

Book Reviews

**Explaining “Unexplained Illnesses”:
Disease Paradigm for Chronic Fatigue
Syndrome, Multiple Chemical Sensitivity,
Fibromyalgia, Posttraumatic Stress Dis-
order, Gulf War Syndrome and Others**

by Martin L. Pall, PhD

Harrington Park Press,

Binghamton, NY, 2007 437 pages

“No! Oh no!” is a common vocal reaction to stress. Oddly enough, these very words also describe a biochemical consequence of stress: the NO/ONOO(-) cycle (“no, oh no”). When excess nitric oxide in the body becomes peroxynitrite, we get an unwelcome and potent oxidant that can cause cellular troubles on a broad front. And, says Martin Pall, PhD, it is a major cause of post-traumatic stress disorder, multiple chemical sensitivity, fibromyalgia, and chronic fatigue syndrome. That is saying a mouthful. With over 70 scientific publications, Dr. Pall has been steadily constructing his case for years. Plus, he has a personal stake in all this, having experienced his own bout of chronic fatigue syndrome in 1997-98. In *Explaining “Unexplained Illnesses,”* he presents his complete argument. In its simplicity, it is reminiscent of the Hoffer-Osmond adrenochrome hypothesis that explains how mental illness can result from the excess production, and subsequent oxidation, of adrenaline. If Pall is right about NO/ONOO(-), it is an important window into better treatment for the tens of millions of people afflicted by these nagging and even debilitating illnesses.

I have always asked my students to begin any assigned reading by first looking at the chapter summary. Pall, a professor of biochemistry and basic medical sciences at Washington State University, clearly knows how to teach. Each chapter in his book starts right off with a summary, which he calls a “take-home lesson.” Then, he typically provides

additional introductory material, either as an overview, goal statement, or a “why this chapter” paragraph. At the conclusion of the book, there is a wrap-up chapter as well. Throughout the text, “exhibit” boxes and illustrations highlight major points. *Explaining “Unexplained Illnesses”* is exceptionally well substantiated, with over 1,800 references. Chapter 15, the protocol chapter, itself has 344 citations. And it is to this chapter that the orthomolecular practitioner will immediately want to turn.

Pall commences his protocol with a common-sense recitation of how to avoid making these illnesses any worse. He then takes a critical look at antioxidant therapy. Synthetic vitamin E, and even natural d-alpha-only tocopherol, may be inferior to tocotrienols. He favors combinations of antioxidants, as opposed to the use of single-nutrients. Hydroxocobalamin (B₁₂), because it is a well-known nitric oxide scavenger, gets special emphasis. Vitamin C, on the other hand, is recommended at doses of only about 250 mg/day, likely a surprise to those who have experience with much higher doses of ascorbate. Pall does cite two positive 1996 high-dose ascorbate infusion studies, and another from 1997. This trail needs to be re-explored.

The B-vitamins are discussed, most notably folate, riboflavin (B₂), and pyridoxine (B₆). Coenzyme Q-10, reduced glutathione, alpha lipoic acid, carnitine and acetyl carnitine, magnesium and selenium, flavonoids, long chain omega-3 fatty acids, and a variety of other substances are also proposed as therapeutic agents. Vegetable foods are recommended for carotenes; the tomato and watermelon red pigment lycopene is even better.

Practitioners accustomed to the clinical benefits of nutritional medicine will not be surprised at the length of the prescription; pharmaceutically-minded physicians will be aghast. Special atten-

tion should therefore be given to the book's valuable review of the positive individual clinical reports of

Drs. Paul Cheney, Jacob Teitelbaum, Garth Nicolson, Neboysa Petrovic, and Grace Ziem. Skeptical minds do not seem to worry Dr. Pall at all. "I have no doubt," he writes, "that others will contest the view that we should move now to treatment with multiple agents down-regulating the NO/ONOO(-) cycle biochemistry. Reasonable people may differ on this. What I think is clear is that not asking the question is indefensible."

—Reviewed by Andrew W. Saul
JOM Assistant Editor

Solar Power for Optimal Health

Marc Sorenson, EdD 2006

Paperback, 274 pages

Are you a sun-phobe? Does the mere thought of going outside cause you feverishly to protect yourself with an armor of sunscreen? Do you habitually shield yourself with sunglasses? And then, do you feel guilty and wonder why the intense touch of your supposed enemy actually makes you feel good?

It is not clear how it became "common sense" that the sun, an integral part of mankind's evolution, could be so harmful; from Icarus, to the Coppertone Water Babies, there are many examples. If you didn't read it in a magazine, surely your dermatologist, neighbor, or mom warned you to be careful of the sun.

Solar Power, by Dr. Marc Sorenson, comprehensively explains why being sun-phobic is the real danger.

Dr. Sorenson diligently begins with a brief history of the relationship between sunlight, vitamin D, and health. He then diagrams how ultraviolet light (UV) produces vitamin D when it heats the skin,

and why sufficient vitamin D levels are necessary for calcium absorption and bone formation. The "How does Vitamin D work?" section unfortunately does not include the mechanisms by which sunlight and vitamin D have been reported to prevent and fight cancer cells, but this information does ultimately preface subsequent chapters. Complete with mortality maps and graphs, the book convincingly documents how low sunlight exposure significantly increases the risk of breast cancer, prostate cancer, colon cancer, multiple sclerosis, osteoporosis, high blood pressure, and many other life-threatening diseases.

In the style of a dedicated educator, Sorenson repeatedly asks, "What have we learned?" Well, in addition to all of the above, you'll learn exactly how dark skin, winter, sunrise, sunset, sunscreen and possibly the city you live in, interfere with UV penetration and vitamin D production. You'll discover how low sunlight exposure is related to depression, and how serotonin and other feel-good neurotransmitters are released in response to light. You'll start entertaining the idea that a hat and long-sleeved T-shirt are better options than sunscreen, and you'll definitely think about getting your own vitamin D level checked.

What about skin cancer? Responsibly, *Solar Power* does not deny that higher sunlight exposure increases the risk of common skin cancer. However, the book spends many lines underscoring that the increased risk does not necessarily reflect that sunlight is the primary cause. Using cartoons of atoms and electrons, Dr. Sorenson illustrates, to the novice and professional alike, how poor dietary and lifestyle habits may actually be more hazardous to your skin than sunlight. Regarding melanoma, the deadly form of skin cancer, Sorenson again adamantly agrees that burning your skin does increase the risk, but he offsets the reflex to sun-phobia

by showing that regular sunlight exposure in fact decreases the risk. In addition, he warns that the risk of melanoma has actually increased with the parallel rise in sunscreen sale figures.

Solar Power positively illuminates a better context for the popularly feared risks of sunlight. Of course, medical researchers inherently know that a history of common skin cancer does not exclude patients from being research subjects. Nonetheless, a quick look online at the American Cancer Society statistics will give you a much fuller appreciation of the matter. A layperson will notice that common skin cancers (basal and squamous cell carcinoma) are routinely excluded from the cancer statistics. Shocking as this might seem, this is precisely because they are so common and highly curable. In 2006, for example, the best estimate is that about one million cases of com-

mon skin cancers were diagnosed, but you won't find even a guess at the number of actual deaths. In that same year, about 60,000 cases of melanoma were diagnosed, and less than 8,000 of those persons died. In contrast, more than 500,000 persons died from many of the internal cancers that are associated with low sunlight exposure. So, it seems, we may need to rearrange our priorities.

Finally, you may ask, why isn't it common knowledge then that sunlight is so beneficial? Dr. Sorenson perseveringly scapegoats the sunscreen industry. Although his philosophical message is debatable, it does not cloud the scientific conclusions of *Solar Power*.

Knowledge is power, and *Solar Power* is no exception. Read it, and you will bask in the light, without fear or guilt.

—Reviewed by Shira Miller, M.D.

