feel.

We are excited about these new clothes and the changes and improvements that have been made. For more information, give us a call or cruise www.e-caps.com



2003 clothing still available at greatly reduced prices!

We still have a variety of the 2003 clothing available and want to move it fast! All clothing is custom made in the USA by Voler. Check our website or call for all the details. Sale prices are limited to stock on hand.

Hammer Gel

The 2004 **americanTRI** Editor's Pick!



Kyle du Ford, the Editor-in-Chief at **americanTRI** magazine recently informed us that Hammer Gel was selected as the "2004 Editor's Pick" in its category. According to Kyle, "We looked at nearly one thousand products during this daunting task, but we felt for quality, cost, workmanship and customer service that your product served the needs of triathletes, runners, cyclists and the casual athlete better than the other products we

looked at. Congratulations on a fine product. Since I know most of you on a first-name basis, it makes it even sweeter when you know the people who put their heart and soul into the efforts of making quality products. My hat's off to you."

Hammer Gel's "Editor's Pick" distinction appears in the 2004 Gear Guide edition of **americanTRI** magazine.

(Hammer H.E.E.D. from page 1)

superior fuels: Hammer H.E.E.D. (High Energy Electrolyte Drink). H.E.E.D., a revolutionary new fuel, will literally blow the doors off any other sports drink currently available.

Unlike the glut of simple sugar-based sports drinks available to athletes, H.E.E.D. is a concentrated complex carbohydrate formula. As we all know, high-quality energy does not come from inferior simple sugars such as glucose, sucrose, and fructose, which is why you won't find them in H.E.E.D.. Instead, as with all Hammer Nutrition fuels, we use maltodextrin as our carbohydrate source so your body receives exactly what it needs for optimal and consistent energy production. We think you'll find H.E.E.D.'s very lightly sweetened lemon-lime flavor to be pleasant, never syrupy, and without any foul aftertaste.

One scoop of H.E.E.D. provides 100 calories from 25 grams of carbohydrates. It's important to note that of those 25 grams of carbohydrates, only two are sugars that occur naturally as part of the complex carbohydrate makeup. That's correct, only 8% of the entire carbohydrate profile comes from sugar and even that occurs naturally; it doesn't come from added amounts of fructose, which can impair efficient digestion and athletic performance.

Additionally, each serving of H.E.E.D. provides a complete and easily assimilated electrolyte profile to support optimal performance of many vital bodily functions and to help prevent cramping. Unlike other sports drinks and gels, which provide only sodium, chloride, and potassium (all of which are required elements in any carbohydrate fuel), H.E.E.D. is complete, providing all the necessary electrolytic minerals—sodium, chloride, potassium, calcium, and magnesium, along with co-factors manganese, vitamin B6, tyrosine, and glycine. The electrolytes in each scoop of H.E.E.D. equal roughly two-thirds of an Endurolytes capsule; two-scoops will yield the equivalent of about 1.5 capsules of Endurolytes. For some athletes a two-scoop serving will completely satisfy electrolyte requirements; for others it will provide a good base from which they can supplement as needed.

H.E.E.D. also contains two nutrients not found in other sports drinks—chromium

polynicotinate for maintaining stable blood glucose levels and l-carnosine for superb lactic acid buffering.

We have made your wish for a powdered sports drink come true, and the resulting product, Hammer H.E.E.D., stands above all others on the market. Whenever and wherever a sports drink is your preferred choice, H.E.E.D. is the only choice you need to make.

Thanks to all of you whose requests got us thinking about how to make a great powdered all-in-one sports drink for moderate length activity. Hey, this stuff is so good we wish that we had thought of it first!

SUGGESTED USAGE: Mix 1-2 scoops of H.E.E.D. in a 16-24 ounce water bottle and consume immediately before and during exercise and competition. For ultra-distance events use Perpetuem or Sustained Energy as your primary fuel source; you can supplement these with H.E.E.D. and Hammer Gel as desired.

SUPPLEMENT FACTS:

Supplement Facts		
Serving Size: 1 heaping scoop (29 grams)		
Servings Per Container: 32		
Amount Per Serving	%Daily Value*	
Calories	100	
Calories from Fat		
Total Fat	0 g	0%
Saturated Fat		
Total Carbohydrates	25 g	8%
Dietary Fiber		
Sugars	2 g	†
Protein	0 g	0%
Vitamin B6 (as Pyridoxine HCL)	4 mg	200%
Sodium Chloride	62 mg	1%
Calcium Chloride	31 mg	<1%
Magnesium Chloride	16 mg	<1%
Potassium Chloride	16 mg	<1%
Manganese Chloride	1 mg	10%
Chromium Polynicotinate	25 mcg	21%
L-Carnosine		
L-Tyrosine	11 mg	†
Glycine	31 mg	†

* Percent Daily Values are based on a 2,800 calorie diet
† Daily Value not established.

AVAILABILITY:

Hammer H.E.E.D. will be available in two sizes. A 4-serving size, perfect for sampling, and a 32-serving container. Both sizes are available in a subtle lemon-lime flavor. Keep a look out for our next flavor, Mandarin Orange, late summer 2004.

4-Serving \$2.99
32-Serving \$14.95

Get FREE Product!

The Athlete Referral Program

Don't miss out on the opportunity to get free product! You heard correctly, you can get FREE Hammer Nutrition or E-CAPS product simply by spreading the good news about the advancement these products have brought to your training and racing. We put money in your account with us every time you refer a FIRST TIME customer to us for ordering. You get to use this money toward any product we sell, anytime. If you haven't taken advantage of our referral program read on.

When a friend you refer to us places his or her FIRST order with us, either online or on the phone, and they mention your name and client number, everybody wins!

It's a win-win-win offer.

- **Your friend receives 15% off** their first order!
- **You get 25%** of that same order credited to your account for future orders!
- **We get another satisfied client!**

To make this even easier, we have created a few tools for you. Next time you order, whether online or on the phone, request referral cards to be sent to you. They are free of charge. These cards explain the entire program and give you four perforated cards that you can write your name and customer number then start handing them out. If you're like me and prefer the e-mail method, we have a tool for you as well. Get online at www.e-caps.com and select the Get FREE Product graphic right on the home page. This convenient tool will allow you to e-mail your friends and family five at a time!

As always, we appreciate your patronage. Now you can tell your friends and reap the rewards of free product and the knowledge that you've set up your friend to achieve their endurance goals.

Hammer On!

Contact us today to get your athlete referral coupons!

1.800.336.1977
www.e-caps.com



The Complex EMS - 4 Articles

#1 - Complex Sport Electronic Muscle Stimulator *Brian Frank*

Since we introduced the Complex Sport late last year, we've heard from many clients with lots of questions about it. This does not surprise us. Any time a new technology comes into the marketplace, consumers need to learn about it so they can understand the technology and its benefits. We did discuss Complex briefly in the last issue of **Endurance News**, but we really couldn't tell you all that we wanted to because of Dr. Bill's attempts to have his case study published. Now that he is free to write about his experiences, we can tell you the whole story.

As I mentioned in the article about change on page 2, there was a time when clipless pedals, aero handlebars, and the like were strange and new gadgets. I truly believe that square wave electro muscle stimulation as found in the Complex Sport is a technology that will be universal and com-

monplace in the U.S. within five to 10 years. It's only new in North America; Europe has had it for nearly 10 years now. If I had not used this technology myself with remarkable results, if I had not seen its proliferation and popularity grow steadily for the past seven years in Europe, and if Dr. Bill had not gone from a totally negative skeptic to an enthusiastic endorser of this technology, then I would never have even considered offering this technology to our customers. We have too valuable a reputation in the athletic community to jeopardize, no matter how great the financial incentive.

Once it becomes known (and I guarantee you that with the backing of a multi-billion dollar Fortune 500 company it will), you will see these units for sale in sporting goods stores, gyms, bike shops, running stores, and triathlon shops from coast to

coast. When this happens we will likely stop selling them. But that's a few years away, and I've digressed from my main point: you can enjoy huge benefits from this technology **now**. It has many potential uses. For me, the device is worth the price just for the Active Recovery program. This is the only program that Dr. Bill used during his trial. However, the potentiation (pre-event warm-up) program is excellent as are the strength and endurance programs.

After you've read the other articles on Complex Sport in this issue, I hope that you will have a much clearer understanding about how powerful this technology is and how you can apply it to your training/racing regimen. Of course, if you still have questions, Joe, Dr. Bill, or I will be happy to answer them.

#2 - Hammer Joe and the Complex *Joe Arnone*

I started using the Complex Sport last fall when we first started selling this amazing device. I used the Warm-up and Recovery features for about two months; these two features alone sold me on the Complex. I raced the Montana Hill Climb (a four-mile, 840 feet climb) on a tandem with my wife and we broke the 14-year-old record. Then we zipped back down the hill, and I jumped on my road bike and went right back up, snagging a third place finish, only five seconds behind the two riders who tied for first. It was my fastest time ever and the only thing I did differently (besides getting older) was use the Recovery feature of the Complex after my hard training days.

This past winter I decided to try the Complex Strength program to see what gains I could achieve. I started my strength program in early December 2003 and gradually increased the intensity through February 2004.

My first workout using the Strength program on the Complex was at an intensity of 10 milliamps on level one. I was sore enough the next day to make walking down the stairs a painful endeavor. I con-

tinued to gradually increase the intensity through December, as you would doing a squat routine in the gym. I used the Complex on my quads only since I was skiing and riding the trainer enough to keep my glutes and hamstrings in condition. I did this routine three times per week. I soon reached level five at around 30 milliamps, and then I gradually increased the intensity until I was at 90! I continued to increase the intensity on level five and didn't feel the need to go back to level one as I increased the intensity. This was due to the fact that I increased the intensity gradually and I was still pretty fit when I started the program. I would increase the intensity by 5 and then do a week at a multiple of 10. For example, if I was at 30 the previous week, I increased it 35 on Monday, up to 40 on Wednesday and then again at 40 on Friday. I would do the next M, W and F at 40 and then increase to 50 the next week and so on.

By the time I reached 60 milliamps, my co-workers noticed that my legs looked bigger and this was confirmed by the fact that I couldn't squeeze my thighs into my Levi 501's anymore. I had to buy some relaxed fit jeans so I could breathe. I

gained eight pounds of muscle mass in about ten weeks. This was significant considering that I had done years of weight training back in my heyday and I only gained a total of five pounds of muscle mass by the end of the second year.

The unusually warm spring weather has allowed me to ride to work and start my intensity training for the year. I did a six-hour ride at the end of March and I don't normally feel fit enough to do this until May. I have felt VERY strong already and I feel like I have already achieved summer fitness in the last three weeks.

I am going to attempt to break the individual Montana Hillclimb record this fall to put the Complex Strength program to the ultimate test. Along with using the other features available with the Complex Sport, I am looking forward to dishing out the type of suffering that I haven't been able to do since my late 20's!!

Joe Arnone, a USCF Cat 1 cyclist, and former 1992 and 1996 Olympic Trials competitor in road and track cycling, is a senior staff member at E-CAPS and Hammer Nutrition.

#3 - Experiences Using the Complex *Bill Nicolai*

I have used the Complex for three months now, in three primary modes:

- Recovery program to assist the recovery of sore muscles from cycling, telemark skiing, running, and use of the Complex itself.
- Intensive use of the Endurance, Resistance, and Strength programs.
- Occasional use of the Resistance program to augment weekly upper body free weight training.

OBSERVATIONS

1.) In these last three months I have exercised an average of two hours per day, consisting of road and spin cycling, telemark skiing, and running. I have averaged about 120 miles of cycling, 15 miles of running, and 1.5 days of skiing per week. I have also done weekly upper body free weight workouts and Complex strength workouts every third day. Except for adding the Complex, this is my typical off-season schedule. I increase my weekly hours to 25 or more by summer.

2.) The Recovery program seems to reduce the negative effects of hard athletic exertion. I ski or cycle the next day with no apparent soreness or reduced strength.

3.) I have alternated the 55-minute Endurance program with Resistance and Strength programs on my quads and glutes, resulting in noticeable growth of these muscle groups. Nothing grotesque, but definitely more muscle mass and definition.

4.) My cycling speed has improved dramatically. In February, I did a 20 km time trial at a PR 22.9 mph, a 1:40 improvement over last year's time.

5.) My triathlon club rides a weekly 25-mile pace line, averaging about 25 mph. Usually only half of the riders stay together to the end. I used to be the weakest rider who didn't get dropped, and I had to limit my pulls to 30 seconds. Not this year—I'm squarely in with the stronger guys who pull a full two minutes at over 25 mph.

6.) On a flat 40km course and a steady 130 HR, I have gradually increased from 18.4 mph to 19.3 mph. This significant gain is consistent with the greater speed experienced in the competitive time trial.

I intend to use the Complex through June

to build strength; then I start my longer distance training. This year my big event is a fast Canada-to-Mexico ride along the crest of the Rocky Mountains in September. As my training mileage increases to 400 miles per week, I will decrease the intense muscle building programs and instead use the Endurance program every fifth day or so for strength maintenance. I'll continue to use the Recovery program on my quads and glutes after every ride.

SUGGESTIONS FOR USE OF THE COMPLEX FOR CYCLING

1.) Use it regularly in the Recovery mode on your quads and glutes after hard or long workouts to relieve soreness and restore muscle freshness. Brian's suggestion to work up to 30-50 milliamps for this program seems to work well.

2.) Ignore the Complex instructions to exceed 30 milliamps on all programs. Start at 20 on Endurance, 15 on Resistance and 10 on Strength; higher settings than that resulted in long-lasting soreness. Now after three months' use I am up to 55, 50 and 45 milliamps on these programs on the second level. I intend to move up a level when I get to 60. I can move up 5 milliamps/week; younger athletes may be able to go up a bit faster. Using lower current on the shorter, more intense programs seems to work best.

3.) Every three days seems ideal for the Endurance, Resistance, and Strength programs. I get best progress when I adjust the level to achieve mild soreness that is almost gone on the third day. Cease all programs except for Recovery four or five days before a race or big event.

4.) It's easy to overdo it. The Complex apparently goes deep into the muscle, engaging more fibers than you normally achieve with squats and leg extensions. Therefore, do not use your ability to take pain as the limiting feedback mechanism. Despite overdoing it a couple times, I have experienced no serious injury from the Complex, but I urge caution. I had to stop running for a week due to a Complex-induced calf pull. This device can cause very strong muscle contractions that could set you back. Unlike weights and machines, however, Complex doesn't affect joints and connective tissue. I believe these harder to repair tissues are less at

risk using the Complex than with conventional strength training.

SOME IDEAS ON HOW COMPLEX ACTUALLY INCREASES SPEED

1.) Ultra endurance athletes are often more muscular than the extraordinarily wiry and thin runners who dominate the shorter distance running races, like marathons. Why are stronger athletes better at ultra endurance events, particularly in cycling? Possible reasons include:

a.) When cycling on flat terrain, the main opposing force is air resistance, which doesn't penalize mass. More power equals more speed, which is why the best time trialists are fairly beefy.

b.) After two hours, fat burning rather than glycogen consumption produces most of your energy. More muscle mass = more mitochondria, and hence higher energy production post glycogen depletion. All other factors being equal, a larger muscle should produce more energy with less lactic acid build-up. Athletes with greater muscle mass should do better in events that predominantly rely on fat burning after stored glycogen is exhausted.

c.) More strength equals the ability to hold good form longer. When form degrades, secondary and core muscles must work harder to preserve form. Stronger power producing muscles may relieve these muscles and maintain efficient stride/cadence.

2.) Complex use might stimulate HGH production even more than conventional weight training, due to micro tears in the muscle fibers of larger muscle groups. HGH release, being systemic, can benefit all muscles, cardiac included.

BOTTOM LINE OPINION:

I'm 59 years old, using Complex intensively for both recovery and strength building, and going faster than I ever have in my 16 years of competitive cycling. I believe my recent gains are the result of using Complex.

Bill Nicolai has been an E-CAPS and Hammer Nutrition client since hearing Scott Molina talk about the products in 1988. He has completed over 100 triathlons, including 3 Ironman's, and countless long distance cycling and running events.

#4 - Compex Technology Improves Recovery *Bill Misner, Ph.D, C.S.M.T.*

Better Recovery Improves Cycling Time Trial Performance

INTRODUCTION

During 17 years of private, clinical, and university physical therapy practice, I applied interferential current, direct current, alternating current, micro-current, Russian current, and trans-electrical neuromuscular stimulation devices for a variety of prescribed rehabilitation treatments, including patients with post-surgical, post-trauma, and chronically or acutely strained muscle conditions, projecting return to normal function. Each electrical stimulation device presented several limitations, and none of them completely substituted for an active patient-motivated exercise progression inducing complete recovery.

Brian Frank, CEO of E-CAPS, and a representative from Compex International requested that I test the Compex Sport unit to determine if it generated recovery potential sufficient to ameliorate overtraining. Having been subjected to countless experiences with exaggerated claims made by manufacturers for an electrical muscle stimulation (EMS) unit that delivered little or no promised results, I was highly skeptical. Nevertheless, I reluctantly agreed to test the Compex Sport Unit.

CASE STUDY METHODS

Nine cycling time trial courses were selected on which previous personal course records were set between 1999-2002. Prior to each personal record performance, periodized rest and graduated taper were employed. It was rational to assume that if the Compex Recovery mode actually improved recovery, then it might be substituted for a tapering period prior to a time trial. If so, then the quality of training would positively influence performance by compacting recovery mechanisms, resulting in an increased rate of physiological adaptation to training stress, as evidenced by improved performance. Conversely, if the unit failed to regenerate recovery in a fraction of the time by "substituting" for tapering, then performance attempts should miserably fail. By age 63, former personal bests of yesteryear (set at ages 59-62) typically do not reoccur.

RESULTS

Training preceded the time trial test period until an aerobic fitness base was established. Next, cycling time trials were measured on nine courses in an abbreviated 39-day period, which allowed no tapering prior to each time trial. Each course was selected because personal TT records had been established previously during the 1999-2002 seasons. During this test period, the Compex Sport unit Recovery mode was substituted for tapering after daily training or course record attempt. Surprisingly, in eight out of the nine cycling time trials, new course records were established.

These results suggest one of the following two conclusions:

- (1) A remarkable placebo effect was established through application of the Compex Sport Unit.
- (2) The Complex Sport Recovery mode reduced recovery time, resulting in eight out of nine personal best performances in a 63 year-old male subject.

DISCUSSION

That a 63-year old male cyclist produced eight of nine personal bests on previously known courses during a 39-day period without employing tapering is an observation meriting review. If a tapering intervention preceded each of the previous personal bests on the same courses when the subject was younger-age (59-62), then was a hypothetical placebo effect sufficiently significant to evoke superior results without recovery periods? How would conservative physiotherapy scientists evaluate this case study report?

PHYSIOTHERAPY SCIENCE POSITION

This case study was then submitted to the highly respected British Elsevier Journal, *Physical Therapy in Sport* in October 2003.

In March of 2004, the *Physical Therapy in Sport* returned a 5-month peer review of this paper with four general statements:

Lack of control group data failed to eliminate the placebo effect.

The case study failed to prove by scientific methodology that square-wave EMS enhanced performance.

The study is of interest, but there are too many gaps for it to make a significant contribution to the knowledge in the field and too many suppositions and assumptions (especially with regards previous literature) to fully support the arguments implied.

This is an interesting case study, which suggests that electrical stimulation may be of value in the older athlete.

AUTHOR'S REPLY

This single-subject case study presents findings indicating an association between application of a square-wave EMS and performance gain.

It neither conclusively determines cause and effect nor does it eliminate placebo effect, but it does call for further study to assess if these results were due either to square-wave EMS, placebo effect, or both in combination.

If performance-enhancing results were induced in a skeptic influenced by 17 years clinical physiotherapy exposure to a broad spectrum of electrical stimulation devices, how was the placebo effect reproduced in a negatively biased subject?

Overtraining is reported to commence within seven days training. Optimal performance is not predicted immediately following a seven-day training period, unless physiological mechanisms are manipulated to hasten complete recovery (1).

Square-wave EMS has been shown to improve blood flow and waste-removal dynamics, advancing recovery following extreme exercise stress (2).

Whether square-wave EMS induces placebo effect or physiological dynamics that reduce recovery time is undetermined. That this device produced positive performance gains in a skeptical subject by effectually hastening recovery implies

that the results achieved by one athlete may be repeated in others.

CONCLUSION

There is evidence to suggest that square-wave EMS application enhances the physiological mechanisms required to promote recovery between 50-500% over periodic rest or duration and intensity tapering prior to a performance-demanding event.

Whatever the actual mechanism by which recovery was advanced, it is plausible that training adaptations were hastened by use of this device in a 63 year-old male cyclist who subsequently enjoyed otherwise unexplainable performance gains. This case study does not prove by scientific methodology that square-wave EMS applications generate a specific physiological action. However, in one subject, a Compex Sport Unit Recovery mode application was substituted for tapering, with the end result that eight out of nine personal bests were recorded during a 39-day period on courses where each of the previous records had

been established preceded by a tapering intervention. It is therefore suggested that athletes over age 35 employing a square-wave recovery mode may enjoy similar results in their training experience.

Having been the subject of this case study, the author, employed by an organization that markets this unit, discloses competing interests that could infringe upon an unbiased view.

References

Halson SL, Bridge MW, Meeusen R, Busschaert B, Gleeson M, Jones DA, Jeukendrup AE. Time course of performance changes and fatigue markers during intensified training in trained cyclists. *J Appl Physiol.* 2002 Sep;93(3):947-56. Researchers studied the cumulative effects of exercise stress and subsequent recovery on performance changes and fatigue indicators; the training of eight endurance cyclists was systematically controlled and monitored for a 6-wk period. Subjects completed 2 wk of normal (N), intensified (ITP), and recovery training. A significant decline in maximal power output (N = 338 +/- 17 W, ITP = 319 +/- 17 W) and a significant increase in time to complete a simulated time trial (N = 59.4 +/- 1.9 min, ITP = 65.3 +/- 2.6 min) occurred after ITP in conjunction with a 29% increase in global mood disturbance. The decline in performance was associated with a 9.3% reduction in maximal heart rate, a 5% reduction in maximal oxygen uptake, and an 8.6% increase in perception of effort. Despite the large reductions in performance, no changes were observed

in substrate utilization, cycling efficiency, and lactate, plasma urea, ammonia, and catecholamine concentrations. These findings indicate that a state of overreaching can already be induced after 7 days of intensified training with limited recovery.

Zicot M, Rigaux P, [Effect of the frequency of neuromuscular electric stimulation of the leg on femoral arterial blood flow] *J Mal Vasc.* 1995;20(1):9-13. (Compex Electrical Stimulation Hastens Blood Vascularity Flow Reducing Recovery Time) Researchers demonstrated that transcutaneous neuromuscular electrical stimulation of the muscles of the leg in the human increases largely the arterial femoral blood flow. This elevated flow is stable during the stimulation. This present work deals with the influence of the frequency of the stimulation on the level of this hyperaemia. The neuromuscular electrical stimulation is applied to the internal and external branches of the sciatic nerve in order to stimulate the whole muscles of the leg and the foot. The stimulus is yielded by a Compex stimulator for seven minutes with frequencies in random order between 3 and 15 Hz. The intensity of the current (mean: 31 mA) is set up at such a level to increase blood flow by at least 100% at 5 Hz. The femoral arterial flow velocity and the pulsatility index are assessed during the last minute of the stimulation by a duplex ultrasound method. The peripheral vascular resistance is calculated on the base of the femoral blood flow and the mean arterial pressure. Seven healthy volunteers are studied (6 males and one female, aged 26.9 years, +/- 6.9). The haemodynamic variables are recorded at rest. They observed a linear increase of the blood flow with increasing frequencies of stimulation (181% of the rest value at 3 Hz and 276% at 9 Hz). When the electrical stimulation intensity was sufficient to cause moderate muscle contractions, a transient, local increase in blood flow occurred.

Cycling Time Trials and the Compex Sport EMS

Course Record	Miles	Time	Date	Difference
Boyer Mountain perimeter, 6:14 (set 5-12-2001)	86	5:33	5-3-2003	41 minutes faster
Blanchard Pass mountain climb, 1:01:25 (set 4-15-2003; first year)	16	1:01:16	5-6-2003	9 seconds faster (first half)
Blanchard Pass mountain climb, round trip, 1:50:07 (set 4-15-2003; first year)	32	1:50:31	5-6-2003	24 seconds slower (second half)
Cook's Mountain , 4:42:00 (set 8-4-2001)	80	4:25:03	5-10-2003	16 min., 55 sec. faster
Bare Mountain , 3:22:02 (set 6-6-2001)	53	3:03:18	5-19-2003	18 min., 44 sec. faster
Chewelah Mountain , 9:56:23 (set 7-8-2000)	154	8:59:25	5-24-2003	56 min., 58 sec. faster
Lane Mountain , 5:48:40 (set 6-17-2000)	89	5:21:15	6-1-2003	27 min., 25 sec. faster

The Compex Sport Electrical Muscle Stimulator reduced the rate of recovery (normally requiring a minimum of 21 to maximum of 52 days) to less than 7 days in a 63-year-old male endurance cyclist as indicated by 8 performance bests recorded in 9 time-trial tests (7 are shown above) within a 39-day period. Muscle recovery, after training or competition, was remarkably improved by the increased blood flow dynamics and accelerated removal of exercise-induced lactate blood concentrations. This protocol hastened recovery quality and conclusively contributed to personal-best cycling time-trial performance in this subject in the absence of any other known performance-enhancing intervention. Further research with appropriate controls, placebos, and double-blind crossover protocols are necessary to confirm that this intervention rapidly enhances recovery, resulting in optimal time-trial cycling performance.

The 3rd Annual Highline Hammer Weekend Brian Frank

The 3rd Annual Highline Hammer Weekend is on the calendar for July 30-August 1! Last year's Highline Hammer, despite the forest fires and smoke that caused us to change our routings, was an epic weekend, exceeding everyone's expectations. All of the athletes who joined us were completely captivated by the educational experience, the riding, the feasting, and the great fellowship we all experienced.

A few comments from last year's riders:

Once again I want to thank you, your wife, your family, and your friends and employees for having been such fabulous hosts. Really an unforgettable event, at least for me. M.T.

I'm still suffering Whitefish withdrawals. Can't wait to come back. You and your family, staff, et al, were all fantastic! P.Y.

The weekend was a life-changing event! So much fun, fellowship and a great exchange of wisdom and humor. B.N



Some of the participants in last years' ride

If you missed out on last year's event, or had so much fun that you can't wait to do it again, please consider this your invitation to join Steve, Dr. Bill, Joe, and me on July 30, 31 and August 1, 2004 for a weekend of long miles, beautiful scenery, good conversation, great food, and a lot of valuable class time with our endurance gurus. If you're interested in joining us this year, read on and reserve your slot soon.

Proposed Itinerary

Plan to arrive Thursday 07/29/04, or earlier if desired. If you do arrive early, we'll be happy to help you with sightseeing and other recreational activities (besides cycling). Of course, we hope you'll join us for our usual morning and/or afternoon riding. The Whitefish Chamber of Commerce web

site (www.whitefishchamber.com) has good info on the area. Your registration confirmation will also have this type of information.

Friday 7/30/04: The weekend officially begins at 7:00 a.m. with a two hour spin around the scenic Flathead Valley, ending up at E-CAPS HQ for a delicious breakfast. As soon as everyone gets their food, we'll begin the class time with presentations from Dr. Bill and Steve. Last year, we only planned four hours of class time with our staff, but we ended up going over six hours and the group continued the discussion right into dinner. So this year we've left the whole day open, with lunch break, to ensure that every question is addressed and we have ample time for the discussions that ensue. We'll cover everything you ever wanted

to know about fueling, supplementation, and nutrition and then answer all of your questions. According to last year's group, the class time with Steve and Dr. Bill was the absolute highlight of the weekend. For dinner, we'll have a gourmet barbecue/carbo party at 6:00 PM and then go to bed early. Tomorrow you'll apply what you learned on one of the truly epic rides in North America.

Saturday 07/31/04: We'll meet at 6:00 AM to load bikes and gear and then drive 30 minutes to West Glacier. We will roll from the West Glacier Post Office parking lot at 7:00 AM, returning to our starting point between 2-4 PM. This 136-mile loop ride, the famous "Highline Hammer," winds through Glacier National Park on

the legendary Going to the Sun Highway, crosses the continental divide twice (8,800 feet of climbing) and provides continuous vistas beyond description. Sag support, available during the whole ride, includes all the fuel and supplements you'll need. This is not a race, but we will keep a good pace and everyone is free to go as hard as they want on the climbs. There will be four mandatory regrouping stops, plus the lunch stop. After the ride, we'll return to Whitefish for another amazing dinner and then to bed.

Sunday 08/01/04: You will have the option of doing another incredible ride or taking the day a little more leisurely. The hardcore group will meet at 7:00 a.m. for the short drive to Bigfork and another of my all-time favorite rides. Joe will lead this constantly rolling (about 4,500 feet of climbing) 87-mile ride around Flathead Lake and its amazing vistas with the huge lake in the foreground. Breakfast snacks, fuel, supplements, and sag will be provided. Those wanting to take it a little easier will meet at 9:00 a.m. for coffee and an easy three-hour traditional Sunday ride. Then both groups will converge at 2:00 p.m. to conclude our weekend with an afternoon brunch.

You can plan to leave Monday morning, August 2, or stay a few extra days to enjoy Northwest Montana at the finest time of year.

The Cost

Last year we learned that feeding and entertaining a group of 20 + athletes three straight days is a lot of work. We decided that the only way we could do this event, especially if we opened it up to more riders, is if we hire more help. This year most of the food will be catered (still delicious, healthy, fresh and organic whenever possible) and we'll have additional help for serving and clean up, which means we'll all be able to spend that much more time visiting with our guests and we won't run ourselves into the ground. With the additional help, we can host 30 riders.

To accomplish this, we have had to raise the fee to \$300 per person. Please keep in mind that we are not trying to turn a profit here;

Super AO

Now even more super with no cost increase!

Steve Born

this amount will barely cover food and out-side labor. The fee will help defer the cost of providing gourmet, semi-organic food catered by our friend Chris from MoonThyme Café (with assistance from my wife Sonia, my mother Alice, Joe, and his dad Tom), transportation to and from the airport and all during the weekend, sag support on all rides, staff for sag vehicles, gas, photographer (and hopefully a videographer as well), and all of the E-CAPS and Hammer products you can use. Plus, you'll get a CD photo album of the weekend, special pricing on clothing and products you purchase while you are here, and a lot more.

If you'd like to join us, here are a few important items to consider:

- You are responsible for the cost of your travel, accommodations, incidentals, and meals before and after the three-day fete. You will need a rental car only if you extend your stay beyond the weekend or if you want the freedom to come and go as you please.
- This is an all pavement, road bike weekend. You should be fit enough to handle this amount of riding and climbing, but you don't have to be a cat 1-2 level or ultramarathon cyclist.
- This is not a race, but we do like to ride fairly hard. We follow strict riding etiquette: everyone stops for flats, we regroup at the top of major climbs and intersections, and no one gets dropped or left for dead. We will have at least one sag vehicle on every ride.
- Weather conditions in Montana are always wildly variable and can include extreme heat, freezing cold, high winds, rain, and snow-all on the same day! Bring plenty of layers including winter jacket and warm gloves; we have plenty of room for gear in our sag vehicles.

For more details and to register, e-mail highlinehammer@hammergel.com.

You can also call our toll-free number, (800) 336-1977, to make your reservation or request complete details.

I hope to see you in July!

Our uniquely potent supplement Super AO now comes in VCaps™ capsules and has a great new nutrient, vinpocetine. Best news of all: the price remains at \$39.95 for a 90-count bottle.

Dr. Bill writes, "Vinpocetine ischemically related to, and derived from vincamine, an alkaloid found in the common periwinkle, Vinca minor. It has been used therapeutically as a vasodilator and anti-hypertensive agent, particularly in cerebrovascular disorders. Studies with vinpocetine indicate that it can dilate blood vessels, enhance circulation in the brain, improve oxygen utilization, make red blood cells more pliable, and inhibit aggregation of platelets. Vinpocetine even has antioxidant properties."

I (Steve) consider Super AO to be the fourth most important product in the E-CAPS line, right after the three Daily Essentials-Premium Insurance Caps, Race Caps Supreme, and Mito-R Caps. It's a wonderful complement to this trio, adding substantial antioxidant power and the additional benefit of enhanced circulation. It's your best choice after the

three basics.

For promoting optimal recovery, I suggest taking one or two Super AO capsules with food after workouts (use the higher dose after workouts over two or three hours and after races). For supporting enhanced cognitive function (Ginkgo biloba extract and

vinpocetine are both terrific "brain" nutrients), take one capsule of Super AO in the morning with food. For supporting enhanced performance (via free radical neutralization) during ultra-distance workouts and races, use one Super AO capsule every two to three hours. I took one capsule of Super AO every three hours during the 75 hours I was on the bike during the Double Furnace Creek 508. In addition to free-radical neutralization and promoting good circulation, I believe it was a major factor in helping me maintain alertness and

focus during the late night and early morning hours. All you ultra endurance athletes, take note!

As with the three Daily Essentials products, you can use Super AO daily all year round.



Caught in Kona!

In the last issue of Endurance News we published this photo of a "mystery" athlete taken at the Ironman World Championship. That athlete has stepped forward and identified himself as Jeff Martin, a sponsored athlete from Antioch, California. Thanks Jeff for clearing up this mystery!



Welcome to the Spring issue of Endurance News, our largest issue ever! With the announcement of HEED, new Tissue Rejuvenator, new Super AO, and many other items, I'm excited to send you this issue. Let's start with a major product change.

Race Caps Supreme

I've been using the Race Caps/Enduro Caps combination for well over a decade, so when I learned that we were going to merge these two into one new capsule, I felt both apprehensive and excited. Apprehensive, because I thought, "Why mess with a proven winner, a combination that has worked brilliantly over the years?" Excited, because I knew that we would never produce or sell any revised product unless it was scientifically valid, safe, effective, and an improvement upon the original. The apprehension left when I saw the new formula and read the rationale behind it. This product, at least on paper, just rocked! I've used it several weeks now, and I've received testimonials from many, many athletes. I can say it's a major improvement on an already great combination, primarily due to:

- 1.) The addition of the KCl components, which support both of the ATP-producing metabolic cycles, the Electron Transport Chain and the Citric Acid (Krebs) cycle.
- 2.) Idebenone, which I consider to be one of the best nutrients anyone, athlete or not, can put in their body. It's simply a powerhouse for energy production and antioxidant support. You won't find Race Caps Supreme's dynamic CoQ10/idebenone combination in any other supplement on the market.
- 3.) Absorption components. The phrase, "it's not what you eat, it's what you absorb," clearly applies to this formula. Many products contain substantial amounts of specific nutrients, but some are not well absorbed. Obviously, they're

of little benefit if you can't fully assimilate them. The absorption-enhancing nutrients in Race Caps Supreme assure that you get full product value.

If you haven't yet added Race Caps Supreme to your daily supplement program, you really need to consider this one seriously and get on the program. It's simply the best endurance enhancing plus overall health supplement I've ever used.

Daily Essentials

The client question I most frequently receive is, "Of all the E-CAPS supplements, which one(s) should I start with, and why?" My answer is always the same: Premium Insurance Caps, Race Caps Supreme, and Mito-R Caps. These three products provide the widest range of benefits for enhancing both athletic performance and overall health. Other E-CAPS supplements provide unique and specific benefits. These three products provide a solid foundation, one that covers a wide range of needs for athletic performance and general health purposes that will benefit all people, athletes and non-athletes alike. Remember, an endurance athlete is a healthy person first, an athlete second, and an endurance athlete third. You can't train if you're not healthy. Consistent use of these three products will:

- 1) Optimize overall health by replenishing basic vitamins and minerals, which athletes deplete in greater volume than sedentary people do.
- 2) Enhance immune and cardiovascular system performance by supplying a wide range of antioxidants to neutralize free radicals and minimize the cell damage they cause.
- 3) Provide key substrates to maximize efficient energy production.
- 4) Support mitochondrial activity. Dr. Bill says, "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 their best."

My article, "The E-CAPS Daily Essentials Formula: A Protocol for Optimal Endurance and Health," is now available on the E-CAPS website. This article details the rationale for using these three

products, and also provides a dosing protocol. I guarantee you will benefit from the information and the products!

Race Across America (RAAM)

Once again we are the official nutrition sponsors of what many consider the world's toughest endurance event, the annual Race Across America. One of our sponsored athletes, Allen Larsen, the clear favorite, will attempt to repeat as champion of this great race. I worked with Allen last year prior to and during his superb effort (he led from start to finish) and I am honored to be his nutritional consultant again this year. Good luck to Allen and to all RAAM entrants!

RAAM begins on June 20 (for solo riders) and June 21 (for teams) in San Diego and finishes in New Jersey, on the Atlantic City boardwalk. The exact route has yet to be determined, but it will most likely be similar to last year's 2922-mile course. The RAAM web site (www.raceacrossamerica.org) has good information and many excellent articles about this unique event. Check it out!



Competitor Magazine Endurance Sports Awards Banquet

At a banquet in San Diego on February 7, I was inducted into the Ultracycling Hall of Fame. Being the recipient of such an award, as well as being a part of an evening that included so many incredible athletes, was something I'll never forget. It was also the first time (in a LONG time) that I've worn a tux!

I hope this issue of Endurance News finds all of you healthy, happy, and training well!

Odds and Ends

More Product News

This is a season of change at E-CAPS and Hammer Nutrition. From redesigned clothing and new products to new labels and discontinued products, there is a lot happening here.

With that in mind, we'd like to apprise you of recent changes and upcoming debuts.

Perpetuem Gets Bigger!

Back in September we told you that Perpetuem, our new endurance fuel, had landed. Since that time Perpetuem has become a favorite of endurance athletes with its incredible formula, convenient usage, and yummy orange-vanilla flavor. Now there's more news about Perpetuem . . . it's getting bigger!

That's right, to keep up with the growing demand for Perpetuem, we've decided to add a 32-serving container priced at \$39.95 to the Perpetuem line. Look for it in early May.

Hammer Gel Packaging Gets a New Look

In the coming months you will notice a change in the look of the Hammer Gel single-serving pouch. The illustration below shows the new design. The smaller, hammerhead pouches with flavor-appropriate colors will debut this summer.



We decided that if the Hammer Gel pouches will sport flavor-appropriate colors, then our 26-serving jugs should as well. A surplus of the current labels, however, means a slow changeover. Keep an eye out for the new look.

Other New Labels

Did you notice that the label on your Race Caps Supreme doesn't have that traditional E-CAPS look? Maybe you've recently purchased Phytomax or Appestat and noticed the same thing. Well, you guessed it; we're updating the labels for our entire E-CAPS product line.

The new labels have more color and are color-coded for their proper categories (see "Product Categories," next column). Of course, with 18 different products and thousands of already-printed labels still needing to be used, this changeover will take a little time.

Another label that's getting a makeover is Perpetuem. In the upcoming months you'll see a predominantly orange label to represent Perpetuem's dreamsicle flavor. It's the same formula, just a new look.

Discontinued Products

As most of you know, the newest addition to the E-CAPS line, Race Caps Supreme, replaced Enduro Caps, Race Caps, and Cardio Caps. Because we will no longer carry those three products, we have put the remaining stock on sale. While supplies last, Cardio Caps will be reduced to \$10 and Enduro Caps to \$15; Race Caps are gone.

We are also saying goodbye to Shark Cartilage. Because we've redesigned the Tissue Rejuvenator formula (see article on page 1) to include more chondroitin sulfate, the Shark Cartilage product is no longer necessary.

Whew! So there you go, a list of some of the changes and improvements taking place at E-CAPS and Hammer Nutrition.

The Move To Veggie Caps Is On!

As part of our enduring quest to provide you, our valued clients, with the absolute healthiest products available, we are in the process of changing all encapsulated E-CAPS products from bovine-sourced gelatin capsules to all-vegetable capsules. The following products have already made the switch: Phytomax, Super AO, Appestat, Race Caps Supreme, Mito-R Caps, and REM Caps. Premium Insurance Caps, Anti-Fatigue Caps and the others will soon join the list.

New Product Categories

Our new catalog and price list, as well as our ever-evolving web site now feature E-CAPS products in new, more appropriately named categories (except for "Diet Optimization," which remains as before). Below is a list of the categories and the products that go with each one.

Daily Essentials

- Replaces *Daily Ergogenics*
Race Caps Supreme
Premium Insurance Caps
Mito Caps

Superior Recovery

- Replaces *Recovery & Repair*
Super AO
Tissue Rejuvenator
Liquid Xobaline
Xobaline
REM Caps

Diet Optimization

Phytomax
Chromemate
Boron
Digest Caps
i-Flora
OmeGasource
Appestat

Specific Advantage

- Replaces *Periodic Ergogenics*
Anti-Fatigue Caps
ATP100
Liquid Endurance
Race Day Boost



Jim Donaldson

This issue's featured athlete is Jim Donaldson of Sylvania, Ohio. Jim, one of our sponsored athletes, certainly has a most impressive athletic "resume," with nearly 300 multisport events to his credit, dating back to 1981. Along with his wife Joyce, they run Elite Endeavors (www.eliteendeavors.com), a company specializing in Triathlon / Duathlon / Multisport event management and coaching services.

I had the pleasure of meeting Jim at this year's Powerman Alabama, where he won his age group handily.

Q. Jim, could you give us a little background about yourself?

I turned 60 at the end of January this year. I graduated from the University of Toledo, and went to work as the VP of Marketing for my family's business here in town. Our company was over 110 years old, and I was a part of it for over 40 years, before it was sold.

Joyce and I met through an old friend in 1982, and we were married in Kona in 1999, the morning after I completed my third Hawaii Ironman. I had proposed to her on Christmas Eve, 1998, with the promise that we would be married at Ironman. She said "but you will have to qualify" and I said, "Yes, I know." The pressure was on! I didn't make the first two qualifiers, but as they say "third time is a charm." I finished first in my age group at the 1998 Eagleman half, and came home to her with a bottle of champagne in one hand and a pineapple in the other!

Q: How did you get into duathlons and triathlons, and how long have you been competing?

1981 was my first triathlon here in Sylvania, Ohio. Vic Tanney (now Bally's)

a local club put on a "sprint" distance tri in 1981: 700 yd swim, 40k bike, and 10 mile run.

I have completed almost 300 multi-sport events since 1981.

Q: What other sports have you competed in?

As far as sports go, I was into backpacking and outdoor adventures, played tennis well, and really excelled at handball for many years, at one time being city champion. THEN . . . the tri bug hit me.

Q: Of all the events you've done is there a favorite of yours, one that you make sure to attend annually?

Really thinking about this, I don't have a real favorite, there are many that I have gone to over the years repeatedly, Memphis in May would be one of those with great memories, but overall, I enjoy them all.

Q: Is there a race where "everything clicked," one where you felt unbeatable from beginning to end?

Truly, Eagleman 1998 when I qualified for Hawaii for the third time. It was a hot day, but I was ready, the swim went very well in the Choptank River (what a name, eh?), my bike was smooth and strong, and I just felt like I continued to get even stronger on the run. I did have two goals in mind that day: the finish line at Ironman and the wedding chapel, so that may have been the double whammy, but that was truly the event where everything clicked to the max.

Q: What E-CAPS/ Hammer Nutrition products are you currently using? What's been your experience with them?

I use Race Caps Supreme, Super AO, Tissue Rejuvenator, Shark Cartilage, Xobaline, Hammer Pro Whey, Sustained Energy, Perpetuem, Premium Insurance Caps, Endurolytes, and Hammer Gel.

In 2003 I went back to using these products full time, and I believe it increased my endurance and energy level and made it a very successful and strong season for

me. I qualified for two World championships for TEAM USA: Queenstown, New Zealand November 2003, and I am heading to Portugal for the 2004 Worlds to be held May 8, 2004. I was honored to

be selected for Honorable Mention by Inside Triathlon magazine.

Q: Based on your experiences and knowledge, what advice would you give to duathletes/triathletes to help them achieve success?

PATIENCE! I didn't get to where I am today overnight. It seems like athletes in recent years are doing too much too soon, and are plagued with injuries. Take time,

enjoy the sport, and learn your skills, especially how to handle the bike. Build your body and endurance base for the long run. And if you are injured, back down! It's hard to do, but nagging injuries do not allow quality training.

Q: Tell us about Elite Endeavors, your event organization company.

Elite Endeavors came out of the love of this sport. We have a stable of nine multi-sport events, consult and assist in several others, and put on a number of running races as well. Our motto has always been "Either du it or tri it! Anyone can!"

We chose our name, Elite Endeavors, as we thought it represented high quality, and we strive to put on the best races we can, with the safety of our guests the highest priority. We truly enjoy putting the events on, and look forward to meeting as many of the athletes personally as we can.

Thank you Jim, congratulations on your many accomplishments, and good luck to you at the World's in Portugal! More detailed information about Elite Endeavors and the schedule of events can be found at www.eliteendeavors.com





QUESTION - I have often found myself training in temperatures above 100 degrees. I usually leave soaking wet and remain comfortable until I dry off and the liquid in my shirt becomes sweat. However, with repeated water drenching I remain cool, but obviously I have to carry a lot of ice water. You always hear the mantra "in the winter the dry equals warm, and in the summer wet does keep you cool." But in terms of long-term endurance, is it generally worth carrying the extra water weight to keep myself cool? Plus, without the water drenching wouldn't I just sweat that much more and need to drink the fluids anyway?

ANSWER - Fluid loss as it relates to performance deterioration commences at 1% body weight loss and proportionately increases as loss continues. Core body temperature drives sweat rate in order to provide evaporative cooling. Keeping skin moist or soaked does reduce the need for sweat production - but not much - unless evaporative cooling can keep pace with core temperature increase. Body core temperature increase due to exercise at 60 degrees 60% humidity commences when slightly above a fast walking pace or 30% VO2 Max or 25-30% Max HR. Replenishing ice cold fluids reduces core temperatures far more effectually than does pouring fluid over your skin surfaces. The rate of evaporative cooling of core temperatures increases with increasing wind chill factors. In high humidity, wind chill is less if temperatures are elevated above 60. Below 50 degrees wind chill may increase evaporative cooling. In other words, dry air is better for evaporative cooling of internal body core, but ice water cools body core faster when heat and humidity are above 60 degrees + 60%. If

you drink and splash skin that is best if your skin is dry. Typically, severe dehydration is measured by pinching skinfold on the back of the hand; if skinfold does not rebound within 1 second, you may be dehydrated. Another method suggested is touch the deltoid insertion skin area or back of the triceps on the upper arm surface. If they are dry to the touch, severe dehydration has occurred.

I would encourage you to do both plus you ought to try the 3-day hyper-hydration protocol with Liquid Endurance for your long hot efforts. Three days prior to event during a taper, add two tablespoons Liquid Endurance to 24 fluid ounces water. Sip that for 3 hours and then repeat that process for 3 more times for a total of 4 X 24 fluid ounces water + 8 tablespoons Liquid Endurance per day..But do that 3 straight days. You will gain about 2% or so body fluids in extracellular spaces. It will dissipate in sweat losses the first 2-3 hours but will keep you from having to carry more of the water, which is quite necessary for performance in the heat.

LOOKING FOR A SECRET WEAPON?

COMPEX SPORT EMS is that secret weapon.

With the Compex you will:

- Dramatically improve muscle recovery
Minimize next-day muscle soreness
- Improve muscle elasticity
Reduce your risk of injury
- Increase endurance
Go longer!
- Increase strength
More power throughout
- Develop explosive strength
More power when you need it
- Have a better and faster warm-up
Peak performance right away
- and much more!

Each unit comes complete with 1 set of 2" x 2" electrodes, 1 set of 2" x 4" electrodes, leadwires, user manual, training planner CD, the electrode placement booklet, battery charger, and a carrying case.



Compex Sport
\$899

Order today!

1.800.336.1977
www.e-caps.com

Awaken The BreakAway Competitor In You *Tony Schiller*



Just as the forms were completed, the check was written, and the envelope sealed to complete my annual tax day ritual,

something amazing happened: a perfectly dreary day unexpectedly changed into the most spectacular spring day of the year. It was a sign. Who was I to argue when fate calls? I dutifully rescheduled my afternoon appointments and jumped on the bike for the first short sleeved, no tights ride of the year.

After a quick stop at the Excelsior post office, I rode past the bank sign: "71 degrees" Yes! As a triathlete from Minnesota, such rare moments must be savored so I rode north and witnessed a most spectacular sight... Lake Minnetonka - an incredible lake of bays and vast miles of expensive shoreline - opened right before my eyes (for those not from the frozen north, that means the ice melted). The only thing significant about this year's ice-out is, instead of the usual 3-5 days it normally takes to go from complete shore-to-shore ice-cover to 100% open, this year it happened in 90 minutes and I watched it from the saddle of my bike.

You could literally see the color change from gray to black and then just as the last little island of ice disappeared, the temperatures shot up 10 degrees. It was so cool - what I call a BreakAway moment - and just like that I could smell the racing

season in the air. My pace quickened and I began to think about my passion to compete. As the day brought out my best, I was energized by thoughts of what it means to truly be a competitor.

The Greeks were the first to study competition and embrace it as a science. They viewed competition differently than we do today. Rather than as a tool to determine winners and losers, they saw it as a means to achieve personal excellence. They discovered that when athletes went head-to-head, they both performed better. From this they reasoned that by staging the best athletes as training partners they could do even better and they were right. From this, they arrived at a definition of competition which was, "to strive together to be better." They rightfully put their major focus on improving, not winning.

Things are different today. There is so much focus on winning in every aspect of our lives. We are paid for results and always will be. But I think we can learn a lot from the ancient Greeks, at least in spirit.

When I view my competition as a means to help me improve, it changes everything. The strength of others brings out my best, not fear. When I perform, not to Prove but to Improve, it eliminates stress and grows confidence. And when I think of "strive together - to be better", I find myself in a partnering and performing mode vs. an overcoming the opposition mode. This, I believe, allows us to create space for the ideal qualities we want to possess as competitors.

That's what I thought about during my

ride on this April ice-out day. Then I noticed a young up-and-coming competitor speed by the other way. I know him and waved. He wants to beat me badly and smirked cockily. At first I took it as a lack of respect and then a different thought came to mind. He had a younger man's attitude for sure, but it was a winning attitude. It reminded me of myself many years ago - especially his passion.

For years I've claimed my passion is just more reserved now, more seasoned by wisdom. Well, something about him triggered me to be less reserved. No, I don't want to go back to being a kid again, but what if I could have the best of both worlds? What if I could re-ignite some of that passion and anchor it the experience of all my years? Just the thought of it got me excited. Immediately, I felt a change in me. I was more focused. More energized. I began thinking about bringing my competitive spirit the youthful passion it deserves - as if I was starting out in the sport all over again.

This is your new season. Give yourself that time to reflect on what you'd like to reawaken in yourself to ready for the competition. It really is that simple. It's up to you.

Tony Schiller has won over 75 triathlons since he became an E-CAPS client in 1988. He is a 5-time ITU age group world champion and motivational speaker. If you would like to receive a free trial of Tony's electronic audio newsletter, send him an email at Tony@breakawayresults.com.

Web Site Update *Peggy Kragh*

As many of you already know, last fall we launched our updated web site. Not too long after that launching, it became apparent that we had outgrown our existing web provider. We want you to know that we have selected a new provider and are working diligently to have a fully operating site, with new content and additional functionality, up and running by the end of June 2004. In the meantime, if you expe-

rience errors in our existing shopping cart, please don't hesitate to contact us toll free at 1-800-336-1977 to let us know.

Again, we're working hard to make our web site the best it can be, we think you'll be pleased with the result, and we thank for your continued patience should you be experiencing any difficulties with our current site.

GET FREE PRODUCT!

Interested?

Read the article on page 5 to learn more about how you can get **FREE** product with our Athlete Referral Program.

The Athlete Referral Program...it's a win-win-win situation!

2004 Powerman Alabama *Steve Born*

Over the weekend of March 27-28 I had the pleasure of attending the annual Powerman Duathlon, the "crown jewel" in a great series of triathlons and duathlons put on by Team Magic and sponsored by E-CAPS/Hammer Nutrition. Headed by Faye Yates and Therese Bynum, along with a well-organized, hard working staff, this year's Powerman Alabama (concurrently run with the shorter-distance Whistlestop Duathlon) was, by all accounts, a resounding success.

Though I am unable to attend as many events as I'd like, I always enjoy being at the ones that I am able to get to. Manning the Hammer Gel booth, while a seemingly non-stop work-related activity, is still a lot of fun. The highlight of going to any event is meeting the athletes, including many E-CAPS/Hammer Nutrition dients. This year's Powerman Alabama had many E-CAPS/Hammer Nutrition sponsored athletes there and it was wonderful to finally meet all of them.

In no particular order:

- **Brenda & Lee Simril** of Team Litespeed, one of our sponsored adventure racing teams (they were both doing Powerman as part of their training)
- **Shannon Kurek & Scott Erdman** of HFP Racing (another outstanding race organization company - www.hfpracing.com - whose races we sponsor, see article in this issue)
- **Cheryl McGinnis**, the winner in the women's 50-54 age group (in fact, her time was fast enough to win both the 40-44 & 45-49 age group divisions also)
- **Deanna & Don Frank** - Deanna finished in 5th place in the very tough women's pro division
- **John McGovern**, who won the men's 40-44 age group
- **Patrick High**, who took 2nd in the men's 40-44 age group
- **Bill Rule**, top 20 finisher in the men's 35-39 age group (which had, by far, the most competitors in it)

- **Jim Donaldson**, who won the 60-64 age group (Jim's time was over 7 minutes faster than second place. Jim's also our featured athlete in this issue's "Athlete Spotlight")
- **Christine Mackrides**, who took 3rd place in the women's 40-44 age group
- **Lara Block**, who came in 7th place in the women's 35-39 age group
- **Joanna Chodorowska**, who finished 9th in the women's 35-39 age group. I must give special mention and thanks to Joanna who, instead of resting up for her race, spent several hours at the booth, talking to athletes and helping me sell product. Without her gracious and selfless help I'm sure I would have been overwhelmed. Thank you again Joanna!

Powerman Alabama is a world-class race, meticulously and professionally organized and run. It's definitely a race that I plan on returning to annually, and I thank Faye, Therese, and their wonderful staff for all their hospitality.

For a complete list of this years Powerman Alabama/Whistlestop Duathlon results, or to find out more about all the events put on by Team Magic, visit www.team-magic.com.

Race Report

Special congratulations to two of our sponsored athletes!

On February 29th Canada's Marilyn MacDonald won the Ironman Malaysia Triathlon in a time of 10:24:47. In her own words, "Your products helped me all the way!" There is a lot of coverage of the race, some of which can be found at:

www.xtri.com
www.insidetri.com
vnews.ironmanlive.com

On March 6th Great Britian's Jess Draskau-Petersson came in 5th place in the Women's Pro division in the Bonita Ironman New Zealand Triathlon in 9:54:53. The most notable thing about this great accomplishment is that she set a new course record for the marathon portion of the race in an outstanding time of 2:59:11. Stories and results can be found at:

www.triathletemag.com
www.iomonline.co.uk
www.triathlon.org

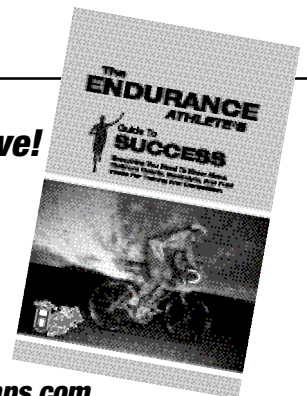
On April 3rd Jess won the Cervélo Half Ironman race in New Zealand in 4:46:00, again relying on her running strength. She turned a six-minute deficit off the bike into a six-minute winning margin over Lynley Allison of New Zealand.

Way to go Marilyn and Jess!

The handbook every athlete should have!

That's right...don't miss out on the Endurance Athlete's Guide To Success. It's an incredible 48-page handbook that contains everything you need to know about optimum caloric, electrolyte, and fluid intake for training and competition. If you haven't received a copy yet go to our website and download a FREE PDF version!

Log on and download your FREE copy! www.e-caps.com



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

HFP Racing and Hammer Nutrition *Steve Born*

A Perfect Partnership

We are extremely pleased and enthused to announce our partnership with Shannon Kurek and Scott Erdman of HFP Racing, producers of some of the country's finest duathlons, triathlons, adventure races, and running events. Some of the great events among their impressive list include (with quotes from the HFP web site) -

The DeSoto American Triple-T

(May 28 - Portsmouth, OH) - "The DeSoto American Triple-T is a unique 3-day, 4-event, ironman distance format triathlon with participants competing on 3-person teams and in the new solo division."

Race #1 - the Prologue on May 28 - a 250m swim, 5 mile bike, 1 mile run

Race #2 - an individual time trial on May 29 - a 1500m swim, 24.8 mile bike, 6.55 mile run

Race #3 - the team triathlon on May 29 - a 24.8 mile bike, 1500m swim, 6.55 mile run

Race #4 - the team time trial on May 30 - a 1.2 mile swim, 55.5 mile bike, 13.1 mile run

Little Smokies Half Iron Triathlon

(May 30 - Portsmouth, Ohio) - "Ohio's season opening long course triathlon This exciting race serves as the final event of the American Triple-T event, giving you an opportunity to compete along side Triple-T teams as they battle for top honors."

Paint Creek Adventure Race

(August 15 - Bainbridge, Ohio) - "The fourth stop on the Tecnica Adventure Race Series is Paint Creek State Park in Bainbridge, Ohio, located about 75 miles

south west of Columbus. A must-race for all adventure enthusiasts. The adventure includes 4-6 miles of trail running through the open prairie fields and challenging single track, a 12-15 mile mountain bike, and 1-2 miles of kayaking in the beautiful Paint Creek Lake."

Spirit of Racine Triathlon

(July 25 - Racine, Wisconsin) - Formerly known as the Dairyland Triathlon. "Once again it will feature a field of exceptional competitors from throughout the nation and beyond. The triathlon features a 1.2 mile swim along Lake Michigan's pristine lakefront, followed by a 56 mile bike in the scenic rolling hills of Racine County and finishes with a 13.1 mile run through Racine's quaint, historic neighborhoods. Participants truly enjoyed last year's inaugural event and this year we're making it even better. With its scenic course, spirited people and a competitive field fighting for a share of the \$25,000 prize purse, this is an exciting triathlon for first timers and international competitors. Last year's event was so popular we're raising the number of participants to 1,500. And it's filling up fast. So be sure to register early and take your place in this spectacular event with the brand new name."

NOTE: The Spirit of Racine Triathlon is one of the events I (Steve) will be traveling to and running a Hammer Nutrition booth at. If you're planning on attending this event please come by!

Great Buckeye Challenge

(August 22 - Waynesville, Ohio) - "HFP Racing and the Warren County

Convention and Visitors Bureau have partnered to bring Ohio a premier half iron-man distance triathlon and long distance duathlon. The Great Buckeye Challenge features a beautiful 1.2 mile swim in Caesar Creek Lake or a 5.5 mile run within the park, followed by a 56 mile bike in the scenic rolling hills of Warren County and finishing with a 13.1 mile run through the rolling countryside."

Deer Creek Pineman

(September 18 - Mt Sterling, Ohio) - "There are four distances to the Pineman: Mini (0.6 mile swim, 28 mile bike, 6.55 mile run), Half (1.2 mile swim, 56 mile bike, 13.1 mile run), Long (1.8 mile swim, 84 mile bike, 19.6 mile run), Full (2.4 mile swim, 112 mile bike, 26.2 mile bike). The swim course will be .6 mile narrow rectangle course (1-lap for the mini, 2-laps for the half, 3-laps for the long, 4-laps for the full) in the beautiful Deer Creek Lake. The bike course is a 28 miles loop course (1-lap for the mini, 2-laps for the half, 3-laps for the long, 4-laps for the full), featuring rolling hills and flat prairie sections that are built for speed. The run course is a flat and fast 6.55 mile out and back course across the infamous Deer Creek dam, giving participants breath taking views of the valley below."

Every athlete I've talked to says that Shannon and Scott put on events of impeccable quality and we're honored to be partnered with them. The HFP Racing web site (www.hfpracing.com) is a wonderfully complete site, filled with lots of information, and contains everything you need to know about all their races. Check it out!

Super Steven

16 Year Old Qualifies For World Duathlon Championships

Congratulations to E-CAPS/Hammer Nutrition sponsored athlete, 16-year old Steven Duplinsky of Kensington, Maryland who recently qualified for the 2004 ITU World Duathlon Championships to be held in Geel, Belgium on May 28-31. Steven, the youngest competitor entered, won the Under 23 division in the qualifier race - the Whistlestop Duathlon, a 4k run/28k bike/4k run held in conjunction with the Powerman Duathlon.

His father recently emailed me saying, "He (Steven) spent most of the day before [the race] with a crisis - the airline bent his carbon wheels. He was able to get one of the bike dealers there to help him ultimately. In any event, he won the qualifier in his Hammer bike shorts (he also broke the course record in both legs of the run). He made the USA select team in both du and tri, so he will be representing you in both tri world s and duathlon worlds in May."

Steven's outstanding splits of 12:22 - 59:15 - 12:12 gave him a nearly two-minute winning margin over second place.

Congratulations Steven from all of us at E-CAPS and Hammer Nutrition. Good luck at Worlds!

Nate's Corner *Nate Llerandi*

Steve's Note: As many of you know, I keep all of Nate's "Tip of the Day" email articles on file and refer to them often. At this time of year I thought these two particular articles are very appropriate, even though they were written 1-2 years ago. I hope you do as well.

Changing Focus

Now that the racing season is upon us, the focus on your training should be shifting. You either have peaked in your weekly hours or will do so soon, depending on when your key races are.

Also, you will be shifting to more anaerobic work and less aerobic. The majority of your training is still aerobic - 80% or more - but this should be considerably less than during the winter, when maybe 95% was aerobic. With the increase in intensity, there should be a leveling off or decrease in weekly training hours (up to 20%). This decrease in hours compensates for the increase in intensity. If you schedule deliberate recovery weeks every 4th or 5th week, you can get by with more hours and more hard training. If you still don't include rest weeks of reduced hours (around 50-60% of normal weeks) and reduced workloads (90-100%

aerobic - below 75%), then you should think about it. Nothing derails great fitness like over training.

Finally, it's time to start cutting back on weights. If you've been lifting 3 days a week (hopefully not more than that), then it's time for 2 days. The fall and winter was the time to make gains in your strength. With 2 sessions a week, you should still make some gains. But you need to reduce the amount of weight work you're doing now that you're increasing your intensity in your primary sport(s). Soon, it will be time to reduce your weight routine to once per week, probably in another 4-6 weeks [NOTE: see article below]. At that point, the goal is simply to maintain the strength gains you've made, not to build on them. Too much weight work will break you down and keep the muscles from recovering properly as the rigors of the racing season pile up.

Time to Scale Back

The goal of lifting weights is to make us stronger and more durable as endurance athletes. However, now is usually the time when training programs really start to ramp up - either in overall duration, intensity or, sometimes, in both.

Now is the time to start scaling back on your weight routine, if you haven't already. No matter what program you follow, you will be impeding your recovery time if you continue to lift intensely 3 days a week.

My suggestion is to cut back to one day per week in the weight room. Likewise, cut back on the overall number of exercises to incorporate the multi-joint, core exercises but not much beyond that. Again, you are striving to *maintain* what strength you've gained through the previous fall/winter/spring and not try to continue to build upon it. To do so will rob you of the freshness you need to really maximize your gains in your weekly core workouts - most notably your interval sessions.

If you haven't tried cutting back your weight routine, give it a shot. My guess is that you will feel more energetic during your hard weekly workouts. And it is during these key workouts that the real gains are made that directly correlate to faster racing.

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

Save Now - Join the T.E.A.M.

The E-CAPS Auto-Ship Method

If you have ever run out of your favorite Hammer Nutrition or E-CAPS products then come on and join the team. We'll do the work; you relax and know your product will be there on time when you need it with free shipping to boot.

Benefits of T.E.A.M. membership:

- **SAVE** - Discounted pricing on your favorite E-CAPS or Hammer products
- **HASSLE-FREE RESUPPLY** - Never be out of product again with an auto shipment every 90 days
- **FREE SHIPPING** - on auto shipment products as well as any items you choose to add to the order
- **FREE GIFT** - on your second auto shipment as our thanks for joining the T.E.A.M.

- **EXCLUSIVE OFFERS** - Be in the know with first offers and exclusive offers designed to save you money on your favorite products

HOW TO JOIN

Joining is easy and free. Next time you place an order with products that you would like to receive every three months, just let your client service representative know. They will ensure that you get the right amount of product to last three months and provide you with the details of the membership. If you just placed your order you can write to us at team@e-caps.com. Anytime you want to add items to your auto ship order, you can either e-mail us or call us before the shipment and we will gladly add the items with free shipping. You can cancel your membership at any time.



Many thanks to sponsored athlete Jeb Stewart this great photo.

Inside This Issue

Our biggest issue yet!

- **Introducing Hammer H.E.E.D.**

Changing the world of sports drinks

- **Change, Change, and More Change**

Tissue Rejuvenator changes

The move to veggie caps is on!

Super AO gets a boost

Perpetuem gets bigger!

About those new labels...

- **3rd Annual Highline Hammer Weekend**

Come join us July 30 - August 1

- **The Compex Sport EMS**

Dr. Bill weighs in on this incredible product

- **Awaken Your BreakAway Competitor**

Tony Schiller

...and so much more!!!

The nd

A Personal Story Of Success

The following was submitted to us After reading so many success stories from individuals who have used your products to enable them to achieve their athletic performance goals, I wanted to send in my own personal 'success' story. It has a bit of a twist to it and I thought you'd like to know what E-CAPS and Hammer Nutrition products have enabled me to accomplish.

I was first introduced to your products a couple of years ago when I participated in a 3-day, 250-mile charity ride in Michigan. After riding for 70 miles on the second day I was beginning to bonk so one of the guys gave me his Hammer Gel. Within ten minutes I was feeling better and ready to hammer on. That was all I needed to be hooked on your products.

Since that time I've been quite ill with

Lyme disease. Due to this I have needed to increase my electrolyte intake, elevate my oxygen levels, rebuild my immune system, repair my body from free radical damage, combat incredible fatigue, and decrease the amount of inflammation in my joints - just to name a few. And for each and every one of my increased nutritional needs, I have found that the E-CAPS products have assisted me in restoring my health. It's been incredible and my doctors keep asking me, "What do you take that works so well?"

Despite being so ill I have been able to continue riding (this too amazes my doctors.) You advertise, "serious products for serious endurance athletes" and I'm living proof that that statement is absolutely true. While I may not be a professional athlete - I'm a 37 year old

mother of five - I'm still very serious, riding 5,000 miles last year. I know that because of your products my level of fitness has increased and I have been able to rip it up faster than ever. In fact, I came in 2nd in a 50k, losing to a 23 year old, 4-year triathlete.

Finally, I want to tell you that I think your staff is awesome! They are always very friendly and knowledgeable when I place an order.

Thanks for helping me enjoy a higher quality of life - on and off the road!

Mary Ann Cameron
Edwardsburg, MI