



Dr. Sears'

CONFIDENTIAL CURES

Your Guide to Truth and Lies in
Medicine from Around the World

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Dear Friend,

Most doctors and scientists believe your body wears out because of environmental “wear and tear” — the same way your car gets old and starts having problems.

But you are not a broken-down old car.

And when doctors use this theory to treat you, they only treat the *symptoms* of aging. They’ll try prescription drugs and dangerous surgeries to try and get a few more “miles” out of your body.

But here’s the thing...

Aging doesn’t happen from external factors. It happens from the inside. Your body was designed to age.

And that’s why REAL anti-aging medicine — what I do in my practice — focuses on attacking aging *at its source*.

But first, I need to know “how old” your body is. I’m not talking about your chronological age...

I’m talking about a unique system that provides a total measure of how your body has biologically aged over time.

I call it a “Functional Biomarker Analysis.”

Once I know your score, I can recommend a program specifically designed to help you reverse the aging process.

This is the *most advanced anti-aging program in the world* — and it’s only available at the **Sears Institute**.

I’ll explain more about how it can help YOU regain robust health and function in this anti-aging issue of *Confidential Cures: Truth and Lies in Medicine from Around the World*.

You’ll also learn:

- How you can live younger and stronger using my four step anti-aging protocol that includes the latest regenerative therapies to help you control the aging process.
- Five easy ways to turn on telomerase and lengthen your telomeres. Putting this advice into practice has helped my patients reverse their biological age by up to 28 years!
- How to turn on a variation of a special anti-aging gene we were all born with. Once you learn how to activate this gene, you too can be one of the world’s true Super Agers.

To Your Good Health,

Al Sears, MD, CNS

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My Patients Are Adding Life To Their Years — And So Can You

As an anti-aging doctor, my patients often reveal their worst nightmare to me: being frail, immobile and, worse yet, stuck in a nursing home with no independence.

I don't blame them. Life in a nursing home isn't a very appealing prospect.

But here's the thing...

Most people who end up in nursing homes aren't sick. They're in there because they've lost the ability to function physically and can no longer care for themselves.

Most conventional doctors will tell you frailty and loss of functionality are an irreversible, untreatable and inevitable part of the aging process.

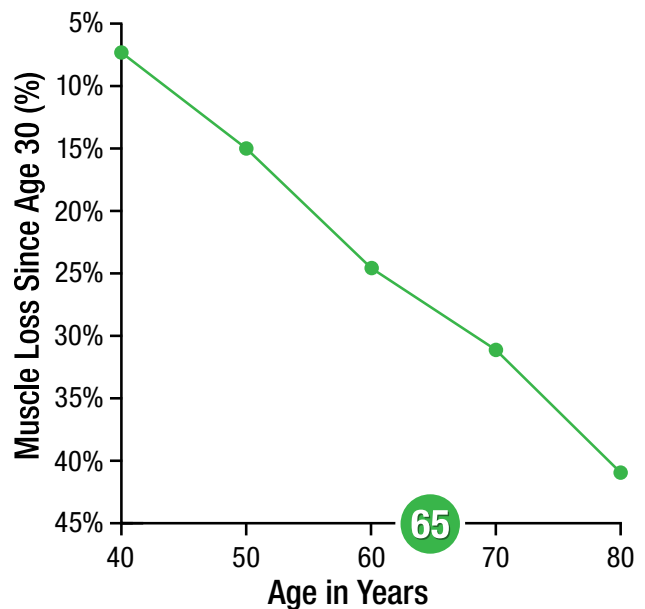
I call that hogwash — and I've been proving it at my clinic for decades now.

You see, frailty and loss of functionality are only age-related if you do nothing about them.

The problem is, most doctors simply ignore the practical steps that their patients can take to improve the key contributors to loss of functionality — like muscle weakness, lung capacity, walking speed, grip, balance, the ability to climb stairs, flexibility, and more.

None of these critical anatomical factors should be ignored or accepted. Instead, they should be assessed, measured, and rebuilt — and that's exactly what we do for patients here at the Sears Institute for Anti-Aging Medicine.

Change In Muscle Mass Over Time



At 65, you've potentially lost between 8% and 27% of your muscle mass.

What's the point of adding years to your life, if you don't also add life to your years?

But even most anti-aging specialists won't talk to you about the importance of physical functionality and how you can improve it — yet there are no aspects of healthy aging that are more important.

And most are unaware that one of the best indicators of healthy longevity is preserving physical strength and overcoming frailty.

For example, the strength of your quadriceps — a set of four muscles in your thighs — speaks volumes about your mortality risk — but you're unlikely to ever hear that from any conventional practitioner or anti-aging doctor.

It's now a scientific fact that as the strength and flexibility of your thigh muscles decline, so does your health... and your risk of landing in a nursing home, and even death, skyrockets.

At the Sears Institute for Anti-Aging Medicine, we've also proved that frailty and loss of functionality are completely reversible.

Some of my senior patients — even those over 100 years old — have unexpectedly found themselves in robust health after we helped them restore their quadricep mass.

But, as important as they are, rebuilding your quads is just one of the practical steps you can take to add “life to your years.”

In this *Confidential Cures* article, you'll learn that you don't have to suffer years of decline and loss of independence as you age. There are many practical things you can do to boost muscle mass and daily functionality — and the good news is that you can start this process at any age and in any physical condition.

Avoid The Dangers Of “Slowing Down”

A key study published in a recent issue of the *British Medical Journal (BMJ)* confirms what I've been telling my patients for years: The early detection of changes to your motor function — the control and coordination of your muscle movements — is not only an important opportunity to reverse the decline, it could also add years of healthy living to your life.¹

The study, conducted by French and English researchers among more than 6,000 participants over a 12-year period, found that increasingly poor physical function after the age of 65 was linked to a significantly higher risk of “all-cause mortality.”

The researchers also noted that when physical decline increases dramatically after the age of 65, mortality often follows within a 10-year period.

Signs of decline to watch out for in your daily life include:

- Slower walking speed
- Difficulty getting up from a chair
- Weakening grip strength
- Difficulty getting dressed
- Problems climbing stairs

And the statistics revealed in the research are shocking...

After taking account of other potentially influential factors, the researchers found that poorer motor function was associated with an increased mortality risk of:

- **22%** for decreased walking speed
- **15%** for weakening grip strength
- And **14%** for those struggling to rise from a chair

Why are so few doctors in America talking about this eye-opening research?

Perhaps most worrying of all, the researchers found that having difficulties with the normal activities of daily living — such as using the toilet, cooking, and grocery shopping — was associated with a staggering **30%** increased risk of mortality over the following decade. And the risk increased even further as motor skills and functionality deteriorated.

Don't Be A Victim Of “Age-Related” Muscle Mass Loss

Physical decline can bring on one of the biggest threats you can face as you age — a condition called sarcopenia, a word that comes from the Greek for loss of flesh.

In other words, extreme loss of muscle mass accelerates the normal aging process.

Sarcopenia is to muscle what osteoporosis is to bone — a slow and creeping frailty that strikes so gradually that you may not even notice it happening, until you become so decrepit you can barely function.

You see, when you lose muscle mass and strength, it affects your balance, your ability to walk, stay upright, rise from a chair or toilet, or perform even the simplest tasks of daily living.

Let me explain...

After the age of about 40, you lose about three pounds of your muscle mass EVERY DECADE. If you don't do anything about it, you wind up with sarcopenia.

After the age of 70, the process speeds up significantly. And by the time you reach 80, you'll have around 30% less muscle mass than a 20-year-old.²

Unless you do something about it, a vicious cycle of decline begins in your ability to cope with the tasks of daily life and basic functionality.

The symptoms of sarcopenia include musculoskeletal weakness, as well as muscle and stamina loss.

Studies also reveal prolonged periods of muscle loss can even lead to chronic inflammation and loss of bone density.³

But here's the problem... the more fatigued and incapacitated you feel, the less active you become, which reduces your muscle mass even more.

Unlike bears, which emerge from months of hibernation with their muscles intact, if you were bedridden that long, you'd have trouble standing. Just like astronauts who spend long periods on zero-gravity space stations, your muscle mass would shrink.

The good news is that research proves that sarcopenia and loss of physical function can be reversed.

As the results of the study published in the *BMJ* suggest, strategies to reduce accelerated physical decline should start as early as possible.

The study also notes that early detection of changes in motor function should not be a cause for worry, but instead should be regarded as an opportunity for prevention and reversal.

"The good news is that research proves that sarcopenia and loss of physical function can be reversed."

Here at the Sears Institute for Anti-Aging Medicine, we take a three-step approach to reversing physical decline:

- Measure
- Assess
- Rebuild

And here's how we calculate your personal and individual needs...

Reverse Your Physical Age Using My Unique Functional Biomarker Analysis

The researchers in the *BMJ* study applied a number of objective measures for motor function as indicators of the person's functional ability and disability.

Among their assessments, as I've noted, were walking speed, chair rise time, and grip strength. These are important — but at my clinic, we go a lot further.

We use a system designed to measure your body's biomarkers of aging. It's a protocol unique to the Sears Institute of Anti-Aging Medicine called Functional Biomarker Analysis.

And, if I'm being honest, it's one of the things we do at the Sears Institute that I'm most proud of...

Your Functional Biomarker Analysis provides a total measure of how your body has biologically aged over time.

But even more importantly, it gives you the information you need to improve it — so your body can act younger and stronger than its physical age.

Measuring and raising your Functional Biomarker score means increasing the...

- Power of your heart
- Strength of your bones
- Strength of your immune system
- Flexibility of your arteries
- Power of your lungs

- Length of your telomeres (the age markers at the ends of your chromosomes)
- Acuity of your memory and brainpower
- Efficiency and effectiveness of your hormones
- Speed of your reaction time
- Sharpness of vision
- Your overall physical power

Each of these measures can be transformed into extraordinary health and anti-aging benefits, which are accomplished through profound changes at your body's cellular level.

These changes and benefits defy the aging process — and not only boost your physical capacity, but also protect you from the diseases that stalk us in the modern world, like diabetes, heart disease, osteoporosis, Alzheimer's, and even cancer.

Improving Functional Biomarkers is the essence of what I have always believed medicine should be about... helping patients live younger and stronger, starting right now.

But remember that extending and expanding your health span is a journey, not a destination - and you should enjoy the ride.

Here are four of the best strategies you can use to take control of your body's aging process.

Strategy #1: **Always The First Step —** **Optimize Your Diet**

The first step in boosting your health is to cut out all ultra-processed foods, which make up an increasing proportion of America's daily diet.

I've been warning my patients away from unnatural, ultra-processed foods for decades. They're the root of almost every modern chronic ailment — heart disease, Alzheimer's, diabetes, obesity, cancer...and more.

This constellation of the world's worst diseases are tied to the disastrous changes we made to our traditional diet.

I'm talking about the unnatural foods that have been passed off as "healthy" for the past 60 years.

All of these foods contain unnaturally high amounts of sugar, salt, processed industrial oils, and unhealthy fats, artificial flavors, colors, preservatives, chemical sweeteners, as well as additives that imitate the texture and taste sensations produced by natural foods.

A steady diet of these foods has left our bodies starving for the vitamins, minerals, live enzymes, micronutrients, and healthy fats you need to ward off diseases.

Take cancer. Most doctors still ignore the connection between diet and cancer. But have you ever wondered why lung cancer rates in America have remained stubbornly high, even though the number of cigarette smokers declines every year?^{4,5}

Recent research from scientists from the University of Texas MD Anderson Cancer Center found that people who eat these foods regularly have a staggering 49% higher risk of developing lung cancer — even if they've never smoked a single cigarette.⁶

You can't rebuild muscle mass and functionality without protein.

And you don't need muscle mass just for strength. When you're sick, your body withdraws protein from your muscles to help produce the antibodies that fight infection.

If you have less muscle, you have less ammunition to fight illness — and that makes you susceptible to other diseases of aging.

All the best sources of protein come from animals — grass-fed beef and organ meat, pastured eggs, wild-caught fish, and whole milk dairy.

Focus all your meals around high-quality protein. Fruits and vegetables, not grains or treats, should make up the bulk of your carbohydrates.

Strategy #2: **Stimulate Cell Regeneration And** **Relieve Pain With Wharton's Jelly**

As its name suggests, Wharton's Jelly is a gelatinous substance composed of hyaluronic acid, collagen fibers, microfibroblasts, and mesenchymal stem cells.

It's named after Thomas Wharton, the 17th-century English anatomist, who first discovered it. More recently, it has become a focal point of medical research — thanks to its amazing regenerative and anti-aging properties.

At one time, Wharton's Jelly was considered postnatal waste. But now we know that it contains some of the highest levels of human cellular tissue products in human anatomy, and it's rich in regenerative properties and growth factors.

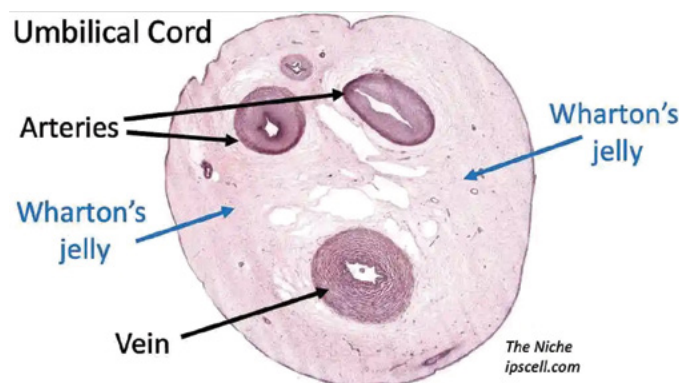
Human cellular tissue products are cells that can transform into virtually any other kind of cell in your body, such as the brain, bone, skin, and connective tissue cells.

These tissue products are harvested from Wharton's Jelly that has been donated by healthy mothers, who have delivered healthy, full-term babies via c-section — and are then administered into your body via injection.

And therapy using human cellular tissue products from Wharton's Jelly has been shown to stimulate cell regeneration, healing and relieve pain.⁷

The mesenchymal stem cells found in Wharton's Jelly not only have the ability to transform into the cells you need most, but they harness the power of growth factors found to expedite the healing and rebuilding process and help you find lasting relief.

This is crucial for rebuilding your functionality and muscle strength because it's hard to even go for a walk when you're in pain.



Wharton's jelly is a connective tissue located within the umbilical cord composed of hyaluronic acid, collagen fibers, and mesenchymal stem cells.

At the same time, Wharton's Jelly has powerful regenerative abilities on aging skin — thanks to its effect on fibroblast skin cells, collagen, and hyaluronic acid, also known as “nature's moisturizer.”

Here at the Sears Institute for Anti-Aging Medicine, we use Wharton's Jelly to treat a wide variety of musculoskeletal injuries and degenerative conditions, by injecting it into the painful areas of your body. Once injected, Wharton's Jelly works to regenerate damaged or injured tissue, which in turn relieves pain and restores function.

Injections of Wharton's Jelly are quick and virtually painless.

Strategy #3: Use The Stem Cell Therapy Called “A New Era” In Regenerative Medicine

You may already know that amniotic fluid is the fluid surrounding a fetus in the amniotic sac during pregnancy. During most pregnancies, this fluid is either lost before delivery or thrown away after birth.

Now, however, consenting mothers of C-section babies can donate this fluid, because of its amazing regenerative powers.

Amniotic fluid is highly concentrated in stem cells, proteins, cytokines, and other important compounds. Studies have shown this fluid to be naturally regenerative and to reduce inflammation and scars.⁸

Some scientists have described the discovery of amniotic fluid's healing power as a new era in regenerative medicine.

You see, amniotic stem cell treatment takes advantage of the body's ability to repair itself.

These stem cells have anti-inflammatory properties, similar to cortisone and steroid injections. However, amniotic stem cell therapy goes far beyond pain relief, because they also restore degenerated tissues.

This is a hugely important element in repairing and rebuilding muscle mass and the anatomical capacity for everyday functionality.

Meanwhile, the growth factors in amniotic fluid may replace damaged cells in the body. Additionally, amniotic stem cell injections contain hyaluronic acid, which lubricates joints and tendons, easing the pain and helping restore mobility.

It should be noted that these cells come from the amniotic sac and are not part of the embryo.

Strategy #4: Do The Muscle-Restoring Workout Made For Everyone

Exercise is a vital component of rebuilding your muscle mass and motor skills — and it's much easier than you probably imagine.

I always recommend my sarcopenia patients work on body weight exertion with my **PACE** program, because the movements resemble the challenges you face in your everyday environment.

You're also avoiding the kinds of stress injuries that conventional training techniques often cause.

I recommend an easy but hugely effective exercise called alternating lunges. You can do it right now, to increase the strength in your most powerful muscles, the quads:

1. Place your hands on your hips, and make sure you keep your back straight and hold your head high.
2. Take a step forward with your right leg until your front knee is bent 90 degrees and your back knee almost touches the ground.

3. Use your quad muscle to push back off your leading leg and return to the starting position.
4. Repeat with your left leg.
5. Alternate until you are slightly out of breath.

And to make it truly PACE, remember to increase the challenge slightly with each set. Start slowly and work up. It's that easy.

If you want to learn some other good PACE exercises, go to my YouTube channel:

www.youtube.com/user/AISearsMD/videos.

I have more than 30 different exercises and a complete workout to help you get started.

References

1. Landre B, et al. "Terminal decline in objective and self-reported measures of motor function before death: 10 year follow-up of Whitehall II cohort study," *BMJ* 2021; 374 :n1743
2. Newman AB, et al. "Strength and muscle quality in a well-functioning cohort of older adults: the Health, Aging and Body Composition Study." *J Am Geriatr Soc.* 2003 Mar;51(3):323-30.
3. Evans WJ. "Skeletal muscle loss: cachexia, sarcopenia, and inactivity." *Am J Clin Nutr.* Feb 17, 2010.
4. American Lung Association. "Overall Tobacco Trends." Available at: <https://www.lung.org/research/trends-in-lung-disease/tobacco-trends-brief/overall-tobacco-trends>. Accessed on December 16, 2023.
5. Centers for Disease Control and Prevention. "Lung Cancer Statistics." Available at: <https://www.cdc.gov/cancer/lung/statistics/index.htm>. Accessed on December 16, 2023.
6. Melkonian SC, et al. "Glycemic index, glycemic load, and lung cancer risk in non-Hispanic whites." *Cancer Epidemiol Biomarkers Prev.* 2016 Mar;25(3):532-9.
7. Marianne S, et al. "Mesenchymal stem cells from Wharton's jelly and amniotic fluid." *Best Pract Res Clin Obstet Gynaecol.* 2016 Feb;31:30-44.
8. Srivastava M, et al. "Amniotic fluid stem cells: a new era in regenerative medicine." *J Obstet Gynaecol India.* 2018 Feb;68(1):15-19.

How My Friend Went From “Doing The Zombie Shuffle” To Aging Backward 17 Years

I want to tell you about a friend of mine — and how his experience 8,000 miles from home convinced him to change his life and his health. And in the process, REVERSE aging. Let me explain...

A few years ago, I invited one of my best friends to join me on an upcoming trip to Africa. I was going to hike the continent’s tallest mountain, Mount Kilimanjaro in Tanzania — and I wanted some company for the six-day adventure.

To be honest, my friend — I’ll call him MF to protect his privacy — didn’t want to come with me. He wasn’t sure he’d be able to make the almost 37-mile trek through harsh conditions while carrying everything he needed on his back.

I get it... Mountain climbing isn’t for the faint of heart.

The temperatures on Kilimanjaro can hit a high of up to 90 degrees during the day...only to drop to well below freezing at night. Conditions can change in the blink of an eye — from blazing sun to pouring rain, and even pounding hail. At night, howling wind and swirling snow are a constant reminder that you’re at an altitude of almost 20,000 feet.

Now, my friend is one of the most accomplished people I know...

He is a prolific author who writes thousands of words a day, is involved in dozens of multimillion-dollar businesses, is a fine arts dealer and real estate investor, and runs a family foundation with the goal of giving away 90% of his wealth in the next decade.



I invited my friend MF to join me on my mountain-climbing adventure in Africa.

MF decided that at this point in his life, he wanted to challenge himself in a new way. So he made the trip with me. And pushed himself in ways he never had before.

But by the fifth day, MF was struggling.

As he put it, he was... “doing the zombie shuffle.” It hurt for him to simply breathe, let alone exert himself.

As his doctor and his friend, I knew MF needed help. We strapped him to a stretcher — basically a metal rack suspended from a bike tire — and carried him down the mountain to a hut where he rested and recuperated.

Fast forward a year.

Gone are the signs of middle age MF was experiencing when we were in Africa: Like his loss of performance, the deposits of fat around his face and belly, and painfully low energy levels.

Today, MF has a slim, chiseled face with not an ounce of fat around his waist. He looks like a man who KNOWS he has the best years of his life in front of him.

The therapy that changed my friend's life involved a telomerase-activating protocol that you can also use — right from the privacy of your own home. Let me explain...

As a regular reader, I'm sure you're aware of the work I've been doing in my clinic. A few years ago, I embarked on the biggest and most important clinical beta testing my staff and I have done to date.

You know that telomeres protect your DNA strands from fraying at the ends. They're like the plastic tips on the end of a shoelace.

As your cells divide, telomeres wear down. When your telomeres get too short, your cells stop dividing. New cells no longer replace damaged ones. You're left with older cells that lead to all of the diseases we associate with aging.

In other words, telomeres control the aging process.

And increasing telomere length helps fight almost all "diseases of aging." I've seen it happen in my own clinical study.

We've Reversed Aging An Average Of 16 Years

A few years ago, my staff and I embarked on a major clinical trial. We designed a study to test our patients' number of critically short telomeres.

We were able to reverse the biological age of the handful of study participants enrolled by an average of 14 years.

And that was just the beginning...

Since then, the study has grown to more than 200 patients. It seems that once the word got out, everyone wanted to be a part of it.

But even more importantly, we've continued to expand the study in other ways — adding

more biomarkers of aging that allow us to further customize a treatment plan individualized only to you.

On average the patients at my clinic who've gone through this age-reversing protocol have ***grown 16 years younger***.

Including my friend...

MF was 58 when he started my unique anti-aging protocol. By the end of his treatment, he was 61. But his biological age was only 44. He grew 17 years younger.

In that time frame, MF was able to:

- Reverse his "lung age" by almost *four decades* — back to that of a 24-year-old
- Rewind his "brain age" — the measure of his ability to concentrate, remember, and process information — back to age 44
- Improve his eyesight
- Lower his triglycerides
- Stabilize his blood pressure
- Increase his testosterone
- Lose 20 pounds

After embarking on this telomerase-activating protocol, MF also gained an incredible amount of energy... won two first place belts at the North American Jiu Jitsu Championships for men over 50... and started a brand new billion-dollar company.



When we got back to town, I started MF on my telomerase-activating protocol — with amazing results.

Another Patient Reversed Aging By 28 Years

Of course, MF isn't the only patient who has seen dramatic results. Let me tell you about another patient.

When Brian came to see me, he had just celebrated his 70th birthday. But he felt decades older.

He was desperate to improve his health and get back to doing the things he loved — like playing tennis with his wife.

Before enrolling in my study, Brian's biological age was 100. That's **30 years older** than his chronological age. He was aging much faster than he should be.

I designed a customized telomerase-activating protocol for Brian to follow. Then we tested him again six months later.

Brian had reversed aging by 28 years!

Not only was he back to playing tennis again every day, he also:

- Lost 54 pounds
- Regained missing memories
- Reversed hypothyroidism
- Improved his vision
- Stabilized his hormones
- Healed an inflamed colon
- Relieved his arthritis
- Eliminated erectile dysfunction

Healthier At 70 Than He's Ever Been

Finally, let me tell you about Malcolm. He had been a patient of mine since I first started my practice. But it had been a while since I saw him. One day he stopped by my clinic to tell me what he'd been up to...

Turns out he spent a month taking a 500-mile hike throughout France, Spain, and Portugal.

For 50 days, Malcolm told me he walked at least 10 miles a day — in weather that ranged

from sweltering hot to pouring rain. His journey followed the rugged terrain up high mountain passes 4,700 feet above sea level down to sweltering valleys and along the coastline.

His trip was part of a pilgrimage called *Camino de Santiago* — or the Way of St. James. He followed an ancient Roman route to the shrine of St. James the Apostle.

Now, that's an impressive feat for anyone to undertake.

But what made it the “trip of a lifetime” for 70-year-old Malcolm is that when he first came to see me, he had what he called a “laundry list” of health problems including heart disease, joint pain with decreased range of motion, a blood disorder, and a hormone imbalance.

He wasn't enjoying his life. He had no energy. And no hope.

But here's what Malcolm had to say just five months later: “I feel great now. I feel better than I have in decades. I'm just a healthier person. And I'm even more excited about how I'll feel as time goes on.”

Malcolm had taken part in my telomerase activating protocol. As a result, he reversed his biological age a whopping 28 years.

How Young Are Your Telomeres?

As I mentioned earlier, telomeres are tiny protective caps at the ends of each strand of DNA in your chromosomes that stop DNA from unraveling.

Each time your cells divide, a bit of each telomere is used up. The process happens slowly, over the course of your life, but it makes your cells older and weaker.

If 70-80% of your telomeres waste away, your cells can become permanently damaged. Critically short telomeres set in motion what Harvard researchers call a “death spiral” in your cells.^{1,2}

The shorter your telomeres, the more prone you are to the weakening effects of “old age,” and diseases like cancer... heart disease... arthritis... Alzheimer's... Parkinson's... and diabetes.

In fact, short telomeres dramatically boost your risk of serious diseases. They have been linked to a 300% increased rate of death from heart disease and an 800% higher death rate from infectious diseases.³

But research also shows you can reverse the shortening of your telomeres by activating telomerase, the enzyme that rebuilds telomeres.

In other words, you not only have the life-changing power to REVERSE — your own aging process.

Have a look at these study results:

- 100-year-olds in good health had “significantly longer” telomeres than those with health problems.⁴
- Your risk of heart attack increases the faster your telomeres break down. When researchers looked at people in perfect health who later died heart disease, they found the death rate from heart attack was three times higher for men whose telomeres got short the fastest. The death rate for women was nearly two and a-half times higher.⁵
- People with shorter telomeres in their immune cells had twice the risk of death from heart failure as patients with the longest telomeres. The study, published by the American Heart Association, found the highest-risk group had telomeres half the length of the lowest-risk group.⁶

The message here is clear. When you preserve telomere length, you preserve life... and youth.

5 Easy Ways To Turn On Telomerase And Lengthen Your Telomeres

When I lecture at anti-aging conferences around the world, I’m always surprised that so many leading anti-aging physicians are still holding out hope for a miracle anti-aging “drug.”

The truth is, the most powerful age fighters are naturally occurring, and they do a better job of supporting and lengthening your telomeres than any drug ever can.

1. Supplement with milk thistle. A member of the daisy family, this ancient herb is popular for detoxification. But studies show it also maintains telomere length while increasing telomerase activity threefold.⁷

That makes sense, since its active component, silymarin, is a unique type of bioflavonoid. It’s a very strong antioxidant that stops free radical damage... keeping telomeres longer and healthier.

There are no regular food sources for this herb. Look for dried extract with a minimum of 80% silymarin, the active ingredient for liver cleansing, and as we now know, maintaining your telomere length. I recommend 200 mg in capsule form twice a day.

Also pay attention to the extract ratio. The higher the ratio, the more concentrated the silymarin. I recommend a minimum extract ratio of 4:1, and some products go as high as 50:1. Higher concentrations also improve absorption and bioavailability.

2. Take the “king of medicines.” An extract from the fruit of the Terminalia chebula tree has been used in Ayurvedic medicine for thousands of years to prevent and cure a wide variety of life-threatening disorders — from heart disease and high blood pressure to asthma and diabetes. In fact, in India it’s referred to as the “king of medicines.”

But it’s just recently that researchers discovered its effects on our DNA. Researchers tested the extract and found that it not only inhibits the oxidative stress that causes aging, but lengthens telomeres by as much as 40%!⁸

Also known as haritaki and myrobalan, this herb is a little harder to find. I recommend finding a website that specializes in Ayurvedic herbs and buying from there.

3. Boost your B vitamins. B vitamins are essential for telomere integrity. A recent study looked at the telomeres of 60 older patients. Researchers found those with low B-vitamin intake had shorter telomeres than those who often ate vitamin B-rich foods.⁹ But vitamins B6 and B9 (folate) also counter the effects of homocysteine, your telomeres’ worst enemy. This damaging

amino acid causes chronic inflammation, and it has been shown to triple the amount of telomere shortening during cell division.

Grass-fed beef liver is your best choice for these vitamins. But, since it's hard to get what we need from food today, I recommend supplementing. I suggest getting 800 mcg of folic acid and 2.5 mg of B6 every day for telomerase activation.

4. Practice meditation and deep breathing.

One of the easiest and most effective ways to switch on telomerase and rebuild telomere length takes just a few minutes a day.

I find new patients are intimidated by the idea of meditation. But you don't have to sit cross-legged on the floor saying "um." There are hundreds of ways to meditate. It's very easy to get started. And it's also one of the best ways to counter the telomere-shortening impact of stress.

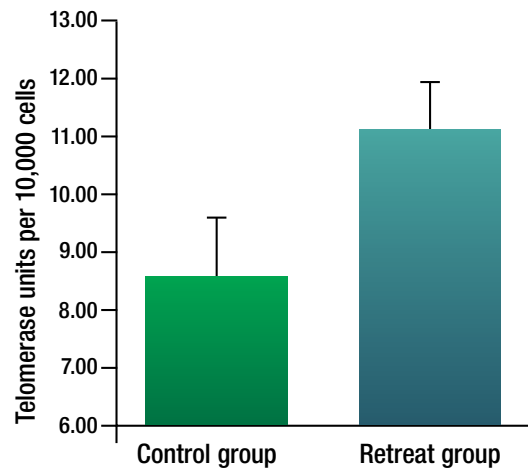
All it takes is 10 or 15 minutes a day. Here's a simple sitting meditation technique I recommend for beginners:

- Find a quiet space to sit.
- Sit up in a comfortable position with your back straight. A chair is fine to use.
- Rest your hands in your lap and close your eyes.
- Let your attention focus on the movement of your breath.
- Follow the breath in silently to the count of four.
- Follow the breath out silently to the count of eight as you feel your body relax.
- Whenever your mind wanders, bring your attention back to the breath.

That's it. If you feel too pressed for time to sit in meditation, that's a sign you would really benefit from it. Most meditators find that time slows and they are able to get much more done in a day if they take time out to sit quietly.

And research proves that it works. One study from the University of California-Davis, found that people who practice meditation and other breathing exercises have longer telomeres than those who don't.¹⁰

MEDITATION TURNS ON TELOMERASE



The University of California-Davis found that people who meditated were able to increase telomerase activity by 33%.

5. Turn on telomerase with astragalus. This humble root is one of the most revered herbs in Traditional Chinese Medicine. Astragalus extract contains two substances — *cycloastragenols* and *astragalosides* — that activate telomerase to stop your telomeres from shortening.¹¹

I recommend two to three tablespoons of astragalus root powder daily (about 30-45 grams). You can usually find it already dried and ground at many health food stores or online. You can add the powdered form to various foods and prepared dishes. It has a pleasant, mildly sweet taste.

You also can take astragalus extract as a supplement. I suggest 500 mg three times a day.

References

1. CSahin E, Colla S., et al. "Telomere dysfunction induces metabolic and mitochondrial compromise." *Nature*. 2011 Feb 17;470(7334):359-65.
2. Richards J., et al. "Homocysteine levels and leukocyte telomere length." *Atherosclerosis*. 2008;200(2):271-7
3. Cawthon R., et al. "Association between telomere length in blood and mortality in people aged 60 years or older." *Lancet*. 2003;361(9355):393-395.
4. Delara et al. "Association of Longer Telomeres With Better Health in Centenarians." *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*. 208. 63:809-812.
5. Shammass M. "Telomeres, lifestyle, cancer and aging." *Curr Opin Clin Nutr Metab Care*. 2011 Jan; 14(1): 28-34.
6. Farzaneh-Fal et al. "Prognostic Value of Leukocyte Telomere Length in Patients With Stable Coronary Artery Disease: Data the Heart and Soul Study." *Arteriosclerosis, Thrombosis & Vascular Biology*. 2008. 28(7):1379-1384.
7. Parzonko A., et al. "Silymarin inhibits endothelial progenitor cells' senescence and protects against the antiproliferative activity of rapamycin: preliminary study." *J Cardiovasc Pharmacol*. 2010 Dec;56(6):610-8..
8. Na M, et al. "Cytoprotective effect on oxidative stress and inhibitory effect on cellular aging of Terminalia chebula fruit." *Phytother Res*. 2004 Sep;18(9):737-41.
9. Rane G, et al. "Association Between Leukocyte Telomere Length and Plasma Homocysteine in a Singapore Chinese Population." *Rejuvenation Res*. 2015;18(3):203-10.
10. Jacobs TL., et al. "Intensive meditation training, immune cell telomerase activity, and psychological mediators." *Psychoneuroendocrinology* 2011. 36(5):664-681.
11. Fauce SR, Jamieson BD, Chin AC, et al. Telomerase-based pharmacologic enhancement of antiviral function of human CD8+ T lymphocytes. *J Immunol*. 2008 Nov 15;181(10):7400-6.

Have You Heard Of FOXO?

Turn It On And Become a Super-Ager

Ageing is a fact of life. But have you noticed that some people age better than others? I know many centenarians who are still comfortably mobile, independent, and mentally sharp as a tack.

Conventional doctors will likely shrug and tell you it's all about your genes. They think healthy aging is just the luck of the draw. They're wrong.

It's true that anti-aging scientists now point out that many centenarians share a variation of special genes — called *FOXO genes* — that have pre-programmed them to live long and healthy lives.

The problem with this “have or have not” theory is that every person on the planet has FOXO genes, and the special variation they're talking about — *FOXO3A* — is not nearly as important as they claim it is.

You see, *all FOXO* proteins have the ability to switch certain longevity and anti-aging genes on and off, and can activate and energize these key genes to make them *twice as powerful* — even if you haven't inherited the special variation.

Multiple studies now show that FOXO genes can be boosted by non-inherited factors, such as diet and lifestyle.

That means you have the power in your own hands to turn yourself into a super senior.

Large numbers of patients I treat at the *Sears Institute for Anti-Aging Medicine* fall into this category. I work with many centenarians who remain strong, self-sufficient, and quick-witted, with keen memories and focus.

In this *Confidential Cures* article, I'm going to show you how you can be an all-star senior, too. You'll learn how you can activate the FOXO

genes you were born with to reinvigorate your life and your health span — and ensure your “golden years” really are golden.

Defying The Odds: How One Super Ager Outlived All His Doctors

I often tell my patients the amazing story of Stamatis Moraitis — his legacy and message.^{1,2}

Stamatis, who died back in 2013 at 102 years old, was a Greek war veteran who came to America in 1943 for treatment on his combat-mangled arm.



Super-agers like Stamatis Moraitis — who outlived all his doctors — activate their anti-aging FOXO gene using a variety of lifestyle changes.

He had survived a gunshot wound, escaped to Turkey and eventually talked his way onto a troopship that was about to cross the Atlantic. He decided to stay, and eventually he married and settled with his wife and his 1951 Chevrolet in Long Island, N.Y.

“Scientists have known for years that these proteins affect genes that impact the aging process”

When Stamatis finally died, it wasn't from cancer.

But Stamatis isn't the only one with amazing stories like this. Almost everyone on Ikaria enjoys extraordinary longevity and an extended health span.

Then disaster struck. In 1976, he was diagnosed with lung cancer. But Stamatis refused chemotherapy and medication. A total of nine doctors confirmed the diagnosis, and they gave him just six to nine months to live.

Instead of staying in New York to be near his adult children, he decided to return with his wife to the Greek island of Ikaria, where he was born, to spend his final days. He wanted to be buried with his ancestors in a local cemetery overlooking the Aegean Sea.

But here's the thing — Stamatis didn't die as predicted.

He and his wife moved into a tiny whitewashed house with his elderly parents. Soon he settled into a stress-free life of gardening, tending his parents' vineyard, and drinking homemade wine — “just two or three cups a day,” he would say.

When his childhood friends discovered he'd come back, they started showing up every afternoon. They chatted and reminisced for hours, almost always over a bottle or two of local wine.

In the evenings, he often walked to the local tavern, where he played dominoes past midnight. On Sundays, he walked up the steep hill to the tiny Greek Orthodox chapel, where his grandfather once served as a priest. He even fasted before each of the 40 or so Orthodox feast days.

Not only did Stamatis keep living, but he started to feel stronger. As the years passed, his health continued to improve. He added a couple of rooms to his parents' house so his children could visit, and he expanded the vineyard to 400 gallons of wine a year.

Almost 30 years after his cancer diagnosis, he went back to America to visit the doctors who had given him nine months to live — but he'd outlived every one of them. They had all died.

What's their secret?

It's very clear that the super-seniors of Ikaria have activated and energized their FOXO genes.

What Is FOXO And Why Does It Matter?

FOXO — short for Forkhead Box O — is a family of proteins that are widely distributed in tissues throughout your body.

Scientists have known for years that these proteins affect genes that impact the aging process — thanks to their influence over cell growth and regeneration, as well as their ability to regulate your body's stress response.³

In 2009, a German study published in the *Proceedings of the National Academy of Sciences* showed that the FOXO genes were “stronger in centenarians than in nonagenarians.”⁴

But what is it about these genes and the proteins that fire them up?

Multiple studies have focused on so-called “longevity blue zones” — places like Ikaria in Greece, Nuoro province on the Mediterranean island of Sardinia, Okinawa in Japan, and Costa Rica's Nicoya Peninsula — where populations live measurably longer lives and experience healthier aging than everyone else. In each of these super-ager communities, researchers found that the special longevity gene *FOXO3A* was NOT especially common.⁵

Instead, it was the lifestyle and diets of these populations that energized the same ordinary FOXO proteins and genes that everyone else has.

Multiple studies now reveal that ordinary FOXO proteins and genes are already special with dozens of life-extending properties — especially when activated.

Deficiencies in FOXO proteins have been shown to reduce insulin sensitivity, and have been linked to age-related diseases, like diabetes and cancer, as well as increased mortality.^{6,7}

Recent research also shows FOXO activation can offer protection against neurodegenerative diseases by thwarting the onset and progression of cognitive loss and dementia.^{8,9}

But FOXO proteins and the genes they influence don't just ward off diseases, they also play an active role in longevity and healthy aging.¹⁰

Studies reveal that FOXO-influenced genes regulate the pathways of aging, including:

- **Controlling autophagy:** This is how your body cleanses itself of dangerous cellular debris. Defects in autophagy have been linked with premature aging and multiple age-related disorders. FOXO proteins regulate many genes responsible for autophagy and activate mechanisms in many different cell types, including those in the nervous system, heart, kidneys, and muscles.¹¹
- **Cell cycle arrest:** Cells constantly monitor their cell cycle status at checkpoints. These checkpoints help ensure the accuracy of DNA replication and division and provide time for DNA repair.
- **Apoptosis:** A crucial role of FOXO is to switch on genes that protect against oxidative cellular stress by causing old cells to self-destruct to make way for new ones.
- **Tumor suppression:** Because FOXO has the ability to alter the cell cycle, it also promotes DNA repair and induced apoptosis to suppress tumor development.¹²
- **Managing inflammation:** Studies reveal that FOXO proteins alleviate inflammation and oxidative stress by inhibiting the secretion of inflammatory cytokines and promoting the production of antioxidant enzymes.¹³

Meanwhile, recent studies also show that FOXOs regulate the expression of genes involved in *quiescence* — the waiting state for stem cells that occurs just after they divide — as well as differentiation for various types of new brain and muscle cells.¹⁴

Build Your Own Longevity Gene

The process of energizing your FOXO proteins and genes requires a combination of lifestyle changes. I'm not suggesting that you move to an idyllic Greek island like Stamatis did — because you can accomplish the same thing wherever you live.

These changes include eating a healthy diet, exercising regularly, getting enough sleep, and reducing stress — but some measures may even be more effective.

■ **Change your diet:** Stamatis's diet changed dramatically when he moved to Ikaria — switching from America's carb-heavy, industrialized diet to one of homemade bread, goat's milk and seasonal vegetables, grown mostly in his own garden, such as lentils, garbanzo beans, potatoes, fennel, and "horta," a Greek spinach-like green. Once or twice a week, he added small portions of larded pork.

This is very different from the typical nutrition-poor, American diet, which these days is packed with more ultra-processed ingredients, like artificial sweeteners, refined sugars, fructose, processed grains, coloring agents, and emulsifiers, than ever before. A typical American diet saps your body of cellular energy and weakens your immune system.¹⁵

*Studies also show this sugary processed diet actively inhibits FOXO genes, triggering the onset of disease and taking years off your life.*¹⁶

At the *Sears Institute for Anti-Aging Medicine*, I recommend my patients focus their meals on high-quality protein. Eat whole foods, pastured beef, lamb, chicken, and other properly raised, organic foods. Fruits and vegetables, not grains or treats, should make up the bulk of your carbohydrates.

Remember, grass-fed red meat with organic fruit and vegetables is one of the most nutritious and balanced meals you can eat.

■ **Healthy aging with calorie restriction/ fasting:** Intermittent fasting and other forms of caloric restriction are perhaps the most effective way of all to boost the activity and levels of FOXO proteins in your body.

A recent study in the journal, *Current Topics in Developmental Biology*, revealed that caloric restriction triggers FOXO proteins to “switch on” genes that accelerate apoptosis, ridding your body of the dysfunctional cells that contribute to inflammation and disease.¹⁷

Calorie restriction also lowers the body’s production of insulin-like growth factor 1 (IGF-1). As IGF-1 declines, FOXO activity ramps up. At the same time, fasting activates the autophagy process, which also contributes to healthy aging.¹⁸

Additional research suggests caloric restriction may also result in the activation of sirtuins, a family of signaling proteins, leading to the activation of FOXOs.¹⁹

Stamatis also practiced regular caloric restriction — because he fasted the day before each Greek Orthodox feast day.

You see, your ancestors often went for long periods of time with very little food — at least until the next successful hunt or gathering expedition. Caloric restriction and intermittent fasting mimic the ancient primal lifestyle of “feast and famine.”

These extended periods of hunger didn’t damage their bodies. It had the opposite effect — it regenerated them. Now, thousands of generations later, this incredible healing power remains hardwired into your biological makeup.

I recommend my patients start with a safe, simple regimen that calls for an 8-hour eating window each day, followed by a 16-hour fast. Here’s how it works:

- Start your day with a 10 a.m. breakfast;
- Lunch at your regular time;
- Finish your dinner by 6 p.m.;
- Your body gets no additional food from 6 p.m. until 10 a.m. the next morning.

When your body gets used to the 16-hour fast, you can move up to the 24-hour mark.

But be sure to drink plenty of water to hydrate and flush out toxins, no matter how long you fast.

■ **Get the right exercise:** Stamatis exercised regularly, as part of his changed way of life. Not only did he work in his garden and in his parents’ vineyard every day, those weekly walks up the village’s steepest hill to the Greek Orthodox chapel did wonders for his heart, lungs, brain, muscles and overall fitness level.

I recommend my PACE (**P**rogressively **A**ccelerating **C**ardiopulmonary **E**xertion) program to my patients, which shifts the focus of your workout from “how long” you work to “how intensely” you exert yourself.

The really great thing about my PACE system is you only need 12 minutes a day. You don’t need expensive equipment or a gym membership to do it. And you can choose any exercise that will make you stop and pant for breath.

Multiple studies now reveal that vigorous exercise — even for 12 minutes a day — increases your level of FOXO proteins.²⁰

To learn some excellent PACE exercises, visit my YouTube channel: www.youtube.com/user/AISearsMD/videos. I have more than 30 different exercises and a complete workout to help you get started.

■ **De-stress yourself:** Multiple studies reveal that the stress and anxiety of today’s 24/7 world can take years off your life.

Stamatis had his own way of destressing. He and his wife visited friends several times a week, or friends would come to them. They cheek-kissed each other when they met, and settled around a table, where they gossiped, drank wine and often erupted into laughter. Other evenings, Stamatis walked to the local tavern to play dominoes past midnight.

Relaxing regularly with friends is a great de-stressing technique. Our mental health is at its best when we are part of a community, which in turn boosts your body’s FOXO activity.

If friends are in short supply, I recommend joining a club or group with people who have similar interests. If you’re religious, join a church and become involved in its activities.

Supplement with special “FOXO” nutrients: I also recommend these three nutrients to boost your FOXO activity:

1. **Astaxanthin** – Regular readers will know that astaxanthin, nature’s most powerful antioxidant, guards your retinas and staves off macular generation. But recent studies show it nearly doubles FOXO activity.²¹

I recommend wild-caught food sources such as salmon, shrimp, and crawfish. But you should also supplement with up to 50 mg of astaxanthin daily. I advise my patients to look for a supplement derived from the best natural source — *Haematococcus pluvialis* algae.

2. **EGCG** – Consider it another reason to make green tea part of your health routine. Already highly regarded for its anti-inflammatory and heart-health benefits, there’s growing evidence the green tea extract EGCG activates the FOXO genes as well.

One cup of green tea contains about 100 mg of EGCG. I recommend you supplement with up to 1,500 mg of the extract daily.

3. **Quercetin** – This is a plant pigment found in onions, citrus fruits, berries, grapes, tomatoes and red wine.

Quercetin is a powerful antioxidant and anti-inflammatory that boosts your immune system and increases the mitochondria (the powerhouse of the cell).

Recent studies also reveal that quercetin triggers autophagy and apoptosis by stimulating FOXO-dependent pathways in your body, cleansing your

body of the cell debris that can build up and lead to fatal diseases.²²

To boost peak performance, you can try a supplement form of 500 mg capsules twice a day.

References

1. Pappas G. “Remembering Stamatis Moraitis: The Man Who (Almost) Forgot to Die.” *Pappaspost.com*. Available at: <https://pappaspost.com/remembering-stamatis-moraitis-man-who-almost-forgot-die/>
2. Buettner D. “The Island Where People Forget to Die.” *New York Times*. Oct. 24, 2012
3. Brunet A. “Les multiples actions des facteurs de transcription FOXO [The multiple roles of FOXO transcription factors].” *Med Sci (Paris)*. 2004 Oct;20(10):856-9.
4. Flachsbarth F, et al. “Association of FOXO3A variation with human longevity confirmed in German centenarians.” *PNAS*. February 24, 2009 106 (8) 2700-2705
5. Poulain M, et al. “Mechanisms of Ageing and Development.” *Science Direct*. Vol 198, 2021, 111543.
6. O’Neill BT, et al. “FoxO Transcription Factors Are Critical Regulators of Diabetes-Related Muscle Atrophy.” *Diabetes*. 2019 Mar;68(3):556-570
7. Jiramongkol Y, Lam EW. “FOXO transcription factor family in cancer and metastasis.” *Cancer Metastasis Rev*. 2020 Sep;39(3):681-709.
8. Maiese K. “Forkhead Transcription Factors: Formulating a FOXO Target for Cognitive Loss.” *Curr Neurovasc Res*. 2017;14(4):415-420.
9. Oli V, et al. “FOXO and related transcription factors binding elements in the regulation of neurodegenerative disorders.” *J Chem Neuroanat*. 2021 Oct;116:102012.
10. Murtaza G, et al. “FOXO Transcriptional Factors and Long-Term Living.” *Oxid Med Cell Longev*. 2017;2017:3494289.
11. Webb AE, Brunet A. “FOXO Transcription Factors: Key Regulators Of Cellular Quality Control.” *Trends In Biochemical Sciences* 39, 4, 2014.
12. Wang X, et al. “Phosphorylation And Acetylation Modifications Of FOXO3a: Independently Or Synergistically?” *Oncology Letters* 13, 5, 2017.
13. Barnes PJ. “Oxidative stress-based therapeutics in COPD.” *Redox Biol*. 2020 Jun;33:101544.
14. Garcia-Prat L, et al. “FoxO maintains a genuine muscle stem-cell quiescent state until geriatric age.” *Nat Cell Biol* 22, 1307–1318, 2020.
15. Zhang YJ, Li S, et al. “Impacts of Gut Bacteria on Human Health and Diseases.” *Int J Mol Sci*. 2015 Apr, 16(4): 7493–7519.
16. Dobson AJ, et al. “Nutritional Programming of Lifespan by FOXO Inhibition on Sugar-Rich Diets.” *Cell Rep*. 2017 Jan 10;18(2):299-306.
17. Brown AK, Webb AE. “Regulation of FOXO Factors in Mammalian Cells.” *Curr Top Dev Biol*. 2018;127:165-192.
18. Komatsu T, et al. “Mechanisms of Calorie Restriction: A Review of Genes Required for the Life-Extending and Tumor-Inhibiting Effects of Calorie Restriction. *Nutri. nts*, 11(12), 3068, 2019.
19. Brunet A. “Les multiples actions des facteurs de transcription FOXO [The multiple roles of FOXO transcription factors].” *Med Sci (Paris)*. 2004 Oct;20(10):856-9.
20. Sanchez AM. “FoxO transcription factors and endurance training: a role for FoxO1 and FoxO3 in exercise-induced angiogenesis.” *J Physiol*. 2015 Jan 15;593(2):363-4.
21. Research: University of Hawaii reports Astaxanthin can activate the FOXO3 “Longevity Gene” in mammals. March 28, 2017. Available at: <https://jabsom.hawaii.edu/research-university-of-hawaii-reports-ability-of-astaxanthin-to-significantly-activate-foxo3-longevity-gene-in-mammals/>
22. He Y, et al. “Quercetin induces autophagy via FOXO1-dependent pathways and autophagy suppression enhances quercetin-induced apoptosis in PSMCs in hypoxia.” *Free Radic Biol Med*. 2017 Feb;103:165-176.

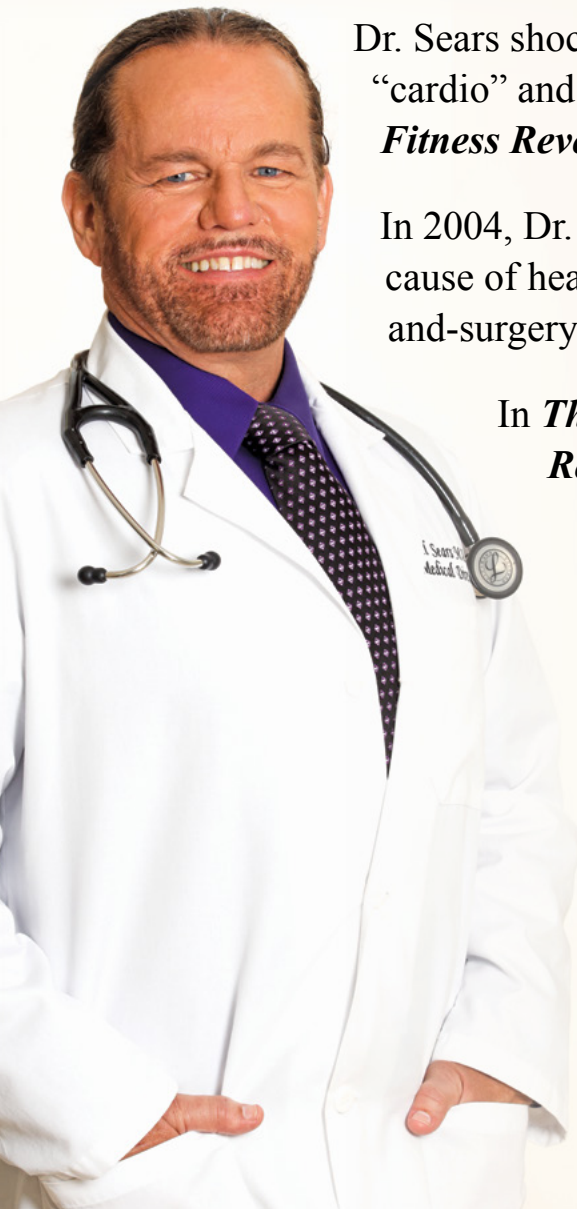
The information provided in this letter is for educational purposes only and any recommendations are not intended to replace the advice of your physician. You are encouraged to seek advice from a medical professional before acting on any recommendations in this publication.

Al Sears, MD

Al Sears, MD, CNS, is a medical doctor and one of the nation's first board-certified anti-aging physicians.

As a board-certified clinical nutritionist, strength coach, ACE-certified fitness trainer and author, Dr. Sears enjoys a worldwide readership and has appeared on more than 50 national radio programs, ABC News, CNN and ESPN.

In 2010, Dr. Sears unveiled his proven anti-aging strategies in *Reset Your Biological Clock*. As the first U.S. doctor licensed to administer a groundbreaking DNA therapy that activates the gene that regulates telomerase, Dr. Sears made history by bringing telomere biology to the general public.



Dr. Sears shocked the fitness world by revealing the dangers of aerobics, “cardio” and long-distance running in his book, *PACE: The 12-Minute Fitness Revolution*.

In 2004, Dr. Sears was one of the first doctors to document the true cause of heart disease and expose the misguided and often fatal drugs-and-surgery approach to heart health.

In *The Ageless Heart Manual: Advanced Strategies to Reverse Heart Disease and Restore Your Heart's Pumping Power*, Dr. Sears outlines the easy-to-follow solution that effectively eliminates your risk of heart disease, high blood pressure and stroke.

An avid lecturer, Dr. Sears regularly speaks at conferences sponsored by the American Academy of Anti-Aging Medicine (A4M), the American College for the Advancement of Medicine (ACAM) and the Age Management Medicine Group (AMMG).