# LifeExtension°

http://www.lef.org/

LE Magazine December 2007

# On The COVER

# The Textbook of Bio-Identical Hormones

New Book Reveals Benefits of Aggressive Hormone Therapy to Prevent and Treat a Wide Range of Disorders

By Dale Kiefer



For the past 27 years, Life Extension has interacted with pioneering physicians who have developed novel methods of treating chronic illnesses.

While these doctors prescribe avant-garde therapies in their daily practices, their innovations too often remain unpublished and out of the public domain, thus depriving the world of vital life-saving information.

Edward Lichten, MD, FACS, has painstakingly put in to writing the many successful protocols he has discovered in his decades of clinical practice. Among the disorders covered are congestive heart failure, type II diabetes, adrenal exhaustion, migraine, insomnia, andropause, osteoporosis, fibromyalgia, and others.

Illustration of Hormones interacting at the cellular level

The Textbook of Bio-Identical Hormones provides creative strategies for circumventing chronic illnesses that are not adequately treated by mainstream medicine. It will help enlighten both physicians and interested lay people about aggressive, but safe methods to combat the most prevalent health concerns of today's aging population.

# DR. LICHTEN'S PERSONAL EXPERIENCE

Based on his extensive clinical experience, Dr. Lichten's book not only illustrates the essential benefits of restoring hormone balance in aging men and women, but more importantly, directly tackles the controversy that surrounds hormone replacement. Unfortunately, most physicians fail to properly understand the body's need for hormones at all stages of life, and are therefore unnecessarily reluctant to prescribe proper hormone therapy for their patients. Despite the complexity of this topic, the Textbook of Bio-Identical Hormones speaks to the reader in a friendly, conversational tone. Dr. Lichten clearly states from the very beginning of the book that, "I am compelled to write this book because of the dangerous state of confusion that exists concerning what aging women and men should do to properly balance their hormones."

# VITAMIN D FOR PROTECTION

The Textbook of Bio-Identical Hormones opens with an important discussion of the often overlooked yet critically important pro-hormone, vitamin D. Once believed to do little more than regulate bone health, vitamin D is a multi-functional hormone precursor that is increasingly being recognized as a crucial factor in protecting against various cancers, preserving bone integrity, bolstering the immune system, and even warding off debilitating depression.1-3

Dr. Lichten emphasizes that, "The majority of humans do not have adequate blood levels of vitamin D and maladies that occur in response to less than optimal vitamin D include insomnia, heart disease, and cancer."



So, what does vitamin D have to do with hormone therapy? Dr. Lichten makes an interesting connection, "I am particularly concerned about women being prescribed estrogen drugs without

factoring in their needs for natural progesterone, vitamin D and a healthy diet," he states. "Vitamin D functions as a cell regulatory brake to protect against the initiation and progression of common cancers, including those of the breast. Prescribing aging women estrogen without ensuring adequate vitamin D status is analogous to driving a car without brakes," he states.

Dr. Lichten is not alone in sounding the alarm regarding this crucial but underappreciated pro-hormone. His chapter on vitamin D is supported by the knowledge that vitamin D insufficiency, as well as outright deficiency, is rampant among men, women and children throughout the developed world, including the United States.4-6



In 2005, leading vitamin D researcher, Dr. Michael F. Holick wrote, "Vitamin D deficiency is now recognized as an epidemic in the United States." From his laboratory at Boston University School of Medicine, Dr. Holick has been toiling for years to bring attention to the dire health implications of this looming epidemic. He warns, "In adults, vitamin D deficiency...causes a loss of matrix and minerals, thus increasing the risk of osteoporosis and fractures...There is mounting scientific evidence that implicates vitamin D deficiency with an increased risk of type I diabetes, multiple sclerosis, rheumatoid arthritis, hypertension, cardiovascular heart disease, and many common deadly cancers."

# TAKE CHARGE OF YOUR OWN BODY

One of the most important aspects of Dr. Lichten's book is that it provides a road map for regaining one's health, and ideally, for extending one's life span. "The body can most often heal itself if supplied with the proper building blocks of vitamins, minerals, fats, and especially bio-identical hormones," writes Dr. Lichten, "The contents of this book are aimed principally at individuals who want to take charge of their own bodies." To that end, Dr. Lichten describes a variety of conditions and health issues and potential solutions to these problems, which may be implemented by the patient in concert with his or her physician.

Some of these conditions and their suggested treatments, such as bio-identical estrogen and progesterone for the treatment of symptoms of menopause, will likely be familiar to readers. But others may come as a revelation. In all cases, Dr. Lichten provides detailed examples from his own experience, describing the process of discovery that led him to unexpected causes, and novel treatments, for his patients' medical complaints.

# A NEW APPROACH TO DIABETES

One of the most innovative chapters in the book is Dr. Lichten's unique approach to treating men with diabetes, a disease that is presently at epidemic levels. Unlike traditional treatments, which can include insulin and other medications, Dr. Lichten believes that the key to alleviating the threat of diabetes is rebalancing a man's hormones.

As men grow older, their testosterone levels decline dramatically.<sup>7</sup> This phenomenon is referred to as andropause, or the male equivalent of menopause. Declining levels of testosterone are linked with many health complaints of aging men, such as erectile dysfunction, muscle wasting, and diabetes.

In his clinical practice, Dr. Lichten found that testosterone therapy provided profound benefits for men with diabetes. Replenishing testosterone levels helped to dramatically improve blood sugar control, boost energy levels, and promote wound healing in these men. For many of his patients, testosterone therapy proved even more beneficial than oral diabetic medications. While abundant medical literature supports testosterone's role in promoting healthy blood sugar metabolism,<sup>8-10</sup> physicians have been frustratingly slow to incorporate this approach into mainstream medical care. If you or someone you know has trouble controlling their glucose levels, this chapter will be of critical importance.

# **TREATING INSOMNIA**

Sleep deprivation has been linked with a range of serious health issues such as heart disease, obesity, and even cancer.11 In the attempt to avert these deadly consequences, Americans now spend billions of dollars each year on sleep aids and medications. The dangerous and sometimes bizarre side effects of sleep-inducing drugs, such as daytime sleepiness and memory loss12 have left doctors and patients looking for safe and effective ways to promote healthy sleep patterns.

Dr. Lichten has developed a formula using gamma-aminobutyric acid (GABA) lozenges, high-dose vitamin D, and pharmaceutical-pure L-tryptophan to successfully treat countless patients plagued by chronic insomnia. He has found that when restful sleep patterns are restored and hormones are balanced to reflect a more youthful state, up to 75% of clinically reported depression is resolved.

# SAY GOODBYE TO FIBROMYALGIA

Fibromyalgia causes many aging women (and some men) to suffer chronic and debilitating muscle pain. Conventional medicine offers little in the way of effective relief.

Dr. Lichten treats fibromyalgia by first restoring healthy sleep patterns and then identifying the anabolic hormones that are so

often deficient. By combining solid nutritional therapy with optimal anabolic hormone balancing, Dr. Lichten has seen dramatic recoveries in patients who had lost all hope.

# **REVERSING CONGESTIVE HEART FAILURE**

Five million Americans suffer from a chronic condition in which the heart is unable to pump enough blood to oxygenate the tissues.

Mainstream cardiologists have long overlooked the critical role of nutrients like carnitine, taurine and high-dose coenzyme Q10 that heart muscle cells require to sustain their energy production.

Dr. Lichten goes beyond nutrients and has developed an aggressive program that uses individually tailored doses of anabolic and growth hormones that are so often deficient in those suffering from congestive heart failure.

In patients who were sent home to die, Dr. Lichten's comprehensive approach has reversed the course of patients who were destined to perish from inadequate cardiac output. Many of these patients have resumed a normal quality of life.

To think that 53,000 Americans die each year from congestive heart failure, when an effective protocol was developed by Dr. Lichten many years ago is a medical travesty.

# THYROID DISEASE: THE UNSUSPECTED ILLNESS

Dr. Lichten terms thyroid problems as "the unsuspected illness." He writes, "Though thyroid dysfunction contributes to an extensive symptom list that includes cold hands, cold feet, brittle nails, hair loss, and a host of other problems, the connection to all aspects of general health makes the thyroid gland so very important." Dr. Lichten believes that changes in the Western diet correlate with the proliferation of thyroid disease, but notes that few other health care professionals have made the connection. Even "slight variations in normal thyroid function can dramatically affect health," he notes. This chapter, in particular, illustrates the ongoing battle over pharmaceutical industry-supported synthetics versus natural, bio-identical hormones.

In Dr. Lichten's experience, patients are more likely to experience relief from thyroid hormone imbalances with bio-identical thyroid hormones, which contain a mix of various natural thyroid hormones, rather than synthetic drugs, which feature single hormones. He treats each patient according to his or her individual needs. In his clinical experience, bio-identical thyroid hormones appear to work best for many patients, and are also cost effective, he concludes.

# TEXTBOOK OF BIO-IDENTICAL HORMONES: WHAT YOU NEED TO KNOW

- Drawing from 30-plus years of clinical experience, Dr. Edward Lichten has written a new book, Textbook of Bio-Identical Hormones, highlighting the applications and benefits of bioidentical hormone therapy.
- One of the most promising applications of bio-identical hormone replacement therapy is in the management of diabetes in men. For many men affected by diabetes, testosterone therapy may be more important than oral diabetic medications.
- Restoring healthy sleep provides the foundation for good health. Dr. Lichten reports that Ltryptophan, GABA, and other nutrients can provide powerful support for restorative sleep.



- Less-than-optimal function of the thyroid gland may contribute to poor overall health. Dr. Lichten's clinical experience suggests that bio-identical thyroid hormone therapy may offer superior benefits to synthetic hormone replacement.
- Restoring optimal hormone balance may help alleviate many other common health complaints, including meno-pausal symptoms, headache, pre-menstrual syndrome, andropause, and osteoporosis.
- Before beginning bio-identical hormone replacement, it is essential to undergo comprehensive blood testing to determine baseline levels of hormones and other health biomarkers that will guide therapy.
- Dr. Lichten's book can serve as a guide to health-conscious adults who wish to utilize natural therapies, in consultation
  with their physicians, to restore youthful good health.



# The Textbook of Bio-Identical Hormones

New Book Reveals Benefits of Aggressive Hormone Therapy to Prevent and Treat a Wide Range of Disorders By Dale Kiefer

#### **CROHN'S DISEASE AND COLITIS**

Chronic inflammatory conditions of the digestive tract cause daily agonies and premature deaths for countless people. Dr. Lichten has found that those suffering from inflammatory bowel diseases are routinely deficient in testosterone, growth hormone and digestive enzymes.

While it may seem illogical to prescribe digestive enzymes to those afflicted with a severely irritated and inflamed digestive tract, Dr. Lichten has found that the inability to properly digest food contributes to the chronic inflammation inherent in those suffering from colitis or Crohn's disease.

In addition to a comprehensive nutrition program, Dr. Lichten has found that the proper use of growth hormone and testosterone has eliminated the need for bowel resection surgery and enabled those who previously suffered from chronic inflammatory bowel diseases to resume a normal life.



# THE OVERLOOKED ADRENAL GLANDS

Many chronic illnesses can be traced back adrenal gland malfunction, yet mainstream medicine does not even consider this part of the human anatomy when prescribing treatments.

The chronic fatigue, immune dysfunction, and stress that so many people are stricken with often emanates from the adrenals. Dr. Lichten has developed protocols to diagnose and treat these conditions that the medical establishment has all but ignored, even though the natural hormones needed were long ago discovered and documented in the published medical literature to be effective.13-18

# NATURAL ESTROGENS

One of the most controversial health issues today is how aging women should replace their declining estrogen levels.

Most physicians still prescribe a "one-size-fits-all" estrogen drug and fail to prescribe the natural progesterone that virtually all menopausal and postmenopausal women require. The regrettable result is that most women taking estrogen drugs have too much or too little estrogen in their bodies, and lack the progesterone balance needed to protect against many estrogen-induced cancers.

Like most of the progressive therapies Life Extension recommends, Dr. Lichten carefully balances each maturing women's total hormone profile according to individual need.

# **ELIMINATING MENSTRUAL PAIN AND PMS**

The monthly cramps and psychological changes suffered by pre-menopausal women are dismissed by mainstream doctors as a phenomenon that females are just supposed to "live with."

Instead of carrying the party line, Dr. Lichten investigated various hormone modulation approaches and was able to alleviate menstrual cramps and the emotional disorders associated with premenstrual syndrome by optimizing hormone balance in women of varying ages.

Likewise, Dr. Lichten participated in the development of specialized therapies for women suffering from uterine fibroids and endometriosis that drastically reduced the amount of invasive medical intervention required.

# A HORMONAL SOLUTION FOR MIGRAINE

Over the past four years, Life Extension has published findings about natural hormonal approaches to significantly reduce the frequency and intensity of migraine headaches. Many of these findings were based on original research Life Extension had conducted.

It was therefore a pleasant surprise that Dr. Lichten had independently achieved similar clinical successes in treating migraine by naturally re-balancing hormone profiles.

Both Life Extension's and Dr. Lichten's approaches are based on peer-reviewed published studies.19-24 It is gratifying to see that when clinically implemented, restoring optimal hormone balance is a safe and effective method to treat migraine.

For migraine sufferers who do not respond to hormone modulation, Dr. Lichten's book outlines other novel methods that he has found provide significant relief.

# **OSTEOPOROSIS TREATMENT**

Health-conscious people are aware of the wide range of nutrients and hormones that can help prevent osteoporosis from ever happening to them.

For too many aging humans, however, a lifetime of neglect, a genetic predisposition, or a serious medical disorder creates a serious loss of bone density.25

With the knowledge that osteoporosis reversal requires more than just calcium and vitamin D, Dr. Lichten implements an aggressive program involving testosterone, growth hormone, DHEA, and other hormones designed to restore density to aged bones that have lost their youthful structure.

# MALE "ANDROPAUSE"

As men age past 35, their natural production of testosterone slowly declines, while much of the testosterone they do produce is converted (aromatized) into estrogen.

The undesirable conversion of testosterone is so severe, that some doctors have reported that the average 56-year-old man has more estrogen than the average 56-year-old woman. The outward signs of free testosterone deficiency and estrogen overload in men include abdominal obesity, loss of muscle mass, and the appearance of enlarged breasts.

The inner symptoms of male andropause include depression, impotence, quality of life deterioration, atherosclerosis, insulin resistance, lack of energy, and metabolic syndrome.

Ten years ago, Life Extension recommended several methods by which men could restore their free testosterone to youthful ranges while suppressing excess estrogen. Dr. Lichten has developed different approaches to treating male andropause that may work better for certain men.

Whether following Dr. Lichten's or Life Extension's protocol, virtually any aging man (who does not have prostate cancer) can achieve significant systemic health benefits by restoring sex hormones (testosterone and estrogen) to the ranges enjoyed in their youth.

# CONCLUSION

The Textbook of Bio-Identical Hormones presents a wealth of information on hormone therapy drawn from decades of Dr. Edward Lichten's real-life clinical experience. Written in an accessible and conversational format, this timely book is recommended for anyone interested in gaining a deeper understanding of the complexity of the human body and its many hormone-driven functions.

If you have any questions on the scientific content of this article, please call a Life Extension Health Advisor at 1-800-226-2370.

1. Autier P, Gandini S. Vitamin D supplementation and total mortality: a meta-analysis of randomized controlled trials. Arch Intern Med. 2007 Sep 10;167(16):1730-7.

2. Holick MF. Vitamin D: importance in the prevention of cancers, type 1 diabetes, heart disease, and osteoporosis. Am J Clin Nutr. 2004 Mar;79(3):362-71.

3. Holick MF. The vitamin D epidemic and its health consequences. J Nutr. 2005 Nov;135(11):2739S-48S.

4. Mosekilde L. Vitamin D and the elderly. Clin Endocrinol (Oxf). 2005 Mar;62(3):265-81.

5. Holick MF. Resurrection of vitamin D deficiency and rickets. J Clin Invest. 2006 Aug;116(8):2062-72.

6. Anon. Primary vitamin D deficiency in adults. Drug Ther Bull. 2006 Apr;44(4):25-9.

7. Valenti G, Ceresini G, Maggio M. Androgen deficiency in older men. Minerva Ginecol. 2007 Feb;59(1):43-9.

8. EI-Sakka AI, Sayed HM, Tayeb KA. Type 2 diabetes-associated androgen alteration in patients with erectile dysfunction. Int J Androl. 2007 Sep 18; [Epub ahead of print].

9. Tang YJ, Lee WJ, Chen YT, Liu PH, Lee MC, Sheu WH. Serum testosterone level and related metabolic factors in men over 70 years old. J Endocrinol Invest. 2007 Jun;30(6):451-8.

10. Rabijewski M, Kozakowski J, Zgliczyski W. The relationship between testosterone and dehydroepiandrosterone sulfate concentrations, insulin resistance and visceral obesity in elderly men. Endokrynol Pol. 2005 Nov-Dec;56(6):897-903.

11. Available at: http://www.webmd.com/sleep-disorders/guide/important-sleep-habits. Accessed October 10, 2007.

12. Available at: http://www.pdrhealth.com/drug\_info/rxdrugprofiles/drugs/amb1017.shtml. Accessed October 10, 2007.

13. Straub RH, Schölmerich J, Zietz B. Replacement therapy with DHEA plus corticosteroids in patients with chronic inflammatory diseases- substitutes of adrenal and sex hormones. Z Rheumatol. 2000;59s2:ii:108-18.

14. Bredikhin TF. Prolongation of homotransplant viability under the influence of thio-TEPA and thio-TEPA combined with hydrocortisone. Biull Eksp Biol Med. 1969 Aug;68(8):90-3.

15. Maclaren WR, Frank DE. Continuous steroid hormone treatment of chronic asthma. I. Cortisone and hydrocortisone. Ann Allergy. 1956 Mar-Apr;14(2): 183-93.

16. Nakamura S, Yoshimura M, Nakayama M, et al. Possible association of heart failure status with synthetic balance between aldosterone and dehydroepiandrosterone in human heart. Circulation. 2004 Sept 28;110:1787-93.

17. Genedani S, Rasio G, Cortelli P, et al. Studies on homocysteine and dehydroepiandrosterone sulphate plasma levels in Alzheimer's disease patients and in Parkinson's disease patients. Eurotoxic Res. 2004 6(4):327-32.

18. Howard JM. Common factor of cancer and the metabolic syndrome may be low DHEA. Ann Epidemiol. 2007 Apr;17(4):270.

19. Somerville BW. The role of estradiol withdrawal in the etiology of menstrual migraine. Neurology. 1972;22:355-365.

20. Lichten EM. Efficacy of Danazol® in the treatment of hormonal migraine. J Reproduct Med. 1991;36(6):419-425.

21. Lichten EM, Lichten JB. The confirmation of a biochemical marker for women's hormonal migraine: The depo-estradiol challenge test. Headache. 1996;36(6):367–70.

22. Lichten EM. Estradiol subcutaneous pellet for the definite diagnosis and treatment of hormonal migraine. Cephalgia. 1999;19 (4):332.

23. Granella F. Treatment of menstrual migraine. Cephalgia. 1997;17s(20):35-8.

24. Allais G. Advanced strategies of short-term prophylaxis in menstrual migraine: state of the art and prospects. Neurol Sci. 2005;26 s(2):125–9.

25. Available at: http://www.nof.org/osteoporosis/diseasefacts.htm. Accessed October 16, 2007.

All Contents Copyright © 1995-2010 Life Extension Foundation All rights reserved.



These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease. The information provided on this site is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging. You should not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.