Your Six-Week Anti-Aging Plan

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Dr. Mark Rosenberg received his undergraduate degree from the University of Pennsylvania and graduated from Georgetown University School of Medicine. He then completed his residency in emergency medicine in San Antonio, TX at Brooke Army Medical Center, where he won the award of “Teacher and Resident of the Year.”

In 1997, Dr. Rosenberg became a diplomat of the American College of Anti-aging Medicine. He has since become a highly sought-after speaker and lectures frequently on topics such as integrative cancer therapy and anti-aging medicine. In 2009, Dr. Rosenberg lectured in Asia, Europe, and the Middle East.

Dr. Rosenberg has published a physician’s guide to the treatment of drug toxicities and served as a consultant to several hospitals for the treatment of drug overdoses. In addition to drug research, Dr. Rosenberg is avidly involved in supplement research, and has served as the Chief Science Officer for several supplement companies including VitalMax Vitamins.

Dr. Rosenberg has spent much of his time over the past few years studying cancer. He has developed a novel protocol that integrates standard chemotherapeutic regimens with non-toxic natural supplemental regimens. Dr. Rosenberg was featured on Fox News for inducing remission on a patient with cancer that had spread from the lungs, to the liver and spine. Wake Forest University is now currently beginning a study using this protocol.
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Anti-aging is the fastest growing branch of medicine. When I lecture on anti-aging, I have learned from the audience to clarify one thing first. Anti-aging is not the same thing as life extension. That would make it anti-death. But aging and death are two different things.

Aging is the process by which you gradually weaken and lose function. Anti-aging seeks to understand this process and intervene to preserve youthful characteristics. The recently discovered genetic control of aging has opened up a whole new world of possibilities.

In fact, it just may be...

**The Most Important Medical Discovery Of All Time**

History may mark the beginning of the 21st century as the time when we finally unlocked the secrets of aging... and learned how to stop the process. It will change the course of human history.

Your body is constantly renewing, rebuilding, and repairing itself throughout your life. With all this constant renewal, you should stay young forever. But you don’t. We all age. Even newly minted cells from an 80-year old are readily recognizable as cells from an aging body. These brand-new cells look and act older than cells from a younger person. How can this be?

In 1990, the magazine *Nature* published a groundbreaking article based on something called the telomere. It changed forever our understanding of the aging process.
Previous theories of aging, such as free radical damage, glycosylation (the process of attaching carbohydrates to another molecule), collagen cross-linking or other proposed mechanisms, now appear to be simply features of the aging process but not the true cause.

To say that we age because of free radical damage is analogous to the FAA announcing that the cause of a plane crash was gravity. Clearly, the force of gravity pulled the plane to the ground. But gravity exerts equal force on every plane in the sky, most of which safely reach their destination.

In the same way, our bodies are assaulted by free radicals from the day we are born. We have mechanisms that effectively quench free radicals and correct the damage. We must understand why they stop. The story begins with Leonard Hayflick’s accidental discovery that cells divide about 80 times and then slow down and stop. This is now known as the “Hayflick Limit.”

We now know why our cells stop dividing. It turns out that there is a mechanism built into each cell, a sort of clock that limits the number of times a cell can divide. It is controlled by something called a telomere, which is a stretch of DNA that occurs at the end of every chromosome. See the illustration below.
Telomeres were discovered in 1973 by Alexey Olovnikov. They were immediately found to be crucial to human life expectancy as it was learned that, as humans get older, their telomeres get shorter and shorter. As you can see by the chart below, when you are in your teenage years your telomere score is much higher than a person in their 80’s.

To explain what happens to telomeres as you age, let me first tell you about...
The Cycle Of A Cell

Most of the cells in your body have the ability to reproduce at will. But, contrary to a century of scientific doctrine, we now know that each daughter cell does not receive a complete copy of the parent cell’s DNA. Each time a cell divides, a tiny portion of the DNA, a portion of the telomere at the end of the chromosome is lost.

Each new generation of cells have slightly shorter telomeres than their parents. In fact, you can judge the age of a cell by measuring telomeric length. When the telomere gets sufficiently short, the cell enters programmed cell death – a process called apoptosis.

The telomere serves as a counter, or clock, for the cell. But the telomere does more than just tell time. As the telomere shortens, it changes the behavior of the cell. Cells with shorter telomeres begin to slow down. The signals that control hormone output and immune function become weaker. They start to act old.

When enough cells act old, they create a ripple effect. Eventually, the damage progresses to the point that your body can no longer defend itself and succumbs to disease. There are strategies that you can put into play today that will help slow the shortening of your telomeres, thus slowing the actual aging process. I will soon tell you all about these in your Six-Week Anti-Aging Plan.

But first, you also need to know about the importance of...
Keeping Your Homocysteine At A Healthy Level

Homocysteine is an amino acid (methionine) that accumulates in your tissues. As you get older, B12 and folate (another B vitamin) deficiencies are common. Normal folate levels are what keep homocysteine from getting too high. If you have high levels of this dangerous substance in your bloodstream, you greatly increase your risk for the diseases of aging – heart disease, Alzheimer’s disease, Parkinson’s disease, as well as impotence.

Research out of Italy’s Perugia University had shown that too high homocysteine can act like a toxin to your vascular system of your heart as well as your brain cells. It was found to play a significant role in mental decline.

It’s no coincidence, then, that homocysteine levels have been correlated with the most common degenerative diseases of aging. Researchers have discovered that high homocysteine tripled the loss of telomere length during cell division. This means the speed at which your body is aging is also tripling!

There is more reason than ever to closely monitor and correct high homocysteine levels in the blood. Your doctor can measure homocysteine with a simple blood test that looks for the protein methionine in your blood. This test can determine if your levels are too high.

Getting adequate B vitamins (folate, B12 and B6) are ways to ensure that your homocysteine levels stay normal. In addition, folate and B12, help repair DNA and red blood cells – the very building blocks of your genetic material. Without enough of these 2 crucial B vitamins, your DNA wouldn’t be able to repair and reproduce itself in a healthy manner.

Deteriorating DNA sets aging in place rapidly. In 2012, the National Health and Nutritional Examination Survey reported that 3.2% of people over age 50 are seriously low in B12 and up to 20% have borderline deficiencies.
Another way to decrease homocysteine in your body is to be sure you aren’t eating too much iron. Excess iron can act like free radicals with homocysteine promoting oxidative stress.

After menopause, women only need about 9 mg of iron a day and a man needs about 10-11. Unless your doctor tells you that you are anemic and need to take extra iron, it’s best to get a multivitamin that doesn’t contain iron at all. If you eat a nutritionally optimal diet, and get enough Vitamin C (helps absorb iron), you should be able to get all the iron you need from your diet alone.

Further ahead, in Week 1 of your Six-Week Anti-Aging Plan, I will tell you about a very easy and inexpensive nutrient protocol to correct high homocysteine levels.

For now, let me tell you about the most exciting anti-aging news to come out of research in the last decade...
Many argue that aging is a natural phenomenon that should be accepted as the natural order of things. Aging may be normal, but that doesn’t make it desirable.

There can be no doubt that the aging process is the root of serious health problems. We die because we get sick. But we get sick because we get old.

New products that can rebuild the telomere and reset the biological clock have already been tested in lab animals with amazing results. It turns out that our bodies already hold the answer. We are all born with the capacity to make an enzyme called telomerase. It can rebuild the telomere at each cell division so that the new daughter cells will behave no older than the parent cell.

We all have the gene for the telomerase enzyme, but the gene is switched off. It was about 1998 when a team of American scientists first cloned the gene for human telomerase. Doing that allowed them to study how to turn the telomerase gene switch back on. They didn’t know it at the time, but what they really discovered was the real possibility of finally attaining . . .
Today, a biotechnology company called Geron Corporation, owns the patent for telomerase. They are leading the research on the use of telomerase as an anti-aging therapy. They are also researching the development of telomerase inhibitors as a cancer treatment. If a cancer cell could have its telomerase turned off, it would grow old and die like a normal cell. So far, the results of research on telomerase as an anti-aging therapy are extremely encouraging.

By inserting a gene for telomerase into aging cells, it is possible to restore the shortened telomeres to lengths more typical of younger cells. Geron has taken cells from old mice and restored their telomeres to youthful lengths. These cells looked and acted in every way like young cells. Then, they succeeded in changing a tissue culture of old human skin into youthful skin by using telomerase.

Imagine if all the cells in your body functioned the way they did when you were 30, you wouldn’t see the kind of degenerative conditions that are characteristic of aging. Your bones and joints would remain strong and your skin supple. Your immune function would remain vigilant and your heart vigorous.

Everything we currently associate with aging: heart disease, arthritis, hearing loss, failing eyesight, Alzheimer’s disease and osteoporosis could become as rare in 70-year-olds as they are in 30-year-olds. You simply would not age.

But before we can create eternally youthful bodies, we have to consider safety. One major concern is that the stimulation of telomerase could trigger or promote cancer. Abnormal presence of telomerase is seen in the development of cancer.
The University of Texas and Geron have both tested telomere-restored cells. Cells were monitored for cancer development. The immortalized cells were even exposed to cancer causing proteins to see if they could provoke cancerous behavior. All of the cells were found to be stable and cancer-free.

The research continues to look positive. It seems that anti-aging therapy via telomerase, as an option for humans, is really beginning to take-off. Today, a place called SpectraCell Laboratories in Houston, Texas will even test your telomeres. This can give you a picture of how well, or badly, you are currently aging. Knowing this information can help you implement anti-aging strategies to slow down, or reverse, aging before any more damage is done.

Even more exciting, since about 2007, there have been telomerase activator supplements on the market available for human use. These telomerase activators make use of a natural, herbal telomerase activator – astragalus. Traditional Chinese Medicine has been using astragalus in their system of medicine for centuries. Lab studies done with these telomerase activators on animals have been promising.

In 2010, donated human HIV cell studies done through Geron Corporation have shown that their particular telomerase activator product had boosted the antiviral activity of CD8-T-cells against infected CD4 cells from the same donors.

T-cells are your immune systems first line of defense against disease. They become seriously depressed in diseases like HIV and cancer and lose the strength and capacity to fight disease. This study by Geron shows, then, that a telomerase activator can help your immune system fight off disease. And, aging is thought now to be just another disease.

Even though telomerase activator products are showing great promise in animal studies, and are currently on the market for human use, adequate human studies have yet to be completed on these products. I advise caution in using them until more is known about their effects on humans.
Yet, in your **Six-Week Anti-Aging Plan**, I give you some powerful strategies to boost your natural own anti-aging capacity. In the meantime, your cells are dividing, your telomeres are shortening and you are getting older.

To halt this process, you must learn how to do a very critical thing. You must first learn how to...
In order to do this, let me first tell you about one of the most important factors involved in aging – fighting oxidative damage by free radicals. Substances that fight oxidative damage are called “antioxidants”.

The well-known scientist Linus Pauling was the first to claim that vitamin C could extend your life. Dr. Pauling took between 12,000 and 18,000 mg of vitamin C every day for years and lived to the ripe old age of 93.

Pauling’s theory was dismissed until the 1980’s when scientists discovered that antioxidants could protect cells from oxidative damage. The free radical theory of aging became popular. Vitamin C was found to be among the nutrients that protect cells from free radicals.

But oxidative damage to cells can be repaired. It is the oxidative damage to telomeres that is not repaired. This results in further shortening of telomeres. This very specific effect of free radical damage helps drive the aging process.

In 1998, a Japanese study tested vitamin C’s effect on telomeres. It was found that raising the level of vitamin C in the cells could slow down the loss of telomeres up to 62%.v
The Recommended Daily allowance of 60 mg of Vitamin C per day is not enough to slow telomere loss. Yet, Pauling’s mega-doses aren’t necessary either. An effective dose of vitamin C, for the purposes of preserving telomeric length, is 500-1500 mg, twice a day.

In addition, research has shown that people who have optimal intakes of other antioxidants, like vitamins D, E, carotenoids (like lutein, zeaxanthin and astaxanthin), and immunomodulators like resveratrol have, on average, 5.1% longer telomeres. Like Vitamin C, these antioxidants also fight against oxidative stress by fighting inflammation – now thought to be the #1 root cause of most diseases. Inflammation promotes oxidative stress and causes telomeres to shorten faster.

The carotenoids, in particular, are crucial to your eyesight. They fight the degenerative eye diseases associated with getting older – age-related macular degeneration, cataracts and glaucoma.

Omega-3 fatty acids, and minerals like zinc and selenium, also have significant value in fighting inflammation and oxidative stress, thus preserving telomere length. Studies have shown that many Americans are deficient in many of these nutrients, particularly Vitamin D.

A 2009 study published in the Journal of Nutrition revealed that 12% of Americans do not get the Estimated Average Requirement for zinc. That means a large part of the U.S. population is at risk for deficiency. Zinc is present in several proteins that fight oxidative stress and facilitate DNA repair. Low zinc levels have been implicated in cancer, Parkinson’s, and Alzheimer’s disease. In vitro studies have shown that zinc deficiency causes DNA damage and that repletion of zinc normalized it.

In 2010, HealthyDayNews reported a study that revealed a diet critically low in antioxidants – as compared to the national dietary intake requirements – amongst the participants studied. Their findings revealed 90% deficiencies in Vitamin E, 70% Vitamin D, 45% Vitamin C, 55% Vitamin A, and 25% selenium.
Coming up in your Six-Week Anti-Aging Plan, I’ll show you exactly which antioxidants and anti-inflammatory vitamins and minerals to take to help you fight aging free radicals.

For now, though, I must tell you about another critical issue in aging – stress and how it affects...
Did you know that too much stress kills brain cells? In addition to shrinkage that occurs with “normal” aging, research shows that stress is one of the leading causes of mental deterioration with aging.

For most people, effective anti-aging has to address living better as we age not necessarily living longer. We want to retain the independence and abilities of our youth. For a lot of elders, loss of mental capacity is the most frightening symptom of aging.

The following graph shows how the brain deteriorates with age:

![Brain Shrinks with Age Graph]

Resource: American Foundation for Aging Research: Neurobiology of Aging Information “What Physical Changes Happen to the Brain?”

Fortunately, the loss of mental faculties is not inevitable. The most important thing you must do to keep your brain healthy and your mind sharp is avoiding excess stress. In your Six-Week Anti-Aging Plan, I’ll give you some specific methods to decrease stress in your life. But, let me first tell you about...
Stress has serious physiological effects on the body. When you are stressed, your body produces a hormone called cortisol. In moderate amounts, cortisol is not very harmful. But cortisol is secreted excessively in response to chronic stress and can become extremely toxic.

Cortisol actually kills and disables your brain cells. Over your life span, cortisol ruins your brain’s “biochemical integrity”. Chronic exposure to cortisol causes the mental haziness, forgetfulness, and confusion that is associated with aging.

In anti-aging, most hormonal manipulation involves supporting declining levels. Almost all hormone levels, except cortisol, fall as you age. Cortisol actually rises as you grow older.

To keep a youthful mind, you must lower cortisol, which leads me to one of the best ways to do that...
DHEA is often referred to as the “anti-stress hormone”. DHEA stands for dehydroepiandrosterone. Don’t let that tongue-twisting name get you though, everyone just refers to it simply as DHEA. It is the most abundant product of the adrenal glands. DHEA is the precursor used by your body in producing sex hormones like testosterone, estrogen and progesterone. It is produced in large quantities in youth but its production dwindles with age.

Cortisol can wreak havoc on your body. Your body need not worry about long-term maintenance like building your immune system or laying down new bone or muscle when you are running from a lion.

When you are under stress, cortisol tells your body “just get through the moment, don’t worry about tomorrow.” Since it inhibits maintenance and repair, cortisol accelerates aging. It’s like burning your candles at both ends. DHEA is the natural counter to cortisol.

You secrete DHEA when times are good, when you are well-fed, secure and free of stressors. The more DHEA in your body, the less effect stress will have on you. The problem is, your adrenal capacity to produce DHEA declines with age. Yet the modern environment increases the amount of stress on your body every day. As a result, cortisol is overproduced and aging is accelerated.

Levels of sex hormones also decrease as you age. DHEA boosts the production of sex hormones and creates a slew of health benefits. It is a crucial part of being youthful. Like hormones, DHEA declines with age. The rate of DHEA decline is surprising. By the time you are 65 years old, you’ll only have about 10% of the DHEA that you had when you were 20.

In fact, as you read this, you may be experiencing some of the symptoms of...
Declining DHEA

People with DHEA deficiency have been documented to experience:

- Shortened life spans
- Immune deficiencies
- Inflammatory diseases
- Cancer
- Heart disease
- Osteoporosis
- Depression
- Cognitive decline
- Aged appearance

A 1998 study published in the *Journal of the American Geriatric Society* studied DHEA’s effects on aging. People between the ages of 60 and 80 were tested for DHEA levels. The participants also took cognitive and strength tests.

Researchers found that those with the highest levels of DHEA performed better on both the cognitive and physical assessments. Study authors admitted that those with higher levels of DHEA seemed younger.

But more importantly, those participants with high levels of DHEA were younger. Their bodies showed the advantages of...
The Benefits of DHEA

People with higher levels of DHEA experience:

- Less stress
- Enhanced energy
- A boost in immune system function
- Reduced body fat
- Increased libido
- Sharper memory
- Halt in wrinkles and signs of physical aging

You can raise your levels two ways:

1) DHEA supplementation.

2) Reducing levels of cortisol naturally by reducing stress.

I use DHEA at my Institute for Healthy Aging. DHEA therapy has successfully treated many of my patients who suffer from lack of energy, depression, and chronic fatigue syndrome.

It is important for you to get your DHEA levels checked before supplementing with it, though. Your doctor can perform the simple test. Youthful levels of DHEA for men range from 400 to 560. For women, levels should range from 350 to 430.

After your levels have been checked, you can determine optimal dosing. A common starting dose is 10 mg daily. DHEA is absorbed well and can be taken at any time but best mimics the natural daily fluctuation when taken first thing in the morning.
In your **Six-Week Anti-Aging Plan**, I will show you some effective ways to reduce stress in your life and turn off cortisol’s aging effects.

A third factor in aging is loss of muscle. Muscle means personal strength and the ability to stay mobile, independent, socially active and living in your own home as you get older. In a nutshell...
Did you know that you are losing about 3 pounds of muscle mass per decade? Most people don’t. They don’t notice because the lost muscle is replaced with fat. As you read this, you’ll learn why you should be concerned over this loss of muscle – and the best way to get it back.

Loss of muscle is interconnected with the mechanisms by which you age. The amount of muscle you have is a key factor in the regulation of other metabolic activities.

Muscle is important in maintaining each of these body functions:

- Supporting bones
- Reducing osteoarthritis
- Aiding in sexual health
- Thyroid hormone production
- Maintaining adrenal production
- Controlling metabolic rate
- Stimulating human growth hormone
- Preventing chronic aches (like back pain)

A Finnish study called, The Evergreen Project, was started in 1988 and studied the effects of socialization on the aging process. Men and women between the ages of 65 and 84 participated in the study. It sought to correlate social activity with rates of institutionalization and death in older populations.

People who were less able to participate in social activities and stay independent are institutionalized at a higher rate. Muscle mass and strength figure prominently into how mobile, independent, and socially active you will be as you get older.
The study revealed that there are wide-ranging benefits that go hand in hand with muscle building. The participants with the most muscle are experiencing better mental function, fewer chronic illnesses, and longer life spans.

The best way to maintain muscle strength as you get older is through weight training and specific aerobic exercise. Together, these forms of exercise have been research proven to truly be...
The Closest Thing To An Anti-Aging Pill

The most powerful tool for building muscle is weight training. Done 2-3 times a week for 15-20 minutes can help you regain muscle strength.

In addition, the right kind of aerobic exercise can reverse just about every symptom and physical change of aging. On the following chart, see all the symptoms of aging that can be improved through exercise.

<table>
<thead>
<tr>
<th>Symptom of Aging</th>
<th>Benefit of Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased susceptibility to disease</td>
<td>Improves immune system function</td>
</tr>
<tr>
<td>Loss of muscle and increased body fat</td>
<td>Aids in loss of fat and builds muscle</td>
</tr>
<tr>
<td>Increased risk of a cardiac event (heart attack, stroke)</td>
<td>Lowers blood pressure, improves circulation, lowers cholesterol</td>
</tr>
<tr>
<td>Slowing of mental function and alertness</td>
<td>Improves reaction times and mental clarity</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Improves quality of sleep</td>
</tr>
<tr>
<td>Depression</td>
<td>Relieves stress, improves self-esteem and outlook</td>
</tr>
<tr>
<td>Immobility and susceptibility to falls</td>
<td>Improves balance and coordination</td>
</tr>
</tbody>
</table>

Resource: Klatz, R. *Hormones of Youth* 1999

These benefits occurred regardless of the age of the participants. The Human Nutritional Research Center on aging at Tufts University studied the effect of muscle building exercise in elders. They were between the ages of 63 and 98. Most required walking aids or were in wheelchairs.

Over 10 weeks, a marked increase in muscle strength was reported. The participants also noticed improved stamina and stability. Many participants were able to walk unaided after the muscle building exercise therapy.

One of the most important things you can do to benefit your muscles is...
Of all the benefits of exercise, maintaining youthful muscle mass is the most beneficial to enhancing your health. This is particularly evident in elders. Building muscle keeps you young.

Long endurance exercise is a waste of your time when you are trying to lose weight. This applies to anti-aging as well. Long duration exercise causes wear and tear on your body. Your joints become sore. Muscles are fatigued but not given the most effective signal for growth.

In Week 3 of your Six-Week Anti-Aging Plan, you’ll learn specific strategies from sports trainers that have proven effective for building muscle in elders as well.

Now, the next thing that goes hand in hand with aging is hormone decline and imbalances. In menopause as well as andropause, female as well as male hormones start to decline with age.

Let’s start with the guys and look at the importance of...
You’ve heard that male hormones decline with age. Recent studies are revealing how and why, and their effect on aging. This is important because it gives men the option of reversing the decline, which can then affect their aging.

We men have always known that our bodies dramatically change as we age. It wasn’t until recently, that science revealed that nearly all of these changes are intentionally “signaled” to occur by changing hormones.

As you get older, genes turn on and off, partly according to a preprogrammed sequence and partly in response to your environment. Which genes are turned on determine hormone levels and they affect your metabolism and capabilities. They can even affect your physical form. It is the principle reason that you are physically different at 60 than you were at 18.

Hormones also affect mood, memory, mental clarity and energy. The most important hormones for male health and masculinity are:

- DHEA
- Androstenedione
- Testosterone

We all know that testosterone is the hormone that makes a man, a man. But this hormone does much more than that. Testosterone helps to control body fat, mood, energy, sexual desire, cognitive function, and aging.

Testosterone doesn’t decline all of a sudden like female hormones do at menopause. The decline is gradual but over time, just as profound. Testosterone levels are at their peak in your twenties. By the time you reach 80, your testosterone levels decrease between 50% and 70%.
Testosterone supplementation can:

- Improve sexual performance
- Promote libido
- Stimulate muscle growth
- Increase energy levels
- Improve memory, mood, and mental clarity
- Build stronger bones
- Keep urinary and reproductive systems healthy

Before tinkering with your testosterone levels though, you should consult with your doctor. Have all of the male hormones listed here measured in your blood. Once you do that, it is possible to boost your own levels of male hormones by...
Restoring Testosterone Naturally

Because you make all of your sex hormones from DHEA, taking a DHEA supplement is often a good place to start. However, note: DHEA is a hormone and hormones can always act as “double-edged swords”. Too little or too much can both be bad. Never take any hormone without having blood level checked first.

The athletes call androstenedione “andro”. Andro is the immediate precursor to testosterone. It is used as a sports performance and muscle building aid. It is effective but if you don’t measure blood levels, you can take too much. If you take too much, the excess is converted to estrogen. With the constant exposure to environmental estrogens, this is the last thing aging men need. If you take “andro”, you must have blood levels checked often.

For many men, the preferred way to restore testosterone has been with a natural herb long used in Asia. It is called Tribulus terrestris and had traditionally been given to men who have weak muscle and sexual problems. It was reintroduced to the world by East German Olympic athletes. Tribulus gently boosts testosterone levels, which explains both its aphrodisiac effect and its sports performance enhancing effect.

One study analyzed the effect of Tribulus on healthy men. The men experienced an average 30% increase in testosterone levels after just 5 days of oral supplementation. This is about the average rise in testosterone that men will experience.

In Week 4 of your Six-Week Anti-Aging Plan, I list specific dosages of these supplements to help men boost their declining hormone levels back to normal.

Now let’s tackle the controversial subject of female hormone decline in menopause. Let me explain to you...
Real Hormone Replacement In Women

One of the hottest topics in medicine today is the issue of hormone replacement for women. It is important because your hormone levels decline and cause the changes of aging and menopause. These changes are entirely responsible for osteoporosis and at least partially responsible for the increased risk of heart disease in post-menopausal women.

The matter is more popular than ever. Hormone replacement therapy (HRT) has been both praised and bashed in the media.

The argument still rages, but no one seems to be focusing on the most important point in interpreting the recent studies. All of the studies about “HRT” that you have heard about recently did not test the effects of hormones. They are all trials of hormone-mimicking drugs like synthetic estradiol derivatives and chemical medroxy-progesterone acetate. They are pharmaceutical concoctions made to mimic the effects of estrogen and progesterone respectively.

These substances are drugs, not hormones. Since they have never been naturally part of your body, you are not replacing anything by taking them. Hormones are part of a complex, integrated system of control in nearly all body functions. Introducing a foreign drug into this delicate system was a dangerous experiment.

Now, the largest trial done to date showed that they increase cancer risk and instead of decreasing risk of heart disease as claimed, they actually increased it. For instance, the drug combination in Prempro increased risk of blood clots by 100 %. The bad press about these drugs had given hormones a bad name.

As a result more and more women began turning to...
Bioidentical hormones are natural by definition. They are derived from plant hormones that function the same within your body as your human hormones. They are called phytoestrogens and phytoprogesterones and are derived from different plant sources like wild yam, soybean, red clover, chaste tree, black and blue cohosh, and others. They are the perfect substances for performing the same functions as your real, natural, human hormones but without the dangers.

The first thing you should do is seek a doctor skilled in the administration of bioidentical hormones. Hormone levels can vary widely from woman to woman and dosages are impossible to guess. Most of these are obtained through compounding pharmacies. No woman should take a hormone – synthetic or bioidentical – without first having her hormone levels tested.

Your doctor can work with a compounding pharmacist to produce a custom mixture of natural, bioidentical hormones for you. You can learn more about compounding pharmacists by visiting the International academy of Compounding Pharmacist’s web site at www.iacprx.org.

In addition, there are other safe alternatives, which gently affect hormone levels that are available without a prescription. You can find them at health food stores. They are often referred to as...
There are 3 major herbs for easing the symptoms of declining hormones and menopause:

- Dong Quai
- Black Cohosh
- Chaste Berry

Dong Quai is an asian herb that contains phytoestrogens. Phytoestrogens are estrogens found naturally in plants. Phytoestrogens work by occupying estrogen receptor sites in your body but many women I have treated with low progesterone also benefit from taking Dong Quai. Dong Quai also improves libido in women with declining sex hormones.

Black cohosh, as noted earlier, is a plant that contains phytoestrogens. It has been used traditionally by Native Americans to treat menstrual cramping. Black Cohosh also occupies estrogen receptors. It is the best herbal treatment found to treat low estrogen-caused mood swings and hot flashes.

Chaste Berry, or Vitex agnus-castus, is another effective herb for menopausal symptoms. It works by regulating pituitary hormones, which regulate estrogen, progesterone and testosterone. It is a gentle hormone balancer. Chaste Berry is used to relieve depression, insomnia and hot flashes associated with estrogen and progesterone decline.

Going back to DHEA for a moment, a 2010 study out of the University of Pisa, Italy, has shown that DHEA may also be a successful replacement for prescription HRT in women. In their study, it had been shown to be successful in relieving hot flashes, vaginal dryness, restoring sex drive as well as relieving other menopausal symptoms.

In Week four of your Six-Week Anti-Aging Plan, I give the specific dosages of these supplements to help boost and re-balance your hormones back to normal levels. But before I go any further, I have to tell you about something truly remarkable. It’s the science of...
Reversing Human Aging

In 1990, Dr. Daniel Rudman accomplished something that had never been done before. He reversed human aging. Wrinkles disappeared. Grey hair began turning black again. Energy levels soared and 70-year-olds had a resurgence in sexual appetite.

He was investigating the effects of a pituitary protein called human growth hormone, or HGH, on healthy adults. Twelve men, ages 61 to 81 volunteered for the trial. They received injections of human growth hormone for 6 months.

As we age our skin grows thinner, we lose muscle and bone and our bodies start turning to fat – IF you let them. Yet, the men in this study grew thicker skin, developed bigger muscles and denser bones and lost fat. On average, the participants experienced:

- 14.4% decrease in fat tissue mass
- 8.8% rise in lean body mass
- 7.1% increase in skin thickness
- 1.6% rise in bone density

When Rudman’s study was published in the New England Journal of Medicine, he wrote:

“The effects of six months of human growth hormone on lean body mass and adipose-tissue mass were equivalent in magnitude to the changes incurred during 10 to 20 years of aging.”

This is why many health researchers are calling HGH...
The Fountain Of Youth

HGH is the most powerful weapon in an anti-aging physician’s arsenal. Your body produces high amounts of HGH as a child but the production declines throughout your adult life. This orchestrated decline causes and controls many of the changes of aging. When you reverse the decline of HGH, you reverse many of the consequences of aging.

Several other studies have now confirmed Dr. Rudman’s findings. The benefits of HGH include:

- Increased energy
- Enhanced sexual performance
- Muscle gain
- Fat loss
- Stronger bones
- Diminished wrinkles
- Improved immune function
- Enhanced mood
- Decreased cholesterol
- Improved vision

*Resource: Cenegenics Medical Institute

HGH is now FDA approved for growth hormone deficient adults but conventional medicine has been on the fence when it comes to using HGH. The concern is that we don’t know its effect with long-term use. But the results of a recent 10-year study helped to prove its long-term effectiveness.
Researchers analyzed a group of men receiving HGH for 10 years. That group was compared to a group of men of the same age who did not receive HGH. The men receiving HGH had more lean muscle mass, less fat, more energy, and more stable emotional health than the men who did not receive HGH.

The benefits seen in the many short-term studies on HGH continued throughout the 10 years, without any negative side effects. The men taking HGH had appeared to turn back the clock, safely.

Once a doctor has established blood levels, patients can inject themselves. HGH injections now come in a handy self-injection cartridge without needles. It’s typically used in patients from 35 to 95 years old. Some use it in short cycles like athletes. Others elect more long-term intervention in the aging process.

There have been some remarkable changes with HGH supplementation. Patients come in flabby and frail, and in a matter of weeks, are strong, healthy and active. If you’d like to use HGH supplementation, I suggest you find a doctor skilled in its use. It requires some preliminary testing to determine levels and ongoing monitoring to make sure the levels stay within the correct range with no complications are developing from its use.

In Week four of your Six-Week Anti-Aging Plan, I’ll tell you some simple methods that you can safely use every day to boost HGH levels and restore youthfulness.

But before we get to that, there’s one more important thing you need to know. To slow down premature aging and prevent disease, you have to know how to...
Put Out The Fires Of Inflammation

It’s been all over the news recently – *inflammation is clearly associated with aging and disease*. It hasn’t quite been decided, however, whether inflammation is the cause of aging or aging causes inflammation. Researchers at the University of Vermont, Department of Pathology [*Inflammation–Cause,Effect or Both?* Jenny, Nancy S., 2012], have stated that chronic inflammation is unequivocally integrated with all major diseases of aging – heart disease, arthritis, diabetes, Alzheimer's, Parkinson’s, and even cancer.

Inflammation destroys the integrity of all the tissues and organs throughout your body leaving them defenseless against disease setting in. Inflammation damages mitochondria, causes immunosenescence, endocrinosenescence, and DNA genetic mutations which lead to disease. It had been previously noted in research [Singh,T, Newman AB. Inflammatory markers in population studies of aging. *Aging Res Rev* 10 (3):310-329, 2011] that chronic inflammatory states precede the development of the major diseases of aging for several years prior.

In the diagram of the human body below, inflammation (in red) can adversely affect your entire body. This includes your major organs like your brain, heart, kidneys, liver, reproductive glands, as well as your supporting skeletal structure, nerves, joints and vascular system.

Graphic courtesy of www.easyvectors.com
How do you get inflammation? Let me tell you several ways...

1. **Obesity**

Being overweight produces substances called cytokines which fuel inflammation. Losing weight helps get rid of these substances, and along with them, you'll have less inflammation.

2. **Smoking**

Cigarette smoke has over 4,000 toxins in it. They can wreak havoc on every tissue of your body – especially your lungs – breaking them down, creating chronic inflammation and putting them at high risk for serious diseases to set in.

3. **Poor diet**

Diets high in refined sugars cause blood sugars to run too high creating high-acid blood and inflammation. Too much “bad” fats – i.e. trans fats and too much Omega-6 vegetable oils (corn, safflower, etc) create inflammation. Use of artificial sweeteners like sucralose (Splenda), aspartame (Equal), saccharin (Sweet’N Low), too much processed foods high in chemical preservatives, too much soda (diet or regular). Too little water.

4. **Lack of exercise**

Your body was built to move everyday of your life. Sitting, or just plain being inactive, for long periods of time produces a build-up of toxins in your body that create inflammation. Exercise promotes oxygen uptake throughout your body which kills cancer, and other, diseased cells.

5. **Too much alcohol, Substance abuse**

Alcohol puts too much sugar in your body – upping your insulin levels constantly, storing fat, and creating inflammation. Substance abuse is inflammatory to every tissue in your body – setting them up for deterioration.
6. **Environmental**

Exposure to toxins through chemicals used in your environment which can include household cleaners, lawn and garden fertilizers and bug control chemicals, spray paints, glues, some prescription medications, etc.

7. **Stress**

Chronic stress causes you to secrete adrenalin constantly. In turn, another hormone, cortisol is released. Cortisol promotes inflammation which ages you significantly.

A regimen of exercise, moderate alcohol consumption, eating an optimally nutritious diet, normalizing your weight, quitting smoking, stress reduction, and protecting your skin and airways when using environmental chemicals will help your telomeres maintain a healthy length longer. In turn, you’ll live longer and healthier.

Now, you’re ready for...
Now that you have learned about the factors that bring about aging, it’s time for you to make use of the strategies that can fight against them.

Here is your **Six-Week Anti-Aging Plan** to get you started. At Week One, you’ll start with something simple and easy to do. Each week you will add a new anti-aging technique. Continue with all of the techniques to ensure a healthier and younger you, for years to come.

## Week One

**Take anti-aging vitamins and minerals.** You can slow the cellular aging process with certain vitamins. As I explained earlier, each time a cell divides, a tiny portion of the DNA, or telomere, at the end of the chromosome is lost. When the telomere shortens, the cell acts older. You can slow the shortening of your telomeres simply by taking the right vitamins and minerals. Doing so, you’ll greatly slow down your actual aging process.

You can find these vitamins and minerals included in a good, multivitamin supplement (read labels for ingredients), or take them individually. They include:

Vitamin A (as beta carotene) 5,000 mg daily

Astazanthin 4 mg

***B1 (thiamine) 1.1 mg (women) to 1.5 mg (men) daily

***B2 (riboflavin) 2.6 mg daily

*B12 (cyanocobalamin) 500 mcg a day

*B3 (niacin) 14 mg (women), 16 mg (men) daily

*B6 25 mg a day
*B9 (folate) 1-2 mg a day

**Vitamin C 500-1,000 mg twice a day, divided doses

Vitamin D₃ 1-2,000 IU daily

**DHEA 10-20 mcg daily

Vitamin E 400 IU once a day (d, or d-alpha tocopherol type)

Glutamine 5-10 grams a day

Lutein 6 mg a day

Omega 3 fatty acids 1-2,000 mg a day

Resveratrol 100 mg daily

Selenium 200 mcg daily

*TMG (trimethylglycine) 500 mg

***Turmeric 400-600 mg, three times a day (95% curcumioinds with piperine for good absorption)

Zeaxanthin 6 mg

Zinc 9 mg a day

*These substances are homocysteine-lowering agents.

Too high homocysteine levels can triple the loss of telomere length during cell division.

** These substances are cortisol-lowering agents.

Too high cortisol levels cause inflammation throughout your body promoting aging and disease.

***These are inflammation-decreasing agents.

Inflammation sets the stage for the serious diseases of aging to take hold.
Week Two

De-stress. Your body produces the hormone cortisol under stress. In larger amounts, cortisol is destructive. Cortisol kills brain cells and promotes oxidative stress and age-promoting inflammation throughout your body. You can lower cortisol by reducing stress. Apply these simple techniques to lower your stress:

Breathing techniques: Breathing techniques can help to calm your body. Practicing Ayurveding breathing exercises can help reduce your stress significantly.

Let it out: Write down worries or talk about them with a friend, family member or therapist.

Create some fun: Socialize, and take time to do activities that you find enjoyable and relaxing. These include hobbies, getting out with friends, whatever you enjoy doing. It’s a time to just relax and forget about your worries.

Meditate: Meditation can be very simple. It’s a time to focus within yourself. Take 10 or 15 minutes out of your day to do this. Turn off your cell phone, your home phone, the television, and find a quiet space to just sit and be alone with your thoughts. Playing soothing, “New Age” instrumental music or listening to relaxing environmental sounds like waterfalls, thunderstorms, rain forests, whale calls, can help you decompress. It’s important to breathe deeply and relax all your muscles.

Exercise: 30 minutes of daily, moderate aerobic activity is an amazing stress-buster.

Supplement: Remember to add a good multivitamin and/or specific nutrients to your daily diet. See list in Week 1.

With these techniques, you should be able to reduce your stress. This eliminates the #1 age-associated killer of brain cells and promoter of inflammation. It will help you keep a sharp and focused mind at any age and also turn off aging free radicals.
Week Three

**Begin anti-aging exercise routine.** Remember, you normally lose muscle as you age if you do nothing to stop it. The amount of muscle you have is key in the regulation of your aging and staying active. The best way to build youthful muscle is with the right kind of exercise.

1. Work the large muscle groups first (legs, back, buttocks). Strengthening these muscles set your resting metabolic rate much higher. This helps you burn fat more efficiently.

2. Perform strength training exercises 3 times a week. Use slow and smooth movements to prevent injury. Progressively increase weight to stimulate muscle growth.

3. Perform high intensity interval aerobic exercise in short bursts. For example, if you use running – do very fast 1-2 minute sprints, then rest for 2 minutes, then repeat, for a set of 10 sprints. Using an elliptical machine, do a warm-up for 10 minutes on an easier, moderate level, and then set machine for a higher level. Do 1-2 minute, higher level sets, then rest for 2 minutes, then repeat for a total of 10 sets.

Week Four

**Begin to change your diet.** To stay youthful, your body needs optimal nutrition. Here are some strategies that will help you to work toward feeding your body correctly.

- Avoid low nutrient, refined sugar/”bad fats” and too many high-acid foods. Eat 8 servings of fruits and vegetables per day, raw, and/or lightly steam cooked. These help create blood pH balance.

- Avoid eating dense carbs late at night – instead have a protein snack a few hours prior to going to bed to stimulate HGH release.

- Stop eating once you are satisfied (don’t feel you have to clean the plate).

- Don’t eat while you are distracted (watching TV).
• Try short-term fasting (12 hours a night, 3 times a week. This can easily be done overnight to include sleeping, Stop eating 4 hours before bedtime, sleep for 7-8 hours, eat within 1 hour of waking the next morning).

• Drink enough water for your weight – half your weight in water ounces. For example: 160 lbs needs 80 ounces of water per day.

You can follow a modified version of caloric restriction with short-term fasts. For many, this is more realistic than long-term reduction of calories. Fasting triggers increased production of HGH (human growth hormone).

Week Five

Balance your sex hormones. Get your hormone levels checked by your doctor. This is as easy as a blood test. Make sure your doctor checks:

• Testosterone
• Estrogen
• DHEA

Once you know your hormone levels, make a plan with your doctor to correct any imbalances.

Men who need to boost their testosterone can use:

DHEA: You make all of your sex hormones from DHEA, taking a DHEA supplement is often a good place to start. DHEA will also help to lower your levels of cortisol.

Recent research out of Italy shows that low-dose DHEA may be a suitable alternative to either prescription HRT or herbal HRT. As it is a hormone precursor, ask your doctor first about supplementing with DHEA. You should have DHEA levels drawn first and then tested at intervals to measure your progress. If you have a history of breast, uterine or ovarian cancer, DHEA likely will not be an option for you.
Androstenedione: The athletes call androstenedione “andro”. Like DHEA, it is available over-the-counter at nutrition stores. Andro is the immediate precursor to testosterone. Research has shown that 5 to 10 mg is all men need to restore youthful levels.

Tribulis Terrestris: Use a starting dose of 250 mg once a day.

Women who need to balance estrogen and progesterone levels can take:

Bioidentifical hormones: Must be dosed, prescribed, followed by your doctor.

Dong Quai: Contains phytoestrogens that occupy estrogen receptor sites in your body. It is very effective for gentle treatment of menopausal symptoms like hot flashes. 500 mg in tablet form, twice a day.

Black Cohosh: Also contains phytoestrogens. I use it to ease menopausal depression and hot flashes. 250 mg in tablet form, three times a day.

All of these supplements are available in health food, supplement retailers online or in stores.

Week Six

Regain youthful levels of HGH. HGH (human growth hormone) is the most powerful weapon in an anti-aging physician’s arsenal. Your body produces high amounts of HGH as a child but the production declines throughout your adult life.

This orchestrated decline causes and influences many of the changes of aging. To know where your levels are, get your HGH levels checked by your doctor.

I have researched the effectiveness of HGH through my Institute for Healthy Aging. Here are some ways to naturally increase HGH:

Eat more protein: When you eat high amounts of protein, your HGH levels actually rise. This is a mild elevation but, nonetheless, is effective. You should eat 0.5 to 1 gram of protein per pound of body weight. If you weigh 160lbs, intake should be 80 to 160 grams a day.
Forego carbohydrates before sleep: Eating carbohydrates, of any type, will prevent you from secreting growth hormone during sleep. Instead eat 2 ounces of lean protein like turkey or chicken before sleep.

Do weight training: Weight training also increases levels of HGH in your body. Start off with lower weights with more reps and build to higher weights and less reps.

You can also supplement HGH by...

HGH injections: HGH in injectable form has to be prescribed by a doctor. To be used safely you must have your blood levels of HGH checked first and should be followed regularly. You should only deal with a doctor who is familiar with using HGH.

HGH secretagogues: These are homeopathic versions of HGH. They do raise levels of HGH, but not to the extent that injections do. Because they are homeopathic, they have a sort of “fail-safe” mechanism built in that self-limits your body from producing too much HGH. These versions are safer for HGH boosting without a physician’s direction.
Conclusion

Man has searched for the proverbial Fountain of Youth for centuries. Today, the real keys to unlocking the secrets of eternal youth are well within your reach. Let your Six-Week Anti-Aging Plan be your first step towards moving into a future where aging may become obsolete.

For now, you have a successful program for slowing down aging of your cells. Remember, though, that for any resolution to work, you must follow through. Don’t be one of the thousands of people who start a program and then give up in the 2nd week.

If you stick with my program, at the end of six weeks, and even sooner, you’ll start to see the real, tangible anti-aging benefits of these techniques. You’ll sleep better, you’ll feel better, you’ll have more energy during the day. Your skin will look thicker and younger, with a healthier color and tone. In fact, your vision may have even improved. Don’t be surprised when people start to ask what you’ve been doing to yourself – you’ll look so great.

You can succeed at slowing down aging of your cells simply by getting started as soon as you read this. Don’t wait until your next birthday, or until the New Year, or the first day of Spring. Make the commitment now and begin with Step one today.

In six weeks, your body will thank you with a younger, healthier version of you!
Glossary

Aerobic exercise – such exercise that uses oxygen to burn energy. This includes running, treadmill, stairstepper, swimming, rebounding, etc.

Alzheimer disease – a degenerative neurological disease associated with aging. The brain forms gummy, protein (amyloid) plaques on the brain, which prevents the proper functioning of neurotransmitters. They can no longer adequately send messages to the brain and results in the breakdown of cognitive functions like memory, learning, and speech.

Andropause – a time in a man’s life (usually around age 50) when sexual hormones (testosterone, DHEA) start to decline. This can set off a chain reaction of “aging” symptoms throughout the body. Re-balancing these hormones can restore youthfulness and banish symptoms.

Antioxidants – a group of chemicals present in vitamins and minerals that are able to fight cellular oxidation of cells by free radicals.

Apoptosis – programmed cellular death.

Carotenoids – a group of vitamins in the Vitamin A beta carotene family that function as antioxidants. They are particularly helpful in preserving vision, lung and brain health.

CD4, CD8-T cells – specific cells within the immune system that fights infections from viruses, bacteria, etc. A decrease in the number of these cells occurs when the immune system becomes damaged such as in HIV or other immune disorder diseases, which include aging.

Cognitive decline – the breakdown in the ability to learn, and/or process, new and old information including memory, language skills, speech, etc.

Endocrinosenescence – the aging of the endocrine (hormone producing) glands.
**Free radicals** – a group of molecules that destroy the integrity of tissues through oxidation – a process similar to “rusting” on metal. The oxidation furthers the breakdown in the tissue until it can no longer replicate in a healthy state.

**Glycosylation** – the process of attaching carbohydrates to another molecule.

**Immunosenescence** – the aging of the immune system.

**Impotence** – a condition in which a man can not function sexually.

**Insomnia** – the inability to get to, or stay asleep.

**Menopause** – a time in a woman’s life (usually around age 50) when sexual hormones (estrogen, progesterone, DHEA) start to decrease. This can cause a number of symptomatic responses such as bone loss, heart disease, cognitive decline, depression, and loss of sexual function. Restoring hormone balance through bioidentical hormone replacement, or DHEA, can alleviate many of these symptoms.

**Mitochondria** – the tiny “power houses” of cells which drive their functions.

**Osteoporosis** – a degenerative, weakening condition of bones usually associated with aging, but can occur in earlier years with certain health conditions.

**Parkinson disease** – a degenerative neurological disease where the brain is unable to coordinate movements of the body. It results in stiffening of the muscles and decrease in function of muscles and coordination.

**Telomerase** – the enzyme secreted by telomeres.

**Telomeres** – the protective caps at each end of the DNA helix strand.
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