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THROUGH SPECIFIC NUTRITION
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THE NUTRI-SPEC LETTER

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From:
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Dear Doctor,

CLICK! CLICK! CLICK! CLICK!

With less than 2 minutes invested online, I came up with 1,276 studies demonstrating the antioxidant power of coenzyme Q-10, 489 studies specifically highlighting its protective effects on the cardiovascular system, and 186 studies explaining the role of coenzyme Q-10 in mitochondrial electron transport for cellular energy production. Why am I searching Medline for information on the benefits of Co Q-10? Because in the incomparable combination of mixed tocotrienols, mixed tocopherols, lipoic acid, and coenzyme Q-10 that constitute your …

OXY POWER ---
THE MOST POWERFUL ANTIOXIDANT ANYWHERE ---

Co Q-10 is the one nutrient for which we have not provided many references from the scientific literature explaining its powerful biological activity. So now, shall I list for you more than a thousand citations from the literature? No, for the same reason I have not referred to all these studies in past descriptions of OXY POWER. Co Q-10 has been so heavily hyped by the health food industry that you have already heard all the stories about how it enhances cellular energy, protects the heart, and so on, and so on. For once, the natural food industry hype is right on. You and most of your patients have been aware of the exciting possibilities in Co Q-10 supplementation for up to 20 years.

Now, since we spent 7 months revealing the frightening truth about the oxidative damage and premature aging resulting from EPA, DHA, and ALA, it is time for you to become equally informed about the

antioxidants that protect us against the catabolic damage of fish oil and vegetable oil. Just as you were given many, many references from the scientific literature supporting you as you take a stand in defense of your patients against the oil propaganda machines, you need equal scientific support for your use of OXY POWER as the major means of increasing adaptative capacity in all your patients. Let there be no doubt that you have the power to …

PROTECT YOUR PATIENTS TWICE ---

first by getting them off all PUFAs, and second by providing them an impregnable fortress against pathological aging. In last month's Letter we re-emphasized the unique antioxidant power of the delta tocotrienol in your OXY POWER --- to be certain you realize, and make your patients realize, that you are likely your patients' only source for this rare and special nutrient. This month we will give you a complete understanding of coenzyme Q-10, showing its benefits in:

- quenching free radicals
- increasing biochemical energy production
- preventing myocardial failure
- improving cardiac response to exercise
- lowering high blood pressure
- reducing angina
- preventing arrythmias

Consider our equation representing the essence of NUTRI-SPEC:

ADAPTATIVE CAPACITY = METABOLIC BALANCE + VITAL RESERVES

As a NUTRI-SPEC practitioner your goal is to take a patient-specific rather than a disease-specific approach to clinical nutrition. You are not so much interested in treating the endless list of symptoms and conditions presented by your patients as you are in increasing their adaptative capacity. With individualized nutrition, your patients gain the personal power to stop and even reverse pathological processes, enjoying the longest, strongest life possible. The quickest way to have a major impact on your patients' adaptative capacity is to restore metabolic balance through NUTRI-SPEC analysis of the 5 fundamental metabolic balance systems. In the long run, your best way to increase adaptative capacity is by improving vital reserves. By that is meant developing the metabolic power in your patients to resist the ravages of our socially, emotionally, nutritionally, and chemically challenging living environment. Most of the negative influences of our environment do their damage through one of two mechanisms:

1. free radical oxidative damage
2. inhibition of mitochondrial respiration

Some stressors, PUFAs being an excellent example, do damage by both these mechanisms. Improving vital reserves gives us …

PROTECTION ---

protection against both pathological hyperplasia and pathological disintegration, the two processes by which our health is destroyed.

What is the role played by Coenzyme Q-10 in increasing vital reserves? Interestingly, research has shown two mechanisms by which Co Q-10 assists in reversing pathology and maintaining optimum health. Wonder of wonder and joy of joys, the two Co Q-10 mechanisms of action are in direct opposition to the two pathological effects of our environmental stressors listed above. First, we see Co Q-10's ability to increase the amount of cellular energy available to those body tissues that most require it --- the highly metabolically active heart, brain, kidneys, and skeletal muscles. Second, many of the benefits derived from Co Q-10 result from its potent antioxidant effects, as it scavenges free radical oxygen species that cause tissue destruction and premature aging.

From among the nearly 2000 studies showing the therapeutic benefits of Co Q-10 supplementation, let us consider some of the more recent findings that highlight both the antioxidant effects and the mitochondrial electron transport enhancing effects of Co Q-10.

J Nutr Environ Med. 2003;13(1):13-22. A randomized, double blind, placebo-controlled trial of Coenzyme Q-10 in patients with end-stage renal failure. Singh, et al.

These researchers found that Co Q-10 supplementation decreased progression of and even reversed, renal dysfunction in the majority of patients with end-stage renal disease, more than half of whom were able to discontinue dialysis over the course of the 12 week study.

Significantly lower levels of serum creatine and blood urea nitrogen were achieved, as Co Q-10 supplementation allowed greater creatine and urine output. A particularly exciting finding --- and one that applies to all who receive Co Q-10 supplementation, not just those in danger of kidney failure --- is that plasma levels of the antioxidants vitamin E, vitamin C, and vitamin A increased in the subjects supplemented with Co Q-10. Meanwhile, indicators of oxidative stress such as

thiobarbituric acid reactive substances, dienic fatty acid conjugates, and malondialdehyde all fell dramatically. [These end-products of abnormal oxidative metabolism, are the very substances you are measuring with your urine surface tension test.] The significance of this study for our purposes is not that we envision treating patients with renal failure, but rather to illustrate the power of Co Q-10 supplementation. If this amazing nutrient can reverse such severe pathology as end-stage renal disease, can there be little doubt that it will have a major influence on increasing the adaptative capacity of all our patients?

In the paper cited below it was noted that double-blind, placebo-controlled trials have demonstrated the benefits of Co Q-10 in more than 1000 heart patients. Some of those benefits include improved exercise capacity, reduced hospitalizations, and significant improvements in various hemo-dynamic parameters. The paper concluded, "Thus, based on the available controlled data, Co Q-10 is a promising, effective, and safe approach to chronic heart failure."

Biofactors. 2003;18(1-4):79-89. Overview on Coenzyme Q-10 as adjunctive therapy in chronic heart failure. Mortensen.

The same researchers participated in another study examining the changes in serum Co Q-10 levels in response to Co Q-10 supplementation. At the Medical Faculty Hospital in Prague, it was determined that supplementation with 30 milligrams of Co Q-10 daily resulted in an increase in the baseline concentration of serum Co Q-10 of 44 percent. In a group receiving 100 milligrams daily of Co Q-10 supplementation, the increase in serum Co Q-10 was 108 percent. These numbers put into perspective your protocol for giving Oxy Power to your patients. When you prescribe initially a descending daily dose of 10,9,8,7,6,5,4, then 3 as maintenance, you are providing an initial saturation of Co Q-10 (along with the other powerful antioxidants in Oxy Power --- gamma tocopherol, delta tocotrienol, and lipoic acid). Of course, for your patients with advanced pathology you do not descend to the maintenance dose of 3 daily --- you keep them at 4-6 or more daily in divided doses.

There are countless studies, performed all over the world, demonstrating the effectiveness of Coenzyme Q-10 against congestive heart failure, and in preventing secondary cardiac events after patients have suffered an initial heart attack. Following is a study showing the benefits of Coenzyme Q-10 in combating atherosclerosis, increasing survival time, and reducing the risk of subsequent cardiac events in heart attack patients:

Mol Cell Biochem. 2003 Apr; 246(1-2):75-82. Effect of Coenzyme Q-10 on risk of atherosclerosis in patients with recent myocardial infarction. Singh, et al.

These researchers showed that among patients receiving 120 milligrams per day of Co Q-10 for one year after a first heart attack, the treated subjects suffered only about half as many cardiac events, both fatal and non-fatal, than the untreated control group. This study also showed that plasma levels of vitamin E (without any vitamin E supplementation) were significantly higher in the Co Q-10 supplemented group. As in another study cited above, the products of pathological oxidation including thiobarbiuric acid reactive substances, conjugated dienic fatty acids, and malondialdehyde, were lower with Co Q-10 supplementation. Perhaps the most interesting finding in this study was that supplementation with Co Q-10 raised the subjects' high-density lipo proteins (HDL). Low HDL cholesterol (unlike elevated total cholesterol or LDL cholesterol) is a genuine risk factor for cardiovascular disease. Supplementing your patients with Oxy Power is one of the few proven ways to give your patients the protective effects of higher HDL cholesterol.

Co Q-10 supplementation also protects the heart against acute viral myocarditis:

J Cardiovasc Pharmacol. 2003 Nov;42(5):588-92. Antioxidant effects of Coenzyme Q-10 on experimental myocarditis in mice. Kishimoto, et al.

These researchers infected mice with a strain of encephalo-myocarditis virus, then measured the degree of oxidative damage and DNA injury. In the Co Q-10 treated group, survival was three times longer. Co Q-10 allowed a marked decrease in serum creatine kinase, indicating significantly less heart muscle damage. DNA damage was significantly lower in the Co Q-10 supplemented group. The researchers concluded that Co Q-10 supplementation decreases oxidative stress and DNA damage in the myocardium.

With the possible exceptions of magnesium and taurine, there may be no nutrient more important to heart health than coenzyme Q-10. Ensuring myocardial strength, improving cardiac response to exercise, reducing hypertension, preventing angina, correcting arrythmias, and protecting against the hypoxic condition that precipitates myocardial infarct, Co Q-10 is truly a magnificent nutrient.

Boimedical Press. Volume 4, 1984, p. 369. Biochemical and clinical aspects of coenzyme Q-10. Van Gaal, et al.

One last impressive study demonstrating the protective power of Co Q-10: End stage heart failure patients who supplemented with Co Q-10 had a 40% survival rate, compared to a 10% survival rate without Co Q-10.

Proc Natl Acad Sci. 1985, 82, 901-904. Biochemical and myocardial tissue data on cardiomyopathy therapy with coenzyme Q-10. Follers, et al.

While its amazing power to protect against cardiovascular disease is perhaps the most well-researched benefit of Co Q-10, there are many other areas of health maximization where Co Q-10 shines. One of those areas is the protection of patients with muscular dystrophy --- a severely debilitating disease. Muscular dystrophy patients receiving Co Q-10 therapy showed significantly less cytogenic and DNA damage.

Mutogenesis. 2004 Jan;19(1):43-9. Evaluation of cytogenic and DNA damage in mitochondrial disease patients: effects of Coenzyme Q-10 therapy. Migliore, et al.

This study on the power of Co Q-10 to protect muscular dystrophy patients highlights the two edged sword with which Co Q-10 protects your patients. Co Q-10 is at once an antioxidant and a promoter of normal mitochondrial cellular oxidation. It is in the high energy consuming tissues of the body (heart, muscles, brain, and kidneys) where the benefits of Co Q-10 are most easily demonstrated.

We will have much more to say about the efficacy of Co Q-10 supplementation in next month's Letter. Meanwhile, ask yourself if you are giving all your patients the maximum increase in ADAPTATIVE CAPACITY possible. Are you personally enjoying the longevity-promoting benefits of OXY POWER? Are you protecting your family with Co Q-10, delta tocotrienol, gamma tocopherol, and lipoic acid? Are all your patients receiving the best clinical nutrition you can offer --- with OXY POWER?

Much more next month!

Sincerely,

Guy