

ADAPTOGEN COMPLEX FOUND TO CORRECT NUTRITIONAL DEFICIENCIES

© 2011 By Daniel F. Royal, DO, HMD, JD, USA

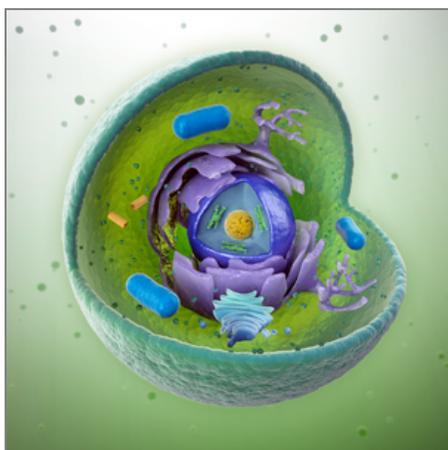
Adaptogen Complex Found to Correct Nutritional Deficiencies - by Daniel F. Royal, DO, HMD, JD, USA

<https://www.explorepub.com/current-issue-203/499-adaptogen-complex-found-to-correct-nutritional-deficiencies.html>

Abstract

This article discusses a small clinical study conducted by Daniel F. Royal, DO, HMD, JD on 10 patients who took an adaptogen complex, known as "Protandim" for three to six months. Each patient took a pre and post SpectraCell MicroNutrient Test. An analysis of the results revealed that the patients' nutritional deficiencies were found to correct as a result of taking the product. These unexpected findings suggest that the body may create nutritional deficiencies when antioxidant levels are inadequate. A call to expand the study for the purpose of further evaluating whether individual antioxidant levels can be optimized, after nutritional deficiencies have been corrected, is proposed. Terms: Protandim, SpectraCell, Adaptogen, Antioxidant, Nutritional Deficiencies, Spectrox, Micronutrient, Nutrition, Supplement, Patent.

Article



In spite of all we've learned over the years, there is still a vast area of knowledge in medicine yet to be explored and much truth still to be discovered that remains hidden. Yet, it is right before us in plain sight. Stem cells is a good example here. Today, we are harvesting autologous stem cells from bone marrow blood and fat tissue in a clinical setting. However, stem cells can also be extracted from the peripheral blood. One researcher has identified 16 different types of stem cells in the peripheral blood. Yes, there is much yet to learn and to discover.

Here's an example of a medical discovery. Joe McCord, PhD, who's life work has been in the field of antioxidants and anti-aging, found that certain substances, known as "adaptogens", that were found to be more powerful in combination than when used alone. This is known as "synergy". This discovery was so significant that Dr. McCord was able to obtain a patent for his product in 2007, with two additional patents in 2008 and 2009^{1,2,3}. In order to obtain a patent, the claims for an invention must: (1) be novel; (2) not be obvious; (3) be described simply and completely, so a skillful person could duplicate it; and (4) be clear and specific such that it can be defended in court.

In 2006, a study published in the *Journal of Free Radical Biology & Medicine* demonstrated that Protandim, a combination of adaptogens, fared better in reducing antioxidant stress compared to Vitamins E and C⁴. Protandim performed for all ages whereas the effectiveness of Vitamins E & C were found to be age-dependent and thus, more effective for the young than the elderly. In 2009, a follow-up study showed that Dr. McCord's Protandim as a product performed significantly better than any of its individual ingredients alone in stimulating production of an antioxidant gene that catalyzes the breakdown of heme or iron in human brain cells⁵. Similarly, I have found the same thing in my clinical practice of medicine that by combining alternative and orthodox therapies my patients have a much better chance of success than using either alone.

Up until this time, Dr. McCord had only been using T-Bars to check antioxidant levels. T-Bars aren't commercially available because the blood must be tested within six hours after being drawn. So, I suggested to Dr. McCord that he consider using SpectraCell Laboratories, a company with a patented commercially available test I'd been using for years to assess nutritional deficiencies. SpectraCell tests for the intracellular concentration of certain vitamins, minerals, amino acids, and antioxidants in lymphocytic white blood cells. They do this by putting these white blood cells in media deficient in one nutrient. Depending on how well these white blood cells grow in such media determines whether a deficiency is present.

SpectraCell's MicroNutrient Test (f.k.a. "FIA Comprehensive 5000") assays approximately 31 vitamins, minerals, amino acids, antioxidants, and carbohydrate metabolism. One of them is called, "Spectrox". Spectrox reports the survival rate of the cells after being challenged with exposure to H₂O₂. The oxidants produced from H₂O₂ can damage cells by starting chemical chain reactions such as lipid peroxidation, or by oxidizing DNA or proteins. Damage to DNA can cause mutations and possibly cancer, if not reversed by DNA repair mechanisms, while damage to proteins causes enzyme inhibition, denaturation and protein degradation.

In 2009, I wanted to see if Protandim would increase my own antioxidant levels as measured by Spectrox. So, I got a baseline SpectraCell MicroNutrient Test, which revealed a low Spectrox and Selenium level. I then took one Protandim daily for three months. At the end of three months, I repeated my SpectraCell Test. The Spectrox and Selenium levels had both normalized.

In my prior communications with Lab Director for SpectraCell, Fred Crawford, PhD, he had told me he believed nutritional deficiencies could not be corrected in less than six months time. Further, in my own patients, I had previously observed that nutritional deficiencies would correct with a supplement regimen only to find new deficiencies would appear with follow-up testing. Rarely, did a patient have a follow-up test, and almost never a baseline, where there were "no [nutritional] deficiencies" was reported.

It was after I did my own personal experiment with Protandim that an idea occurred to me. I wanted to see if others might have the same effects I did. After all, I was initially only interested in seeing whether Protandim would increase my antioxidant level. Yet, I found that it also corrected my only nutritional deficiency and in less than six months. So, I decided to repeat the study on a small group of patients by doing the following: (1) Getting a baseline SpectraCell MicroNutrient test; (2) Taking Protandim for 3-6 months; and (3) Repeating the SpectraCell MicroNutrient test. Below is a summary of what I discovered (see chart for "SpectraCell MicroNutrient Test Results" below)

These patients had a variety of medical conditions, which included fibromyalgia, hypertension, hypothyroidism, menopausal syndrome, chronic fatigue, and kidney failure. Two of the participants claimed to have "no problems". Not one of them was alike. Yet, despite the variety of ailments, they all had deficiencies, including those without medical problems. Even more amazing, they all responded to treatment, with one exception. I believe this was because some individuals needed more than three months to correct any outstanding nutritional deficiencies. I now believe that if I'd continued the study on for at least six months or longer, I would have begun to see antioxidant levels more consistently starting to rise and optimize but not until after the nutritional deficiencies had first been corrected.

The percentage of overall improvement was 84% for the group. I believe this would have been even better, possibly even as high as 100% in this small group, if I'd followed all of the subjects for 6 months. Regardless, from this initial study, I learned:

- (1) nutritional deficiencies completely corrected in the two subjects who took two Protandim daily for three months;
- (2) nutritional deficiencies completely corrected in the two subjects who took one Protandim daily for six months;
- (3) nutritional deficiencies corrected before Spectrox; and
- (4) nutritional deficiencies corrected with Protandim regardless of the patients' health conditions.

From these results one might theorize that if the body has a deficiency in antioxidant levels, it will use other sources to make up for this lack resulting in a nutritional deficiency somewhere else. Assuming this to be true, I now would not expect to see Spectrox correct until after the nutritional deficiencies have first been corrected. In order to prove this, all subjects would need to have been followed for six months or more. It would be most interesting to follow such subjects whose nutritional deficiencies had been corrected for the sole purpose of observing whether Spectrox would increase and approach a more optimal level.

The foregoing is the result of a small clinical study using only 10 patients. However, there's no reason why this study couldn't increased anywhere from 10 to 1000 patients for the purpose of both confirming these results and observing whether Spectrox would consistently increase once nutritional deficiencies had been corrected. So, if you are reading this article and would like to participate to my data base, here's how you can do it:

- Step 1: Go to the website: www.royalmedicalclinic.com;
- Step 2: Complete Patient Information, Patient History, LFVN Nutritional Assessment forms;
- Step 3: Pay an Administration Fee for the Assessment;
- Step 4: Have physician order and ship SpectraCell's MicroNutrient test;
- Step 5: Take Protandim as prescribed by physician; and
- Step 6: Repeat the MicroNutrient Test in 6 months or as otherwise prescribed by physician.

My personal belief is that people don't know how good they can feel until they experience it. Once they do experience it, they may feel like shouting for joy. I have a friend who travels the world fitting literally tens of thousands of deaf children with hearing aids. Imagine how excited these young boys and girls are to hear their own voice for the first time. We should all be just as excited about the potential healing and well-being that optimizing our own health can do for us.

SpectraCell MicroNutrient Test Results

Name	Test #1 (Pre-Deficiencies)	Test #2 (Post-Deficiencies)	New Deficiencies (p>3 Months)	Same Deficiencies (p>3 months)
50 y/o Male	2 (Selenium, Spectrox)	0		0 (Spectrox increased from 57% to 68%)
50 y/o Female	7 (B2, Folate, Biotin, Choline, E, K2, Spectrox)	3 (Biotin, Oleic Acid, Spectrox)	1 (Oleic Acid)	2 (Spectrox improved from 48% to 53% and Biotin from 32% to 34%)
52 y/o Male ⁶	1 (Oleic Acid)	0	0	0 (Spectrox remained unchanged at 66%)
49 y/o Female	5 (Glucose-Insulin, Selenium, E, K2, Spectrox)	1 (Spectrox)	0	1 (Spectrox improved from 52% to 60%)
51 y/o Male	1 (B1)	2 (Selenium, Spectrox)	2 (Selenium, Spectrox)	0 (Spectrox decreased from 73% to 55%)
60 y/o Female	3 (B12, Biotin, D) SpectraCell MicroNutrient Test Results (continued)	0	0	0 (B12 improved from 12% to 14% and Spectrox decreased from 74% to 68%)
67 y/o Male ⁷	1 (Asparagine B1, Biotin, Insulin- Glucose, Chromium, Zinc, Glutathione)	0	0	0 (Spectrox unchanged at 74% for 3-month test; decreased from 74% to 72% for 6-month test)
50 y/o Female	6 (Oleic Acid, Calcium, Zinc, Insulin-Glucose, Lipoic Acid, CoQ10)	0	0	1 (Spectrox decreased from 68% to 65%)
77 y/o Male ⁹	5 (B1, B3, A, K2, Spectrox)	0	0	0 (Spectrox increased from 60% to 67%)
TOTALS	37	6	3	5

References

1. US 7,241,461, Myhill, Paul R. & William J. Driscoll, "Composition for alleviating inflammation and oxidative stress in a mammal," issued 10 July 2007.
2. US 7,384,655, Myhill, Paul R. & William J. Driscoll, "Preparation of compositions to alleviate inflammation and oxidative stress in a mammal," issued 10 June 2008.
3. US 7,579,026, Myhill, Paul R. & William J. Driscoll, "Methods for enhancing antioxidant enzyme activity and reducing C-Reactive protein levels," issued 25 August 2009.
4. "The induction of human superoxide dismutase and catalase in vivo: A fundamentally new approach to antioxidant therapy," Free Radical Biology & Medicine 40 (2006) 341–347, Nelson, Swapan, Bose, Grunwald, Myhill, McCord.
5. "Synergistic induction of heme oxygenase-1 by the components of the antioxidant supplement Protandim," Free Radical Biology & Medicine 46 (2009) 430–440, Velmurugan, Alam, McCord, Pugazhenthii.
6. This individual took two Protandim tablets daily for three months.
7. This individual took one Protandim daily for six months. His 3 and 6 month reports are included here (e.g., his initial test showed only one deficiency (e.g., Asparagine)) and his Spectrox remained unchanged at 74% at months 1 and 3.
8. This individual took one Protandim tablet daily for six months.
9. This individual took two Protandim tablets daily for three months.

droyal@royalmedicalclinic.com



About the Author

Daniel Royal, DO, HMD, JD did his undergraduate work at Brigham Young University and the University of Nevada at Las Vegas, where he graduated with a Bachelor's Degree in Biology in 1985. He completed his post-doctoral education at the College of Osteopathic Medicine of the Pacific in Pomona, California where he received a Doctorate of Osteopathic Medicine in 1989. Later, he obtained Board Certification with the American College of Osteopathic Family Physicians. In 1998, he attended the William S. Boyd School of Law where he graduated in 2002 and passed the Nevada State Bar where he is currently licensed to practice law. Prior to passing the Nevada State Bar Exam, Dr. Royal had taken and passed the Bar Exam for the United States Patent Office where he is also licensed to practice patent law. Currently, Dr. Royal is licensed to practice both osteopathic and homeopathic medicine in Nevada, but he also maintains medical licenses in Utah and Wisconsin. He has been married to Cheryl Ohrn for 29 years. They have four children and two granddaughters.