

NUTRI-SPEC



THROUGH
SPECIFIC NUTRITION

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

Fax: 717-436-8551

nutrispec@embarqmail.com

www.nutri-spec.net

THE NUTRI-SPEC LETTER

Volume 22 Number 1

From:
Guy R. Schenker, D.C.
January, 2011

TONIC – anything that physically or mentally invigorates or strengthens

Dear Doctor,

I don't know about you, but I could use some invigoration right now. And, to face the coming week's grueling schedule I would definitely benefit from a boost to my strength.

How about you?

WOULD YOU LIKE TO ADD A LITTLE BOUNCE TO YOUR STEP?

What about your patients? How many are pleading with you to give them more "energy?"

Is there a magic elixir that will pump up you and your patients to your full performance potential? How about caffeine? How about one of the other herbal drugs?

You are about to learn even more about the incredible invigorating and strengthening effects of your ...

ELECTRO TONIC.

Call it ELECTRO INVIGORATOR; call it ELECTRO POWER. --- Think of your ELECTRO TONIC as two ingredients perfectly blended --- a metabolic booster, and a metabolic spark. The booster is glycerol and the spark is sulfhydryl.

There are three distinctly different yet physiologically integrated mechanisms by which glycerol facilitates energy production:

- Glycerol facilitates the glycolytic pathway by conversion to dihydroxyacetone phosphate, and then through the rest of the glycolytic pathway ----- glycolysis ----- you do not want too much of it, but it is the ideal way to grab an energy boost when Krebs Cycle ATP production is just not enough
- Glycerol facilitates gluconeogenesis in the liver ----- gluconeogenesis ----- flooding your body with easily burned fuel just when you need it
- Glycerol facilitates the phosphogluconate energy pathway in the liver and fat cells ----- the phosphogluconate pathway ----- on which your liver relies for 30% of its energy needs, and which adipose cells use to bring fat out of storage

We are using the word “facilitate,” and it is very important for you to understand that facilitate means something altogether different than stimulate. People who are bursting with power with Electro Tonic, and athletes who find it essential for their training and competition, are not receiving stimulation as they would if taking a drug. No, Electro Tonic facilitates flow through the critical energy-producing pathways. Energy is much more accessible on demand, and by entirely natural means.

But energy production is only half the explanation for the seemingly miraculous responses to Electro Tonic. We have called Electro Tonic ...

THE ULTIMATE ADAPTOGEN ...

because even as it facilitates energy efficiency, it also facilitates the flow of biologically active water and electrolytes through all 3 body fluid compartments. Electro Tonic literally “pumps up the volume” to and through every cell of the body. The amazing performance-enhancing effects on athletes are probably due even more to glycerol’s enhancement of fluid dynamics than its energy facilitation.

And --- never forget --- as Electro Tonic increases your performance capacity --- increases your personal power --- allowing you to perform at your highest level --- it is quietly yet efficiently performing its 3rd function

--- as an antioxidant blocking the oxidative damage done by fatty acid-derived reactive oxygen species.

Can you imagine --- there are still other benefits that you and your patients are deriving from Electro Tonic? --- Here is a big one. Revici demonstrated that glycerol ...

PREVENTS CORONARY OCCLUSION/THROMBOSIS.

It acts similarly to an anti-coagulant, but without the danger of a general reduction of blood coagulability since its action is only at the level of the occlusive lesions. Most of you will recall that for years we gave you a supplement called Formula EW. It was a glycerol-containing formulation used routinely for patients with Electrolyte Stress, largely with this thrombosis-preventing effect in mind. Formula EW is now replaced by Electro Tonic.

“Wait a minute!” is your likely immediate response. “If Electro Tonic has ...

AN ANTI-THROMBOSIS EFFECT THAT CAN POTENTIALLY SAVE THE LIVES OF MY ELECTROLYTE STRESS PATIENTS ...

and, if it replaces Formula EW, then why does Electro Tonic not appear on my QRG supplement selection page for my Electrolyte Stress patients?”

There are 2 reasons why specific recommendations for Electro Tonic do not appear on your Electrolyte Stress supplement page. First, while we recognize the protective effect of Electro Tonic on all your Electrolyte Stress patients, we have come up with no objective means to determine the quantity that should be supplemented for each individual patient. We simply have not been 100% certain how much is enough, or how much could potentially be too much. NUTRI-SPEC is all about objective testing, and we hesitate to sell you and your patients anything whose benefits we cannot quantify.

The second reason we have not added Electro Tonic to your menu of Electrolyte Stress supplements is because we are ultra cautious as regards the safety of your patients. You see, there is some evidence in Revici’s work on glycerol indicating that it in patients who are deficient in usable magnesium, calcium, or potassium, glycerol can exacerbate extrasystoles (either pre-ventricular or pre-aortic contractions). We like to think that any patient who is on NUTRI-SPEC has nothing to worry about in terms of a quantitative deficiency of these macro minerals, and with NUTRI-SPEC’s balance of body fluid pH and enhancement of

membrane permeability, there is no qualitative deficiency of these minerals. But --- just believing it is so does not make it so, and we have not been willing to take any chances with the safety of your patients. But now, after a year of observing hundreds of patients supplemented with Electro Tonic, we are confident that you can add 2 tablespoons of Electro Tonic to the Electrolyte Tonic given all your Electrolyte Stress patients except for, those who display obvious extrasystoles.

Write it down: Do not hesitate to give Electro Tonic to all your Electrolyte Stress patients, and you will be quite pleased with the response if you do.

“To all my Electrolyte Stress patients?” you ask. Yes, absolutely. Recall that one of the fundamental mechanisms of Electrolyte Stress --- putting an increased demand on both the heart and the kidneys --- is the potential for flocculation of body fluids. Glycerol will, though by a different mechanism, work similarly to the dispersing agent potassium citrate in minimizing the potential for pathological coagulation. Also note that Electro Tonic (like potassium citrate and other NUTRI-SPEC dispersing agents) is quite fine to use even with patients who are on blood thinning medication.

But ----- when we say use Electro Tonic for all your Electrolyte Stress patients, we have in mind not just its protective effect against coronary occlusion, but yet another mechanism by which Electro Tonic protects your patients with cardiovascular disease. Glycerol increases the production and release of atrial natriuretic peptide (ANP), a cardiac hormone that:

- increases capillary permeability
- increases vasodilation
- increases the kidneys' ability to eliminate excess sodium
- decreases aldosterone
- blocks angiotensin II and renin

Wow!!! Glycerol supplementation elicits all these beneficial effects of ANP on the cardiovascular-renal system, and even while increasing serum osmolality, it decreases plasma renin. Electro Tonic is therefore perfect for all your Electrolyte Stress patients that fall into the ES (R+) (excess renin) category, but (amazing as it may seem) is also perfect for all your ES (R-) Electrolyte Stress patients who are deficient in natriuretic peptide and therefore retaining excess sodium.

Think again of our definition of adaptogen. An adaptogen does not do anything to a patient; it allows the patient to do whatever he has been

unable to do on his own. An adaptogen like Electro Tonic is an all-purpose tool any patient can use to meet his own individual requirements. These vasodilating and kidney hormone modulating effects are perfect examples. While in most people, and certainly those who are intensely engaged in physical or mental activity, glycerol pushes water and fluid into the muscles, into the heart, through the liver, and so forth. Yet, in patients with Electrolyte Stress, this amazing adaptogen pushes fluid and electrolytes to the kidneys. So --- instead of pumping up the volume it actually corrects the tendency to hypervolemia in these patients at risk for cardiovascular disease.

One quite interesting effect of glycerol supplementation is that it often will decrease hearing loss, and does so either directly, or indirectly by mobilizing ANP.

[Plasma level of atrial natriuretic peptide following oral glycerol administration. Lauprecht J; Plum J. Alryngorhinootologie 1990.]

Other benefits from glycerol supplementation associated with its role in fluid dynamics include:

- relief for trigeminal neuralgia
- decreased ocular pressure (glaucoma)
- decreased brain edema

What else can we say about Electro Tonic? --- It tastes sweet. In fact, glycerol is 60% as sweet as sucrose, and so, Electro Tonic works quite well as a sugar substitute. It is not a low calorie sugar substitute (it has 27 calories per teaspoon), but --- the nice thing about using Electro Tonic as a sweetener is that not only are you getting all its physiological benefits, but you get the sweet taste without the increase in blood sugar that comes from using sucrose, nor the potential hypoglycemic effect from eating sugar. Another benefit of using Electro Tonic as a sugar substitute is that, unlike sugar, it does not feed the bacteria that cause dental plaque and cavities.

There is still more to say about glycerol's adaptogenic power: Administering glycerol plus dilute amino acids improves nitrogen metabolism postoperatively more than supplementing with amino acids alone. In other words, glycerol has an amazing anabolic effect. Similarly, prior feeding with glycerol spares protein in fasting animals. These protein anabolic effects of glycerol are particularly beneficial for patients who have been too sick to eat and thus in a catabolic state, and, for athletes who have over-trained.

[And never forget --- What is the one amino acid that is more important than all the others in reversing catabolism associated with fasting, illness, over-training, or injury? --- Glutamine. --- Use it for your patients who need anabolic support, along with Electro Tonic, of course.]

To illustrate just how critical glycerol is to a myriad of physiological functions, consider that every cell in the human body is equipped with aquaglyceroporins. Aquaglyceroporins are channels that allow the movement of water and glycerol and urea across cell membranes. Every type of cell has its own cell-specific aquaglyceroporin --- so, for example -- AQP7 is fat-cell specific, and AQP9 is liver-cell specific. AQP7 and AQP9 are intimately associated with glycemic control and obesity, and Type II diabetes.

But the aquaglyceroporin that we want to discuss now is AQP3. AQP3 is a glycerol channel through epithelial cells. When AQP3 is deficient, there will be dry skin and decreased skin elasticity, as well as impaired epidermal biosynthesis. Since glycerol is essential for the synthesis of skin oil, a deficiency of AQP3 slows lipid biosynthesis in the skin. So, AQP3 deficiency causes dry skin both by limiting hydration and by decreasing oil production. However, AQP3 deficiency also causes intercellular edema of the skin in eczema and in hyperplastic epidermis and other forms of dermatitis.

I think you can appreciate that the most important ingredient in any skin lotion you purchase is glycerol. Read the label, and if glycerol is one of the first 3 ingredients read on; if it is not, then reject the product. But here is what you really need to know regarding glycerol and vibrantly healthy skin ---

ORALLY ADMINISTERED GLYCEROL ---

corrects all the effects of AQP3 deficiency, including impaired stratum corneum hydration, deficient skin elasticity, and impaired barrier recovery after stratum corneum removal. --- So yes --- slopping glycerol skin lotions on your skin is beneficial, but ...

FEED YOUR SKIN ...

with Electro Tonic.

Invigorate. Strengthen. Pump up the volume. Protect from coronary occlusion. Decrease kidney hormone stress. Increase heart hormone output. Rejuvenate your skin. --- with 2 tablespoons of ELECTRO TONIC every day.