

SQUEEZYS

The Leppin Sport FRN Squeezy is the original carbohydrate syrup/gel product available to endurance athletes. The syrup is packaged in convenient, highly portable packets that can be easily carried during races or extended workouts. They are also ideal for runners who want to carry their own fuel source during a race because all you need is some water to wash them down.

It all started in 1987 and 1988 with athletes like Keith Anderson from South Africa and Glen Cook and Sarah Coope from England bringing them over here while they were racing. For the first couple of years squeezys were the secret weapon for many pros and athletes in the inner circle of triathlon. After being introduced to the products at Hilton Head, Rick Lambert started importing the products in 1988. Although the marketing has been very modest, eventually the word spread about these little sachets and more and more triathletes and other endurance athletes began using them. So when you see the slick advertisements and big name athletes endorsing the new syrup/gel packets, remember that they all started with the Squeezy.

Today there are several similar products that have all been patterned after the Squeezy. Unfortu-

(continued on page 5)

ELECTROLYTES

An athlete's need for electrolyte replacement and the electrolyte levels found in ENERGY SURGE and other energy drinks has been a reoccurring subject that we felt warranted some discussion. The primary electrolytes are sodium, potassium and chlorine, although chromium and zinc can also be put in this category. Most athletes believe that they need to have these mineral electrolytes in their energy drink or their performance will suffer. However, excessive electrolyte intake can also have a negative effect on your performance as well. Therefore, the twenty thousand-dollar question is, how much is enough, or too much?

Before we address that question, a brief explanation of the role of electrolytes in the body is probably in order. Sodium and potassium are responsible for establishing the proper electrical gradients across cell membranes. The proper gradient between the interior and exterior of the cell is essential for the stimulation and contraction of muscle, transmission of nerve impulses, and for proper glandular function. Maintaining permeability of the cell membranes and regulating the balance between the acid and base qualities of the body fluids, especially the blood, are also performed by the electrolyte min-

erals. When deficiencies of these minerals occur, muscular weakness and cramping can be expected, as well as mental apathy and loss of appetite. Conversely, excessive electrolyte intake can also lead to muscular weakness, vomiting, and elevated blood pressure.

"Electrolytes" is a common buzz word that is associated with many fluid replacement drinks. The marketing literature that accompanies these products goes to great lengths to explain the importance of electrolyte replacement, which may be entirely true, however, there is no consensus as to what the electrolyte levels in these products should be. In fact, it is not hard to find those in the scientific community who question the validity of consuming electrolytes during exercise altogether. In *Exercise Physiology: Energy, Nutrition, and Human Performance* by McArdle, Katch and Katch, their discussion of electrolytes begins with, "For individuals receiving the Recommended Dietary Allowance of minerals, there is no evidence that mineral supplementation benefits exercise performance." The authors go on to state, "In one study of runners during a 20 day road race in Hawaii, Plasma minerals were maintained at normal levels when the athletes

(continued on page 6)



THE BIG? QUESTION

As the racing season winds down and many of you may be feeling totally burned out and ready for the off season, the big question that always comes up is; "Should I keep using E-CAPS during the off season?" Now I realize that answering this question could represent a conflict of interest since it would obviously be in the best interest of E-CAPS to have every customer using the products year round. But after 7 years of serving endurance athletes we are very familiar with and well prepared for the seasonality of some of our customers' purchasing habits. Nevertheless, as you read this article it should become clear that the question is being answered from the point of view of you, the athlete, not E-CAPS.

Many athletes just assume that when they are done with their competitive season, that there is no point in continuing to use the E-CAPS products. This common misperception is most likely our own doing since E-CAPS' literature places so much emphasis on achieving peak performance, setting PR's and other benefits associated with the competitive season. The truth of the matter is that E-CAPS now consists of 13 unique products which offer significant benefits that have valid applications well beyond the boundaries of a 4-6 month competitive season. In many cases, you may find these benefits as valuable as the benefits you get from E-CAPS during your competitive season. In fact, a growing number of our cus-

tomers are not even competitive athletes, they take E-CAPS' products purely for health and therapeutic reasons.

While it is theoretically possible that some of you go from maximum stress between April and September to zero stress from October to March, for most of us this is not the case. Sure we are not competing two or three times a month and training like crazy, but more often than not the off season really means just a little less stress or simply different types of stress. Whether it is fall road racing, strength training, cross country or alpine skiing, most of you remain very active in the "off season." On top of that there are the holidays, cold and flu season and so many other time demands. If you stand back and objectively evaluate the demands you place on your body during the off season, most of you will see exactly what I am talking about.

According to the feedback we get from our customers, the benefits you enjoy the most from taking E-CAPS are more energy, less fatigue and a general sense of well being. When it comes to racing, these benefits translate into improved quality and consistency in your day to day training and recovery. But these same benefits are equally applicable to all of the other stresses that you expose your body to. This is why it is a mistake to arbitrarily limit the scope of the benefits to increasing peak performance. Especially when you consider the fact that several E-CAPS products have very strong health and therapeutic applications of their own.

With all of these factors in mind, the question of whether or not you actually "need" to take E-CAPS or which ones to take can only be answered on an individual basis. With the primary products

like RACE, ENDURO, and TRAINING CAPS, many athletes simply take less of them, maybe half dosages three or four days a week and full dosages on exercise or busy days. While others will switch to different products altogether. Here is a brief list of products and suggested off season uses:

RACE CAPS (CoQ10) — Revitalize and rejuvenate every cell in your body with this "miracle" nutrient. This product offers too many health benefits to list. Read up on its benefits and compare prices in health food stores. Then call E-CAPS' because no one sells it for less.

INSURANCE CAPS — The most economical high potency vitamin mineral supplement, plus a full amino acid profile. Also the freshest formula you will find, never more than 6 weeks out of production.

CHROMEMATE — Improve insulin function, metabolism of fats, carbohydrates and protein. Increase lean muscle mass and strength.

BORON — Naturally increases hormone production, increases calcium absorption. Banish brittle bones and get stronger too.

XOBALINE (Cobamamide, Coenzyme B12) — Some of the benefits associated with B12 include improved concentration, memory, and balance, relieved irritability, and better utilization of fats, carbohydrates, and protein. It also accelerates protein biosynthesis, tissue regeneration, muscle growth, and red blood cell production.

Now that you have more of the facts, you can decide which products, if any, you should use during the off season. If you have any questions about which products would be most helpful for your needs, call (800) 336-1977 for a free consultation. ■

ENERGY SURGE DOSAGE CLARIFICATION

In the previous issue of EN, we had attempted to provide a dosage scenario for athletes competing in Ironman distance events. After talking with a couple of puzzled readers, I realized that the instructions, in terms of the number of bottles and scoops per bottle to be used during an event, were geared towards someone doing about a 9 1/2 hour race. This was a major oversight on my part since very few participants will go that fast.

Up until now, we have given instructions for consuming the product based on a mixed solution. Due to the fact that ENERGY SURGE can be mixed at almost any concentration, this approach has been vexing to say the least. Finally, the idea occurred to me that it would be easier if I just told you how many scoops of powder you needed to consume per hour of exercise and let you decide the concentration of the solution. This way, you can mix it at high or low concentrations depending on your personal preference and the type of event or training you are doing.

In order for ENERGY SURGE to provide you with enough calories to sustain your energy levels during prolonged exercise (2 hours or more), you need to consume 3-5 scoops per hour. This will provide approximately 330-550 calories, 75-120 grams of carbohydrates and 10-15 grams of protein. Depending on how you mix the ENERGY SURGE, you can get this many calories in as few as 8-12 ounces of mixed solution or less. Some athletes are even mixing ENERGY SURGE down to a

paste and eating it out of a food tube like the ones found in camping stores.

The ENERGY SURGE formula has an osmotic balance (meaning it can drain from the stomach without requiring additional fluids to be drawn into the stomach) when mixed at a 2:1 ratio of powder to water. While this ratio is sufficient to allow for proper stomach evacuation, it does not compensate for the fluid loss resulting from exercise. In order

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to prevent dehydration, you will need to consume at least an additional 20-40 ounces of water per hour depending on weather conditions. The higher the heat and/or humidity, the higher your fluid requirements will be. The typical conditions at Kona, for example, would dictate greater than average fluid intake. The best way to determine your exact fuel/fluid requirements is to experiment with various combinations in training. Since it is hard to consume too many calories or too much water, you are really looking to establish minimum and optimum levels of consumption.

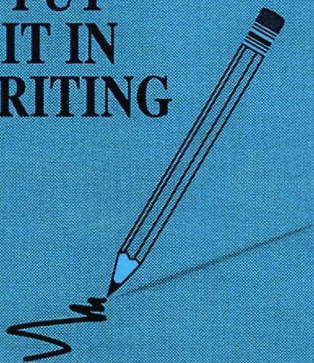
Two primary factors to consider when deciding how to mix and use the ENERGY SURGE solution are the duration of the exercise period and the availability of water during that same period.

When water is going to be plentiful, you can mix the SURGE solution at a very high concentration and then nurse the same bottle for several hours, all the while drinking plain water freely from a separate bottle (and refilling that bottle at regular intervals) to maintain proper hydration. The situations in which water is not so readily available are a little tougher to deal with. This is when you might mix the solution at a much lower concentration so as to be able to combine your fuel and fluid in the same bottle.

For some athletes, the logistics of carrying a liquid fuel source and separate water bottle can make ENERGY SURGE more difficult to use in training than in actual races. This is especially true for runners. However, most of you who have used the product would agree that the benefits far outweigh the drawbacks. In a race, getting enough water is rarely a problem, so all you really have to be concerned with is carrying enough fuel. By experimenting with different mixtures, using the recommended number of scoops per hour and hydration levels as your guide markers, you should be able to find a combination that works perfectly for you. Once you have gotten a handle on that, your fuel and hydration problems are over, and that is saying a lot. ■



PUT IT IN WRITING



So many customers have called our offices to report their success with the ENERGY SURGE drink mix that we have decided to start a scrap book of the comments. Now, all we need is for the athletes who have given verbal testimonials to drop us a note in the mail to the same effect. Of course those of you who have had good experiences with the product but have not mentioned it when calling are also welcome to send in notes about your satisfaction. In order to make this a little fun and give you some incentive, we will randomly select 5 athletes who submit testimonial and send them each a free container of ENERGY SURGE. If you wish to participate, mail your note or letter before December 1, 1994. If you would like to relate your good experiences with any of the other E-CAPS products, we would also love to hear them too. ■

PRODUCT COMPATIBILITY

The question of whether E-CAPS products are compatible with various other nutritional and food supplements has been coming up more and more often in the last several months. Although there are probably several reasons for this line of questioning, it does seem that, with more and more companies vying for finite consumer dollars in the relatively small niche market of competitive endurance sports, some of these companies have adopted the theory that an athlete should use their product to the exclusion of all others. While this position may seem advantageous in the eyes of the company, it is rarely in the best interest of the athlete who is seeking to maximize his or her performance.

The questions usually sound something like this; "Can I take E-CAPS if I am already using xyz nutritional supplement?," or "Will E-CAPS products do me any good since I am already using so and so's nutritional program?" The answer to these types of questions is almost always "yes". The only exception to this is when an athlete, in an addition to supplementing with E-CAPS, takes a separate supplement which is already found in one of our products, such as CoQ10. In that situation, there is still no real conflict, only a duplication, in which case the athlete should simply compare the quality and price of the two products, and make a decision regarding which to use on that basis. In every other case, E-CAPS will tend to have a synergistic reaction with other products. In other words, you will experience greater benefits from other nutritional supplements because you are taking E-CAPS, and vice versa.

The reason for the synergy is that most of the main E-CAPS products, like TRAINING CAPS,

RACE CAPS, ENDURO CAPS, XOBALINE, etc. consist primarily of *micro* nutrients, which enhance cellular metabolism of *macro* nutrients. Almost all other supplements consist of macro nutrients, like vitamins, minerals, amino acids, or the foods from which they are derived, such as carbohydrates and protein. E-CAPS' XOBALINE and a protein supplement like amino acids, protein powder, or the ever popular "metabolic optimizer" are a perfect example of this synergistic relationship.

XOBALINE, cobamamide, is the catalyst for the body's protein biosynthesis process, the process by which your body uses protein components (amino acids) to repair and build muscle tissue. Without adequate protein intake, the cobamamide cannot perform its job effectively, and, likewise, without sufficient cobamamide, your body cannot efficiently use the protein that is coming into the body to repair and build muscle tissue. This same interdependent relationship exists between most E-CAPS products and the whole spectrum of dietary supplements.

One exception is E-CAPS' INSURANCE CAPS athletic pack. This comprehensive vitamin, mineral, and amino acid formula is not unique in terms of its ingredients, which makes the issue of compatibility very easy. If you are already taking a multi-vitamin, you do not need to take the INSURANCE CAPS too. However, you may want to compare this formula to the one you are taking, based on potency, cost, and freshness.

So, if you find a company saying that you should only use its supplements, and that you shouldn't use any other products, give some serious thought to why they are making such claims. ■



HEALTHY RECIPES

Our selections this month are not for the fat-phobic dieters, however they are still probably the healthiest recipes of their kind. This mouth watering salad makes an impressive lunch or light dinner. It is great as an all in one meal or it can also be served with any other light entre such as steamed pasta, fruit salad, egg rolls, etc.

CHINESE CHICKEN SALAD

INGREDIENTS:

- 2 cups cooked chicken breast meat
- 4 cups shredded lettuce or cabbage
- 1 cup bean sprouts
- 1 cup cooked sugar snap peas
- 1 small can mandarin oranges, (drained)
- 1 cup chopped cilantro
- 1/2 cup peanuts or cashews*
- 1/2 cup chopped green onions

* The fat content of this dish can be significantly reduced by decreasing the amount of nuts to 1/4 cup or less.

PREPARATION:

In a small bowl mix chicken meat with about 2 tablespoons of honey sesame dressing (see accompanying recipe), and refrigerate for about 2 hours. In a large bowl combine all ingredients including marinated chicken. Dress lightly with honey sesame dressing. Makes 4 servings.

Nutritional Information Per Serving:

Calories 275
Protein 25 grams
Carbohydrates 14 grams
Fat 11.25 grams

HONEY SESAME DRESSING

INGREDIENTS:

- 3/4 cup seasoned rice vinegar
- 1 1/2 tablespoons of honey
- 1/2 cup light vegetable oil
- 1/4 cup sesame oil
- 2 cloves garlic (minced)
- 1 1/2 teaspoons sesame seeds
- 1 teaspoon soy sauce
- Juice from half a lemon (strained)

PREPARATION:

Combine all ingredients in a container with a secure lid. Shake well and refrigerate over night. Use as salad dressing or marinade. Makes about 16 oz.

Nutritional Information Per Tablespoon:

Calories 65.5
Protein 0 grams
Carbohydrates 14 gram
Fat 1.7 grams



(SQUEEZYS cont'd from page 1)

nately, most of these new knock-offs have added stimulants such as guarana, ginseng and caffeine. Depending on how your body handles stimulants, this could be a bonus or a major drawback. The Squeezy formula does not use any stimulants, which may be one of the reasons that it seems to be better tolerated than most of these new imitations.

The squeeze packets offer many advantages over solid or liquid energy products. They are easy to carry and have new easy open pouches. Consuming a packet at the right time can give you a great late race kick, bring you back from or prevent bonking or get you home when you went a little harder than you planned. They can also be used as an extra source of calories in addition to traditional energy drinks and bars.



Each 1 oz. sachet or packet contains 72 calories with no protein or fat and 18 grams of carbohydrates. The calories come from corn starch (Enzymatic Partial Hydrolysate) and fructose. Aspartame is used as an artificial sweetener and artificially flavored packets are available in lemon-lime, vanilla, banana, peach, strawberry, and pineapple. E-CAPS sells boxes of 10 packets for \$8.95 plus S&H. If you are looking for a store near you that carries them, call Rick Lambert at 800-8-LEPPIN (853-7747). He also welcomes dealer inquiries, so if you know of a running or bike shop that you think would be interested in stocking the Squeezys, just let Rick know and he will forward them all of the necessary information. ■

consumed an unrestricted diet without mineral supplementation. This finding indicates that ingesting so-called athletic drinks is of no special benefit in replacing most of the minerals lost through sweating."

Depending on who you listen to, the "experts" or the energy drink companies, you either need no electrolytes during exercise or lots of them. In reality, depending on several factors, either position or something in the middle may be right for you. Some of the obvious factors are intensity and duration of exercise, heat and humidity and so forth. Some other factors which are not so apparent may be even more important than those just mentioned. As far as I am concerned, the individual characteristics of your body, how it reacts to heat and humidity and the constitution of your diet are truly the crux of the issue. Each athlete's body is unique, including the way that it absorbs, metabolizes and excretes electrolytes. Add to that variances in sodium and potassium intake in any given athlete's diet and the picture starts to come into focus.

At one time or another, most of you have probably endured the effects of excessive electrolyte intake and or electrolyte depletion. In fact, we have had feedback both ways from customers using the ENERGY SURGE. One ultrarunner from Utah believed that much of the problems that he had suffered during ultras was from too much sodium and electrolyte intake. Kerry Strauss related that since he had been using the ENERGY SURGE, with much

less electrolytes, all of these problems had ceased. On the other hand, Richard Gillespie, another ultrarunner who has done over a dozen ultras and marathons using ENERGY SURGE

made an interesting observation based on his experience at Western States this year. Since using the ENERGY SURGE Richard had stopped his normal practice of eating rock salt during ultras. However, this year at Western States, it was very hot and he started feeling very weak about mid way through, he started eating small quantities of rock salt and immediately began feeling stronger and finished the second half of the race feeling very good, all things considered of course.

You have probably noticed that some athletes develop more of a crusty build up on their skin or clothing than other athletes do. These type of athletes are probably going to have much greater sodium and electrolyte needs than an athlete that does not have crusty sweat. Their diet, in terms of sodium intake, may be a key factor, but I believe an athlete's sodium and electrolyte requirements are as unique as their Vo2 max. Like the Vo2 max, electrolyte utilization can be improved through training, but there is always going to be a wide margin in the electrolyte needs of athletes.

For this reason, there is no formula, equation or quick reference chart that can give us the answer to the question at hand.

Trial and error experimentation is the only way that an athlete can determine their own electrolyte require-

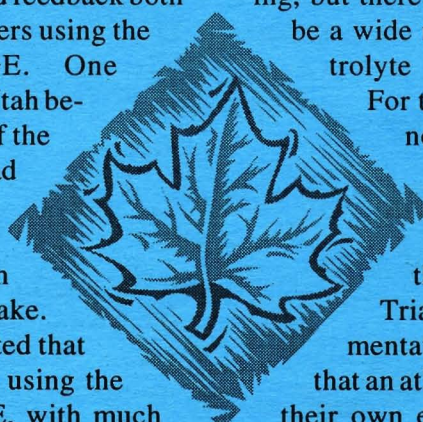
ments for a given race or weather conditions.

The rationale for including electrolytes in ENERGY SURGE is to compensate for short term deficiencies that result from rapid depletion of electrolytic minerals during prolonged exercise periods. Knowing this, E-CAPS designed and tested ENERGY SURGE with the intention of providing an *adequate*, but not excessive, level of electrolytes for most athletes in most weather conditions. Obviously it is much easier for an athlete to add a bit of sodium to a formula than it is to remove it.

If you have experienced the symptoms of electrolyte depletion such as headaches, cramping, weakness, vomiting, etc. during very hot races, are a salty sweater, have a very high dietary sodium intake, and or do races in extreme heat and humidity, you will probably want to do some experimenting by consuming some additional sodium to what the ENERGY SURGE formula provides. In case you are wondering, we have not discussed potassium and the other electrolyte minerals because they are usually not as much of a problem. However, if you are concerned about them, a glass of orange juice or tomato juice will replace as much potassium, calcium and magnesium as would be lost in 7 pounds of sweat. The trusty old banana is also a great source of these minerals.

As I stated earlier, it is difficult to specify exactly how much additional sodium each athlete should add for any given event, but let me throw some figures at you. Recommended daily sodium intake for adults ranges from 1,100 to

(continued on page 7)



NEED A COACH? LOOK IN THE MIRROR

(No computer required)

A personal coach is a luxury that most endurance athletes would kill for. Good coaching provides direction, evaluates performance constructively, and guides athletes toward achieving their goals, which is exactly what the new SUPER Coach Endurance Sports Training System will teach you to do for yourself. The information is presented using a hands-on, step-by-step workbook approach that leads you through all phases of your training regimen. It even comes complete with forms to calculate how much training time and rest time is available based on your schedule and commitments. Unlike most of the current software training programs, SUPER COACH does not spit out pre-planned workouts that you can't keep up with.

Through advanced self-coaching, athletes who have used SUPER Coach system have achieved amazing results which could only be duplicated with a full time personal coach. Now, you can too. By following the SUPER Coach system, you'll develop both as an athlete and as your own coach because it teaches you a logical and scientific way of approaching your whole training program, in terms that are straight forward and easy to understand. This system will remove all of the guess work and gray areas from your training program by teaching you exactly how much, when, and at what intensity to train to reach your stated goals.

SUPER Coach was developed by Mike Llerandi, a competitive triathlete since 1983, including 3

years as a professional (9:22 Ironman), with over 10 years experience in coaching. Mike also graduated with B.S. and M.S. degrees from Stanford University in 1986. The SUPER Coach System represents the distillation of years of research, study AND application in the art of self-coaching.

The system includes the 85 page SUPER Coach Training System Manual, a 52 week Training Diary, plus a full set of Super Coach forms and SUPER Coach semi-annual updates, allowing the system to grow with you and keep you up to date on the latest developments in endurance training techniques. And best of all, your complete satisfaction is guaranteed because the SUPER Coach system comes with an unconditional 90 day money back guarantee. Suggested retail for all three modules is \$59.85 + \$4.00 S&H.

As a special sale offer for E-CAPS customers who call or write, you can become your own SUPER Coach for just \$39.95 + \$4.00 P&H, a \$63.85 value.

For more information or to reserve your copy, call 1-800-336-1977. ■



(ELECTROLYTES *cont'd* from page 6)

3,300 mg per day. Since regular table salt is about 40% sodium, this would equal about 1/2 to 1 1/2 teaspoons. However, it is not uncommon for the average American diet to exceed 4,500 mg of sodium per day, even though the body may need as little as 500 mg per day. So, depending on your needs, for long and or hot races you may want to consume 50-300 mg of sodium per hour of exercise. However in determining your own needs, you should rely almost exclusively on the results of your experimentations.

To add sodium to the ENERGY SURGE drink, you can mix about 1/3 of a teaspoon of ordinary table salt per liter of water (this will give you a 0.1-0.2% sodium solution), then mix that as usual with the powder. Another option is to get some rock salt and simply bring several chips with you on long workouts and periodically eat one. Still another option is a product which I believe is called Thermo Tabs (if anyone knows the manufacturer of this product please let us know) or other salt or sodium tablets. These can be ingested in much the same way that the rock salt would be used.

If you have gleaned anything from this discussion, hopefully you will realize that there is no arbitrary level of sodium or electrolytes that should be found in an energy drink. Nor can an athlete know how much or how little electrolytes they are going to require to meet their body's needs for any given race. Through the trial and error process you should be able to figure out exactly what works for you, and when you do find a product or electrolyte level that works, stick with it no matter what the "experts" or drink mix manufacturers say. ■

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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 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. ■

8

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IN THIS ISSUE:

- **Squeezys**
- **Electrolytes**
- **The Big Question**
- **ENERGY SURGE Dosage Clarification**
- **Put It In Writing**
- **Product Compatibility**
- **Healthy Recipes: Chinese Chicken Salad & Honey Sesame Dressing**
- **Need a Coach? - Look in the Mirror**