GU PART II
The Next Generation in Athletic Food

Bulk and bonking. They're the "Killer B's" of training and competition. After 10 minutes or 10 miles, that sports bar you downed can feel like an iron fist in your gut. And that swig of electrolyte juice won't do a thing for your calorie depletion.

Time for GU!
GU is the next generation in athletic fuel. GU is neither a bar or a liquid. It's pronounced "goo" and that's exactly what it resembles: a soft, highly concentrated, delicious-tasting energy food.

GU is easy to digest, like a sports drink. But, it packs 100 calories into just 1.1 ounces.

GU replenishes the calories you burn in activity, like a sports bar. But, it leaves out all the fiber, protein, fat (chocolate has a small amount of fat), intensive amounts of vitamins and minerals and excessive water requirements that make you feel bloated.

Three years in development, GU was created by Dr. William Vaughan of Berkeley, California, scientific formulator of the world's leading energy bar. When his daughter Laura, a high school track runner, graduated to the challenges of ultrarunning, Vaughan recognized (continued on page 4)

CREATINE UPDATE

In the last issue of ENDURANCE NEWS (EN#5) we introduced E-CAPS' newest product, CREATINE BOOST, and briefly discussed its use. Creatine has received quite a bit of much deserved attention recently for its awesome ergogenic effects. While most of the good things you have heard and read about creatine are probably true, how to use it correctly has not been a part of the hype. This article is intended to give you the rest of the creatine story.

First the good news: In almost every case, the first couple of times an athlete tries a creatine loading cycle preceding an event it does amazing things for his or her race performance. After the first or second cycle, athletes who have used it describe feeling almost superhuman. PR's and dominant race wins seem to be more of the norm than the exception with the initial use of creatine. For this reason, every athlete would benefit from using creatine at least once or twice a year, preferably for their most important event.

A perfect example of this scenario is the recent experience of a top masters cyclist that I work with. He had been consistently placing in the top five of his criterion races but had not been able to win one. After doing his first loading cycle to peak for a big race, he went out in a very strong field of riders and gapped the entire field, winning by half a lap. Again, this type of effect is typical of the initial use of creatine.

The Catch 22
The ergogenic, performance enhancing effects of creatine represent a serious catch 22 for competitive athletes. The first couple of times you use it, it works so well that you want to take it all the time. But the more you take it, the fewer benefits you receive from it. There are essentially three variables with which you should concern yourself when using creatine: (1) How long each cycle lasts, (2) how many cycles you do over the course of a season, and (3) how long you wash out in between cycles. Balancing these three elements is the key to achieving maximum benefits from creatine while avoiding possible pitfalls.

To put it another way, loading cycles which last too long, doing too many cycles in any given period, and/or not allowing long enough wash-out periods in between cycles should be avoided. Overusing creatine in any one of these ways will eventually reduce or eliminate the benefits, or worse, cause you to experience noticeably reduced performance.

Since the three variables are interdependent, there are some general guidelines to follow. The longer the cycles last, the fewer cycles you can do. Longer cycles also require longer wash-out periods in between them. On the other hand, doing shorter cycles will allow for longer wash-out periods in between them and allow you to do more cycles over the course of a season.

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XOBALINE

The Cure for Dead Legs

XOBALINE could be one of the most underrated products in the E-CAPS line, and is certainly the hardest to pronounce. To pronounce it correctly, you say the “x” like a “z” followed by a long “0” sound. Now that you know how to say it, recommended for people who have very low body fat because it helps to prevent “protein cannibalization” (see below). It is also advisable for vegetarians and people with minimal meat in their diets.

XOBALINE (cobamamide) is the coenzyme form of Vitamin B12. The Merck Index states, “The coenzyme is the metabolically active form of vitamin B12.”

For athletes taking the TRAINING & ENDURO or RACE & ENDURO CAPS combinations, XOBALINE is most likely the next product that you would want to add. It is for this reason that we offer 1 month and 3 month kits which include XOBALINE. Xobaline is available in capsule or liquid form. The main attraction of the capsules is convenience. You just take 1 capsule a day and maybe two on really hard days. Each capsule contains 5mg of cobamamide and 30 sell for $14.95, but cost much less

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Many customers have understandably had a hard time discerning the differences between RACE CAPS and TRAINING CAPS when attempting to determine which one is best for their needs. The main points of confusion are most likely the names, and the seemingly subtle, yet significant difference in ingredients. Then of course there is the difference in price.

First of all, you should know that the names of the products do not correlate with their intended uses. TRAINING CAPS are not just for training and RACE CAPS are not just for race days. It does make perfect sense to assume that, but we were not thinking that clearly when we first introduced RACE CAPS and ENDURO CAPS in 1987. At that time, there were no plans to offer another companion product to the ENDURO CAPS. However, due to the skyrocketing cost of CoQ10, the main ingredient in RACE CAPS, we felt that it was necessary to develop a less costly alternative. TRAINING CAPS were added to the E-CAPS product line two years after the introduction of RACE CAPS; and complicated everything.

Since three of the four ingredients in the RACE CAPS and TRAINING CAPS formulas are the same, the real difference is in the main active ingredients. The RACE CAPS utilize Coenzyme Q10, while the TRAINING CAPS employ pure Adenosine Triphosphate (ATP). The following descriptions of these two nutrients will provide an overview of their respective functions, however you may want to do some additional reading on your own to learn more about these two vital cellular components.

**RACE CAPS; Co Q10**

Coenzyme Q10 has been called “The Miracle Nutrient” because of its ubiquitous health and therapeutic benefits. Coenzyme Q10 (CoQ10) is a natural nutrient which is essential to the health and vitality of every cell in our bodies. A simple equation would be CoQ10 = energy = life. **CoQ10 is necessary for all cellular respiration, as well as being the essential precursor to the production of ATP, energy.** It is also critically involved in the production of new cell tissue and in the repair of damaged cell tissue. CoQ10 is both a powerful oxidant and antioxidant. For healthy athletes, CoQ10 is significant because the training process is an ongoing pattern of breakdown and destruction of cell tissue followed by repair and rejuvenation of the same tissue. Supplementation with CoQ10 is even more important for masters athletes because the body is able to produce less and less of this nutrient as it ages.

The only reason CoQ10 is not in all of our formulas is because of the cost. At a glance, the RACE CAPS seem very expensive at $44.95 per bottle of 60 capsules. However, you must realize that each capsule contains 75mg of CoQ10, the highest potency available in the US. Each bottle contains a total of 4.5 grams of CoQ10, 75mg X 60 capsules. At full retail prices that translates into a cost of $10.00 per gram. Because CoQ10 is one of the few nutrients in our formulas which is widely available in health food stores and vitamin shops, it makes a price comparison very easy. In a survey of local retail outlets you will usually find CoQ10 selling for $15.00-$25.00 per gram, and you won’t be getting any of the other oxidants and antioxidants found in the RACE CAPS formula. Also, remember that our price is even lower, $37.50 to $39.95 per bottle, when you buy the RACE CAPS with the ENDURO CAPS as part of a 1 month or 3 month supply. So, in reality, the RACE CAPS are really a great bargain.

**TRAINING CAPS; Pure ATP**

Adenosine Triphosphate (ATP) is the actual energy currency in your body. It is directly or indirectly responsible for 95% of all biologic and physiologic activity in the body. These functions include digestion,
ONE ADVANTAGE TO HOT WEATHER TRAINING
by Michael Rivest, PhD, DST

The fast approaching hot weather takes some of the fun out of running for me, and I expect for a lot of you as well. However, there remain some psychological advantages to training that the heat can't beat.

The question to be answered is why some people seem emotionally stronger than others. Why is it that some have it “all together” while others have to struggle for everything? Before I answer that directly, and I will, we need to understand how most people face problems. Simply put, most of us don’t face our problems, we bury them or skirt around them. This form of denial is usually the first cause of emotional stress.

It is painful to confront old belief systems and move into new ones, so we generally settle for less, opt for what seems to be the easy way out. This doesn’t work, and soon the pain of giving up too much becomes the next problem. The easy way out now becomes depression or psychosomatic illnesses such as headaches, backaches, ulcers, etc. Others become psychopathic, sociopathic, psychotic, paranoid, or delusional. Fortunately most people start to reach out for professional help by this point.

Soon the pain of failure raises its ugly head and the easy way out becomes negative addictions such as drugs, alcohol, sex, work, food, gambling, nicotine, or caffeine. Addictions bring complete relief while in the behavior, but usually at the expense of the individual.

The process begins with failure to confront issues, thereby creating the pain of settling for less, which creates the pain of giving up too much, which creates the pain of failure. This escalating pain creates behaviors which can be very destructive.

Emotionally stronger people confront issues immediately and effectively, thereby stopping the process of pain. They do this because they are more creative, see more options, and have higher self-esteem than the weak. These attitudes are in direct proportion to the number of existing neuronal pathways in the brain. And that, finally, is the answer. (I added the emphasis, hope you don’t mind)

Studies have shown that runners have a distinct advantage over non-runners in creating more neuronal pathways. These pathways are created at the moment when a runner’s brain is operating in a “free wheeling” manner. This is more than a “runner’s high,” although both experiences can be combined. Unfortunately this state is difficult to describe. Those who have experienced it know. The greater the frequency and length of time the brain can maintain this position, the more pathways are created.

Runners can create the environment for this state of mind by: (1) Train an hour every day (speed does not matter and that’s the good news for the summer months.) (2) Enjoy the training activity. (3) Be non-critical of yourself or your performance. (4) Run, cycle, etc. alone, although social training has value it generally does not create an environment to reach the “free wheeling” state of mind.

For non-runners, deep relaxation or meditative techniques can create more pathways, but not as effectively.

While the summer heat may require a PR or two, it does provide an opportunity to expand our mental and emotional horizons.

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the need for a sports fuel that was more efficient than a bar and GU was the result.

Packaged in a unique, compact pouch, GU can be opened, eaten and washed down with a few mouthfuls of water within 10 seconds. Its ultra-long chain glucose polymers and essential amino acids, combined with the right blend of potassium, sodium, and calcium, are rapidly absorbed with mineral digestion. High energy herbs and antioxidants boost endurance and well-being. Translation: improved performance, less fatigue, and fast recovery. (Just ask Laura Vaughan, first woman in the Wasatch 100-miler in 1991 and 1992.)

Try GU for a workout and see how much better you feel before, during, and after. Take it to the starting line and get that perfect feeling of lightness—empty of bulk but full of energy. Say “GU-bye” to those “Killer B’s” and measure the difference in your performance. Available in three natural flavors: Chocolate Outrage, Vanilla Bean, and Orange Burst. Suggested retail is $1.25 per packet, but you can buy them from E-CAPS (1 800 336-1977) in quantities of 24 or more for $1.00 each.

The GU people were kind enough to allow us to reprint this sales letter.
BLACK BEAN SALAD
A fresh and tasty summer salad, great with a picnic lunch or as a side-dish.

INGREDIENTS:
- 2-15 oz. cans black beans, drained and rinsed (or cook your own)
- 1 cup chopped tomatoes
- 2/3 cup chopped white onion
- 1 cup chopped cilantro
- 2 cloves minced garlic (or as desired)
- 3 tablespoons lemon juice
- 1 tablespoon olive oil (preferably extra-virgin)
- 1 tablespoon cumin powder
- 1 jalapeno pepper, finely chopped (optional)
- dash of salt and pepper

PREPARATION:
Add all ingredients to a bowl and refrigerate for at least 2-3 hours before serving. Makes 4 cups; 6 servings.

Nutritional Information
Per Serving:
Calories ..............................................90.5
Protein .................................................5.8 grams
Carbohydrates .....................................14.8 grams
Fat .......................................................3.1 grams

PEPPER AHI STEAKS
Fresh pepper gives this simple recipe a surprisingly complex flavor.

INGREDIENTS:
- fresh Ahi tuna steaks
- canola oil
- peppercorns, allow about 2 tablespoons per person (preferably use a gourmet blend)

PREPARATION:
Brush an Ahi steak lightly with canola oil on both sides. On a cutting board, coarsely crush the peppercorns with the bottom of a small pot or pan. Lay Ahi on pepper on both sides of steak. Grill, BBQ or pan fry without oil. Cook for about 6 minutes on each side, or until done. Serve with lemon or Tartar sauce.

Nutritional Information
Per 7 oz. Serving:
Calories .............................................204
Protein ...............................................43.6 grams
Carbohydrates ....................................0
Fat .......................................................2 grams

RICE FLAN
This low-fat rice dessert is simple yet sublime.

INGREDIENTS:
- 3 cups rice milk (we use Rice Dream brand, Original Lite)
- 4 eggs
- 1/2 cup honey
- 1/2 teaspoon vanilla extract
- 1/2 teaspoon cinnamon

PREPARATION:
Preheat oven to 350 degrees. Add all ingredients in blender, or large bowl, and mix well. Pour into individual custard cups, and place cups in a casserole dish. Add water to casserole dish to about 1 inch high. If you don't have custard cups, pour liquid into small baking dish, and place in a larger baking dish with water in it. Bake for approximately 45 minutes, or until top starts to brown and get firm. Remove from oven. Allow about 2 hours for the flan to cool and finish firming up before serving. Refrigerate any unused portions. Makes 6 servings.

Nutritional Information
Per Serving:
Calories .............................................190
Protein ...............................................4.6 grams
Carbohydrates ....................................35.5 grams
Fat .......................................................2 grams
GET STOKED!

The BTU Stoker Bar is not just another imitation of the original. Although the consistency in warm weather and flavors are similar to the original, that is where the similarity stops. Mainly because of vastly superior ingredients, the BTU Stoker does not cause gas and the other common side effects associated with most energy bars. We are very excited to be carrying the BTU Stoker and hope that all of you energy bar junkies will give them a try. As with all of the other energy bars we carry, the BTU Stokers can be purchased in quantities of 24 or more for $1.15 each. The following sales letter is being reprinted with the permission of the folks at BTU Stoker.

"USER FRIENDLY"

BTU STOKER, an all natural energy bar introduced in 1993, was developed by Mill Valley, CA endurance athlete and certified sports trainer Steve Fletcher, as a result of his needs and those expressed by many professional and amateur endurance athletes. The primary objective was to develop a bar that would maintain energy levels without depleting water reserves. As testing progressed, other objectives were identified. These included good taste, all natural ingredients and edibility at low temperatures. The resulting BTU STOKER is very user-friendly.

The BTU STOKER:
- Does not require the consumption of extra water to digest.
- Is all natural, contains no preservatives or refined sugars and does not contain fructose corn syrup.
- Is based on whole brown rice syrup as a primary ingredient.
- Remains edible at low temperatures for winter use, skiing, and mountaineering.
- Has been widely praised for its good taste.
- The REAL COCOA bar contains natural chocolate, crisped brown rice, almonds, dates, and real vanilla.
- The REAL APPLE OAT bar contains chunks of real (unsulfured) apples, dates, raisins, almonds, oats, and real vanilla.

The bars have been extremely well received by health and performance conscious athletes. Recently, the bars were used successfully on a successful ascent of Awa Dablam at over 20,500 feet, and have been used extensively by big wall rock climbers who were pleased with the excellent taste of the bars as well as their function under extremely adverse conditions. Top professional athletes, ultra distance runners, paddlers, climbers, skiers, and cyclists now train on BTU STOKERS.

Stanford University athletes selected the BTU STOKER the winner of a recent taste test and campus training rooms now make BTU STOKERS available to athletes. A highly regarded San Francisco chef and sports product reviewers have also praised BTU STOKER for its great taste and performance.

The Bottom Line

If these semi technical descriptions have not made the picture clear enough, here is another way to look at it. The TRAINING CAPS give you a finite amount of additional energy, ATP, which is very helpful. The RACE CAPS give your body the ability to produce an exponential amount of additional ATP, energy. In terms of improving your cardiovascular performance and recovery time, both products will do the job very impressively. The RACE CAPS, because of the Co Q10, offer significant health and therapeutic benefits that the TRAINING CAPS do not. It is these additional benefits which make the RACE CAPS worth the extra cost.

Since 1989, our customers have had a choice; Those athletes seeking the maximum benefits, with cost as a secondary consideration, would choose our original premium formulas, RACE & ENDURO CAPS @ $56.65-59.95 per month. Those athletes seeking to improve their performance, with cost as a primary concern, would opt for the more economical alternative by selecting the TRAINING & ENDURO CAPS combination @ $30.00-$34.95 per month.

If after reading this article you still have questions about these products or are not sure which category you fall into, feel free to call E-CAPS to discuss it further.
Research Findings

The primary reference study on creatine loading is "Elevation of Creatine in Resting and Exercised Muscle of Normal Subjects by Creatine Supplementation" by Roger C. Harris, Karin Soderlund and Eric Hultman which was published in Clinical Science (1992). For this study, 13 athletes loaded with 20-30 grams per day for 4.5 to 10 days, while 4 other athletes took 30 grams on alternate days for 21 days. The findings indicated that the effect of supplementation was greatest in those subjects with the lowest initial creatine contents. Conversely, the subjects with the highest initial levels showed little if any increases in concentrations. This could be why vegetarians and athletes who eat very little flesh reap the greatest benefits from creatine loading. Additionally, the greatest increase in uptake appeared to take place during the first two days, and, by the end of the test period, all 17 subjects showed similar levels (140-160 mmol of TCr.kg DM to be exact).

If there is one fact that is evident from this research, it is that there is no single correct way to use creatine — either in terms of cycle length, or dosage levels. It also suggests that the best ergogenic effects will be experienced by doing short, intense cycles. However, one could also argue that since most athletes' diets are deficient in creatine-rich foods (those which contain animal protein), they should be supplemented with 1-2 grams every day and loaded heavily for 4-7 days before a big event. Nevertheless, here are some other possible loading formats for you to ponder.

CYCLE LENGTHS

Long Cycle*

The most commonly used cycle seems to be 28 days ending on the day of your event. You take a main-

tenance dosage of 3 grams, (1/2 teaspoon), for 21 days, then load with 9 grams, (1 1/2 teaspoons), for seven days including the day of the event. When doing cycles of this length, you will probably be able to do no more than 3 or 4 cycles between April and October, allowing 3 to 4 weeks wash-out in between each one.

Medium Cycle*

Another possibility is a 12 day cycle ending on the day of your event. In this scenario you take 3 grams three times per day (9 grams total) for 12 days ending on the day of your event. With this type of cycle you spend less time on the product, which allows you to do more cycles and have longer wash-out periods in between them. This format would allow for up to 6 cycles per season depending on the length of wash-out periods.

Short Cycle*

You might also find an 8 day cycle to be desirable. This would have you taking 5 grams three times a day (15 grams total) for 8 days ending on the day of your event. Utilizing this format would not necessarily allow you to do more cycles but would certainly allow for longer washout periods than the other two previously mentioned methods. This cycle could even be shortened further to 5 grams four times a day for 6 days.

*Depending on the timing of your most important events, you may want to use a combination of these cycles to get the best results.

Hopefully the above information will help you enjoy the benefits that creatine has to offer while avoiding any complications. In the end however, creatine, like any other product, will require individual experimentation to determine what works best for you.
MT. BIKE RACERS; See You At The Races!

E-CAPS will have a booth at the 1994 Grundig/UCI World Cup & Jeep National Championship Series races in Mammoth July 6-20. E-CAPS founder Brian Frank will be on hand, except on Thursday while he's racing, to provide technical support concerning race dosages, product information and answering questions. Samples, decals, t-shirts and other goodies will also be given away at random. We would sure like to meet any of you who are going to be there. So, stop by our booth and say hello. See you at the races!

ENDURANCE NEWS Mission Statement

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

Brian Frank
Editor

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