

# **NUTRI-SPEC**



THROUGH  
SPECIFIC NUTRITION

89 Swamp Road  
Mifflintown, PA 17059  
800-736-4320  
717-436-8988

Fax: 717-436-8551

[nutrispec@embarqmail.com](mailto:nutrispec@embarqmail.com)

[www.nutri-spec.net](http://www.nutri-spec.net)

## **THE NUTRI-SPEC LETTER**

**Volume 21 Number 6**

From:  
Guy R. Schenker, D.C.  
June, 2010

**“It gives one of my patients so much energy he wants to know if he can take more of it.”**

**“How long before a workout or competition should an athlete take it to maximize performance?”**

**“Is there any reason I can’t give this to all my patients to give them an energy boost?”**

**“Why don’t you make it part of the Diphasic Nutrition Plan so everyone can benefit?”**

Dear Doctor,

Is it Proton Plus? Is it Oxy Tonic? Which of your NUTRI-SPEC supplements has so many doctors buzzing with excitement --- begging to give it to more of their patients --- and --- looking for an excuse to take it themselves? Which of your supplements provides such an incredible array of benefits --- ergogenic benefits, cardiovascular benefits, anabolic benefits, and anti-aging benefits --- that you and only you can offer your patients?

Without exaggeration, your ...

**ELECTRO TONIC ...**

is absolutely ...

**“TOO GOOD TO BE TRUE.”**

How can one supplement:

- have such powerful effects on energy metabolism?
- have such a pervasive normalizing effect on water/electrolyte dynamics?
- provide an anti-catabolic effect by neutralizing free fatty acids that cause devastating free radical oxidative damage?

How does Electro Tonic “give your patients more energy?” (Technically speaking, there is no such thing as “getting energy” from a supplement. Energy is measured in calories, the most concentrated source of energy (9 calories per gram) being fat. So --- the best way to grant the wish of a patient who wants more energy is to give him a tablespoon of butter (which would put him to sleep) or a tablespoon of vegetable oil (which would make him feel rotten). --- No --- “more energy” is not at all what patients want.) The ...

**GLYCEROL ...**

in Electro Tonic increases your patients’ energetic capacity 3 ways. But, it does not perk up a person in the same sense as a stimulant like caffeine. That mid-afternoon slump that comes from eating carbs for lunch will not respond to glycerol as it will to coffee or cola. No, Electro Tonic will increase the potential to exert energy in the performance of a demanding physical or mental task.

A chiropractor adjusting 100 patients in a day? A carpenter framing houses all day in the heat of summer? A college student with 3 final exams today? A surgeon preparing for a 3-hour procedure? --- Any physical or mental challenge of high intensity or long duration will be more effectively faced with the aid of Electro Tonic. Caffeine and other stimulants will only whip the tired horse into heightened performance for a short while (but usually at an expense that does not justify the short-term stimulation).

Electro Tonic, on the other hand, will ...

**ENHANCE BODY AND BRAIN PERFORMANCE ...**

by physiologically feeding 3 energy pathways. Electro Tonic will:

- increase energy through the glycolytic pathway via dihydroxyacetone phosphate
- increase energy via liver gluconeogenesis
- increase energy via the liver and adipocyte phosphogluconate pathway

Glycolytic Pathway: The glycerol in Electro Tonic serves as an energy substrate for the glycolytic pathway that ultimately feeds the Citric Acid Cycle. This glycolysis to Citric Acid Cycle is the primary energy factory of the body. It is deficient in all your patients who are Dysaerobic, Glucogenic, or Ketogenic.

Gluconeogenesis: The liver is responsible for cranking out glucose in times of increased demand. We all need efficient liver gluconeogenesis to meet physical and mental challenges --- and your Glucogenic and Parasympathetic patients have an almost constant need for gluconeogenesis. Glycerol facilitates liver gluconeogenesis to meet peak demand.

Phosphogluconate Pathway: I would bet you do not even remember studying the phosphogluconate pathway of energy production in your physiology courses. “The what?” you say. --- I thought so. As a conscientious student you may have memorized the pathways for anaerobic glycolysis, for the Citric Acid Cycle, and for beta hydroxybutyrate catabolism of fats, thus thinking you knew the essentials of human energy production. So you may be surprised to learn that the liver --- arguably the most important organ --- derives fully 30% of its energy from the phosphogluconate pathway. Fat cells produce an even higher percentage of their energy via the phosphogluconate pathway.

And, what feeds phosphogluconate metabolism in the liver and adipocytes more directly than any other nutrient? --- Glycerol.

So, Electro Tonic “gives you energy” in three essential physiological (not stimulatory) ways. But --- don’t over-eat carbs, and cut yourself short on sleep, then tell me, “I tried Electro Tonic and it didn’t give me more energy.” However, if you want to maximize the efficiency of energy production to enhance your performance capacity ---

### **ELECTRO TONIC WILL MAKE YOU ALL THAT YOU CAN BE.**

But its 3 powerful effects on energy metabolism are not the only, not even the principal, means by which Electro Tonic will pump up your

patients. Electro Tonic derives its name from the way it powers the body via electrolyte and water distribution. Electro Tonic will:

- hyper-hydrate and permeate all 3 body fluid compartments --- the blood, the interstitial fluid, and the intracellular fluid
- disperse essential electrolytes throughout all 3 body fluid compartments
- conserve mineral nutrients by increasing the kidney's medullary concentration gradient
- increase perspiration rate and decrease temperature elevation during exercise

Electro Tonic, you see, is the difference between feeling like a deflated balloon and feeling fully pumped up and bursting with power.

We have covered the 3 mechanisms by which Electro Tonic enhances energy metabolism; we have described its pervasive normalizing effect on water/electrolyte dynamics. There is a third benefit your patients derive from Electro Tonic --- its ...

### **ANTI-CATABOLIC/ANTI-AGING EFFECTS.**

Lipid peroxidation is one of the major mechanisms of aging and tissue destruction. The glycerol in Electro Tonic neutralizes free fatty acids. Recall the molecular structure of glycerol --- that it is the backbone of triglycerides. In other words, every glycerol molecule has 3 binding sites for free fatty acids. Picture glycerol molecules permeating the blood, the interstitium, and the intracellular fluid --- each acting as ...

### **A RAVENOUSLY HUNGRY PAC-MAN ...**

gobbling up 3 free fatty acid molecules. Over the long term, glycerol gives significant protection against devastating free radical oxidative damage.

To enhance your appreciation of glycerol --- the principle nutrient in Electro Tonic --- look at the tremendous boost glycerol gives to the performance of endurance athletes such as marathon runners and triathletes. One of the key benefits from glycerol supplementation is hyper-hydration. Hyper-hydration is important to many of your patients, and the beneficial effects are most evident in the improved performance of endurance athletes.

When glycerol is ingested, it is rapidly absorbed from the small intestine, then evenly distributed among all 3 body fluid compartments (The only tissues not hyper-hydrated by glycerol are the cerebrospinal fluid and the aqueous humor.) Glycerol promotes hyper-hydration by inducing an osmotic gradient. Ingesting 1.2 grams of glycerol per kilogram of body weight increases serum osmolality by more than 10 milliosmols, with absolutely no hemolysis nor hemodilution. Through an increase in the kidney's concentration gradient, water absorption in the kidneys is enhanced, which decreases urine volume, preventing precious water from being lost.

A study by Nelson published in Sports Medicine in 2007 showed that hyper-hydration from glycerol supplementation results in:

- elevated perspiration rate during exercise
- decreased temperature elevation during exercises
- no changes in hemoglobin, hematocrit, or serum electrolyte concentrations

In other words, water and electrolyte dynamics are thoroughly upregulated in performance despite the challenges of strenuous exercise.

A study by Monter published in the International Journal of Sports Medicine showed that hyper-hydration with glycerol decreases heart rate during endurance exercise, while decreasing rectal temperature, and prolonging endurance significantly. So --- yes, all your patients who participate in any form of endurance training should be supplementing regularly with Electro Tonic.

Other studies show that improved triathlon performance in the heat results from glycerol supplementation, and that the benefits of glycerol supplementation are greater on hot versus warm days. In other words, the more the body is stressed, the more apparent are the benefits of Electro Tonic.

Now, here is a fascinating piece of information on the Electro Tonic benefits to your exercising patients. While Electro Tonic/glycerol keeps the heart rate lower during endurance exercise --- which is a tremendous boost to performance --- it actually causes a higher heart rate during high-intensity short-duration exercise. Imagine that! Electro Tonic pumps up your patients' performance whether they are doing high-intensity short-duration exercise as NUTRI-SPEC recommends (--- Grizzly Bear Interval Training and Grunt and Growl Strength Training), or, for patients who have chosen to compete in low-intensity long-duration running, swimming, or cycling.

The physiological effects of glycerol are truly amazing. But --- is glycerol the only nutrient in Electro Tonic? No --- we have also added ...

### **JUST A WEE BIT OF MAGIC.**

Magic? Yes --- as if the effects of glycerol were not magical enough, we have added just enough negative valence sulfur (just as you find in Oxy Tonic) to add yet one more ...

### **METABOLIC SPARK.**

The negative valence sulfur serves an additional purpose besides being one more enhancement of efficient oxidative metabolism. It protects those patients who are extremely Anaerobic from being pushed too far such that Anaerobic symptoms are exacerbated, by alkalizing at the tissue level and acidifying at the systemic level. The negative valence sulfur protects from too much of a good thing, so that Electro Tonic is an appropriate supplement for almost everyone.

Almost everyone? Yes, almost. There a few patient for whom Electro Tonic is contraindicated.

- patients with seizures
- patients with congestive heart failure
- patients with cancer
- patients with an unresponsive Anaerobic test pattern accompanied by Anaerobic pain, vertigo, or allergies

With just those few contraindications, Electro Tonic will benefit most anyone who must rise to meet extraordinary physical or mental demands. Your QRG Analysis gives you the best ways to use Electro Tonic within the context of your NUTRI-SPEC testing system. Athletes, of course, are the most obvious category of patients who need Electro Tonic, but many others who live a high intensity lifestyle will benefit as well. Just remember --- Electro Tonic will not give pep to the guy dragging through his workday in a sleep-deprived, carbohydrate-saturated stupor. Use Electro Tonic wisely --- remaining ever cognizant of NUTRI-SPEC principles --- and you should have a lot of fun with this supplement.

Guy R. Schenker, D.C.

P.S. To help you really put Electro Tonic to the test, we will offer a special through the end of this month --- giving you 2 **FREE** with every 10 you buy.