

NUTRI-SPEC



Live Stronger Longer

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THE NUTRI-SPEC LETTER

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FREE RADICALS = PURE ENERGY!

From: Guy R. Schenker, D.C.
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Dear Doctor,

“Huh?” you ask. “Benefits from Free Radicals? From those nasty Reactive Oxygen Species that I and my patients have for years been combating with antioxidant supplements (--- such as our Oxy Max, the most powerful Free Radical scavenger of all)? ----- And, energy production amplified by Free Radical production?!!”

Yes! Truly --- you body’s energetics depends entirely on Free Radicals. They energize cellular function. They drive your physiology.

THEY VITALIZE YOUR LIFE.

LIVE STRONGER LONGER ---

with your cells powerfully activated by Free Radicals!

It is perfectly appropriate that you challenge my casting a favorable light on Free Radicals --- elevating them to the level of energetic essentials. After all, when I say “Free Radicals” you automatically picture the Oxidative Stress caused by ROS. These are the molecules with an unpaired electron, making them so extremely reactive they are crazy out of control. They do damage to cellular fats, proteins, and above all, DNA. But you must understand, there are both bad Free Radicals and physiologically essential Free Radicals.

Oxidative Stress is entirely pathological. It defines what we Nutri-Spec practitioners term Exogenous INFLAM-AGING. Those ROS, having the metabolic equivalent of Attention Deficit Hyper-Activity Disorder, are bouncing here, there, and everywhere --- causing catabolic oxidative damage to tissues.

What causes these maniacal molecules? It is when cellular oxidation occurs on a lipid molecule that includes in its carbon chain multiple double bonds --- a polyunsaturated fatty acid. This is in contrast to healthy productive oxidation that occurs away from the double bond, thus producing normal Free Radicals.

The “cure” for catabolic Free Radical Oxidative Stress might seem quite obvious. All we need to do is eliminate polyunsaturated vegetable oils from our diet and supplement with antioxidant nutrients. But not only is it not that simple, but making antioxidants a priority can be the equivalent of shooting yourself in the foot. We have made the point repeatedly in recent Letters that excess antioxidant supplementation can actually increase catabolic Free Radical oxidation damage.

How? “Too much of a good thing” with excess antioxidant supplementation, while of some benefit for Exogenous INFLAM-AGING, can actually exacerbate Endogenous INFLAM-AGING. ----- As you may recall, Endogenous INFLAM-AGING is activated by biological clocks at about our 23rd birthday, and initiates an aging pathway that is compounded by excess antioxidants. That Endogenous INFLAM-AGING is typified by ---

REDUCTIVE STRESS.

The clinically valuable information you need to take away from this Letter is that ...

**REDUCTIVE STRESS IS ACTUALLY THE ROOT CAUSE
OF MUCH OXIDATIVE STRESS.**

The corollary to that metabolic truth is that antireductant supplements can be more effective antioxidant supplements than are antioxidant supplements. ----- Yes.

Antireductants have no benefit whatsoever on ROS after they are formed, but rather prevent their formation in the first place. Antireductants so effectively facilitate normal oxidation that they prevent ROS oxidative damage, even though, chemically speaking, they have no antioxidant function at all.

The mistaken assumption is that all things that decrease free radicals are antioxidants, when really many of the things that decrease free radicals are oxidants. One good example is selenium. Even better examples are Thiosulfate (your Oxy Tonic) and Cysteine (NAC from your Activator & Rejuvenator). These are the antireductants you can think of as protecting you against Reductive Stress, but also protecting you from “too much of a good thing” --- the Reductive Stress and consequent oxidative damage from an excess of antioxidants.

You see here one fundamental way Free Radicals can be considered “pure energy”. Consider your most powerful oxidant nutrients --- the anti-Anerobic mitochondrial activators Thiosulfate, Selenium, and NAC. These are three powerful pro-oxidants --- which makes them effective antireductant nutrients. But their antireductant effect normalizes mitochondrial oxidation, so they intervene in cellular metabolism in favor of more efficient energy production, and producing normal Free Radicals, rather than pro-INFLAM-AGING Free Radicals. They thus pump up cellular energy production.

The true antioxidants include the powerful combination you find in your Oxy Max. The combination of Tocopherols, Tocotrienols, and Co-Q 10 is your most effective weapon against Oxidative Stress and Exogenous INFLAM-AGING once the damaging Reactive Oxygen Species have been formed. They are your best nutrition support for children, adolescents, and young adults.

These nutrients are properly called antioxidants because they are Free Radical scavengers --- clearing out the products of abnormal oxidation, even though they do nothing to prevent the formation of those wild and crazy electrons. But with antireductant supplementation, you are in a sense addressing the specific cause of Oxidative Stress = inefficient energy production.

Yes, Reductive Stress is actually the root cause of much Oxidative Stress.

What is the cause of Reductive Stress?

There must to be an initiating event that pushes a cell into Reductive Stress, which, from a metabolic standpoint, means it increases the level of NADH --- in particular the level of NADH with respect to NAD⁺.

Common initiating events are:

- Eating Fructose
- Eating vegetable oils (= HOHUM PUFAs = Heated, Oxidized, Hydrogenated, Un-Metabolizable Poly-Unsaturated Fatty Acids)
- Exposure to mold toxins
- Endotoxemia from unhealthy microbiota (--- Immuno-Synbiotic!)
- Other sources of chemical toxins such as those added to foods or formed in the process of overcooking foods, and (of course) drugs
- Emotional Stress
- Exercise overtraining, or any Low-Intensity Long Duration exercise.

Such stressors that exceed ADAPTIVE CAPACITY are the first step of Reductive Stress --- and the first step in the progression to Oxidative Stress.

Elevated NADH inhibits the KREBS Cycle --- resulting in an increase in Acetyl-Co-A. Acetyl-Co-A is the fuel that blocks mitochondrial enzymes. (----- Speaking in metabolic terms, Acetylation requires Acetyl groups, which are carried by Acetyl-Co-A).

Here we have the second mechanism by which antireductant supplementation will pump up mitochondrial energy production. Since Reductive Stress by definition means elevated NADH and its resultant inhibition of the KREBS Cycle, Reductive Stress devastates cellular oxidative energy production. But your pro-oxidant, antireductant Thiosulfate, NAC, and Selenium facilitate the conversion of NADH to NAD⁺, thus removing the barrier to a fully functional KREBS Cycle energy production.

The conflicting/confusing reference to nutrients as “Antioxidants” when their capacity to decrease ROS is actually driven by their Anti-reductant activity, applies particularly to Lipoic Acid.

--- **LIPOIC ACID IS THE REJUVENIN** ---

featured so prominently in your Activator, Rejuvenator, Adapto Max, and Oxy Max.

Lipoic Acid supplementation can control both Reductive Stress and Oxidative Stress. In so doing, it controls many sources of Immuno-Neuro-Endocrine Stress. And in that, it controls many of the forces driving both Exogenous INFLAM-AGING and Endogenous INFLAM-AGING.

In our culture, ingestion of HOHUM PUFAs may be the most potent driver of Reductive Stress (and obesity). As an anti-metabolite, vegetable oils are probably rivaled only by endotoxins produced by unhealthy microbiota. (= thus, the universal need for Immuno-Synbiotic).

Complex 1 is the primary cellular metabolite oxidizing NADH to NAD⁺, and is our means to restore the NADH/NAD⁺ ratio. But when acetylated, Complex 1 loses its activity, leading to elevated NADH. Here we have a positive feedback loop (a vicious cycle) such that the lowering of Complex 1 activity increases the NADH/NAD⁺ ratio, but elevated NADH leads to more acetylation of Complex 1.

Obese children have more than twice the level of Acetylated (blocked/inhibited) Complex 1. Their Complex 1 activity is 50% lower than in lean children. Even more than other children, overweight children need Oxy Max, 1, twice daily, along with Immuno-Synbiotic (or Immuno-Synbiotic Immune Power) 3, taken first A.M. Oxy Max is children’s and young adult’s complete defense against ---

THE EXOGENOUS INFLAM-AGING ---

underlying all significant health challenges up until age 23. And, the Tocopherol, Tocotrienol, and Co-Q-10 antioxidant activity is bolstered by Lipoic Acid.

Yes, young or old, whether defending against Exogenous INFLAM-AGING or Endogenous INFLAM-AGING, our production of mitochondrial energy is elevated to the max by the balance between antioxidant and anti-reductant supplementation.

January SPECIAL = Oxy Max and Rejuvenator,

2 FREE with every 10 you purchase.