

# IS HORMONE THERAPY RIGHT FOR YOU?

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## MEET DR. CARROZZELLA



Born in Philadelphia in 1956, Dr. Carrozzella grew up in Wallingford CT, where he attended Choate Rosemary Hall in preparation for college. In 1978, he graduated from Yale University with Honors in Molecular Bio-Physics and Biochemistry.

He went on to study medicine at the University of Cincinnati, and in 1982, earned his MD, placing in the top five percent of his class. For more than 25 years, Dr. Carrozzella practiced Orthopaedic Surgery.

In 2000, he relocated his practice to the Tampa Bay-Orlando corridor, and for the past several years, he has focused on interests in nontraditional medical specialties. These include Hormone Replacement, Sexual Health and Dysfunction, Non-surgical Cosmetics, Health and Wellness, Age Management and Integrative Medicine.

He has been a member of numerous medical associations, including:

- The American Academy of Orthopedic Surgeons
- The American Board of Orthopedic Surgery
- The American Society for Surgery of the Hand
- The American College of Surgeons

In 2014, Dr. Carrozzella became an Advanced Fellow of the American Academy of Anti-Aging and Aesthetic Medicine; a member of the International Society for Sexual Medicine; and the International Society for the Study of Women's Sexual Health.

To re-direct his career and obtain the necessary expertise in his current fields of interest, Dr. Carrozzella completed several hundred hours of continuing education credits:

- In August 2016, Dr. Carrozzella earned a Master's Degree in Metabolic and Nutritional Medicine from the University of South Florida
- In 2013, he became a diplomat of the American Board of Anti-Aging and Regenerative Medicine
- He carries a certificate in Sexual Medicine from the American Academy of Anti-Aging Medicine and a Certificate in Advanced Endocrinology from the University of South Florida.
- He is an expert in Platelet-Rich Plasma Procedures and is also a certified practitioner of the Vampire Facelift®, Vampire Breast Lift®, Vampire Facial®, O-shot®, Priapus Shot® and GAINS Enhancement®.

Dr. Carrozzella currently practices in the Windermere / Bay Hill / Dr. Phillips section of Orlando, where he devotes his practice to serving the needs of patients with hormonal deficiencies, sexual dysfunction, nutritional imbalances, incontinence, fibromyalgia, and autoimmune disorders, as well as a variety of cosmetic needs. Discover more at [www.hormonesandwellness.com](http://www.hormonesandwellness.com)

# CONTENTS

Foreword .....	4
Hormones: Your Body’s Chemical Messengers .....	5
Not All Hormones are Created Equal: Bio-identical vs. Synthetic .....	6
Aging is Inevitable, Feeling Great is Optional: Hormone Therapy and Your Health .....	8
Thyroid Thief: The Hormone Deficiency That Causes Hair Loss .....	10
Hot and Bothered? Blame Estrogen Deficiency .....	12
Protective Progesterone: Your Shield Against Cancer and Heart Disease .....	16
To Bleed or Not to Bleed? I Thought I was Done with This! .....	19
The Equal Opportunity Hormone: Testosterone for Women and Men .....	21
Ladies First .....	21
Testosterone for Men .....	22
Staying Alive: Want to Live a Longer, Healthier Life? Increase Your DHEA .....	25
Melatonin: Your Purveyor of Sweet Dreams, Restful Sleep, and a More Youthful Appearance ..	27
Why Bio-identical Hormone Replacement Therapy? .....	29
About that 2002 Women’s Health Initiative Study .....	31
Ask Dr. C – Your Questions about Bio-identical Hormone Replacement Therapy Answered .....	32

## FOREWORD

Friends, let's face it: life can be complex! Sometimes, terrible things happen to us to put us directly on the path to the best things we will ever experience. I know, because I faced such a situation several years ago that literally changed my life forever.

My wife Sheryl had an unexpected, life-altering descent into full-blown menopause right after her neck surgery. After watching her extreme suffering and her unresolved quest for answers from various doctors who informed her to "Get used to it. It's just part of aging," I decided to take action. I became a wellness doctor and today Sheryl is thriving – along with my patients, who have reclaimed their health, vitality and lifestyle.



[Click here to watch Sheryl and I tell our story](#)

I wrote this eBook with you in mind. If you're suffering from unwanted symptoms like hot flashes, fatigue, loss of libido, depression, low energy, and insomnia – just to name a few – there is a solution. You do not have to accept any of it as a natural part of aging. Hormone Replacement Therapy can help you prolong your life and improve its quality, but if you're like most people, you're understandably confused and possibly frightened by the abundance of conflicting information out there.

Please, take the time to get informed. Read my eBook to learn the facts about Hormone Replacement Therapy, so you can make the best decision for you. You're just a few pages away from looking and feeling better than you ever thought possible.

To your health,

Dr. C (insert signature)

# HORMONES: YOUR BODY'S CHEMICAL MESSENGERS

Created in the endocrine glands, hormones are your body's special chemical messengers. They control most of your major bodily functions, from basic needs like hunger to complex systems like reproduction. Feeling emotional and/or moody? In part, you can thank your hormones. But the good news is, by first understanding your major hormones and their functions, you can take control of your health.

Synthesized and secreted by specialized cells often localized in your endocrine glands, hormones are released into your blood stream and exert biochemical effects on target cells. How is hormone action determined? By the presence of specific hormone receptors located on either the cell surface or intracellularly in the target cells. Essentially, hormones ignite your cellular machinery – causing an increase in metabolism, DNA activation, protein synthesis, cellular repair, and cell replication.

Given their pivotal role in the human body, it's no surprise that hormones influence all aspects of aging. As you age, and potentially from a myriad of environmental factors, your cellular receptor sites become less sensitive to hormonal stimulation, which means you might need an increased amount of hormone to create any particular physiologic change. For this reason, you must have optimal levels of hormones in your body. And even though your hormone levels might be considered "normal" by traditional lab testing, optimizing your hormone levels might mean raising your blood levels as your body might need more hormones than "normal" for you to look, feel and function your best.

What are the consequences of hormonal decline?

Decreased healing and repair of your tissues. A greater likelihood of contracting diseases associated with aging like Alzheimer's, macular degeneration, heart disease, and stroke. But you can avoid the hormonal deficiencies and endocrine dysfunction that contribute to the signs and symptoms of getting old. Research proves the validity of hormone replacement therapy to potentially prolong your life and improve its quality

*Wait! Are you saying hormones are the fountain of youth?*

Simply put, no. As much as I'd love to tell you I have the power to reverse aging, the fact is, nothing can stop Father Time and his effects on your body. However, I can say with great conviction that hormones may slow down the process of aging and help you maintain your overall good health. With current state-of-the-art preventive medicine techniques like optimal hormone replacement therapy, you may impede the aging process and experience a fuller, happier, and healthier life. But first it's important to understand an important distinction about hormones.

## NOT ALL HORMONES ARE CREATED EQUAL: BIO-IDENTICAL VS. SYNTHETIC

You've probably heard that hormones cause cancer and other diseases. There's so much misinformation out there about hormones, it upsets me that people believe it and continue to needlessly suffer as a result. However, not all hormones are created equal and it's important to understand a crucial distinction.

Let's start with the bad. Synthetic hormones, which include progestins, artificial progesterones, and horse-urine-derived estrogen, can cause cancer. In the early 2000's, a multitude of studies, primarily the Women's Health Initiative of 2002, conflated synthetic hormones with bio-identical hormones and scared many women away from hormone replacement therapy.

But, there is an *enormous* difference between synthetic hormones and bio-identical hormones.

Bio-identical hormones are identical copies of the natural hormones that exist in our bodies. When you put those identical compounds back in the body, all your body does is get healthy. And while there may or may not be minor, aggravating side effects, any side effects are directly related to what the actual hormones do. That's natural, normal, and expected. Bio-identical hormones do not cause any serious problems and they certainly do not cause cancer. In fact, if you look at studies dealing *only* with bio-identical hormones, the rates of cancer either stay the same or decline, and the better studies show a decline in the rates of a variety of cancers, not just breast cancer.

You may be wondering, *if bio-identical hormones are available and safe, why do so many doctors prescribe harmful synthetic hormones?* The answer to this question involves the powerful pharmaceutical industry in the United States, politics, economics, and mainstream medicine itself.

The molecule of a bio-identical hormone, typically derived from a similar molecule in plants and then carefully bio-engineered, ends identical in structure to the hormone naturally found in your body. Pharmaceutical companies cannot patent natural or bio-identical compounds. However, they can patent chemically different – and extremely profitable – molecules.

Why?

A patent guarantees exclusive rights to the pharmaceutical company to manufacture and profit from their product. Given the tremendous monetary investment that goes into developing and studying a pharmaceutical drug, it only makes sense that the pharmaceutical company would want to see a good return on their investment and protect it with an exclusive, patented product. That's good for them, but not so good for patients who often end up dealing with the unpleasant, sometimes life-altering effects of hormone deficiency because there is little research and minimal marketing of bio-identical hormones.

*Why do so few doctors even know about bio-identical hormones?*

A vital aspect of marketing a drug involves the education and instruction of a physician on how and when to prescribe it. Much of what physicians know about drugs comes directly from pharmaceutical companies promoting their product. Since these companies do not manufacture bio-identical hormones, most physicians don't even know about them unless they take the initiative to conduct their own education or research. As far as mainstream medicine is concerned, there's an agenda against hormone therapy – which means, that many times, they'll create studies to say what they want them to say.

Just to reiterate, the pure, biologically identical (human identical) hormone is either extracted naturally (difficult and very expensive to do) or synthetically manufactured to be molecularly identical to the hormones found naturally in the body. The most important thing for you to remember is that the final

product is a molecule identical to the molecule found in your body. This applies to all bio-identical hormones – thyroid, estrogen, progesterone, testosterone, and DHEA.

So, where would you go to fill a prescription for a bio-identical hormone?

A special type of pharmacy known as a compounding pharmacy. These licensed pharmacies can fill a prescription for you for a drug from any pharmaceutical company. But they can also do much more. Like the old-fashioned concept of a pharmacist with a mortar and pestle, the compounding pharmacist acquires the pure, pharmaceutical grade hormone (and yes, these ingredients are indeed FDA approved products) and compounds it into the dose and form ordered by your physician. Per your doctor's prescription, they can produce pills, capsules, liquids and creams, which customizes and personalizes your treatment.

*Hang on a second, Dr. C! Can't I just go to a health food store? They sell natural products.*

Indeed, they do. However, much like the wide chasm between synthetic hormones and bio-identical hormones, there are important distinctions to make between health food stores and compound pharmacies.

- The medicine provided by the compounding pharmacy requires a prescription, whereas health food store products are most often sold in a dose so low they don't require prescriptions. Based on laboratory tests, these low doses are usually insufficient to create a measurable result in the body.
- Products offered by the compounding pharmacy utilize micronized ingredients of a pure pharmaceutical grade. Micronized means the product is a fine grain that your body will absorb well.
- The bio-identical hormones prescribed from the compounding pharmacy can be prescribed as long-acting, or time-release. This helps create a better hormone balance within your body, rather than the highs and lows that come with quick-acting, quickly absorbed, or poorly absorbed products.
- A compounding pharmacy can customize an individual prescription and offer several options for a tailored, individualized hormone replacement plan. These range from individualized doses to custom fillers (e.g. gluten free or lactose free) to options of delivery (sublingual triturates, tables, capsules, liquids, and creams). To ensure adequate replacement, patients are continually re-evaluated and hormone levels are monitored and then adjusted to maintain optimal levels of all hormones. Without monitoring and adjustment, undergoing bio-identical hormone replacement therapy might be a waste of time.

To sum it up, a bio-identical hormone has a chemical structure identical to the hormone your body naturally produces. Pharmaceutical companies cannot patent natural hormones. Synthetic hormones are comprised of a structure similar – but not biologically identical to – a hormone produced by your body. Because of the chemical differences, these hormones behave differently and produce substantially different and potentially harmful effects.

Therefore, bio-identical hormones and synthetic hormones are not created equal. As a multitude of studies has demonstrated, synthetic hormones cause adverse conditions in the body. Conversely, the medical literature on bio-identical hormones proves the opposite: **there are no harmful effects from bio-identical hormones – only beneficial ones.**

# AGING IS INEVITABLE, FEELING GREAT IS OPTIONAL: HORMONE THERAPY AND YOUR HEALTH

As you age, your hormones decline. That is true for every human being and most doctors assume that hormonal deficiency is just the price we pay for the privilege of growing older. For example, if a young person was tested and found to be hormonally deficient, his or her physician would waste no time correcting the problem. But if an older patient experienced similar hormone loss, that same doctor would say, "Get used to it. It's just a normal and inevitable part of aging."

But is it normal, really?

First, "normal" is a relative term. No one wants the hormone levels of an 80-year-old, but labs report this low level as "normal," even though it might be only 20% of the level of a 30-year-old. Researchers worldwide have now determined that when the hormonal deficiency associated with age is adjusted to that of a younger person, that older person is more likely to live a more active, vital, fulfilling and healthy life. Once patients experience and see the dramatic improvements to their overall health and wellbeing, they embrace hormone replacement wholeheartedly. In fact, most people don't even realize the harm that hormone imbalance is wreaking on their body until they undergo bio-identical hormone replacement therapy and experience renewed vitality and vigor. The bonus? It's healthy too!

Although thyroid, estrogen, and progesterone have been prescribed for many years, the concept of optimal hormone replacement is relatively new. Think about it, doesn't it make logical sense to replace and balance all the hormones to an optimal physiological level that current research suggests is associated with better health? Instead, standard medical therapy tends to only treat lab reports and maintains only "normal" levels that might actually be insufficient to maintain health and vitality. Don't wait for your hormones to fall below a technically normal range. Consider the fact that a normal hormone level may not be optimal and seek out an expert in hormone replacement therapy. It might very well be that your situation dictates that a higher, more "optimal" level might just be the thing your body needs.

Many ailments considered a normal part of aging can be attributed directly to hormonal imbalance, including:

- Heart Disease
- Alzheimer's Disease and other Dementias
- Osteoporosis
- Colon Cancer
- Breast Cancer
- Macular Degeneration (ultimately blindness)
- Diminished Sex Drive and Responsiveness
- Vaginal Dryness
- Erectile Dysfunction
- Muscle Atrophy
- Increased Body Fat

- Loss of Lean Body Mass and Bone Mass
- Sleep Disorders
- Decreased Sociability
- Depression
- Diabetes
- Cholesterol Problems
- Hypertension (high blood pressure)

Sound familiar? Much of what goes on in old age corresponds to our hormones no longer maintaining the balance that they once did when we were younger. By restoring the proper hormone balance, you might be able to restore your health and healing capacity and potentially prevent many of the diseases associated with the aging process.

Many of my patients are typical, middle-aged healthy people who come to me with concerns about symptoms like low energy, a decreased sense of wellbeing, loss of libido, laziness, and an overall feeling of malaise. In many cases, they've lost muscle tone, gained fat around their midsection, and are experiencing thinning hair and skin, along with increased cholesterol, evidence of heart disease, and arthritic change. Within 4-6 weeks of hormone replacement therapy, they tend to see a dramatic improvement from where they were when they first walked into my office. Beyond that, it takes about a year to fine-tune everything to the point where they are completely balanced and on the road to good health.

Thanks to bio-identical hormone replacement therapy, tailored to their individual needs and monitored by me, my patients report an improved sense of wellbeing and outlook on life. While they've reshaped their bodies, fat has disappeared, muscle tone has increased, and energy levels have surged.

But to reap these benefits from bio-identical hormones, the serum hormone levels must be raised to optimal levels, often at or above normal levels seen in younger people. As a patient, you must insist that your doctor explain, monitor, and optimize your hormone levels to ensure that your therapy achieves the maximum benefit.

Menopausal women often notice dramatic changes in skin thickness, texture, hydration, and tightness. The same is true for women who stop hormone therapy. Dermatology journals have demonstrated that the loss of thyroid, estrogen, and testosterone hormones is often the blame for these detrimental effects on skin. The only way to avoid it is through hormone replacement. More important are the changes taking place on the inside: while the outer skin displays signs of aging, the inside incurs significant, invisible deterioration. This could be the reason middle-aged women and men report that they just don't feel as well as they'd like. The good news is, if treated early, you might just be able to alleviate all of it. Then when an old high-school classmate sees your photo on Facebook or meets up with you at a reunion, you might just hear, "Wow, you look great! What's your secret?" Be a friend and tell them about bio-identical hormone replacement therapy.

# THYROID THIEF: THE HORMONE DEFICIENCY THAT CAUSES HAIR LOSS

Are you coping with hair loss or thinning hair? What about fatigue, forgetfulness, mental confusion, depression, difficulty losing weight, and slowness in thinking?

If one or a combination of these sounds familiar, chances are you might be suffering from a thyroid deficiency. This important, metabolic hormone is secreted by the thyroid gland and regulates so many functions within your body, including temperature, metabolism, and cerebral function. This results in increased energy, temperature, and warmth. Your thyroid also increases fat breakdown, resulting in weight loss and lower cholesterol. By lowering cholesterol, your thyroid protects you from cardiovascular disease. With optimal thyroid levels, you can experience healthier, fuller hair; moister, dewier skin, and stronger, more resilient nails. When your thyroid is working properly, it improves cerebral metabolism and prevents cognitive impairment. No more fuzzy memory!

Many of the symptoms of low thyroid function are considered a normal part of the aging process; however, now we know it is often secondary to low thyroid levels within the body. As with all hormones, as you age, your thyroid levels decline, which means the thyroid hormone can be an indispensable part of your hormone therapy.

Insufficient thyroid levels should not be confused with true hypothyroidism. Research has proven that by improving thyroid levels, you might be able to alleviate many of the problems associated with thyroid deficiency, so that every system of your body could function more effectively and efficiently.

The thyroid hormone is originally produced in the thyroid gland, mostly as T-4. Once released into your body, this circulating T-4 is converted to the active form of the thyroid called T-3. Guess what happens as we age? You guessed it: this conversion becomes less effective. Combined with the diminishing production of T-4, it results in less stimulation of the cells. Your body needs the thyroid hormone for metabolism. If your metabolism is low due to an inadequate supply of thyroid hormone, every organ and system of your body can be adversely affected.

You'll experience low energy as well as the symptoms of thyroid deficiency. As if that wasn't bad enough, the conversion of T-4 to the active form of T-3 also diminishes, resulting in less stimulation of the cells. Mitochondria need thyroid hormone to burn oxygen and produce ATP – the fuel that runs the body. If the mitochondria in your body are compromised due to an inadequate supply of the thyroid hormone, you will not be able to burn up proper amounts of oxygen, therefore, you'll lose energy and experience the symptoms of thyroid deficiency. Compounding the problem, you'll also struggle to keep up mentally and physically as you once did, and your immune system will become weaker and less effective.

Given all we know about thyroid deficiency, why would physicians be so hesitant to supplement thyroid hormones?

It's largely due to a lack of understanding of the true definition of optimal thyroid levels and their relationship to your overall quality of life. If you're like many people dealing with a sub-optimal level of the thyroid hormone in your body, you've probably been to multiple doctors who have informed you there is no problem with your thyroid because your tests came back *normal*. In your frustration, you might have even insisted something had to be wrong with your thyroid, only to have your physician refuse to acknowledge it. Sometimes it just seems that to every day doctors, the test is more important than what the patient is saying.

Furthermore, many patients treated with synthetic (there's that word again) T-4 products will still experience hypothyroid symptoms even though the laboratory test values appear "normal" to their

doctor. This is because most doctors tend to rely on one thyroid test, the TSH – thyroid stimulating hormone – which is an indirect measurement of thyroid function.

Perhaps a better paradigm is to measure the free biologically active form of the hormone in your body, the Free T-3 level. That free, biologically active hormone provides a more accurate indication of your body's response to the hormone. Correcting these deficiencies of the thyroid hormone and restoring them to optimal levels with bio-identical hormones results in optimal blood levels, improved metabolism, and resolution of symptoms. In fact, symptoms may not improve until optimal levels are reached – levels in alignment with those you had in younger years. Ironically, while most patients understand and embrace this concept, most physicians do not.

Just because laboratory values fall within a normal range does not mean your levels are optimal or the best they can be. I believe there is much room for improvement. Normal levels for a test are an average for the population. Some people are low and some people are high and this determines the “normal” or average level. But normal for a middle-aged person might be low in comparison to a younger person. So, a middle-aged level is just as low for everyone else at that age, rather than optimal for a younger person. Doctors call it *normal for your age*, but if you're like most people you refer to it as *feeling lousy for your age*. But by optimizing your thyroid levels, you might be able to restore your vitality. Your symptoms, including thinning hair and/or hair loss could possibly be eliminated.

Thyroid treatment in higher doses has been shown by the medical literature to be effective for people suffering from Chronic Fatigue Syndrome (CFS). It can help patients coping with severe bouts of low energy. If you want to improve how you feel and function, restoring optimal thyroid levels in your body might just be essential.

By now, you likely won't be surprised to read that most people who are taking thyroid have been prescribed a synthetic form of it by their doctor. Sadly, for many, symptoms persist despite *normal* hormone levels. Why? It's a lack of conversion of T-4 to the active hormone, T-3, which is commonly seen in patients taking the synthetic T-4 thyroid hormone. Due to this inadequate conversion, patients experience the symptoms of thyroid deficiency, even though their doctors confirm that their tests are *normal*.

However, by using a combination of T-4 and T-3 in a natural form you can obtain optimal levels of the thyroid hormone. As a study in the New England Journal of Medicine (NEJM) proved, synthetic T-4 by itself does not eliminate symptoms. Only the combination of T-4 and T-3 resulted in clinical improvement and resolution of symptoms. Furthermore, the synthetic forms of T-4 were not as effective as the natural replacements, which mimic the hormone your body naturally produces. Natural thyroid with T-3 is often the only way to optimize all thyroid measurement levels. Patients who switch from the synthetic to the natural usually notice an improvement in their symptoms, yet despite the overwhelming evidence about the efficiency of bio-identical hormones physicians often prescribe only the T-4 due to drug company influence and habit.

So, if you're alarmed by thinning hair, hair loss, brittle nails, and dry skin, you can do something about it, despite what your doctor may have told you. Forget about the “normal” thyroid test results and consider bio-identical hormone therapy. Bio-identical hormones are beneficial and necessary to your good health when your body has optimal amounts of them.

## HOT AND BOTHERED? BLAME ESTROGEN DEFICIENCY

Are you suffering from hot flashes, insomnia, and other uncomfortable symptoms of menopause? Blame it on a lack of optimal levels estrogen in your body. For over 40 years, doctors have prescribed estrogen for women coping with the effects of menopause. Many felt so healthy and invigorated, they chose to remain on estrogen indefinitely. It's no wonder because a multitude of studies have documented the amazing effects of estrogen in improving a woman's quality of life. It not only makes women feel better, it makes them healthier. In their daily lives, they experience more youthfulness and vitality, with better muscle tone, fewer wrinkles, shinier hair, and a more enjoyable sex life.

Additionally, estrogen users:

- Stand taller and straighter
- Do not suffer typical bone loss associated with osteoporosis
- Have half the risk of heart disease and stroke compared to non-estrogen users
- Have an extremely low incidence of Alzheimer's Disease and senility
- Are not subject to vaginal dryness, urogenital atrophy and concomitant infections that can become debilitating

Considering all these benefits, it's not surprising that estrogen is one of the few hormones women demand from their physicians. In fact, over 10,000,00 women in the United States take estrogen – the most widely prescribed medicine. Through estrogen, we discovered the importance of optimal hormone supplementation and the synergy from replenishing all the hormones. Women do not begin to experience high rates of heart disease, bone loss, and mental deterioration until they lose estrogen. By replacing this hormone, they may prevent all of that.

Sounds great, right?

Unfortunately, on July 17, 2002 the media – which does not know how to interpret medical literature – sounded a false alarm to the public by reporting that hormones have been shown to increase the risk of heart disease and cancer. Now, it is true that the medical studies have proven for some time that *synthetic* forms of estrogen and progesterone are to blame, not the natural or bio-identical forms. Contrary to the reports about synthetic and other forms of hormones, bio-identical hormone replacement therapy is good for your body.

This information, that synthetic hormones are harmful and natural or bio-identical hormones are helpful, is not new. In fact, an almost identical article was published a year before in the Journal of American Medicine (JAMA) and drew the same conclusion – synthetic hormones increase the risk of breast cancer, although it is a slight increase in risk. But the media didn't sensationalize the research until the 2002 publication.

Now you might be thinking: *If a lack of hormones causes heart disease, how can taking the same hormones make it worse?*

*Answer: It doesn't! Taking a chemically altered, different hormone makes it worse.*

Bio-identical hormones are good for you. But the media has never clearly drawn a distinction between synthetic and natural or bio-identical in their reporting, leaving the public to conclude that hormones were bad. We should respond to hormone deficiency by replenishing our bodies with the natural or bio-identical forms, but most physicians do not prescribe these types of hormones for their patients. They

stick with the synthetics like Premarin, Provera, and PremPro, *not* the ones that are most appropriate. For years, many of these doctors laughed at their colleagues and scorned the bio-identical hormones they prescribed. In the aftermath of the 2002 report, many of them scrambled to come up with answers and options for their patients. Worse, many advised women to stop hormones altogether, consigning them to a life of misery, where they suffer the health and vitality shattering consequences of hormone deficiency.

Rather than scaring them into dropping hormone replacement, physicians ought to inform their patients about the dangers of synthetic hormones and the benefits of bio-identical hormones. They should educate women on the dangers of losing our own natural hormones because it results in significant health deterioration and illness. By encouraging estrogen replacement with bio-identical hormones, these doctors could help their patients transform their health and their lives. An antidote to the fear instilled in women by false media reporting is a doctor who cares enough to explain the difference between synthetic and bio-identical hormones. The detrimental effect of synthetics should not be extrapolated to include beneficial, bio-identical hormones.

Once upon a time, physicians routinely removed women's ovaries with a hysterectomy, which eliminated key hormone production. As soon as physicians recognized the deleterious effects of hysterectomies on women due to the loss of hormones, they made a conscientious effort to save the ovaries whenever possible. So, if hormones were harmful, women would have their ovaries removed at an early age. But they don't. Instead, doctors try to preserve ovary function and beneficial hormone production for as long as possible. When menopause takes place and hormone levels plummet, we simply need to replace the lost hormones back to pre-menopausal levels with the same identical hormone – not a completely different hormone with a chemical structure and the propensity to inflict harm on your body. Even if the pharmaceutical industry won't admit there's a difference, your body is certainly aware of it.

Estrogen is produced in the ovaries and adrenal glands. Men produce estrogen from conversion of testosterone, albeit in an extremely small amount. There are three types of estrogen produced in a woman's body: estrone, estradiol, and estriol. At the onset of menopause, the levels of all of them fall dramatically – creating the detrimental consequences of menopause. Its characteristic symptoms are hot flashes, insomnia, vaginal dryness, bladder problems, difficulty concentrating, and anxiety.

*But did you know, in the absence of estrogen, disease processes like cardiovascular disease, stroke, osteoporosis, and Alzheimer's only increase?*

The rapid loss of bone after menopause has been attributed to the decline of estrogen, which is essential for bone growth. Osteoporotic diseases are one of many types of diseases that develop with aging and result in significant morbidity and mortality. Estrogen deficiency also results in the development of heart disease, the #1 killer of women and men. When a woman's estrogen level drops, the risk of her getting heart disease soars. However, postmenopausal women on estrogen have a 70% decrease in mortality from heart disease. Additionally, estrogen has been shown to:

- Lower Total Blood Cholesterol
- Raise HDL, the Good Cholesterol
- Protect Vessels of the Heart
- Protect Vessels of the Brain
- Guard Against Alzheimer's Disease

Over the past 30 years, more than 100 articles in the medical literature have documented the cardiovascular benefits of estrogen. In a recent study by the Women's Health Initiative, a combination of synthetic estrogen and progestin (Premarin and Provera) showed an increased risk of heart disease and breast cancer. However, in the estrogen-only trial, there was no increased risk of heart disease or cancer.

Therefore, it was the synthetic progestin (Provera) that was to blame – NOT estrogen. Unfortunately, most physicians, the media, and patients misunderstand this.

Let me reiterate: **synthetic progestin** caused the increased health risks. Estrogen alone was not the culprit.

Unequivocally, estrogen is essential to a woman's health. It protects her against many of the diseases of aging and it helps post-menopausal women feel better and remain healthier. Sadly, most of the estrogen prescribed for women by their doctors is the synthetic form that is unnatural to the body. Consequently, many women develop side effects or feel chronically ill. I cannot stress the importance of avoiding synthetic hormones and opting for bio-identical hormones enough.

A recent article in the New England Journal of Medicine (NEJM) proved by meta-analysis that the long-term use of synthetic estrogens and progestins (the main culprit) increase the risk of breast cancer. These medical studies utilized the most commonly prescribed estrogen, Premarin, derived from the urine of pregnant mares (thus the contraction: pregnant mare's urine). Premarin contains many estrogens found in horses only – not humans. Many women cannot tolerate the side effects of chemically different horse urine. More importantly, Premarin contains the horse estrogen equilin, which can cause many deleterious side effects. I'm astonished that so many physicians cannot understand why some women refuse to take Premarin.

To summarize, natural or bio-identical estrogen:

- Protects Against Heart Disease, Stroke, Osteoporosis, Alzheimer's, and Memory Disorders
- Guards Against Vaginal Atrophy, Urinary Incontinence, and Urinary Tract Infections
- Prevents Symptoms of Menopause
- Improves Overall Wellbeing

On the other hand, estrogen deficiency results in:

- Urogenital Atrophy
- Incontinence
- Sagging Skin
- Drooping Breasts
- Increased Skin Wrinkles
- Fatigue
- Depression
- Mood Swings
- Decreased Libido

Our own hormones are beneficial until we lose them; therefore, they must be replaced with the same bio-identical hormones. Do not replace them with chemically altered, harmful hormones that are vastly different from what your body once manufactured. Never equate synthetic estrogen with bio-identical estrogens – the media might lump them together, but they are by no means equal. You can avoid the problems and deterioration caused by hormone deficiency with a personalized regimen of bio-identical hormone replacement therapy.

If you're a woman whose body lacks estrogen because of natural or surgical menopause (complete hysterectomy), you should be taking estrogen (and progesterone). If you're taking synthetic estrogen, I strongly recommend that you switch to bio-identical estrogen as soon as possible. When you give your body the same identical hormones in the optimal amounts you had when you were younger, you will not only feel and function better, you'll prevent the significant deterioration that accompanies the loss of estrogen.

# PROTECTIVE PROGESTERONE: YOUR SHIELD AGAINST CANCER AND HEART DISEASE

When a woman reaches menopause, she loses progesterone, which protects her against uterine cancer, breast cancer, osteoporosis, and heart disease. Unfortunately, most doctors respond to this reality by prescribing a synthetic, chemically different drug called medroxyprogesterone, or the brand name Provera. Even though Provera shares a similar name to progesterone, *medroxyprogesterone*, it is molecularly and biologically different from progesterone. In this section, I'll explain why Provera is problematic and harmful, and why natural or bio-identical progesterone is safe and beneficial – even though most physicians conflate the two.

Progesterone stands for pro-gestational, or the hormone of pregnancy. It plays a vital role in the initiation and maintenance of pregnancy. Provera, a progestin or synthetic progesterone, is a teratogen. It causes birth defects and is contraindicated in pregnancy. It's obvious that these hormones are complete opposites of each other: they are structurally, metabolically and physiologically worlds apart.

However, since most physicians do not understand this, they continue to prescribe Provera. Furthermore, almost all medical studies only evaluate the synthetic progestin Provera, and have found it to be harmful in a multitude of ways. Conversely, research focusing on bio-identical progesterone has never found it to be dangerous. Yet even the medical literature fails to distinguish between Provera (medroxyprogesterone) and bio-identical progesterone.

Another female hormone, progesterone is just as important as estrogen for the aging woman, though it is commonly overlooked. Produced in the ovaries and used in nature to balance estrogen, it too, can safely and effectively relieve menopausal symptoms, protect against cancer, prevent osteoporosis, and improve overall wellbeing. In the past, physicians became accustomed to prescribing synthetic progestin (Provera). These synthetic progestins create significant problems and side effects for females, much like synthetic estrogen, minus the benefits of bio-identical progesterone.

A study cited in the Journal of American Medicine (JAMA) on July 23, 2002, was a large hormone study utilizing different combinations and forms of estrogen and progestin. A portion of this study was terminated early because of the statistically significant increased incidence of breast cancer. This Women's Health Initiative study demonstrated that the progestin, Provera, was the culprit, even though estrogen took the rap for the increase. However, a crucial, but not widely published fact was that the estrogen-only arm of this same study proved a decreased incidence in cancer. More importantly, recent studies consistently demonstrate that progesterone protects against breast cancer.

There was no problem with Premarin, or the estrogen-only part of the study. Unfortunately, the media either reported that all hormones were dangerous or that Premarin was the problem. They also incorrectly reported progesterone as harmful, when in fact, synthetic Provera – a progestin – is.

Once again, the progestin, Provera, is NOT the same as progesterone.

Why the confusion among physicians and patients?

Doctors confused the generic name for Provera, medroxyprogesterone, with progesterone. Provera inflicts a multitude of damage on your body, whereas progesterone helps your body and does it no harm. Thanks to the media's misunderstanding of the molecular and physiological difference between progestin (Provera) and progesterone, the public doesn't know the difference. But progestin (Provera) and progesterone are nothing like each other.

Because progesterone and estrogen were designed to work together, progesterone enhances the action of estrogen. A lack of progesterone in your body results in:

- Osteoporosis
- Heart Disease
- Loss of Libido
- Diminished Quality of Life

The beneficial combo of progesterone and estrogen can prevent this degeneration and keep you vital, strong, and healthy.

Most women complain about the life-altering side effects of progestin and now demand bio-identical supplementation instead. Despite an abundance of studies proving the health benefits of bio-identical progesterone, it is usually only prescribed at the insistence of well-informed women.

Synthetic progestin causes:

- Bloating
- Swelling
- Breast Tenderness
- Bleeding
- Depression

Now that compelling evidence exists that Provera causes breast cancer, it seems like a no-brainer to conclude that women should avoid progestins. Why do we even need a debate when the facts are clear? Anyone who continues to prescribe or take Provera is taking an unnecessary risk. Bio-identical progesterone is the only choice for your continued health and wellness, despite what the medical community – duped by pharmaceutical companies with a vested interest in pushing their synthetic products – tells you.

Bio-identical progesterone is a remarkably beneficial treatment for premenstrual syndrome (PMS), which includes bloating, irritability, moodiness, and headaches. All these symptoms are due to falling progesterone levels in your body. Bio-identical progesterone balances both pre-menopausal and post-menopausal levels of estrogen and hormone-induced symptoms like emotional instability, headaches, and mood swings. It has a mild tranquilizing effect and enhances overall wellbeing. Additionally, bio-identical progesterone protects against uterine cancer and breast cancer, as proven by European studies. By contrast, Provera increases breast stimulation and breast density, as seen on mammograms.

Two recent Japanese studies showed how progesterone prevents breast stimulation, whereas Provera does not. Another study demonstrated progesterone's superiority over Tamoxifen in guarding against breast cancer. This study is extremely important because prior to its publication, nothing had been shown to reduce the risk of breast cancer. Progesterone inhibits the growth of breast cancer cells, whereas progestins stimulate the growth of cancer cells (European Journal of Cancer).

During pregnancy, progesterone levels are high, which is essential for carrying to term. These high progesterone levels explain why many women feel great during pregnancy, and why many symptoms of PMS disappear when a woman is pregnant. The sudden decline of progesterone after giving birth creates post-partum depression, which means it can be successfully treated with bio-identical progesterone. It can help new mothers cope while their hormones rebalance.

Bio-identical progesterone comes in many forms: topical creams, oral capsules, and sublingual tablets. In my experience, the best bioavailable form that results in sustained therapeutic levels is sublingual tablets. Over-the-counter progesterone creams contain a minimal amount of progesterone and will not bring blood levels to therapeutic ranges. Proponents of progesterone cream claim that saliva tests prove efficacy. However, saliva tests do not correlate with blood tests – which are the true indicator of a progesterone level sufficient to protect your uterus, breasts, bones, and heart.

How do you attain adequate levels of progesterone? Through a prescription dose. If over-the-counter creams contained adequate doses, the FDA would require a prescription, as they do with all drugs. Progesterone levels should be measured by blood tests, then evaluated by a physician to assure that the level is within the therapeutic range of 10-20 mg./dl.

To sum it up, bio-identical progesterone:

- Protects You from Breast Cancer
- Acts as a Natural Tranquilizer
- Promotes feelings of Wellbeing
- Relieves Menopausal Symptoms
- Enhances the Beneficial Actions of Estrogen
- Stimulates New Bone Formation
- Protects You from Osteoporosis and Heart Disease

***Provera does none of the above.***

Even if a woman does not have a uterus, she should take bio-identical progesterone to reap these amazing benefits. Furthermore, no other therapy has been proven by medical studies to protect women from breast cancer. Given its multitude of benefits, ALL menopausal women should take bio-identical progesterone for their overall health and wellbeing. Period (no pun intended).

# TO BLEED OR NOT TO BLEED? I THOUGHT I WAS DONE WITH THIS!

Bio-identical hormones have been a hot topic for celebrity books and talk shows. If you've read thus far, you've noticed I often use the term "bioidentical" to describe the type of hormone replacement that I prefer and is easily medically available. Thanks to the media highlighting the term, more people have become familiar with it – especially men and women coming to terms with the aging process. That's a good thing.

However, the downside of more widespread acceptance and acknowledgement of bio-identical hormones is the emergence of "experts" with "expert" opinions on the correct way to take bio-identical hormones. One of these "expert" methodologies instills apprehension and dread in most women, to the point where they shun hormones altogether.

What is this "sound" medical advice promoted by so-called "experts?" A monthly cycle is natural, beneficial and necessary.

If you're a woman dealing with menopause, this is probably the last thing you want to hear. First, let me assure you it: is an absolute fallacy. But I want to explain the thought process behind it.

The implication is that women menstruate when they are young and healthy; therefore, to maintain the vitality of their youth, all menopausal women should continue to menstruate. How is this cycling achieved? By either mimicking the monthly hormone cycle (a difficult and often very frustrating endeavor to continue month after month after month) or by stopping progesterone for one week out of the month, thereby creating a menstrual cycle. If you find this solution distasteful and unsatisfactory, you are not alone. For most women, if taking hormones requires them to deal with a period every month, the response is, *thanks, but no thanks. I'll pass on hormone replacement.*

What causes menstruation? The decline of a woman's hormones. This means, if she stops taking the progesterone for a few days every month, she will cycle and bleed. This is possible, even if it has been years since you've had a period – unless, of course, you've had a hysterectomy. Just because a monthly period is natural for younger women does not mean it is necessary or beneficial for menopausal women.

## **TO BLEED OR NOT TO BLEED?**

The answer is unequivocally – NO.

*Menopausal women do not need to menstruate and taking hormones does not necessitate cycling.*

First, bio-identical hormone replacement therapy does not put a woman in a state of pregnancy.

Second, the reason a woman menstruates is to clean the uterus in preparation for the eventual implementation of a fertilized egg. Unless you're a woman who wants to get pregnant, there is no physiologic or beneficial reason to menstruate.

A recent article in the Obstetric/Gynecological literature claimed that unexpected vaginal bleeding was the most common reason women stopped hormone replacement therapy. For most women, the cessation of a monthly period was a welcome symptom of menopause. This explains why medical literature often addresses how to stop and prevent post-menopausal vaginal bleeding. With the appropriate balance of estrogen and progesterone, women should not bleed and will be more satisfied with their ongoing hormone replacement therapy. And as I've noted previously, both estrogen and progesterone are enormously beneficial to a woman's health. Why on earth would a doctor advise taking

them for three weeks out of the month, then stopping for a week? That would result in a woman losing the protection and benefit of estrogen and progesterone 25 percent of the time.

As mentioned before, the cause of PMS is the sudden drop in women's hormone levels that occurs right before their monthly period. For years, women have been treated with antidepressants or birth control pills taken continuously and not cycled to control PMS. By taking the pill uninterrupted, a woman can avoid the hormonal drop and the onset of PMS. The pharmaceutical industry has now caught onto this and come up with a new birth control pill that is cycled for bleeding every four months instead of monthly. Researchers claim that although menstruation is not necessary, the every-four-month bleed makes women feel more "normal." We now realize that neither pre-menopausal women, nor menopausal women need to menstruate.

Consider the implications of stopping bio-identical progesterone for one week every month: a woman loses its protective benefits for her breasts and uterus, leaving them vulnerable to cancer. It is bio-identical progesterone – not the bleeding that accompanies menstruation – that protects the uterus. When a woman ceases to take progesterone for one week out of every month, her body is at risk during those seven days. It simply makes no sense to forego the protection of progesterone in favor of a bleed that has no cancer-prevention benefits.

Recent studies have shown that Provera (medroxyprogesterone) increases the risk of breast cancer and the thickening of the breast tissue through direct stimulation of estrogen receptor sites in the breast. One study proved that Provera increased breast stimulation by 400 percent over baseline. That same study revealed that bio-identical progesterone does not stimulate breast tissue as it down regulates (protects) receptor sites in the breast. *Why lose 25 percent of the protective effects of progesterone by stopping it for 25 percent of the month?*

There is a condition called "endometrial hyperplasia." It causes increased thickening of the endometrial stripe (uterine lining), which is a precursor to cancer. To avoid the development of cancer, endometrial hyperplasia must be treated as soon as possible with high dose progesterone to shrink the tissue. If repeat ultrasounds show no reduction in the endometrial lining, the prescribed dose of progesterone is doubled. Progesterone directly stimulates endometrial tissue, thereby causing it to shrink. Protection from cancer does not occur because of the shedding of the lining. A constant, sufficient dose of progesterone is the better protection against cancer. Therefore, a woman should never stop progesterone for any reason!

Once again, to bleed or not to bleed? The answer is no: a woman on hormone replacement therapy does not need to cycle (stop the progesterone) on a periodic basis. There is no substantiated benefit to the body. If you're a pre-menopausal or menopausal woman, you can relax and enjoy the many protective benefits of bio-identical hormone replacement therapy – without having to experience a monthly period.

# THE EQUAL OPPORTUNITY HORMONE: TESTOSTERONE FOR WOMEN AND MEN

## *Ladies First*

Did you know that testosterone is a female sex hormone too? That means total hormone replacement includes restoring the natural balance of testosterone for women. It plays a critical role in a woman's physical and emotional health, along with estrogen and progesterone. The pharmaceutical industry was the first to recognize the importance of testosterone in females and started marketing a combination estrogen and testosterone tablet, which was, unfortunately, synthetic. The synthetic hormones can adversely affect the liver; therefore, as with all synthetic forms, I advise against taking them. Only the safe, bio-identical testosterone, available from compounding pharmacies, should be used.

An important hormone for female sexual development, testosterone is produced in both the ovaries and the adrenal glands. As they age, women lose their libido due to loss of serum testosterone. A testosterone deficiency also contributes to symptoms of menopause and impacts sexual responsiveness. It is no surprise then, that replenishing bio-identical testosterone:

- Contributes to the Enhancement of Your Sexual Drive
- Relieves Menopausal Symptoms
- Restores Energy
- Strengthens Bone
- Prevents Osteoporosis
- Increases Your Overall Sense of Wellbeing and Zest for Life
- Improves Your Skin, Muscles, Bones, Tendons and Joints
- And most stunningly, several recent studies out of Australia and Ohio in the United States suggest that testosterone therapy in women might just dramatically lower rates of Breast cancer. Where is that tidbit of information during Breast Cancer Awareness Month in October?

A common complaint among older patients is thinning skin, primarily on their arms and hands. Most women don't know that the best treatment for wrinkle-prevention and thinning skin is testosterone – and that it is much more effective in preventing bone loss than estrogen. However, testosterone is rarely mentioned in this regard. A small amount of replacement with testosterone can make an incredible difference for women. How will your doctor determine the correct dose for you? By considering your weight, age, and blood levels and ultimately your response to the treatment.

In summary, testosterone is surprising to many to be a female hormone too. It is secreted by the ovaries, adrenal glands, and testes. It contributes to increased muscle mass, decreased fat, strength, endurance, and mood enhancement. With the proper dosage of bio-identical testosterone, you may also look forward to an increase in bone density; prevention of osteoporosis; improvement in skin tone and healing capacity; and an increase in libido and sexual performance.

Testosterone can improve your quality of life because it impedes the diseases of aging, including cardiovascular disease, by decreasing cholesterol and increasing HDL. It is also a memory-enhancer that guards against Alzheimer's disease. Given all these benefits, it is easy to see why testosterone is an equal opportunity hormone for men and women. A recent study in the Journal of American Medicine even

referred to it as “cutting-edge medicine.” The medical literature “bible,” The New England Journal of Medicine, reviewed testosterone replacement for women and discovered it to be the best therapy for improving energy, along with estrogen and progesterone.

Once again, I caution you to remember the difference between bio-identical hormones and synthetic hormones. Do not confuse bio-identical testosterone with the synthetic testosterone analogs. Use only the bio-identical, bio-identical testosterone and avoid the synthetic. You’ll likely feel great and enjoy better health.

### **Testosterone for Men**

Although testosterone is vital for both women and men, it has always been known as **THE** male sex hormone. Recently, it has been linked to longer, healthier lives for females and males. Just as with all hormones, health problems accelerate as testosterone levels decline. Testosterone replacement is effective in providing multiple health benefits, including:

- Increased Muscle Strength and Lean Body Mass
- Improved Sexual Response
- Improvement of Erectile Dysfunction
- Improved Body Composition

Additionally, testosterone has been shown to prevent osteoporosis, arthritis, and degenerative joint change. It enhances a man’s sense of wellbeing and alleviates depression, which is a symptom of andropause, the male version of menopause. Much like estrogen in women, testosterone improves memory in men. Perhaps most importantly, this hormone protects both men and women from cardiovascular disease.

Consequently, men who undergo testosterone replacement therapy report feeling healthier, stronger, and sexier. They often enthusiastically report that testosterone makes them feel like they did when they were in their prime – and it’s no wonder since that’s what bio-identical hormone replacement therapy is all about. When you restore hormones to their youthful levels, you can experience the exhilaration of being at the peak of your physical and mental ability.

For men, testosterone can slow down the physical decline that robs them of their energy, strength, and libido. It can restore muscle tone; increase stamina; and restore healthy sexual excitement and desire. A man taking bio-identical testosterone, then, can potentially look forward to improved moods and overall wellbeing.

Testosterone is responsible for the sex drives of both men and women. As testosterone diminishes with age, so does male and female sexual drive and sexual function, but replenishing and restoring testosterone to youthful levels can correct the situation. Rest assured, there is no need to accept the loss of sexuality as an inevitable outcome of growing older. Testosterone can play a critical role in preserving and restoring sexual desire and function, so you can live your extended life span with the same vigor of your youth.

Many symptoms and disease processes we accept as a byproduct of aging occur because of low testosterone levels. With testosterone supplementation, you might increase muscle size and strength, energy levels, and desire and endurance for exercise while decreasing fat.

In the past, “testosterone” replacement was associated with increased cholesterol levels, but here again, we must make the distinction between synthetic and bio-identical testosterone. Using synthetic testosterone resulted in liver dysfunction and concomitant elevation of cholesterol. Studies now show that replacement with bio-identical testosterone results in decreased total cholesterol and increased HDL (the good cholesterol), much like a woman’s results with bio-identical estrogen.

*How many supplements on the market support our health, increase our energy and stamina, and elevate our mood?*

*What other supplement can build strong bodies, muscles, bones and ligaments while decreasing fat?*

Another benefit of testosterone: it promotes a desire to exercise, for many reasons, among them a feeling of less exhaustion and lethargy. Clearly, men who take bio-identical testosterone can expect a positive impact on their health and wellbeing, their mood, and their ability to learn and retain information.

Despite solid evidence that testosterone deficiency plays a role in heart disease, and that many well-designed clinical research studies have documented a broad range of cardiovascular benefits from testosterone, most U.S. cardiologists ignore it. A recent U.C. San Diego study of 2,500 men showed that the patient with the greatest arterial blockage had the lowest levels of testosterone. This same study proved that the men with the highest levels of testosterone had less cardiovascular disease. Yet regardless of this data available in the medical literature, physicians remain resistant and/or oblivious to the benefits of bio-identical testosterone.

Bio-identical testosterone supplementation may:

- Reduce Obesity
- Decrease the very dangerous Visceral Fat
- Raise Lean Body Mass
- Normalize Blood Clotting
- Increase the Good HDL Cholesterol

All of this contributes to the reduction of diabetes and cardiovascular disease.

Testosterone also prevents cognitive decline and Alzheimer’s, even better than estrogen in women. A recent medical study showed testosterone reduced C-Reactive Protein levels (CRP), a measurement of inflammation in blood vessels. Testosterone protected men against heart attacks and the progression of heart disease. In another study from the Annals of Internal Medicine, it was proven that the men with the highest levels of testosterone were the men who lived the longest.

That’s right: Testosterone has been demonstrated to lengthen a man’s lifespan. With all the great news about testosterone, it makes you wonder why most physicians fail to recommend it.

There are several methods of administering Testosterone to men. They include pellets, creams or gels or injections. As with all bio-identical hormone replacement therapy treatments, the exact treatment is tailored to the individual and based on age, body weight, blood levels and symptomatic improvement. The best forms of bio-identical testosterone are available only from compounding pharmacies.

Need more proof that testosterone is a beneficial, safe hormone?

In a summary article in the New England Journal of Medicine in January of 2004, the authors concluded: “We reviewed decades of research and found no evidence that testosterone therapy causes prostate cancer.” Furthermore, prostate cancer became more prevalent later in life when men’s levels of testosterone diminish. The authors found no connection between higher testosterone levels and prostate cancer, or any evidence that testosterone treatment provokes cancers. There was no evidence that

testosterone therapy causes prostate enlargement (BPH). More importantly, testosterone was found to significantly protect against heart disease.

Conclusion? If you're a man who wants to live a longer, healthier and more fulfilling life, bio-identical testosterone replacement therapy is a must.

# STAYING ALIVE: WANT TO LIVE A LONGER, HEALTHIER LIFE? INCREASE YOUR DHEA

Dehydroepiandrosterone (DHEA) is a hormone produced by the adrenal glands, derived from cholesterol. Remember, any hormone derived from cholesterol or sterols is called a steroid. Therefore, DHEA, estrogen, progesterone, and testosterone are all beneficial, natural steroids. As the most abundant steroid in the body, DHEA has a multitude of benefits. It is a necessary building block in the production of estrogen, progesterone and testosterone.

For many years, DHEA was believed to serve no other purpose than as a precursor to our sex hormones; then researchers discovered that DHEA dropped steadily as we aged, making it useful as a biomarker to measure the aging process itself. A 2002 study published by the National Institute of Health proved that only caloric restriction and elevated levels of DHEA can prolong lifespan. Indeed, ten years prior in 1992, a study in the New England Journal of Medicine proved that low levels of DHEA were associated with increased mortality from cardiovascular disease and cancer, while higher levels of DHEA guarded against them. Conclusion: for optimal health, maintain optimal DHEA levels.

DHEA:

- Improves the Function of the Immune System
- Improves Brain Function
- Relieves Stress
- Acts as Potent Anti-Cancer Supplement

Most of these effects are a result of a shift from a catabolic state to an anabolic or protein-building state. A significant amount of research has been published about DHEA's critical role in our health and wellbeing, which is why it is the focus of some of the most exciting medical research in the United States.

DHEA has also been shown to increase insulin sensitivity, which means the body requires less insulin. This in turn, results in protection from diabetes, and greater control for those who are already dealing with it. Additionally, DHEA has been proven to have a significant effect in treating connective tissue disorders like Lupus, a disease for which standard therapy tends to have limited success. Pharmaceutical DHEA will soon be approved as drug to treat Lupus.

DHEA offers tremendous benefits for your body. Most of them are based on its ability to stimulate protein synthesis within your cells, which results in increased cell regeneration and an improvement of your body's immune function. An improved immune system forestalls disease progression. Furthermore, DHEA appears to prevent the formation of free radicals, rendering it an antioxidant also.

OVER 14,000,000 Americans cope with diabetes in some form, thanks to insulin resistance. Insulin resistance – the inability of insulin to do its job – results in increased glucose (blood sugar), increased weight, obesity, and heart disease. A decline in DHEA precipitates insulin resistance which can lead to damage of the cardiovascular system. Diabetics who have been given DHEA have shown a slight decrease in insulin resistance, which prevents the harmful effects of insulin on the vasculature. Two recent studies in the Journal of Clinical Endocrinology and Metabolism have demonstrated the beneficial effects of DHEA in preventing cardiovascular disease.

In 1995, the Journal of Clinical Endocrinology and Metabolism revealed that there are over 2,500 published papers detailing DHEA's multiple benefits. This important paper acknowledges that we produce

half the amount of DHEA at age 40 than we did when we were 20. Some elderly people produce no DHEA at all – putting them at significant risk. DHEA has been shown to improve the quality of life and postpone many of the unpleasant effects of aging such as fatigue and muscle weakness.

Patients on DHEA slept better, experienced more energy, and were better equipped to handle stress compared with a placebo group not receiving DHEA.

Other potential benefits of DHEA include:

- Immune Enhancement
- Anti-Cancer Effects
- Anti-Atherosclerotic Effects
- Cognitive Enhancement

Commonly found in drug stores, grocery stores, and health food stores, DHEA is available over the counter. But don't be fooled: many of the over-the-counter products (and this goes for all supplements, not just DHEA) come from foreign countries and contain contaminants and preservatives. Thus, they are not entirely pure pharmaceutical grade DHEA. The half-life of DHEA from over-the-counter sources is approximately six hours, which requires you to take it three times per day.

For maximum results, DHEA should be prescribed in a sustained release, micronized form, to allow for complete absorption and a sustained level over a 24-hour period. This eliminates the three-times-a-day dosage requirement that comes with its OTC counterpart. Additionally, DHEA by prescription must be of a pure pharmaceutical grade that is compounded by a pharmacy to ensure a one-hundred percent pure pharmaceutical product.

# MELATONIN: YOUR PURVEYOR OF SWEET DREAMS, RESTFUL SLEEP, AND A MORE YOUTHFUL APPEARANCE

Melatonin is a hormone secreted by the pineal gland, located in the center of the brain. It regulates our circadian rhythm and the deep stages of sleep. During these deep stages of sleep, our immune system is stimulated. The book, *The Melatonin Miracle*, describes the pineal gland as the master regulator of the endocrine system. As such, it controls most of the immune system's responses. The pineal gland controls the activities of virtually every cell in the body, affecting such diverse functions as:

- Reproduction
- Body Temperature
- Kidney Function
- Immunity
- Sleep
- Growth and Development

The pineal gland uses melatonin to maintain the body's balance, equilibrium, and homeostasis. Its primary role is to control the production and use of energy throughout the body through the release of melatonin and perhaps other compounds. Like a traffic controller, it directs energy production to ensure that it goes where it is needed at precisely the right time – whether to repair or respond to injury or to make hormones, enzymes, or antibodies. Melatonin directs the cells in the body to do whatever it takes to keep the body running in a state of homeostasis (internal stability). As with all other hormones, it has multiple health benefits.

On January 16, 1997 the New England Journal of Medicine published the most extensive review of melatonin ever published in a conventional medical journal. It extolled the many virtues of melatonin including:

- Powerful Antioxidant Effects
- Potential Benefit in Preventing and Treating Cancer
- Immune-Enhancing Properties
- Ability to Promote Better Sleep and Avoid Jetlag

Melatonin has been proven to play a role in the biological regulation of circadian rhythms, sleep, mood, reproduction, tumor growth, and as an antioxidant. As with DHEA, hundreds of published studies demonstrate the tremendous, beneficial effects of melatonin. If published scientific studies support the efficacy of a bio-identical hormone supplement in *boosting your immune function, scavenging free radicals, fighting cancer, inducing youthful sleep patterns, and possibly slowing the aging process*, doesn't it make sense to start taking it?

Melatonin is available by prescription and over the counter. However, most of the OTC preparations come from China and possibly contain contaminants. On the other hand, the pharmaceutical grade from a compounding pharmacy is one-hundred percent pure. Taking melatonin that is compounded by a special pharmacy is the only way to ensure you are receiving it in its pure form. The standard dose is 3 mg, but many patients might have to take up to 30 mg. to get the desired results. Trial and error is the simplest

way to determine the right amount for you. The only side effects of melatonin might be excessive morning sleepiness and headaches. If you experience either one of these, you should reduce the dosage.

Some people are sensitive to melatonin and require a much smaller dose like 1 mg, while most tolerate 3 to 9 mg. without any problems. Since melatonin is such an important protective hormone, I recommend that my patients take the maximum dose tolerable. The optimal dose of melatonin is simply the amount you can take without causing extreme morning grogginess, while experiencing restful sleep without significant awakening.

One intriguing benefit of melatonin I've discovered is a reduction in urinary frequency at night. Many men assume they have prostate problems if they wake up often during the night to urinate, even though it is usually for short durations. Melatonin usually diminishes this nocturnal problem, which in turn, improves the supposed prostate issue. And yes, women, it is equally effective for you. Melatonin can also reduce migraines and lower blood pressure.

Why wouldn't you want to take this safe, bio-identical, effective, cheap, cancer-protective, immune-enhancing therapy for sleep that has stood the test of time?

Do you want to sleep like a baby, dream more than before, and awaken refreshed every morning? Avoid sleeping pills and opt for melatonin – a natural, healthy, sleep-enhancing hormone with none of the risks and side effects of pharmaceutical drugs.

# WHY BIO-IDENTICAL HORMONE REPLACEMENT THERAPY?

In 1990, Dr. Daniel Rudman published a landmark article in the New England Journal of Medicine. In it, he and others demonstrated that hormone deficiency was in part responsible for increased body fat, decreased muscle, decreased strength, decreased bone, and skin thickness. Replacement of hormones resulted in overwhelming improvement in the signs and symptoms of growing old. The findings of this famous study were consistent with the hypothesis that hormone deficiency contributed to the age-related changes. Many studies have since proved the same clinical utility of hormone replacement in alleviating and improving the health problems associated with aging.

Investigators are now combining various hormones and seeing even greater results. Dr. Mark Blackman, an endocrinologist from Johns Hopkins University, recently published his findings in the Journal of Clinical Endocrinology and Metabolism. In his five-year study, he combined testosterone, estrogen, and progesterone. All men and women involved in the study benefited from hormones, while those not on hormones did not. Once again, this investigator discovered that hormone deficiency leads to symptoms and illnesses that bio-identical hormone replacement therapy improved, including:

- Increased breakdown of fat, weight loss, and reduced body fat.
- Decreased incidence of heart disease and atherosclerotic plaque.
- Increased energy and exercise capacity.
- Improved vitality and quality of life.
- Increased strength, endurance, and muscle tone.
- Improvement in hair, skin, and nails.
- Improved sleep and wellbeing
- Reduced levels of cholesterol and triglycerides.
- Less incidence of heart disease and diabetes.
- No increase in cancer was seen in any hormone.
- Progesterone decreases the chances of breast cancer.

All hormones displayed beneficial health effects; improvement in body composition, lipid profiles, and cardiovascular risk factors; and an increase in muscle strength and fitness.

## ***So why didn't this article make national headlines?***

We can conclude from this and other studies that bio-identical hormone replacement therapy can reduce the incidence of major illness and therefore, prolong life – and not just prolong it, but enhance its quality. Imagine, you *can* live a longer life free of illness and disability. How great is that?

It's my goal to extend the health and vigor of my patients from the middle-aged years to the Golden Years and it ought to be every physician's goal. The research and science exist; physicians just need to apply it. Bio-identical Hormone Replacement Therapy is the ultimate preventive medicine.

As a patient, you can significantly enhance the benefits of Bio-identical Hormone Replacement Therapy with exercise. Along with a strength training program, BHRT enhances exercise tolerance, muscle strength, and endurance, and prevents fatigue. You can enhance your sense of wellbeing, release weight, and lower cholesterol when you combine an exercise regiment with bio-identical hormone replacement therapy.

A common complaint I hear from new patients is that they are doing the right things – exercising, eating properly, drinking plenty of water, etc. – and yet, the numbers on the scale aren't budging, the stubborn fat refuses to go away, and their muscle strength and endurance are not improving. I understand their frustration, but assure them (as I am assuring you), by adding hormone replacement therapy to their routine, they likely will experience results.

What are the basics for optimal health?

- Proper Diet
- Exercise
- Nutritional Supplementation
- Bio-identical Hormone Replacement

BHRT slows cellular degeneration and allows improved function and healing for your body, resulting in less disease and illness, a slowing down of the aging process, and a better quality of life. Impressive scientific research, dramatic results and public demand all point to one conclusion: if you want to live a longer, fuller, happier, and healthier life, bio-identical hormone replacement therapy is a must. Don't suffer the consequences of being without it!

## ABOUT THAT 2002 WOMEN'S HEALTH INITIATIVE STUDY

The hormonal and sexual health of women across America was thrown into chaos in 2002 when the Journal of the American Medical Association published an article known as "The Woman's Health Initiative" or WHI. From that day forward, irrational fear overwhelmed millions of women. For years they thought they had a safe "hormonal" treatment for the hot flashes, night sweats and painful sex that accompanied menopause.

The results of the WHI showed that prolonged use of the *unnatural* hormone substitutes Premarin® and Prempro® increased the risk of breast cancer by more than 50% and that Premarin® strongly and dangerously stimulated the lining of a women's uterus, potentially causing cancer. Unfortunately, too many so-called "experts" have taken the findings from a flawed study of horse urine (Premarin®) and a toxic chemical (Provera®) and applied them to healthy bio-identical hormones that are exact biological matches of the substances normally found in a women's body. These "experts" unequivocally, but incorrectly, stated that ALL "hormones" are bad for women and that they will cause breast or uterine cancer. The result: women's menopausal misery returned.

However, since 2004, there have been many well done medical studies that have looked at bio-identical hormones properly administered to menopausal women. These studies have shown reductions of the rates of several diseases of aging and significant improvement in sexual function with no increased health or cancer risk. One excellent study done in France, where bio-identical hormone therapy is widespread, looked at more than 80,000 women (six times more than in the WHI) and concluded that women who used bio-identical hormones had NO INCREASE in the rate of breast cancer compared to those who never used any type of hormone therapy.

The reality is that BIO-IDENTICAL HORMONES, when properly administered by an expert, DO NOT CAUSE cancer or disease. In fact, they are excellent for treating the devastating symptoms of menopause and helping to reduce many common diseases of aging. Women today should no longer fear hormone therapy when done correctly by a properly trained expert.

## ASK DR. C – YOUR QUESTIONS ABOUT BIO-IDENTICAL HORMONE REPLACEMENT THERAPY ANSWERED

- *Do hormones cause cancer?*

Unequivocally *no*. Hormones do not cause cancer.

That fallacy came about thanks to several different studies in the early 2000's, primarily the Women's Health Initiative in 2002, which conflated synthetic hormones with Bio-identical Hormones. But there is an enormous difference between the two.



These studies pertain only to unnatural, synthetic hormones, which can indeed cause cancer. The problem is, they made no distinction between synthetic hormones and Bio-identical Hormones, so they created much confusion and misinformation among the public about hormone replacement therapy. Synthetic hormones include progestins, artificial progesterones, and horse-urine-derived estrogen.

Bio-identical hormones, on the other hand, are identical copies of the natural hormones that exist in our bodies. When you put those identical compounds back in the body, all your body does is get healthy. And while there may or may not be minor, aggravating side effects, any side effects are directly related to what the actual hormones do. That's natural, normal, and expected. But Bio-identical Hormones do not cause any serious problems and they certainly do not cause cancer.

In fact, if you look at studies dealing only with Bio-identical Hormones, the rates of cancer either stay the same or decline, and the better studies show a decline in the rates of a variety of cancer, not just breast cancer. [Click here for more.](#) (Link to a study)

- *Do hormones cause heart attacks in men?*

No, they don't. And just as with question number one, we can point to some bad studies as the culprit in perpetuating this myth. In the past couple of years, about four or five poorly done studies came out. A few are meta-analysis, where they looked at all the studies across the literature; and a couple of them are more observational studies. There's not one good, randomized, prospective, double-blind control study, which is the gold standard in medicine.

In any case, these studies looked at the testosterone administration and came up with the premise that they may increase things like *adverse cardiac arrest* – the buzzword people are seeking when they're looking for heart irregularities.

The problem is these studies considered swelling and edema as a major adverse cardiac event. And while this does happen with the administration of bio-identical testosterone, it's an expected, non-cardiac side effect of testosterone therapy, it is not a cardiac event and it is often short-lived and reversible. All the randomized, prospective, double-blind, controlled studies show substantial cardiac protection. Two of them even have shown that mortality rate and incidents of cardiac arrest **among men with known serious heart disease** go down.

So, what's really going on?

In mainstream medicine, there's an agenda against hormone therapy, which means they'll create studies to say what they want them to say. In at least one of these studies, the way they determined that the

patient got testosterone was based on a doctor giving a prescription to a patient. There was no follow up that the prescription was filled, taken or that the level of the blood testosterone was even affected by the prescription. That's scientifically disingenuous.

How do we know they filled the prescription? How do we know they took it properly? How do we know that testosterone did something physiological in the body, like raise the level of testosterone? And if it did raise the level of testosterone, did it raise it to a cardio-protective level? If you don't raise testosterone levels to protective, you're going to have cardiac events in the studies.

So, to answer the question, a couple of bad studies suggest that hormones cause heart attacks in men, but many excellent studies prove that raising testosterone levels is cardio-protective. [Click here to read one.](#)

- [Will Hormones Help Me Lose Weight?](#)

Hormones are not necessarily a weight loss program. However, your body cannot lose weight if it's hormonally imbalanced. By restoring hormonal balance, many of the regular, everyday things you do to lose weight will become much more effective. Once we restore balance, we'll look at metabolic factors like cholesterol. After that, we'll make some nutritional and supplemental recommendations that will facilitate your weight loss. If these measures don't work, I have an excellent weight reduction program you can adopt *after* we balance your hormones, cholesterol, and sugar.

- [Will I Have to Take Hormones for the Rest of My Life?](#)

It's a natural process of aging to lose your hormones. When you lose your hormones, you're going to get sick; you're going to get a lot of disease; and you'll likely die younger. We have the technology to maintain and replace hormone levels. By doing that, we're not guaranteeing or eliminating the risks of aging or dying of many different things – but the likelihood of you dying early or dying from one of the bad illnesses declines.

On a positive note, you're also going to do better, feel better, and live a more vigorous life. You're going to enjoy being alive because your quality of life will be vastly improved. So, you ask the question: *Do I have to take this for the rest of my life?*

Well, if you recognize that the body goes into normal hormonal decline as you age, you must take the hormones as long as you want to maintain the benefits – benefits that include reducing the risks associated with aging and of dying early.

When people tell me Bio-identical Hormone Replacement Therapy is an expensive treatment, I ask: *How expensive is Alzheimer's and how much do you want to live without it?*

I mean, you can suffer with Alzheimer's for 25 years. But you might be able to avoid that fate because hormones create a substantial reduction in the risk of development of dementia. If you can prevent Alzheimer's and take hormones to reduce your risk of dementia and, inevitably, ending up in a facility, wouldn't it be worth it? What's the cost of trying to live your life blind after macular degeneration? Yeah, maybe it costs money to do hormones every year and maybe you'll take them for the rest of your life, but consider the higher cost of not taking them.

If you can budget your BHRT with an effective payment plan we can build for you (because we build payment plans) and BHRT becomes a normal part of your everyday living – thereby reducing the risk of dementia, blindness, and other debilitating diseases – isn't that a good thing? What would it be like to

have to live with the consequences of a stroke the rest of your life? When you put it in perspective, you can't afford not to undergo BHRT.

- *Why Doesn't the FDA Recommend It?*

The FDA's job is to regulate drugs with the goal of trying to ensure that what is sold to the general public is essentially safe and effective. However, the FDA *does not* recommend or approve *medical treatments*. They are approved and/or recommended by the medical literature. At Florida Center for Hormones and Wellness, we practice the highest quality of evidence based medicine. That is, if the medical literature does not support it or suggest that it is helpful, we do not do it. Because we practice personalized medicine, we may use a *compound* medicine that is a specific formulation of a medication or substance designed for you as an individual. And while the specific compound may not be FDA approved, ***every single substance within the compound – testosterone, progesterone, estrogen and all other ingredients – is FDA approved.***

Why doesn't the FDA approve the compound if it's comprised of FDA-approved substances? Because it's not a standardized, manufactured dose. We use the same FDA-approved hormone ingredients used in commercial hormones, but since we create personalized dosages designed for each patient's specific needs, they are not considered FDA approved.

- *How Long Will It Take to Get My Sex Drive Back?*

If you want your sex drive back, you should get it back – probably better than it was when you were younger. And the good news is, it can be safely dialed in to meet your needs and desires.

- *I Feel Fine. Why Should I Take Hormones?*

It is crystal clear that hormonal decline is linked to mortality and disease. If your hormones are unbalanced, you will die at a younger age than people whose hormones are balanced. You may feel fine, but:

- Your heart is aging
- You're building up cholesterol
- You have a higher risk of Alzheimer's Disease, heart attacks, colon cancer, macular degeneration, a metabolic imbalance, a cholesterol imbalance, and a sugar-metabolism imbalance and a host of other age related disorders

Often, people with a hormone imbalance don't feel good and age faster. They look older and have less energy, focus and determination. In many cases, you don't feel "bad" because you've gotten used to how you feel. If you compare the way you feel today with the way you felt 10 years ago, if I could restore you to the way you felt 10 years ago, you would say, *"Golly, I can't believe I was putting up with the way I felt!"*

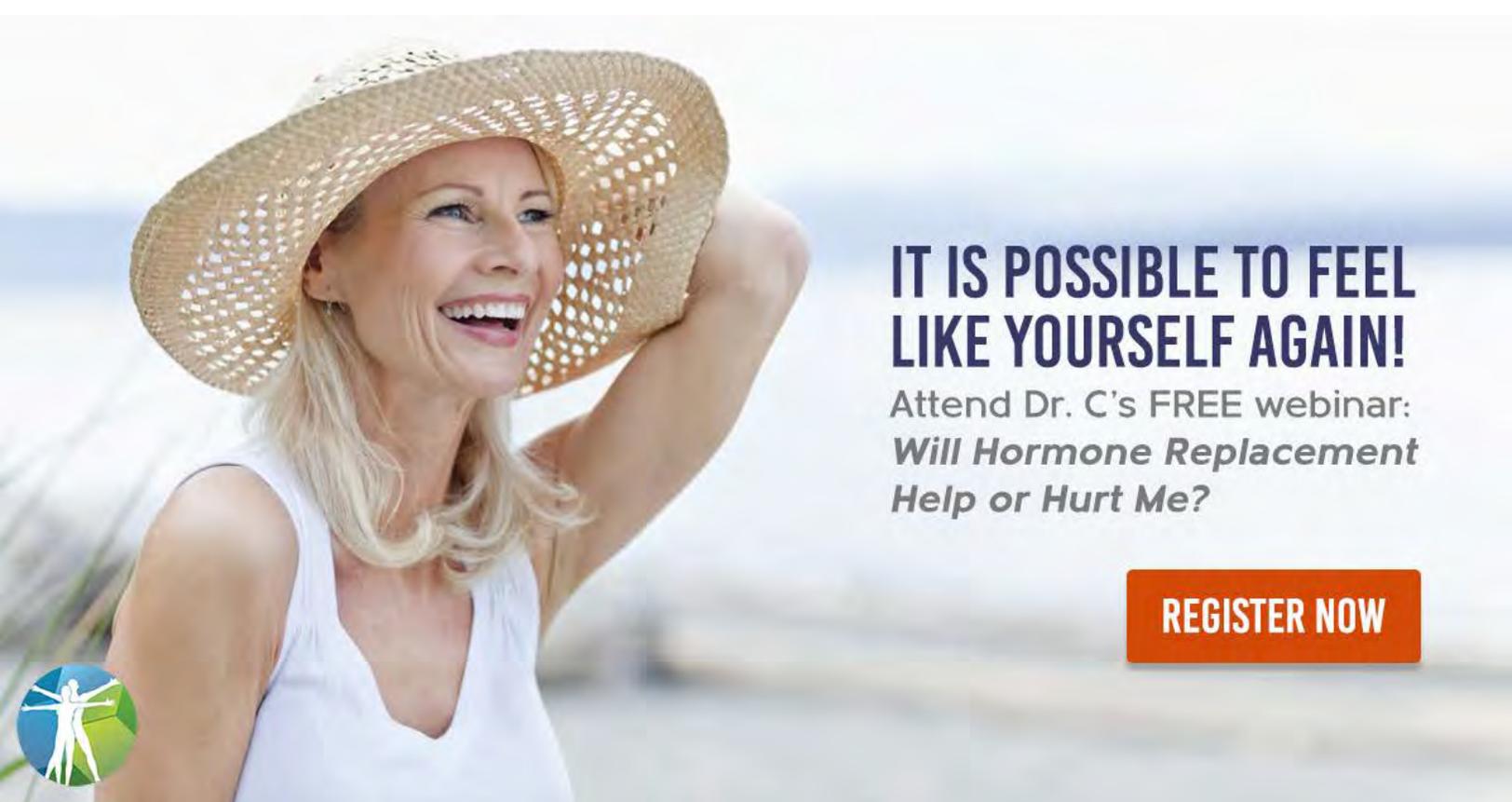
Yes, you may feel fine, but the diseases of aging are progressing, and the diseases of aging are worse when you're hormonally imbalanced.

- *How Long Will It Take Me to Feel Better?*

Most people tend to feel better within a few days, particularly with pellets. But we generally advise our patients that they may not feel any significant benefit until 4-6 weeks after treatment begins. You may feel good right away, but then it may take 4-6 weeks to really notice a difference. Within about a month or so, you should be dramatically improved from where you were when you walked into the office. Beyond that, it takes about a year to fine-tune everything so that you're completely balanced and on the road to good health. You feel good quickly, but it takes a year to really dial it in – meaning, smooth, even and predictable.



Want to learn even more? [Register for Dr. Carrozzella's Webinar: \*Will Hormone Replacement Therapy Help or Hurt Me?\*](#)



**IT IS POSSIBLE TO FEEL LIKE YOURSELF AGAIN!**

Attend Dr. C's FREE webinar:  
***Will Hormone Replacement Help or Hurt Me?***

**REGISTER NOW**