

NUTRI-SPEC



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THE NUTRI-SPEC LETTER

Volume 13 Number 2

From:
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February, 2002

Dear Doctor,

We NUTRI-SPEC practitioners spend so much time laughing at the inept and dishonest health food industry, that we should make a special attempt to give these quacks due credit when they happen to get it right. And get it right they did with respect to glucosamine. Just as all the literature in the health food store says, and just as all the propaganda pushed on you by the pill peddlers claims, glucosamine is the number one most critical substance for building strong connective tissue. And yes, it can even be said that glucosamine is “good for” arthritis.

The truth is, there have been so many dozens upon dozens of scientific studies showing the benefits of glucosamine supplementation (in oral doses that are not only effective but convenient and inexpensive to take), even the nincompoops in the health food industry couldn't blow it. Or could they?

The whole truth is far beyond the limited comprehension of your ordinary vitamin pill peddler.

What you are about to hear is the complete story on both glucosamine and chondroitin sulfate, the final two nutrients for discussion from your Diphasic Nutrition Plan supplements. You are about to read of the amazing diversity of beneficial effects to be obtained from these two nutrients. Once you realize the true powers they have to strengthen and protect your patients, you will shake your head in disbelief that the natural food industry could relegate these two wonder workers to the status of mere arthritis remedies.

Yes, you will indeed be delighted to learn how glucosamine and chondroitin sulfate empower your patients in response to the stressors of life.

First consider glucosamine. The nutrition establishment would have you thinking of this substance as nothing more than a raw material that forms a critical structural component of cartilage and other connective tissue. In other words, they give you a mental image of the glucosamine being swallowed, digested, circulated through the body to damaged or degenerating joint structures, then being deposited there as a purely structural component.

That is an accurate picture of what happens, but only a partial picture. You see, glucosamine has functional roles that dwarf its structural role in importance. We are indebted to Revici for doing much of the critical early research on glucosamine. After studying Revici's work, and meeting with him and his associates, and sharing several patients with him, I became so excited about the functional role of glucosamine that I was desperate to put it in the NUTRI-SPEC supplement line (which I was just developing at the time – this was in the early 1980s). Frustrated, however, I ran into a brick wall. I was informed by all nutrient suppliers that glucosamine was unavailable for nutritional supplements – that it was not on the Generally Regarded As Safe List. I was crushed. I wanted glucosamine to be a keystone of both our Activator and our Oxy D.

Then, a few years later someone who apparently had a lot more clout in the industry than I did came out with a glucosamine product, and promoted it with all the literature available at the time supporting glucosamine for its important role in connective tissue integrity. Almost overnight, every pill peddler jumped on the bandwagon, and glucosamine products were the flavor of the month for quite some time. Since the nutrient is truly valuable, it has remained popular (unlike most health food industry fads) in all the years since. In fact, its popularity has continued to gain. And, as you know, as soon as the price became within reach, it was added to your NUTRI-SPEC products.

Happily – because of the pioneering work of Revici – we NUTRI-SPEC practitioners are able to take full advantage of the functional anti-catabolic effects of glucosamine. Revici showed first of all that glucosamine is functionally important in association with adrenal hormones. We all know that pharmacological doses (such as in cortisone shots and in prednisone therapy) of adrenal corticosteroids have a powerful anti-inflammatory effect, but, also cause the destruction of connective tissues. Glucosamine can be thought of as a regulator of adrenal corticoid function. It works to maintain physiological quantities

of adrenal corticoids precisely when and where they are needed, for their anti-inflammatory affect and for their anti-catabolic affect, without ever allowing an excess to build up that would actually cause the opposite – a destructive catabolic effect.

So you see, we know from Revici's work that glucosamine does not just strengthen connective tissue in a structural sense, but strengthens by protecting connective tissues against inflammation and against catabolic stress.

But the adrenal anti-inflammatory connection is not the only important metabolic affect of glucosamine. Glucosamine is also a major contributor to adrenal regulation of sugar metabolism. As you should easily imagine from its name, glucosamine has a sugar (glucose) as an integral part of its molecular structure. Revici described (and I must admit, the biochemistry is a bit over my head) how glucosamine regulates sugar metabolism, and in particular the metabolic balance between sugars and fats, both in terms of caloric utilization and in terms of their structural incorporation into tissue membranes.

We can think of glucosamine as a traffic cop stationed at a critical juncture of many important metabolic pathways – directing steroid metabolism, and fat and sugar metabolism, to optimize metabolic efficiency and to maximize resistance against the forces of aging that would deplete vital reserves. We can all be very pleased to offer glucosamine in our Diphasic A.M. that we give patients each morning as part of the Diphasic Nutrition Plan.

Now let us consider chondroitin sulfate. Chondroitin sulfate is the patriarch of the family of compounds that once were known as mucopolysaccharides, and which have more recently been re-named glycosaminoglycans, or GAGS. It is even more absurd with chondroitin sulfate than with glucosamine that the health food industry has pigeon holed it as an arthritis remedy when that is only one of many (and not nearly the most important) beneficial effect it offers.

Far more important than its role in the connective tissue of joints is the power of chondroitin sulfate to maintain the functional integrity of the cardiovascular system. We have written on chondroitin sulfate many times in these Letters because it is at the top of the list of ingredients in the Formula ES that you give your Electrolyte Stress patients. Just a few of the many benefits chondroitin sulfate confers on the cardiovascular system include:

- CS helps maintain arterial elasticity. (Remember, arteries are largely connective tissue.)

- CS retards the arteriosclerotic and aging processes within the arterial wall.
- CS also possesses lipid clearing activity. It lowers cholesterol and triglycerides, and it normalizes the ratio between HDL, LDL, and VLDL. Most importantly, CS clears lipids not just in the serum but from within the cells as well.
- CS supplementation has also been shown to significantly reduce angina in patients with cardiovascular disease.
- CS has been found to protect against thrombus formation.
- The most striking statistic regarding CS supplementation shows that in cardiovascular disease patients treated with CS, the likelihood of having a myocardial infarct, suffering coronary insufficiency or myocardial ischemia, or developing congestive heart failure, is only 1/6 of that reported for control patients who receive no CS supplementation.
- It gets even better – the institute for Arteriosclerosis Research reports experimental studies showing that CS not only prevents, it actually accelerates regression and healing of coronary and aortic atherosclerosis.
- CS not only clears lipids at the cellular level, but also stimulates cellular metabolism, increases turnover of fatty acids at the cellular level, and increases RNA and DNA synthesis in tissue cultures.

The mechanism by which CS works all these wonders on the cardiovascular system has nothing to do with its structural importance to connective tissues. What CS actually does is (at the molecular level) maintain and protect the electro-negative colloidal properties of the body fluids. Once the electronegativity of body fluids begins to drop (which happens in association with excess electrolyte load as well as in response to overwhelming oxidative damage), tissue destruction ensues, which in turn further decreases electronegativity, and precipitates further tissue destruction, and so on, in a vicious circle.

You see, CS is a polyanionic component of cell walls and intracellular and intercellular fluids. The ionic exchange properties of CS are involved in the transfer of electrolytes and nutrients through cell walls. CS occurs in the organic matrix of connective tissue throughout the body.

This effect of CS to maintain normal biological membrane polarity and thus normal permeability, shows up in kidney function as well. One impact of CS on the kidneys is to help the kidneys eliminate excess sodium build up. The second interesting fact about CS as it relates to kidney function is that CS is very effective at blocking the growth of kidney stones.

In its now popular role as an arthritis cure, chondroitin sulfate (as well as glucosamine) does decrease the pain and inflammation of arthritis. Furthermore, this is not simply a matter of symptomatic relief, as the CS actually halts the progression of the arthritic degeneration, and even reverses it in most cases. One important aspect of the CS impact in joints suffering from osteoarthritis is that it increases the synovial hyaluronic acid of these joints.

But to further illustrate the diversity of the beneficial effects to be obtained from CS associated with its impact on body fluid and tissue membrane polarity, consider the following:

Chondroitin sulfate has been shown in studies on mice to be effective in decreasing motor neuron disease.

Chondroitin sulfate has been shown to regulate mammary gland development. CS is active in controlling the proliferation, the differentiation, and the involution of breast tissue. It may be that it has its effects on breast tissue by potentiating the benefits of progesterone, or by opposing the damaging effects of estrogen.

CS is also an important activator of the immune system. In particular, macrophage function is enhanced by CS supplementation.

Last, and certainly not least, chondroitin sulfate has shown amazing power as a – you guessed it – antioxidant. Particularly in oxidative damage associated with copper and iron, CS has shown a protective effect. Iron is perhaps the most ubiquitous participant in the oxidative damage associated with aging. Brain aging is almost by definition the accumulation of iron compounds in neurological tissue. All the lipofuscin pigments found in skin and connective tissue and associated with aging are iron compounds. CS supplementation is a valuable protectant against these iron-associated components of aging.

We have now completed our discussion of all nine ingredients in your Diphasic A.M. and Diphasic P.M. supplements, and highlighted in detail the spectacular metabolic impact each of those nine nutrients can have. Now, stop to appreciate that you are offering all nine of these miracle

workers to your patients in two convenient products that are unmatched in their ability to increase your patients' adaptative capacity by ...

**SUPER CHARGING THEIR VITAL RESERVES
BY PUMPING UP THE AMPLITUDE
OF THE DIPHASIC METABOLIC CYCLE.**

Now consider further that you can offer your patients these long term protectors against pathological aging processes accompanied by the powerful immediate metabolic activators Oxy A+ and Oxy D+. Now consider further that you can administer your two anti-aging nutrients, plus your two engines of metabolic activation, in perfect coordinated timing with the normal diphasic metabolic cycle, so as to maximize efficiency.

To summarize once again how this diphasic plan will empower your patients: If you are a healthy person, anti-anabolic forces are mobilized in the morning as part of the diphasic cycle, while forces defending you against catabolic stressors are mobilized in the evening, and operate throughout the night. As long as the amplitude of your diphasic cycle swings to near the complete physiological limit of each of the two phases, then you are defending effectively against both catabolic and anabolic stressors.

Under these conditions, the effects of aging, with the insidious development of both anabolic and catabolic pathologies is delayed. Diphasic A.M. (Go Power) plus Oxy A-Plus in the morning, are your champions in defense against pathological hyperplasia. And, Diphasic P.M. (Oxy Power) along with Oxy D-Plus are your impenetrable shield against pathological disintegration.

Remember, every one of your patients past age 32 needs the protection and the increased adaptative capacity only you can give with your Diphasic Nutrition Plan – and all your patients over 50 need it desperately. You can be a chump and let them continue to throw money away on health food garbage, (and you know they do) or, become a hero by protecting them against pathological aging. Science is on your side.

Sincerely

Guy R. Schenker, D.C.