



HealthGAINS
OPTIMIZING VITALITY SINCE 2003

HEALTHGAINS GUIDE TO RENEWED VITALITY

Your Complete Guide to Living Well
and Aging Optimally

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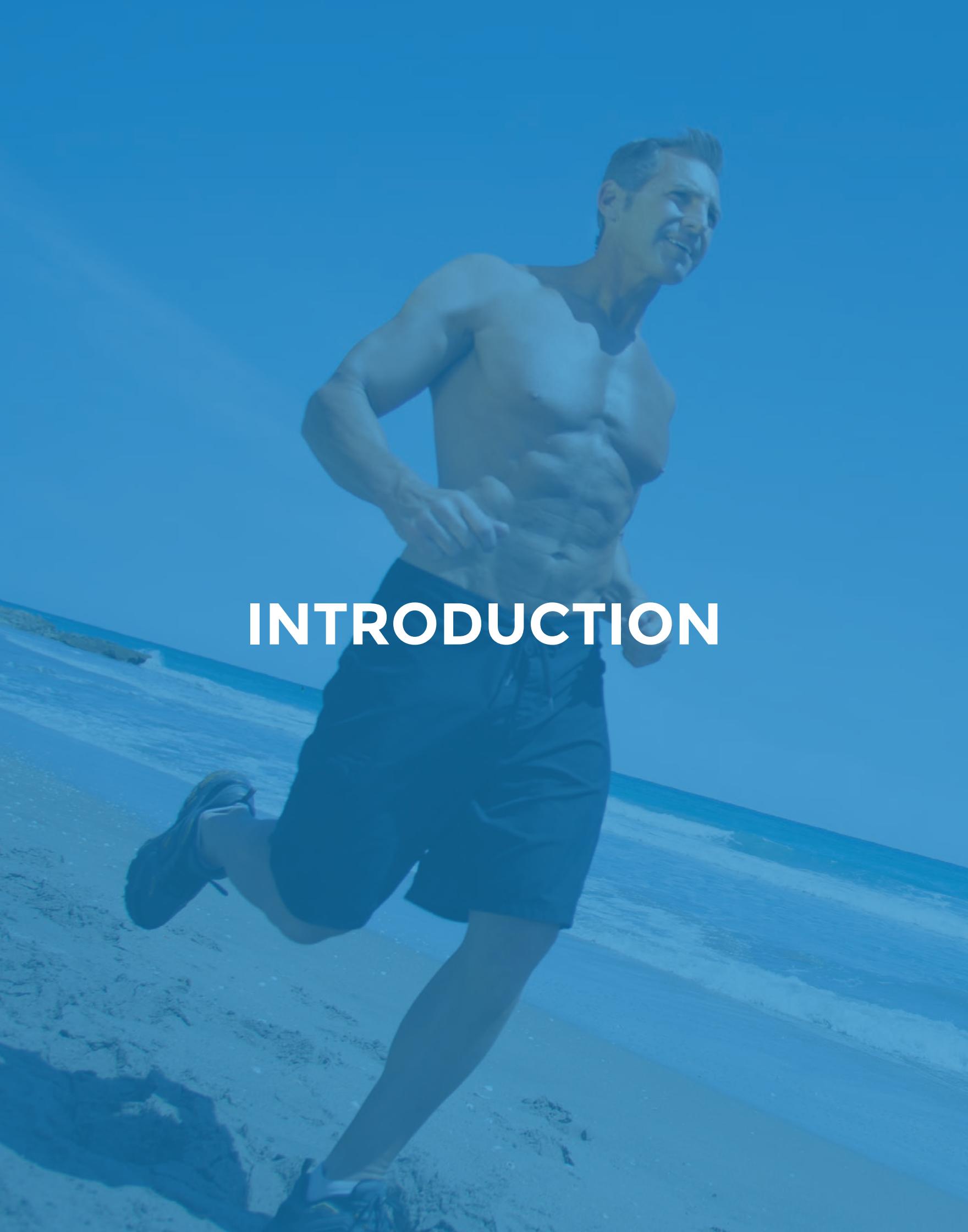
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A shirtless man with dark hair and a beard is running towards the camera on a sandy beach. He is wearing dark swim trunks and yellow flip-flops. The background shows the ocean with waves crashing onto the shore under a clear blue sky.

INTRODUCTION

The human body is an incredible machine -- quite possibly the most complex machine you will find anywhere on the planet.

Your body is an intricate web of fluids, bio-mechanics and electrical transmitters, all working in conjunction continuously to make us who we are, and provide the power for what we can do.

You know that no machine lasts forever. Parts can wear out, and efficiency decreases over time. However, just like any machine, **you can keep your body running long after the “manufacturer’s warranty” – if you take the proper steps to minimize breakdown, and maximize performance.**

Today the population in the U.S. is rapidly aging. According to the latest estimates from the U.S. Census Bureau, by 2050, one-in-five Americans will be 65 or older, and at least 400,000 will be 100 or older. More importantly though, we are not only living longer, but we are living better into our later years. To the first wave of what has been described as the “Silver Tsunami”– the Baby Boomers just reaching retirement age – the consensus is that 60 is the new 40.

We have modern medicines and breakthroughs in science to thank for much of this increase in lifespan. In universities and research centers throughout the world, research continues into unlocking the secrets of aging.

We are confident that incredible advances are coming. We may very well see in the not too distant future, medical treatments that could slow, stop or even reverse the aging process, allowing us to remain healthy, strong, and productive well beyond the age of 100 or more.

A recent issue of National Geographic pictured a newborn on the cover with the headline, "This Baby Will Live To Be 120."

We cannot promise you that you will live to 120, but we can guarantee you this, if you read this guide, and follow even a small percentage of the tips found within, you will add more years to your life, and more life to your years.

HealthGAINS Medical Team

A close-up photograph of a smiling African American man with short hair and a beard. He is wearing a light blue polo shirt. The background is blurred green foliage.

Aging Redefined

Why do we age?

Right now the average life expectancy in the U.S. is around 78 years. That represents a significant increase since 1900, when it was only around 45 years old.

But are these dramatic increases in life expectancy that have occurred over the last century, the best we can do?

To answer that, you must first understand why we age, and what happens to your body as you do. Aging basically is the process of cellular death. Your body remains vital through cellular replication. But as you know from making photocopies or duplications of videos, each time you make a copy of a copy, each subsequent "generation" losses quality, and gets that much fuzzier, or "weaker" than the original. The same thing happens each time a cell divides, it grows weaker and weaker, which leads to mutations, disease, and eventually, cellular death.

The characteristics we associate with growing older -- fatigue, weakness, memory loss, sexual issues, even the graying of your hair -- are all related to cellular death. As cells within the body grow old, and die, it leads to malfunctions of the bodily systems and networks, eventually leading to whole body death. For example, as the cells that release pigment in our hair follicles die-off, our hair turns gray.

As we lose cells in muscle and nerve fiber, we grow weaker. Death of brain neurons leads to memory loss, and so on, and so on with all of the “symptoms” of aging.

Over the years, as scientists and medical professionals explored the mysteries of aging, the fundamental question has been, are we genetically programmed to live a certain amount of years, or do we just “wear out” with use over time?

Why does it matter which of the two possibilities is right? Because it will determine how we focus our efforts to radically expand human life expectancy.

If the first theory is right, then leveraging our experience with the human genome, and gene therapy, we could, theoretically, discover the gene, or genes that are responsible for aging, and find out how to “turn them off.” If the latter theory is correct, **if aging is just a sum total of the breakdown of our DNA over time, then we can target methods to prevent, and/or reverse the damage.**

Current research seems to indicate that it is a combination of both. There is evidence that about 30% of your lifespan is determined by your genes. Working with worms, scientists recently discovered that by manipulating certain genes, they were able to make their lifespan four times longer! This does not rule out the damage theory however, because the mutated genes may be involved in preventing DNA damage and cellular death.

There is still much to be learned about the aging process, but what is clear, regardless of your genetic potential, it is effected by outside influences. These can be negative influences, such as toxins, smoking, and other poor lifestyle habits, or positive influences such as exercise, good nutrition, and professional age-management techniques.



Anti-Aging Medicine

Anti-aging medicine is a relatively new concept in the medical field that takes the latest scientific evidence on aging, and applies it in practical, interventional ways for optimal aging and maximizing your genetic potential.

Anti-aging medicine also takes a “best of both worlds” philosophy, combining conventional medicine, with evidence-based complementary and alternative practices to create a more holistic approach treating, mind, body and spirit.

In many ways anti-aging medicine is the ultimate in preventive medicine. However it is more than that. It is a specialty that provides a continuum of care, designed to prevent, treat, and in some areas even reverse age-related dysfunction, disorders, and diseases.

Anti-aging medicine and age-management techniques are part of a greater movement known as “lifestyle medicine,” where patients are treated as individuals, and the best interventions and treatments, along with lifestyle modifications, are designed specific to them so they can function at their best at any age.

Anti-aging medicine is not about making false claims, or "Fountain of Youth" promises.

Applied properly to your individual needs the lifestyle changes and age-management protocols throughout this guide are designed to both extend lifespan as well as prolong "healthspan" – the length of time that you are able to live productively and independently.

Anti-aging medicine as practiced by age-management, certified professionals is:



Your Genetic Potential

The science of genomics has transformed our understanding of the human body and revolutionized the world of medicine.

Before the mapping of the human genome, it was believed that when it came to health and life expectancy, your genes were pretty much the “hand you were dealt,” and there wasn’t very much you could do to influence or change that. Today, we have a better ability to unlock what may be hidden in your unique genetic code. We also know that what it says about you, and your future health, is not carved in stone. By understanding what your genes may, or may not have in store for you, rather than taking a fatalistic approach, you now have an unprecedented ability to make informed lifestyle choices that maximize your genetic potential.

Maximizing Your Genetic Potential

Scientists continue to explore why and how we age. There remains much debate, but one thing most researchers agree on is that genetics play a strong role in how long and how well you will live. For example, you may have certain genes that offer you greater protection from your cells becoming cancerous, or, on the other hand, your genetic code could cause you to be predisposed to cancer, or other conditions.

So just how important are your genes in determining how long you will live? It is a key factor, but not the only one. What may be encoded in your genes is meaningless without targeted lifestyle changes and apropos interventional treatments. Look at it this way: genetics is the factor that defines your potential for the longest life that is possible for you, and lifestyle is the factor that will determine your likelihood of reaching that potential. With that in mind, there's a lot you can do to increase your life expectancy as well as your quality of life.

The point is, understanding your genetic make-up gives you knowledge, and knowledge is power, in this case the power to maximize your potential and achieve your peak performance at any age.



A close-up, profile shot of a woman with blonde hair, smiling broadly. She is wearing a light green tank top. In her hands, she holds a barbell with large weights. A solid blue rectangular overlay covers the upper portion of the image, partially obscuring her face and the barbell.

Peak Performance

When you hear the term “peak performance,” you probably think of a fitness pro, or star athlete, and rightly so.

Regardless of what is in your genes, you may never develop the strength, stamina, or looks of a professional athlete, but, if you want to get healthy and stay healthy at any age, you can take a page from their playbook!

Peak Performance at its most basic definition means the ability to do your best at a specific task. For athletes, it means being able to not only compete at the highest of levels, but to achieve a “personal best,” to get the most out of their bodies, and themselves, pushing to optimum levels, physically, mentally and spiritually. That means setting clear goals, having a winning attitude – and putting only the best “fuel” in the engine as possible. With those three basic thoughts in mind, anybody can achieve peak performance at any age.

Champion mountain bike racer Keith Sanders who is on the plus side of 50 says, “Your mental fitness is as important as your physical fitness, and age is no barrier to staying fit or achieving your goals. You just have to believe there are no real can’ts in life, just obstacles to overcome.”

Diet and Nutrition

Peak performance in your body is just like peak performance in your car's engine. If you want it to run as efficiently as possible, what you put in matters. As the old saying goes – "garbage in, garbage out."

You probably instinctively know that there are some foods that are better for you than others. But, **did you know that increasing the consumption of some very specific foods could boost your immune system, reduce stress, combat disease, and lengthen your life?**

They are the group of foods collectively known as Superfoods.

Some superfoods will come as no surprise. Remember how your mom always told you to eat your broccoli? Seems she knew what clinical studies have now proven. Broccoli is one of the most potent superfoods there is. Others may surprise you such as beans and certain nuts.

What makes them so super? Superfoods may not dress up in tights and capes, but many of them are rather colorful and easy to spot.

That's because one of the things that all superfoods have in common are phytochemicals. Phytochemicals are the substances that give plants their color, their nutrition, and their disease resistance.

It also goes without saying that all superfoods are "all natural." You will not find anything processed or refined in a superfood. The other attributes that all superfoods have in common are antioxidants,

high nutrition, and fiber. It's a triple punch that adds up to peak performance and optimal aging.

As a group, all of the superfoods contain key nutrients that have been found in study after study to maximize health. Yet these are the same nutrients that are lacking in the diets of most Americans. The superfoods are rich in Vitamins A, B, and C. Critical minerals such as folate, magnesium, and potassium are found in the superfoods as are the "good fats" such as Omega 3's and Gamma-Linolenic Acid.

Examples of healither

Green Tea



Tart Cherries



Blueberries



Wheat Germ



Dark Chocolate



Broccoli



Beans



Pumpkin



Spinach



Don't Panic – Go Organic

Toxic tomatoes, poisoned peanut butter, lethal lettuce. It seems like a day hardly goes by where the news isn't shouting about another food recall. Well don't panic – buy organic.

First let's define organic as it relates to your food. Organic refers to the way food is grown or processed, not the food itself. Generally any food can be called organic if it has been grown or produced using all natural and no synthetic means. In other words, any food or product that has been grown or created without the addition of chemical pesticides, synthetic fertilizers, hormones, antibiotics, or artificial or chemical additives of any kind is considered "organic". Organic fruits, vegetables, grains, and other plant products must be free from genetic engineering or the use of radiation. When the term "organic" is found on food products, it is assumed that at least 95% of the product uses organic ingredients.



It is true that organic foods do cost a little more – but if you care about your health and the health of the planet there are a lot of very good reasons to use them. You are living in a "toxic soup". Every day



you are exposed to known cancer causing chemicals and heavy metals in the water you drink, the foods you eat, the very air you breathe. Using organic products not only minimizes your exposure to these toxins through ingestion, but organic farming and production techniques ensures that less of these chemical poisons are created as waste products that would otherwise wind up in the soil, ground water, rivers, lakes and oceans.

Here's another tip --organic foods taste wonderful! Organically grown produce that is not adulterated with hormones and chemical pesticides have the good green fresh taste that nature intended. Most people are amazed to experience what food "really" tastes like when they start switching over to organic.

It's Not Only What You Eat, But How You Eat
In our "Super-Size" culture, most Americans also have no clue as to what a "normal" portion is. Instead of just crying out in frustration "help me lose weight fast, please!" Sometimes all you have to do is, cut back on the portion size.

Without getting into a lengthy discussion of "how many ounces of lean meat" and "how many calories" should be on your plate, you can downsize by simply not continuing to eat until you feel you can't take

another bite, but only until you feel just about full. Or better yet, put out your normal portion of whatever, and cut it in half.

Also have a glass of purified water before and with every meal.

Studies have found that drinking a glass of water before a meal reduced the amount of calories consumed in that meal by as much as 75 calories. That may not sound like a lot but 3 meals a day, 365 days a year, that's over 82,000 calories or about 14 pounds on the average person.

It would be a great idea to cut out fast food from your diet altogether, but if that seems like a daunting task, try going every other day instead of running to the drive-thru for every meal, every day. Skip the vending machine and replace between meal snacks with veggies or unsalted nuts. Have your biggest meal mid-day, and a smaller meal in the evening, with a light low-fat snack before bed.

What if you are a “Foodie”? Do you have to give up dining out? No – but consider:

- Minimizing inflammatory foods such as grains, gluten, and dairy.
- Asking for your salad dressing on the side
- Asking the chef to cook your dish in olive oil rather than butter or other oils, and trim all visible fat from meat or poultry
- Ordering your dish steamed, broiled, or baked whenever possible

Good nutrition and proper eating are important in being your best, but remember, there is no specific diet plan that has been scientifically proven to increase longevity. However, it is a known fact that obesity contributes to cancer, heart disease, diabetes and other life threatening illnesses. As the rate of obesity continues to rise to epidemic proportions in the U.S., some speculate that it may actually reverse the trend of our increasing lifespan, and predict that life expectancy may actually decrease by 2 to 5 years.

Maintaining a healthy weight and avoiding foods that are known to be bad for you, can not only help prevent diseases that can shorten your life, but just as importantly, optimize your genetic potential.



Supplements and Nutraceuticals

Nutritional Supplements can be very valuable to an overall optimal aging and life enhancing regimen.

But they are called “supplements” for a very good reason. No “supplement,” vitamin, or mineral, should be taken as a “substitute” for healthy living! They are meant to “supplement,” as the name implies, or enhance, or add to – the health gains you can achieve by following a healthy diet and anti-aging lifestyle.

Even vitamins, minerals and other nutrients that are known to be helpful in boosting metabolism, enhancing weight-loss, and improving overall health such as those mentioned that are in the superfoods – work better when they are ingested in food. A supplement can never replace the processes that even modern science does not fully understand, which allows the nutrients within foods to work together in the complex ways that they do to improve health.

So how can oral supplements help? Again, think of the engine of your car. You know as it gets older, corrosion, sediments and deposits can build up, reducing its efficiency. The same thing happens in your body. Over time, toxins in the environment and oxidative stress build up free-radicals and other chemicals in your blood that slow down all of your metabolic processes.

The symptoms commonly thought of as "aging," fatigue, depression, and weight gain, are the result. Just as you can add high-octane gas, or oil additives to your car's aging engine to boost performance, you can use oral supplements to cleanse and return your body to its peak performance. There are many supplements that can benefit anyone male or female, such as fish oil, Vitamin D, probiotics, or even an everyday multi-vitamin/multi-mineral formula. There are also specific regimens designed to optimize health for both men and women.



Oral Supplements for Men

While anyone, male or female, can benefit from age-management supplementation, men and women are different, and so too, are their supplementation needs.

There are particular vitamins and supplements to help with the specific issues men face as they age. These can include, separately or in proprietary combinations:

- Vitamin E
- Vitamin C
- Vitamin B/Folic Acid
- Omega 3s
- Carnitine
- Protein Supplements
- Green Tea Extracts
- Among others...

Oral Supplements for Women

Women also have specific supplementation needs as they age. Oral supplementation for women can include separately, or in proprietary combinations:

- Vitamin E
- Vitamin C
- Calcium
- Vitamin D
- Iron
- Melatonin
- CoQ10
- Among others...



Exercise

Of course no guide to healthy living could be complete without discussing exercise.

Now that doesn't mean that you have to go out and join a gym -- although that is not a bad idea -- but you do need to get moving.

**You need to do something
every day at least once a
day that raises a sweat.**

15– 20 minutes a day of actual aerobic exercise is great, but if that is not you – then do yard work, wash your car, make love – anything that gets the heart pumping and the sweat pouring. Walking is great. Start out walking the first day for 15 minutes, build to 20 minutes the second, and up to 30 minutes a day by the third day.



Once you are vigorously walking for 30 minutes every day you can burn 200 – 300 calories a day.

Of course sports are great, volleyball, tennis, basketball, or swimming – but again you do not have to go from a couch potato to an Olympian overnight, just find ways to be less sedentary and more active every day.

Consider these:

- Washing and waxing a car for 45–60 minutes
- Washing windows or floors for 45–60 minutes
- Gardening for 30–45 minutes
- Raking leaves for 30 minutes
- Pushing a stroller 1.5 miles in 30 minutes
- Dancing fast (social) for 30 minutes

If you are starting to feel ambitious, as Arnold would say – “pump it up.” Adding some weight training to your routine is great, not only for strength training, but muscle burns more calories than fat. The more lean muscle mass you have the more calories you burn. Studies have also shown that high intensity strength training not only boosts metabolism, but increases the production of Human Growth Hormone, or hGH, which has many anti-aging benefits, as you will see in the next section.

If you do want a very effective workout method, in or out of the gym that can help you lose weight effectively, and age more optimally, you really should consider High Intensity Interval Training, or HIIT. The idea behind HIIT is an intense workout causes your body to move oxygenated blood from one part of the body to another to power your workout. When this occurs your heart rate elevates, you boost your metabolism, and you burn more calories.

HIIT combines resistance and high intensity aerobics, strength building and muscular endurance generally in 30–60 second intervals and usually between 10–15 different exercises in each station before repeating the whole. It is designed to challenge and push fitness abilities to the maximum edge, but can also be achieved at home. One way to get an HIIT type "burn" for example is, instead of just running on a treadmill, increase its incline, and run with weights in your hands.

In the military, among first responders, and fitness pros, interval training in general, and HIIT in particular, has grown in popularity. Like many of the other techniques and methods that have come from the sports and training arena, there is now growing evidence that HIIT may also support anti-aging. Recent studies have indicated that high intensity interval type training boosts the production of hGH, much like weight training. Beyond that, other published research has found that HIIT type exercises may actually help preserve leukocyte telomere length, and current science indicates that there is a positive relationship between telomere length and anti-aging.



Sports Medicine and Anti-Aging

As you probably have come to understand by now, unlike "conventional" medicine, anti-aging medicine does not accept that weakness, fatigue, wrinkles, lack of vitality, depression, cognitive difficulties, etc – are the inevitable signs of growing old.

Anti-aging medicine looks at "aging" like any other condition that can be treated, and uses innovative and breakthrough techniques for the early detection, prevention, treatment, and reversal of age-related dysfunction, disorders, and diseases. What you may have also deduced is that much of what we refer to as "anti-aging" medicine really grew out of sports medicine which was designed to achieve peak performance in athletes.

The goal of sports medicine is not only to ensure that athletes can train and compete at peak performance, but also to help them recover from injury and prevent future injuries. The techniques used by sports medicine physicians are designed to both strengthen and repair, and therefore certainly can benefit regular folks as much as the pros, particularly in the areas of age management.

One such technique that is getting a lot of positive press lately, is Platelet Rich Plasma Therapy, or PRP. Many well-known athletes,

such as Tiger Woods, tennis star Rafael Nadal, NFL All-Pro wide-receiver Hines Ward, and many others have used PRP successfully to treat various problems, such as sprained knees and chronic tendon injuries.

Just as it is in the sports world, here at HealtGAINS we can and do use PRP to help with joint pain, back pain and other orthopedic conditions. We have also developed our own proprietary use of PRP Therapy – the Gaines Enhancement – to treat sexual wellness issues in men and women.



What is PRP?

The secret to PRPs effectiveness no matter how it is used is the “growth factors” that are present in your own blood.

Your blood is made up primarily of two components. The liquid component, or the plasma, and the solid --the red blood cells, white blood cells, and smaller cells known as platelets. Platelets are what bind together to “clot” in response to damaged tissue, such as a bleeding wound. However, besides their abilities to form clots, platelets also contain long chains of proteins or “growth factors,” which also play an extremely important role in the healing of injuries.

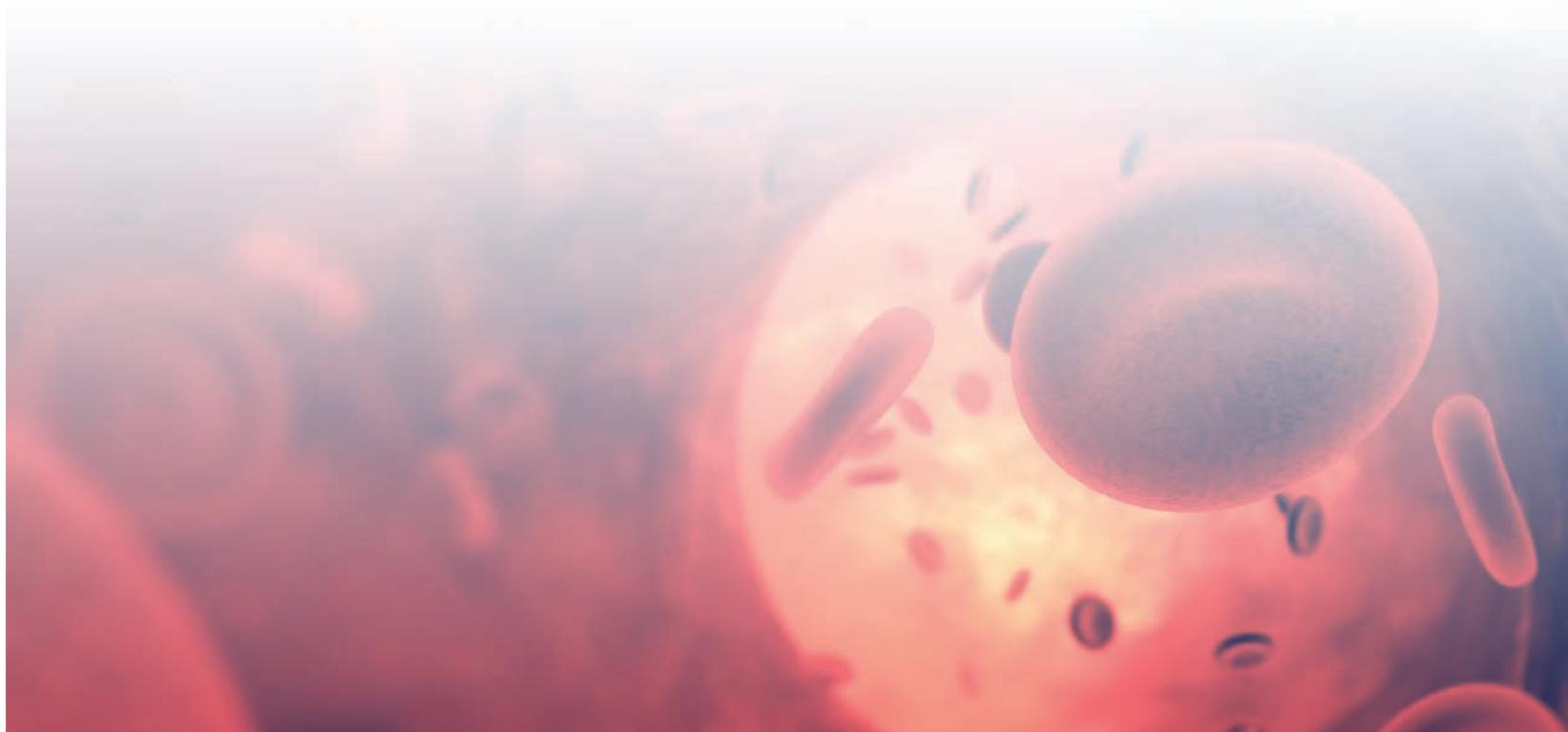
PRP is plasma that has been “super-charged” with many more platelets than what is normally found in a usual drop of blood. In “platelet rich plasma” the concentration of platelets, and the “growth factors” within are as much as 10 times greater than “ordinary” plasma.

It seems that when injected, just as when reacting to a wound, PRP stimulates stem cells to produce new cells in and around the injection sites. The growth factors within PRP also appear to “rally” these new cells to flow into the areas of the injections, as if this sudden burst of bio-proteins “tricks” the body into thinking there is an injury there.

In the areas around the location of a PRP injection, we see the production of new cells, repair of damaged cells, and improved longevity and health of existing cells — all of which contribute to overall tissue rejuvenation.

PRP can also be used for sexual wellness and aesthetics. When used correctly PRP can help men achieve longer, stronger and more sustainable erections. In women it brings about improved lubrication stimulation, and the ability to achieve orgasms.

From the lessons learned in sports medicine, today we use PRP to help men and women improve their performance and regain their confidence in the bedroom. In addition, we can also use it in other aesthetic procedures, as part of an overall interventional wellness program, designed to invigorate every aspect of your life and renew your vitality.



A man with dark hair and a beard is sitting on a bed, looking down with his hands clasped together. He appears to be in a state of distress or deep thought. The background is a soft-focus blue.

The Hormone Connection

What are Hormones?

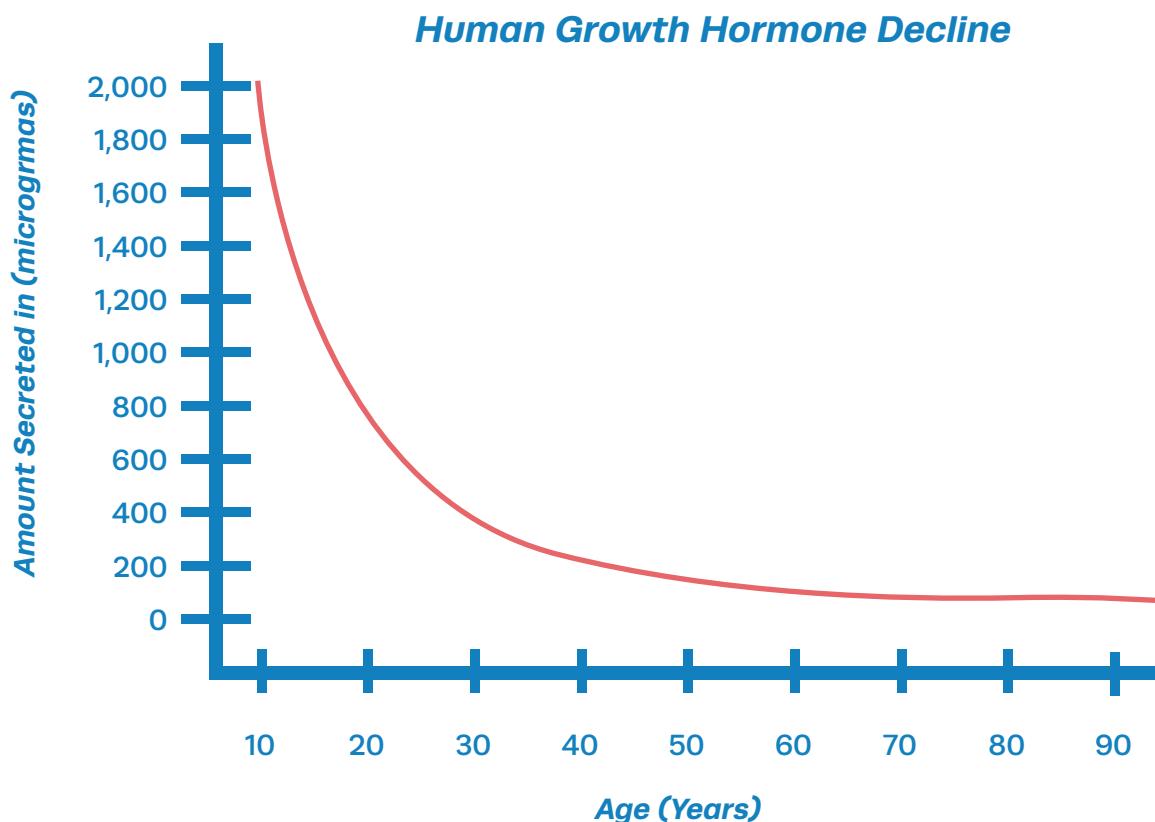
Hormones are a key part of the way your body functions. They are the chemical messengers secreted by the many glands of the endocrine system, and carried by the blood stream that stimulate and regulate most body processes including:

- Sexual function, reproductive growth and health
- Growth and development
- Metabolism and digestion
- Cognitive function and emotional health
- Maintenance of body temperature and thirst

The glands that secrete the hormones that are most closely tied to performance and aging are the pituitary gland, thyroid, adrenal glands and the sex organs; the testes and ovaries. These glands all put out various hormones that decrease over time, such as: testosterone, estrogen, progesterone, human growth hormone, estrogen, and thyroid hormones, the lowered levels of which often result in the symptoms we commonly relate to aging:

- Fatigue
- Lowered libido
- Decreased metabolism
- Sexual wellness issues

The relationship between hormone levels and cellular function is based on balance. It isn't always about "normal levels." What is right for one person is not always the same for another, but what is common for everyone is that as you grow older, the likelihood of hormone deficiencies and imbalances increases.



Hormone Replacement Therapy

Hormone replacement therapy, or HRT, as the name implies, is all about renewing vitality by giving you back what age takes away. Biologically speaking, hormones stimulate, facilitate, or regulate almost all of your bodily functions. Another way to look at them is that they are a key raw material feeding the machines of your body's

factory. And, like any raw material, they can get used up, and need to be replaced. Your body naturally produces and replaces hormones as needed. However, its ability to do so is not unlimited. As we age, our ability to produce hormones decreases. In particular are the hormones associated with sexual function and youthful vitality.

HRT Myths and Misconceptions

There are many myths and misconceptions about HRT, most of which do not in any way reflect our current understanding of its uses and benefits. The most common misconception about HRT therapy is its association with anabolic steroid abuse, and the link of same to an increased risk of heart attacks and cancer.

The way HRT is used clinically for optimal aging is about as far from performance enhancing drug abuse, as a unicorn is from a horse! Athletes, or body-builders who resort to performance enhancers, are most likely not testosterone deficient in the first place. In addition the reason it is referred to as "abuse" is they take massive quantities -- ten, twenty or more times what your body could normally produce – without proper medical supervision. Plus, steroid abuse often involves the use of non-human, distorted chemical hormones which the human body has difficulty metabolizing properly.

The truth is, most if not all, of these myths have actually been debunked, and HRT is once again recognized as an effective anti-aging treatment. This has actually created a new problem.

Now that the truth about the benefits of HRT are coming to light, there are many “Johnny come lately” doctors and facilities jumping on the bandwagon, wishing to cash-in on the renewed popularity of, and demand for, HRT.

While it is admirable that they are spreading the word about something we have known all along, consumers need to be aware that HRT should only be administered by physicians with proper training, certification, and years of experience in its safe and effective use.

The point is for men, or for women, HRT treatment should only be sought from skilled medical professionals, with years of experience with both the benefits and the risks of HRT.

Bioidentical Vs Synthetic Hormones?

As the name implies, “bioidentical” hormones are an exact match – molecule for molecule – to the hormones, such as testosterone, naturally produced by your body. These naturally produced bioidentical hormones are more easily absorbed and used by the body, with far less likelihood of the negative side effects, associated with their synthetic counterparts.

Synthetic hormones are made from animal sources and plant extracts. They are not the same thing as the hormones normally produced by your body, so naturally your body does not recognize

them as harmless. Also, since the pharmaceutical companies that produce these synthetic hormones have a vested interest in patenting them for profit, they often come up with unique chemical variances that make the synthetics even more unrecognizable to your body.

Your body is a complex machine, designed to run on specific fuels. Using synthetic hormones, as opposed to bioidentical hormones, would be like putting ethanol in a gasoline engine. The car might run, but for how long, and what kind of damage could you be doing to the inner-workings?

How Do I know if I am Hormone Deficient?

In very general terms the symptoms of a hormone deficiency affect three areas: mental health, physical health and sexual health. In many cases you may be experiencing all or some of these symptoms, and you may be deficient in more than one hormone.

Typical symptoms of less-than-optimal hormone levels include:

- Low energy, fatigue or weakness
- Declining libido, sexual desire or erectile dysfunction
- Lack of enthusiasm, drive or motivation
- Loss of figure or muscle tone
- Poor focus or concentration

The only way to determine if you have an imbalance of one or more hormones related to your vitality, is with proper diagnosis and analysis. Your first step to detect a possible hormone deficiency is to have a proper blood test. Blood testing is the most accurate way to determine whether HRT is medically indicated. Although saliva tests are used by some healthcare providers, blood tests allow a much more accurate assessment. Once your blood is drawn, sophisticated laboratory testing is then used to accurately determine whether your hormone levels are normal or have become deficient.

Remember, what is normal for you, may be different for someone else, and that is why we use the latest in diagnostic tools, and our years of expert analysis to determine the course of action that is most appropriate for your individual needs.



Hormone Therapies for Men

As men age, they go through a condition known as “andropause” and suffer from different, but no less debilitating symptoms of reduced hormone production.

These symptoms can include thinning hair, weight gain, fatigue, loss of muscle tone, depression, and sexual wellness issues.

Bioidentical Hormone Therapy for men can help with these symptoms and put you back on your path to peak performance at any age.

The primary male hormone is testosterone. Produced mainly in the testicles, testosterone helps maintain your:

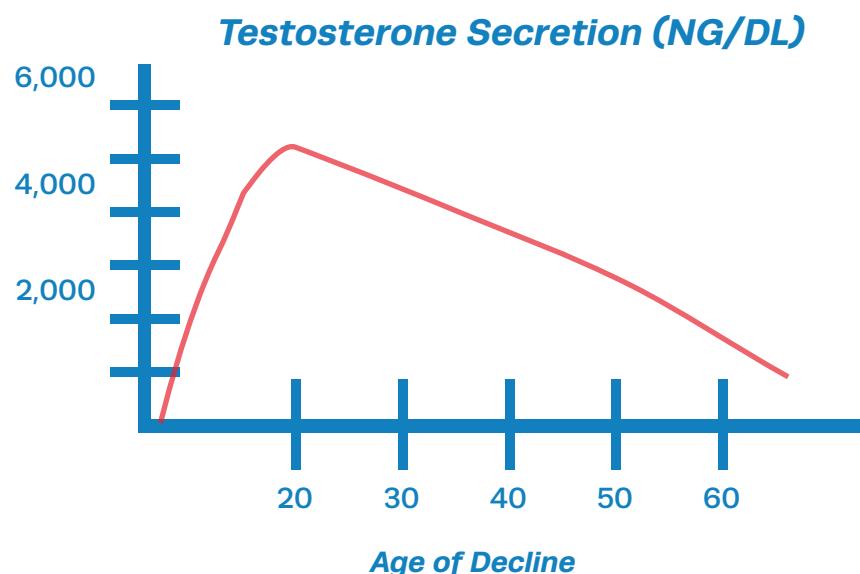
- Bone density
- Fat distribution
- Muscle strength and mass
- Red blood cell production
- Sex drive
- Sperm production

When it comes to the production of testosterone, most men hit their peak around the age of 17. Levels will hover pretty close to that maximum through your 20s, and then slowly start to drop-off in the

30s and 40s. By the time any man reaches 80, his testosterone level will likely be about half of what it was when he was at his peak. For some men, the decrease in production has little effect. But for many men, as you hit your 50s, 60s and older, you may actually start to feel the impact of the reduced level, experiencing low testosterone or "Low-T." Symptoms of Low-T include reduction of libido or sex drive, a feeling of reduced virility or vitality, changes in mood, erectile dysfunction, decreased energy, reduced muscle and bone mass, and memory issues.

Testosterone Therapy and Libido

While many factors other than age, from diet to stress, to sleep, can all affect your sex drive or libido, the drop in testosterone that occurs as men age, is often the cause of sexual wellness issues. Testosterone treatments for increased libido can range from applying topical creams, or gels to oral supplementation. These types of testosterone therapies have been shown to have a positive effect on men who have been experiencing a decreased sex drive and performance issues.



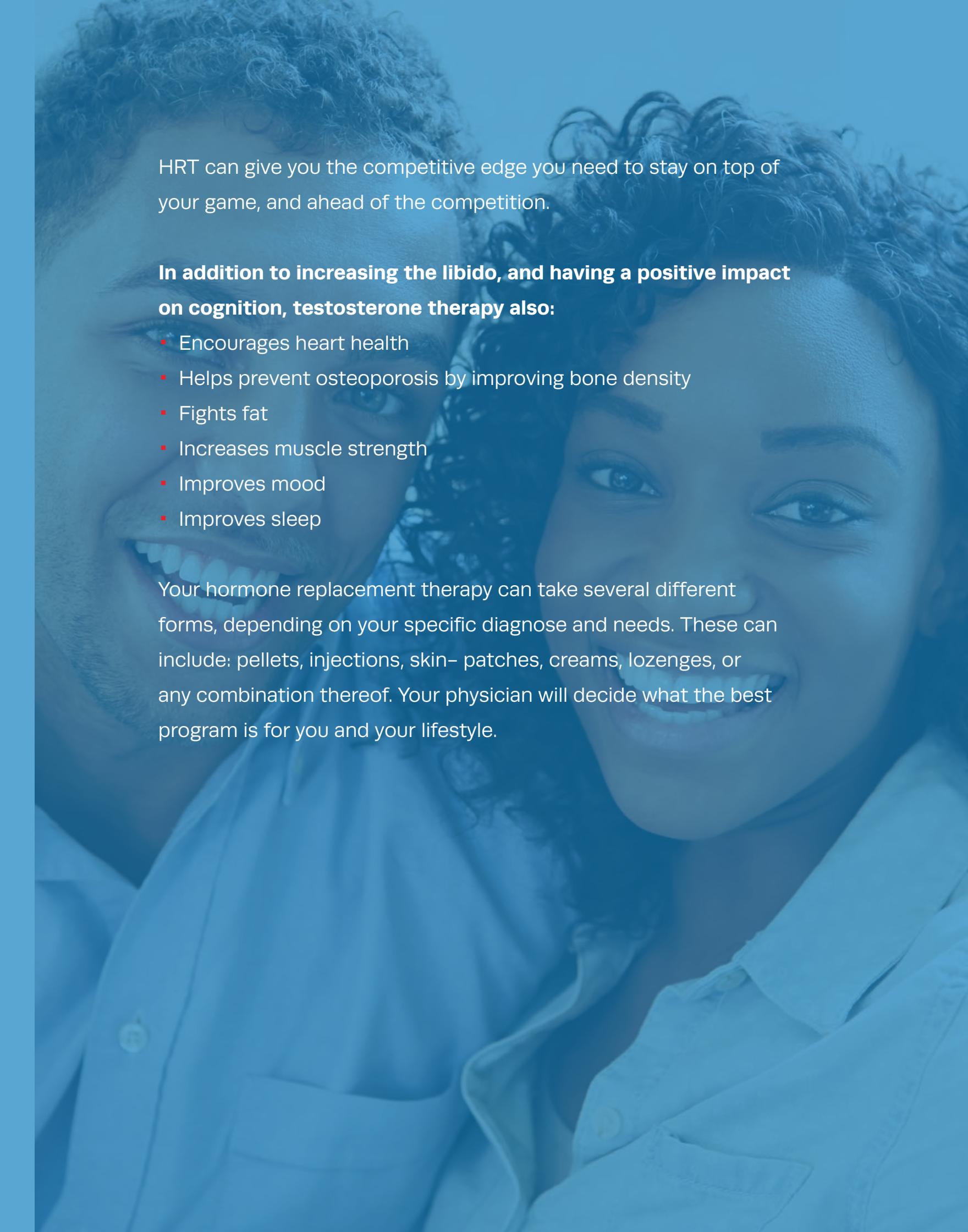
Beyond the Bedroom

So how can HRT help you outside of the bedroom? The short answer is in many ways.

Recent studies have found definitive links between decreased levels of testosterone in men and cognitive difficulties. In this context, difficulty in concentrating is defined as an "inability to concentrate on everyday as well as unusual or complex tasks." One can certainly see how that can affect your daily routine as well as your job performance.

Your ability to focus, or concentrate on a task, is part of the complex relationship of the neurotransmitters in the brain which regulate all cognitive functions. Serotonin, norepinephrine, and acetylcholine, in particular, are known to impact memory and other cognitive abilities. Brain mapping studies have shown that low levels of these neurotransmitters can lead to short-term memory issues and difficulty concentrating. Low testosterone affects the production of all of these neurotransmitters.

Today's job market is increasingly competitive, particularly for those who have been in the workforce for many years. Aging workers in high-profile, competitive fields, can feel particularly pressured to keep up with, let alone stay ahead of their younger rivals.



HRT can give you the competitive edge you need to stay on top of your game, and ahead of the competition.

In addition to increasing the libido, and having a positive impact on cognition, testosterone therapy also:

- Encourages heart health
- Helps prevent osteoporosis by improving bone density
- Fights fat
- Increases muscle strength
- Improves mood
- Improves sleep

Your hormone replacement therapy can take several different forms, depending on your specific diagnose and needs. These can include: pellets, injections, skin- patches, creams, lozenges, or any combination thereof. Your physician will decide what the best program is for you and your lifestyle.

Hormone Therapies for Women

For many years, Hormone Replacement Therapy, or HRT, was the standard of treatment for women experiencing the most common symptoms of menopause, hot flashes, night sweats, mood changes, etc.

In the early years of HRT, doctors also thought it was a miracle cure, able to not only help women get through menopause, but it could also prevent disease, and stave off many of the other unpleasantries of growing older. It was prescribed almost as a matter of course for any women entering menopause.

Today, doctors have learned much more about hormone treatments for women, and how to safely apply them for maximum effectiveness, with minimal risks. HRT remains the most effective treatment we have for treating the symptoms of menopause and Female Sexual Dysfunction. With what we have learned about HRT, it simply now means doctors need to be more selective about how and to whom we prescribe it.

We must look very closely at each woman as an individual, evaluate her symptoms, and hormone levels, and prescribe just the right, safe and effective hormone treatments to get her back into her optimal

balance. The problems discovered with the earlier uses of HRT have just forced its use into a more exact and precise science.

Recent clinical studies of our newer hormonal treatments such as systemic hormone therapy or low-dose vaginal preparations of estrogen, have shown renewed evidence that hormone therapy is still the right choice for many women, as long as doctors look at their overall lifestyles, and risk factors.

Today, individualized HRT is delivered orally, by a skin patch, or topical gels, creams or sprays. HRT prescribed in the right doses, continues to be the most effective treatment available for reducing night sweats and hot flashes, and improve vaginal dryness, lack of stimulation and painful intercourse –even in non-menopausal women.

While women do produce testosterone, and can in some cases benefit from testosterone therapy, the most common hormone treatments for women involve replacement of the female hormones, estrogen and progesterone.

Estrogen therapy can:

- Relieve menopausal symptoms
- Increase female life expectancy
- Reduce the risk of coronary artery disease
- Boost brain function
- Help prevent osteoporosis
- Improve skin and muscle quality

Progesterone therapy can:

- Improve female libido
- Calm and reduce stress and anxiety
- Reduce the risk of some cancers
- Boost thyroid action
- Increase the metabolism of fats
- Reduce bone loss and help prevent osteoporosis



Human Growth Hormones

The pituitary gland is small, but it plays a very big role in your body. Located at the base of your brain, the pituitary produces Human Growth Hormone, or hGH.

As the name implies, hGH stimulates growth in children and teens, and helps to maintain muscle mass and bone strength throughout life. Despite the need for its continued presence, hGH production does decrease over time. Levels begin to drop most significantly as you reach middle age.

It does not take a medical professional or research scientist to realize that most people are stronger, faster, and more mentally capable in their 20's than in their 70s. A 20-year-old man makes about 800 micrograms of hGH every day, while an 80-year-old man produces about 60 micrograms each day.

Is there a link between hGH and the peak performance of our youth? Apparently there is. A 2003 study published in the journal Sports Medicine found that "exercise intensity above lactate threshold and for a minimum of 10 minutes appears to elicit the greatest stimulus to the secretion of hGH."

What that means is high intensity training stimulates the production of hGH, which in turn is responsible for the increase of lean muscle mass that is the result of such workouts!

This is why many, but particularly those in sports medicine and personal training, refer to hGH as "the fitness hormone."

Your body produces less and less human growth hormone as you age. It declines at a rate of about 2%–4% a year. Over time, that is a significant drop which can contribute to fatigue, weight gain, loss of muscle mass and bone density, poor sleep, and sexual issues.

In 1990, the New England Journal of Medicine published one of the first studies to test the effects of hGH injections on aging. The study was conducted using elderly men. Lead researcher on the study, Dr. Daniel Rudman, concluded, "We reversed 10 to 20 years of the aging process. We saw fat diminished, muscle tissue increased, and better bone density."

Patients in this and later studies, also reported a "general feeling of better health," as evidenced by quality of life scores.

hGH replacement:

- Rejuvenates every cell in the body
- Aids fat loss and muscle gain
- Helps the body heal faster
- Boosts energy to youthful levels
- Improves quantity and quality of life

Sermorelin

Similar to hGH therapy and often used in conjunction with it is sermorelin. Sermorelin is a bio-identical hormone that stimulates the production and release of hGH. When used in a combination therapy with other Growth Hormone Releasing Hormones, GHRP2 and GHRP6, sermorelin helps encourage the production of not only hGH, but testosterone and other hormones.

Patients who have used sermorelin therapy have reported:

- Increased Energy & Stamina
- Improved Skin Texture & Elasticity
- Better Sleep and Reduced Sleep Disturbance
- Healthier Cardiovascular & Immune System
- Improved Bone Density & Strength
- Loss of Body Fat & Helping Prevent Weight Gain
- Increased Muscle Mass and Ability to Rebuild Lost Muscle
- Increase in Sex Drive, Sexual Potency & Frequency
- Improved Mental Function, Focus & Concentration



Thyroid Hormones

Many of the conditions normally associated with aging, can actually be caused by low levels of thyroid hormones.

In fact, one in every seven Americans may be suffering from low-thyroid or hypothyroidism.

Symptoms of Low Thyroid can include:

- Thinning hair
- Weight gain
- Fatigue
- Depression
- Changes in menstrual flow for women
- Muscle aches
- Higher sensitivity to cold

The Thyroid is a gland that is located in the neck just behind the Adams Apple. It is responsible for producing two thyroid hormones – T3 and T4. These hormones are essential for cellular metabolism. In other words they are responsible for turning on and maintaining your cells' ability to turn nutrients into energy. People with low levels of thyroid hormones have slower metabolisms. Which leads to the associated problems, most noticeably chronic fatigue and weight gain.

A thyroid imbalance can affect every organ in your body. The thyroid is critical in maintaining energy through close regulation of metabolism and temperature control.

Thyroid disorders are more common as you age, yet age-related thyroid slowdown often goes undetected, mainly because most conventional doctors are not really trained to look for it. Physicians who do not specialize in age-management often dismiss age-related decline of thyroid hormone as "normal," and thus consider symptoms such as, fatigue, sensitivity to cold, muscle cramps, hair loss, dry skin, etc, as just part of the aging process. As a result, the disease can and probably does go undiagnosed in a large number of patients.

Even standard blood tests used by conventional physicians, may not paint an accurate picture of your true thyroid hormone levels. These tests usually only look at levels of TSH, and do not look for intra-cellular levels of the more active form, T3. Many patients who present with TSH levels in the "normal" range, could still be feeling the effects of low thyroid output, and could benefit from thyroid hormone optimization.

Thyroid hormone replacement therapy is a very individualized treatment process. At HealthGAINS we are experienced in age-related thyroid deficiency, we know what to look for, and how to correctly diagnose and treat it effectively.

A close-up photograph of a man and a woman lying in bed. The man, with dark hair and a beard, is in the foreground, looking up at the woman. The woman, with long dark hair, is smiling down at him. She is wearing a white lace-trimmed top. A hand with light-colored nail polish is visible on the man's chest. The background is a soft-focus blue.

Sexual Wellness

Whether you are a man or a woman, the desire for a great sex-life and the value of intimacy is ageless. Countless scientific studies have shown the many benefits of a healthy and active love-life to overall well-being.

There was a time not so long ago, when people thought it was unheard of, or even “wrong” to have sex past a certain age. However, medical research has shown over and over again that whether you are a man or a woman, you can enjoy sex for as long as you wish. Intuitively you know how important a healthy and active sex life can be. But did you know sex really does affect your overall health, just as your overall health affects your sex life!

Sex provides physical and emotional pleasure, which in and of itself reduces stress, and improves wellness, but did you also know that:

- Sex three times a week burns 7500 calories a year, that's as much as jogging about 75 miles
- A night of lovemaking increases the oxygenation of all of your cells and organs, improving health and functionality
- An active sex-life has been shown to reduce the levels of “bad” cholesterol in the blood
- Sexual activity increases the production of testosterone, which can improve muscle strength and bone health.

In truth, sex may be the most powerful natural anti-aging medicine there is!

Now, of course, there are some inevitable physical changes that do come with growing older. Loss of sex drive, or your ability to perform like you could in your 20's or 30's, is one of the degenerative diseases of aging. However, there are many restorative ways to prevent or minimize this decline, and that is where the benefits of treatments for sexual wellness begin.

Male Sexual Dysfunction

As you get older, a certain degree of physical change is unavoidable. You may notice that it takes a bit longer to achieve an erection.

Maybe your erections are not as firm or as large as they used to be, you may lose your erection after an orgasm more quickly, and it could take longer before another erection is possible.

And it doesn't only take aging to bring on these kinds of symptoms, the stresses of work, the demands of fatherhood, and everyday life, can also affect your sexual desires and ability to enjoy your love-life. The good news is, we are now living in a time where there are an unprecedented number of effective treatments for ED, including

the well-known pharmaceuticals, Viagra, Cialis, or Levitra, as well as various devices and surgical procedures. While effective, each of these treatments have their drawbacks. Surgical procedures have associate risks and down time. The common oral ED medications are not indicated for every man, all have side-effects, and can actually be dangerous for men taking nitrates, or other medications.

At HealthGAINS we have developed alternatives to reignite your passion and ability, so you can have the best sex you ever had, regardless of your age or lifestyle!



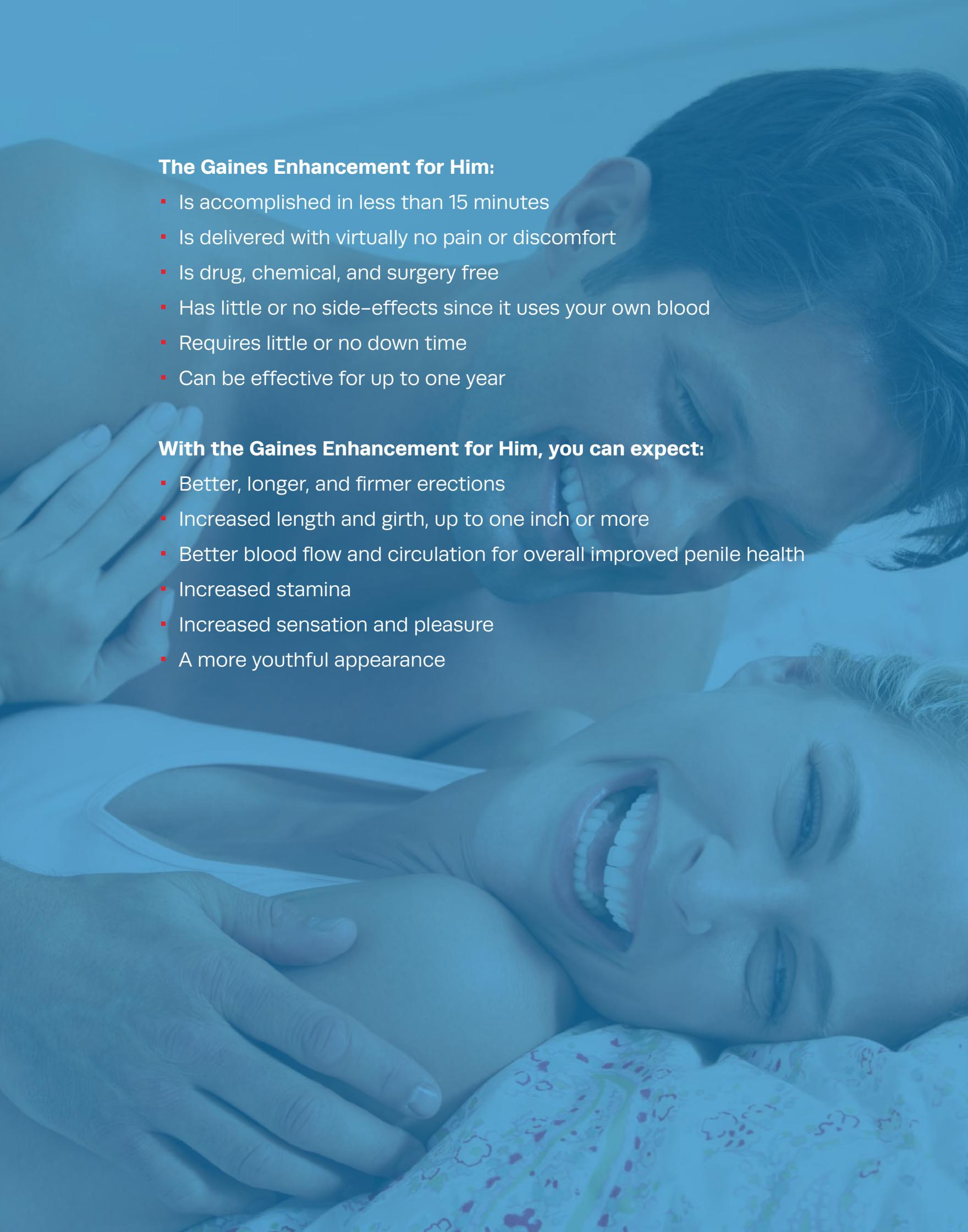
Gaines Enhancement®

The Gaines Enhancement for Him is a medically proven, all-natural, safe and effective treatment that uses the growth factors within your own blood and your body's natural healing ability to overcome ED and other symptoms of male sexual dysfunction.

In my practice I have used the Gaines Enhancement to help thousands of men to naturally overcome erectile problems, treat other performance difficulties, and increase penis size.

The Gaines Enhancement for Him uses the same revolutionary, clinically proven Platelet Rich Plasma Therapy, or PRP, you learned about earlier, along with an exclusive combination of other all-natural ingredients.

As when used for orthopedic purposes, your body's own growth factors within the PRP component of the Gaines Enhancement get right to work to increase blood flow to the penis, increasing length and girth, and immediately improve your ability to achieve and maintain an erection.

A woman with long dark hair is smiling broadly, showing her teeth. Her eyes are closed or partially closed. A man's hands are resting on her upper abdomen. She is wearing a light-colored, patterned top. The background is a soft, out-of-focus blue.

The Gaines Enhancement for Him:

- Is accomplished in less than 15 minutes
- Is delivered with virtually no pain or discomfort
- Is drug, chemical, and surgery free
- Has little or no side-effects since it uses your own blood
- Requires little or no down time
- Can be effective for up to one year

With the Gaines Enhancement for Him, you can expect:

- Better, longer, and firmer erections
- Increased length and girth, up to one inch or more
- Better blood flow and circulation for overall improved penile health
- Increased stamina
- Increased sensation and pleasure
- A more youthful appearance

Female Sexual Dysfunction

When it comes to sexual wellness and sexual dysfunction, it has been a long held belief that there has been a bit of a gender bias on the development of treatments, with the scales tipped heavily in the favor of men.

That may be true on the part of Big Pharma, but at HealthGAINS we do not believe in ignoring the sexual wellness issues of half the population! Just as their male counterparts, as women age, their bodies change as well. With those changes can also come sexual wellness issues. The vaginal walls can become thinner and also a little stiffer, the vaginal opening can change, areas of stimulation can become less sensitive, and most women experience a decrease in vaginal lubrication.

The approved treatments for female sexual dysfunction may be limited compared to those available for men, however, there are options, and many more are becoming available.



O-Shot®

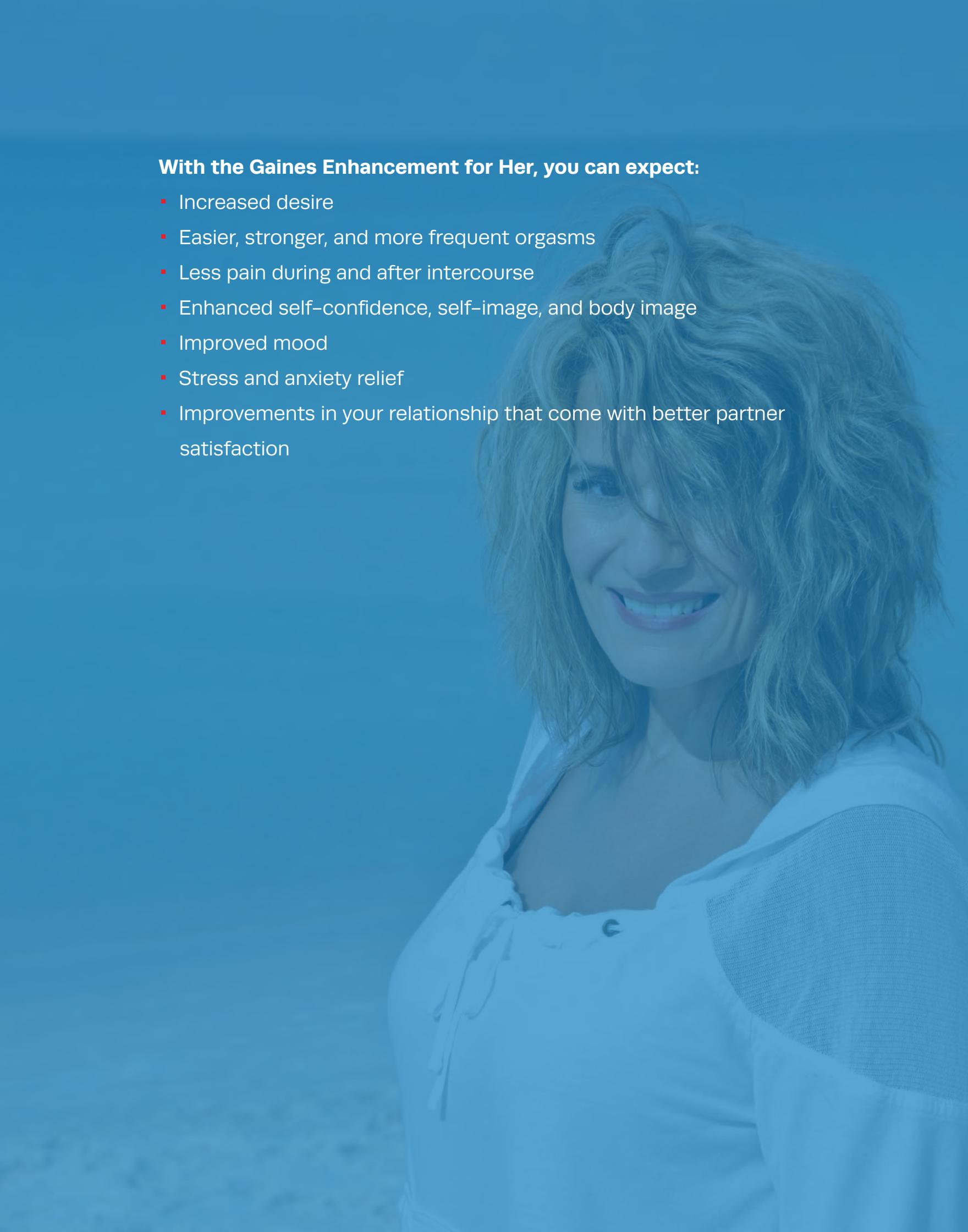
As an age-management professional, I saw firsthand the very real condition of Female Sexual Dysfunction, or FSD, which is only now being recognized by the FDA.

I was not going to wait around for the FDA to approve the development of a “female Viagra,” before I could offer my patients some relief. That is why I created the Gaines Enhancement for Her.

Your body’s own growth factors, along with the other unique combination of ingredients within the Gaines Enhancement get right to work to increase blood flow to the vaginal area, resulting in smoother, healthier, skin on the lips of the vagina, a tighter vaginal opening, increased natural lubrication, improved sexual desire, and an overall more youthful appearance.

The Gaines Enhancement for Her is:

- All natural
- Has no side effects
- Requires No downtime
- Preformed same day



With the Gaines Enhancement for Her, you can expect:

- Increased desire
- Easier, stronger, and more frequent orgasms
- Less pain during and after intercourse
- Enhanced self-confidence, self-image, and body image
- Improved mood
- Stress and anxiety relief
- Improvements in your relationship that come with better partner satisfaction

A man in a dark pinstripe suit and tie is shown from the chest up. He has grey hair and is holding his hands against his temples, looking weary or stressed. The background is a solid blue.

Stress Management

You know what else can help you achieve Peak Performance at any age? Reducing stress. You cannot do your best or be your best – if you are stressed out.

Taking steps to reduce stress in your life is as important as anything else we have discussed so far to getting healthy and staying healthy for life!

Stress and Wellness

Lowering stress and anxiety helps lower your blood pressure, improves the immune system, can reduce back and joint pain, and increases fitness overall.

It's known as the mind body connection, and there is now incontrovertible proof that things like stress and negative emotions can and do affect your physical well-being. To get in shape and achieve peak performance, you may want to try engaging in some specific stress reducing activities such as yoga, or meditation – but if not, here are 10 things you can do every day to help you calm down, relax, and improve overall wellness.

- Learn to relax. You need to give yourself a break, everyday. At some point walk away from your desk, if possible, or if not right there, just slowly take a deep breath in, hold it, and then exhale very slowly. Do this at a 2:1 count, in other words inhale for four seconds, and exhale for 8. At the same time, just let go – smile, and say something positive like, "I am r-e-l-a-x-e-d."
- Practice acceptance. Many people get distressed over things they won't let themselves accept. Often these are things that can't be changed. Try accepting the things you can't change – and stop stressing over them.

- Get a good night sleep. It is recommended that you get at least 8 hours of sleep.
- Get organized. Develop a realistic schedule of daily activities that includes time for work, sleep, relationships, and recreation.
- Exercise. We've covered this before, but exercise is not just good for your physical well-being, it is a great stress buster, and it creates endorphins, which improve emotional outlook as well.
- Reduce time urgency. Slow down -- pace not race, if you are the kind of person who frequently checks your watch, learn to take things a bit more slowly.
- Disarm yourself. Leave behind your "weapons" of blaming, shouting, having the last word, and putting someone else down.
- Quiet time. Find something you like doing and –do it. Balance your family, social, and work demands with a hobby or other private time.
- Learn to delegate. You can't be responsible all the time, stop trying to do everything yourself, and start getting help from others.

Talk to friends and Maintain Positive Relationships. Friendship is good medicine. Daily doses of conversation, regular social engagements, and occasional sharing of deep feelings and thoughts are excellent stress reducers.

The noted ancient Roman philosopher Seneca once wrote, "It is part of the cure to wish to be cured." Centuries later this became known as the mind-body connection. At its most basic level, it is the concept that what we think and how we feel emotionally, affects the

way we feel physically.

At its most profound and esoteric level, the mind-body connection serves as the basis for the spiritual beliefs and healing philosophies of Daoism, Reiki, Yoga, Ayurvedic Medicine, Traditional Chinese Medicine, and many others.

The idea of the Mind-body connection relating to healing and physical well-being goes far beyond a simple belief in "the power of positive thinking." From the well-documented placebo effect found in clinical trials to the indisputable fact that blood pressure rises in response to stress and anxiety, there is undeniable scientific evidence that mental and emotional states do indeed affect our physical health.

A report recently published by the American Academy of Family Physicians entitled, How Your Emotions Affect Your Health stated that "our bodies respond to the way we think, feel and act, when you are stressed, anxious or upset, your body often tries to tell you that something isn't right." The report goes on to state that the following conditions or ailments can be caused by, or worsened by emotional stress.

- Back pain
- Chest pain
- Constipation or diarrhea
- Sexual Wellness

- General aches and pains
- Headaches
- High blood pressure

Many of the usual complaints of aging – fatigue, depression, and cognitive difficulties, are all also brought on by, or worsened by stress.



Mind Body Medicine

Now that the reality of the mind–body connection has been firmly established, it has not only been accepted by many traditional medical authorities, it has also lead to the emerging practice of mind–body medicine.

Mind–body medicine can best be described as the study of the interactions between the emotional and cognitive mental processes and the physical body. Traditional or most “Western” medical specialties treat the mind and the body independently. The various approaches of complimentary or alternative treatments have evolved to effectively treat the entire person – mind, body & spirit, the same type of approach to optimal aging and integrative wellness we take at HealthGAINS.

There are also many techniques and exercises you can do on your own to reduce stress and optimize the mind–body connection for health, healing, and well-being. Here are a few of the best.

Deep Breathing –While not really an “exercise,” the simple act of relaxing and focusing your attention on deep rhythmic breathing can do wonders for your body. Try it whenever you are feeling stressed. While there are many specific “breathing techniques” all you really need to do is just take five long deep breaths, focus



only on your breathing as you inhale and exhale. You will almost instantly feel your body relax and your mind begin to calm down.

Meditation – Eastern practitioners have known of the benefits of meditation for centuries. There have been many modern research studies that have provided evidence of its effectiveness to reduce stress. These studies seem to indicate that meditation and similar relaxation techniques cause a reduction of stress hormones such as cortisol. Cortisol is related to both heart disease and stress overeating.



Yoga – The overall health benefits of Yoga have also been known for centuries. Yoga practitioners focus their attention on breathing, all while doing a series of stretches and poses. For many, yoga is a path to enlightenment. For others it is a great way to exercise, relieve stress, and stay in shape. Yoga in all of its forms not only improves physical balance with all of the benefits that come with it, but also is one of the best mind-body techniques to bring one into balance, emotionally and spiritually.



Tai Chi and Qigong – Tai Chi and its related form Qigong or Qi Gong are kinds of moving meditations that combine breathing techniques with martial arts movements all to improve and enhance “Qi”. Qi, pronounced, “chee” – in Traditional Chinese



Medicine is "life force" or "energy flow". In TCM, imbalances, or blockages of Qi flow are responsible for all sickness and disease. The practices of both qigong and Tai Chi involve specific slow, almost ballet-like movements while paying mindful attention to your body and breathing. Whether you believe in the power of Qi or not, both practices have been proven to reduce stress, improve balance and coordination, and when practiced long enough, also provide an effective form of self-defense!

Progressive Muscle Relaxation – Progressive muscle relaxation (PMR) is related to the forms of eastern "mind-body" technique that recognize the deep connection between mental states and physical ailments. In PMR, you learn to rhythmically tense and then relax all the specific muscle groups in your body, one at a time. It is basically a body awareness technique in which you learn to better recognize the feeling of "tension" – and how to "release" it.



As Old As You Think

Perhaps one of the most interesting aspects of the mind-body connection as it relates to aging well, is recent studies of dementia in very old populations that indicate keeping the mind stimulated and active, can stave off age related cognitive difficulties.

Sandra Bond Chapman, founder of the Center for BrainHealth at the University of Texas-Dallas, has published on-going research

that indicates participating in challenging activities strengthens and preserves cognitive capacity as people age. Her studies found that even simple activities such as reading, writing, playing games and doing puzzles may protect brain health. A similar study was presented at the 98th scientific assembly and annual meeting of the Radiological Society of North America (RSNA) in Chicago, which concluded, "reading the newspaper, writing letters, visiting a library, attending a play or playing games such as chess or checkers, are all simple activities that can contribute to a healthier brain..."

Interestingly enough, it is not just mental "exercise" that can help keep you sharp as you age, studies have found that physical exercise can help as well. Physical exercise releases endorphins, and other brain chemicals such as brain derived neurotrophic factor (bdnf). Bdnf is known to support the survival of neurons and the growth of new ones. Increased levels of bdnf has been confirmed in recent studies to improve mental acuity.

In addition to challenging the brain to keep it young and healthy, recent studies also seem to add credence to the old adage that "you are only as old as you think." A 2012 Yale University Study found that, older people with positive views on aging were almost 50% more likely to recover from sickness or a severe disability than those with negative views on aging. Those without "negative age- stereotypes" also showed a significantly slower rate of decline of their ability to perform daily activities as they got older.



Aesthetics and Other Age-Management Treatments

As you have come to the closing sections of this Guide to Optimal Aging, you have come to share our vision of the “ageless era” -- a time when the ravages of disease, dementia, and other disabilities of “old age” will be a thing of the past.

It will be a time when men and women can look forward to being strong, healthy, happy and productive for 100 years or more. Obviously we are not there yet, but we are very close, and you have taken your first steps to being part of that world by reading this Guide.

We have spent a lot of time in the first few sections of this book discussing lifestyle changes and age-management techniques that can help you to feel the way you did when you were younger. Many of those will also have the added bonus of making you look younger too. Age-management as practiced by HealthGAINS is a continuum of care. We couple the evidenced-based science of anti-aging medicine with the latest in safe and effective aesthetic treatments to offer you a holistic program that can have you feeling, as well as looking your best.

Renew, Revive, Restore

According to the International Society of Aesthetic Plastic Surgery (ISAPS) more than 23 million cosmetic surgical and nonsurgical procedures were performed worldwide in 2013.

The top two non-surgical procedures performed were Botulinum toxin and fillers and resorbables. These statistics speak to the ever increasing demand for techniques to renew, revive and restore a more youthful appearance, without the risks and downtime of surgical procedures.

There have been many claims about various creams and other products that offer a "facelift in a bottle," or devices and techniques that provide a "non-surgical facelift." Most of these are useless at best, and some dangerous at worst.

It is our goal to provide you only with evidence-based scientifically proven procedures. That is why we are proud to offer our clientele the GainesLift.

The GainesLift is similar to the most popular non-invasive, non-surgical aesthetic procedure used by today's hottest Hollywood celebrities, but is even better because of our proprietary formula.

A woman with long dark hair is smiling with her eyes closed. She is wearing a white lace headband and a light-colored, possibly white or cream, top. The background is a soft, out-of-focus blue.

The technique is a radical new, clinically proven medical procedure that uses the science of stem cells, and the healing factors in your own blood, as a safe and effective alternative to Botox and other chemical fillers typically used for facial rejuvenation.

This rejuvenating formula combines the proven effectiveness of natural dermal fillers to restore lost volume, and Platelet Rich Plasma to actually stimulate the regeneration of new skin cells to create youthful beauty and radiance – in a single doctor's visit.

As in the Gaines Enhancement for sexual wellness, the GainesLift uses the growth factors in PRP. In this case, they stimulate the production of collagen, elastin and new blood vessels to promote healthier, younger looking skin.

The GainesLift is:

- Non-surgical
- All natural
- Has no side effects
- Requires No downtime
- Performed the same day

With the GainesLift you can expect:

- A rapid recovery time
- No scarring whatsoever
- An almost immediate more youthful “glow” to your skin
- Smoother looking skin
- Increased production of collagen and stem cells over time, resulting in firmer, more youthful looking skin
- Results that can last from 9–18 months

The GainesLift and the Gaines Enhancement, are two of the first practical anti-aging techniques to deliver on the promising science of stem cell research. In the not too distant future it is likely we will be able to leverage this technology to not only stimulate healing and the regeneration of cells, but to grow new organs, replace limbs, and reverse the damage of aging. It is all part of the emerging science of life extension.



The Science of Life Extension

Those who are working in the exciting areas of biomedical research and genetics believe that in the future we may be able to program, or reprogram our genes as easily as we do computers today.

Some scientists applying this concept to the science of life extension believe once we can do that, we will be able to control the genes that express as the declines of aging, reprogram them not to, and extend human life span for 150 years or more. We still do not have a complete picture of the role of gene expression on aging, nor pinpointed the exact genes involved in aging in humans, but we do know this: elderly people and younger people demonstrate differences in gene expression, and if we can find a way to restore youthful gene expression, we may be able to significantly extend healthy lifespan.

Until we can unravel the genetic code for aging, one of the most exciting areas of research into anti-aging is telomerase activation. Telomeres are specific genetic material that appear at the tips of the DNA molecule that make up our genes. Think of telomeres as the plastic tips of shoelaces. Just as those tips keep the lace intact by preventing it from fraying, the telomeres keep the chromosome ends from fraying or interfering with each other so the genetic instructions

A blue-tinted photograph of a man and a woman smiling. The man is in the foreground, wearing a light blue shirt. The woman is behind him, wearing a white top. They are both looking towards the camera.

stay intact. But each time a cell divides the telomeres grow shorter and shorter. In this way telomeres are responsible for cellular death. Once the telomere becomes too short, that cell can no longer divide, it becomes inactive, or "dies".

While we are young and vital, an enzyme called telomerase stimulates the growth of telomeres. As we age the cells produce less and less of the enzyme and telomeres shorten. Researchers at the University of Utah found that shorter telomeres are associated with shorter lives. In a study group of people older than 60, those with shorter telomeres were eight times more likely to die from infectious disease and three times more likely to die from heart disease.

We are currently experimenting with various techniques for telomerase re-activation that can reverse telomere damage, and lengthen telomeres. Theoretically, lengthening telomeres can increase vitality and return you to peak performance.

These and other breakthroughs are only scratching the surface of the emerging science of life extension.

You Can Age Well

We still have a far way to go before unraveling all of the mysteries of aging. One of the major hurdles that has stood in the way of developing a single definitive aging theory, has been the problem of separating causes from effects.

As any statistician or research scientist will tell you: "correlation or association, does not mean causation." In other words just because two processes happen in concert, that doesn't mean we can imply a causal relation in any direction. So when it comes to aging for example, just because hormones decline when we age, we cannot say that ageing causes hormone decline, or vice versa.

While there is still much we do not know about why we age, we have learned a lot about how to age well, and you can do so by following the outline presented in this Guide:

- Eat well, avoid processed, artificial, and chemical filled foods.
- Exercise regularly
- Supplement as appropriate to make up for what you are missing in your diet.
- Work with age-management professionals to develop a comprehensive, integrated health and wellness program, customized to your individual needs.

- Recognize the value of the Mind–Body connection.
- Reduce stress. Understand that stress is a part of life and develop tools and mechanisms to better deal with it.

In this Guide I have talked about living to the age of 120, 150, or more. You might ask me, are there any limits to the human lifespan? In the not too distant future, perhaps not. But for now, and what I see in my daily practice, is we have a greater understanding of aging -- of life and of death -- on a molecular level than any generation has had before.

Do we have the technical expertise to overcome aging and death? No, not yet, but I do believe we are literally developing the blueprint for immortality.





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