

# Grow 14 Years Younger Using My Unique Age Quotient Protocol

Today, you're going to learn about a system I developed for my patients that can not only keep your body free of disease, but it gives you more energy, more vigor, more brainpower — and lets you get more out of your life.

It's a total-body, biological age analysis that I call **Age Quotient**, or **AQ**. It's a unique way of measuring — and improving — your true *biological* age as opposed to your chronological age.

So what is AQ, exactly?

Just as your IQ is your brain's intelligence, AQ is your body's "intelligence."

Your Age Quotient gives you 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 than its physical age.

And just like IQ, the higher your AQ, the better you are doing. A higher AQ means you'll be able to do more, and have the same freedom and choices when you're 100 years old that you have when you're 50.

Having a higher AQ means you're improving what I call the biomarkers of aging.

These include:

- Your heart strength and power.
- Your bone density and strength.
- The flexibility of your arteries.
- The flexibility of your lungpower.
- Your memory and brainpower.
- Your hormone levels.
- Your reaction time.
- Your vision.
- Your physical power.

AQ is the essence of what I have always believed anti-aging should be about... living younger and stronger, starting right now.

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## Calculate Your Real Age

It's very simple math. I take your chronological age and divide it by your biological age for a number of key biomarkers — like heart power, leg power, hormone levels, markers for inflammation, vision sharpness and others. Then I just multiply by 100.

I use AQ on myself regularly, so let me give you an example. Not long ago, I had my clinic test my lungpower...

My chronological age is 60. As you probably know, I've challenged my lungpower with my PACE exercise program for several years. When my pulmonary age was tested, it came in at 25. So that means my lung AQ is 240, which is pretty high.

But the beauty of the AQ system is that this year, when I turn 61, if I do as well on the test, the AQ for my lungs will improve. If I continue with daily PACE exercises and my lungpower remains as robust as a 25-year-old, my AQ will rise to 244.

When I have the numbers for all the biomarkers, I put them together into one overall AQ number for your whole body, which you can keep track of as time goes on.

You see, when you know your AQ, it's easy to use that information to make your body function like a younger person. With simple tweaks in what you eat, what supplements you take, and how you exert yourself, you can continually improve your AQ as you age.

But now let's take a look at how AQ applies to your telomeres...

## How Young Are Your Cells?

The telomere-length test provides you with an AQ on how young your cells are acting — but it's also a reflection of how well everything else in your body is doing.

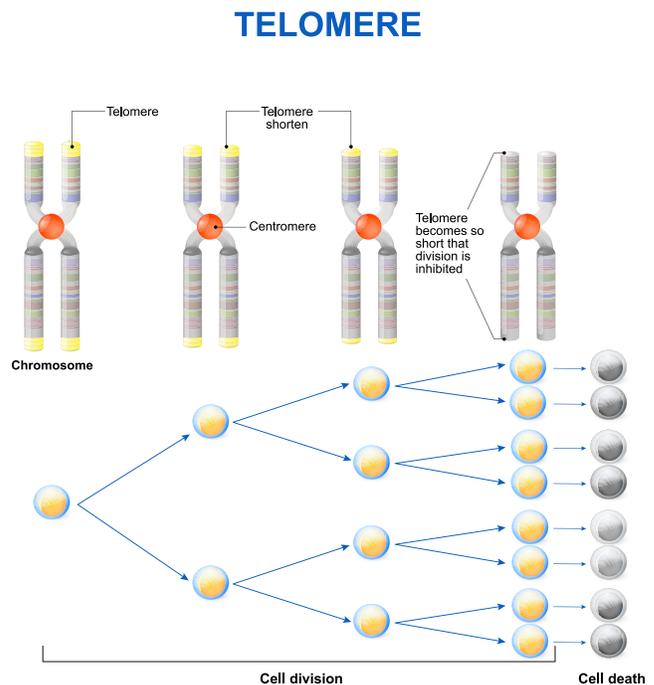
That's because telomeres are the ticking biological clocks you carry in each of your cells.

Telomeres are tiny protective caps at the ends of each strand of DNA in your chromosomes. Like the plastic tips at the end of shoelaces, telomeres stop DNA from fraying and 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 erode away, your cells can become permanently damaged. Critically short telomeres set in motion what Harvard researchers call a "death spiral" in your cells.<sup>1,2</sup>

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.



***Your telomeres get shorter each time your cells divide. But you can reverse this process by activating telomerase, the enzyme that rebuilds your telomeres.***

Short telomeres have been linked to a **300% increased rate of death from heart disease** and an **800% higher death rate from infectious diseases.**<sup>3</sup>

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 significantly raise your overall AQ, but to also slow down — and even REVERSE — your own aging process.**

*Here at the **Sears Institute for Anti-Aging Medicine**, I tell my patients that protecting your telomeres is the **most important step in raising your AQ** and living a long and vibrant life.*

The problem is, most doctors have never heard of the test that measures your telomeres...

## The Test That Can Lead to a Younger Version of You

By measuring your telomeres, you can tell your true “biological age.”

Let’s say you’re tested when you’re 60. I might see from your test results that you have a biological age of someone who’s 64. In other words, you’re aging faster than you should be.

One thing I would do right away is give you a plan to turn on telomerase so you can slow down your aging and increase your AQ.

The next time I measure your telomeres, they should be longer. I can show you on a graph how much younger your biological age is.

I measure telomere length with a special test called **Telomere Analysis Technology (TAT)**.

Most labs can only measure “average telomere length.” That’s what you’ll get if you buy one of those mail-in telomere-testing kits you may have seen advertised on the Internet.

They cost about \$99, and all you need to do is send in a drop of blood or a cheek swab.

Average length is good to know, but it’s not the whole story.

The science just hasn’t developed enough to do accurate telomere testing using a DNA sample sent through the mail.

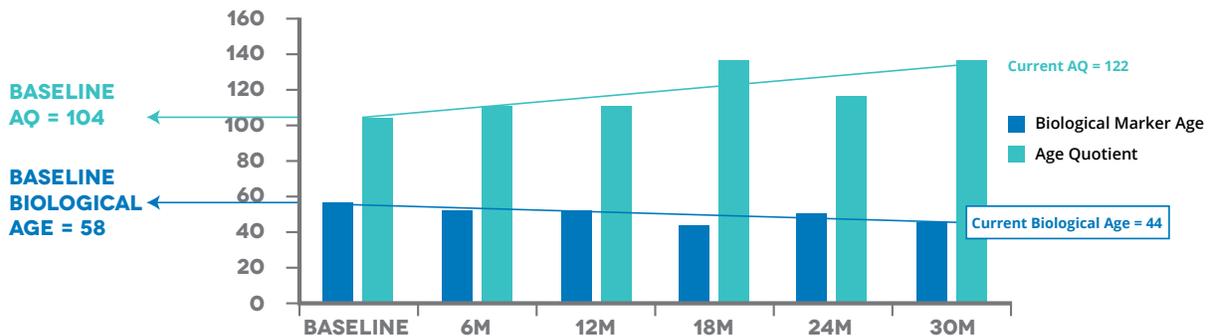
You see, each cell in your body has 92 telomeres. Some may have a healthy length — but others may be in trouble.

Only the **TAT** test tells you how many of your telomeres have gone into a death spiral.

When telomeres become critically short they activate the p53 gene, which gives the signal for the cell to go into emergency shutdown. The cell stops growing or dividing. Energy production plummets. Antioxidant activity drops. Free radicals attack and even more telomeres become critically short.

Getting your telomere length tested with TAT means you can take control of your health and your life. Just look at the results from research in my clinic.

### STUDY GROUP — FIRST 100 TELOMERE TEST PATIENTS



As study participants aged chronologically, their cellular age was reversed.

**BASELINE TO 30 MONTHS, A 14-YEAR REVERSAL WAS ACHIEVED.**

When I tested a group of my own patients, their average biological age was 58 years old. Then I put them on a special telomere-lengthening protocol designed to activate telomerase.

*After 30 months, the average age of the group dropped 14 years to 44 years old. I've seen some patients reverse their biological age by 20 to 30 years!*

If you would like to have your telomere length tested at the **Sears Institute for Anti-Aging Medicine** in South Florida, please call us at 561-784-7852 for an appointment.

Even if you can't get your telomere length tested, you can still protect them. Poor diet, lack of exercise, or stress can all accelerate wear and tear on your countdown clocks.

But in as little as a year, you can modify the length of your telomeres with some simple changes to your routine.

## 4 Ways to Boost Your Telomeres — And Your AQ

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 — and raising your AQ — than any drug ever can.

*Here are just a few of them...*

**1. Boost Your Folate Levels:** Inflammation triggered by high levels of the amino acid homocysteine is one of the greatest threats to your telomeres. Studies reveal that high homocysteine can *triple* the speed at which your telomeres shorten.<sup>4</sup>

Folate, also known as vitamin B6, counters the effects of homocysteine. Studies show that people with the highest folate levels have longer telomeres than those with low folate.<sup>5</sup>

Calf's liver is one of the richest sources of folate, with 215 mcg in just three ounces. Dairy, poultry, meat, eggs, and seafood are other good choices. Among vegetables, dark leafy greens are a good source. Try spinach, broccoli, asparagus and Brussels sprouts.

You can also take a folic acid supplement. I recommend getting 800 mcg of folic acid every day for your telomeres.

**2. Eat More Fruits and Vegetables:** Diets lower in refined carbohydrates and higher in fresh fruits and vegetables are linked to longer telomeres.

I recommend eating more **magnesium**-rich foods. Studies show that magnesium preserves and repairs DNA, and that telomerase itself is magnesium dependent.<sup>6</sup>

You can boost your magnesium levels by eating more kale, spinach, Swiss chard and seaweed. Other good choices include quinoa, lentils, almonds, sesame seeds, avocado, spirulina and dark chocolate.

**Vitamin C**-rich fruits, like acerola cherries, kale, broccoli, cauliflower, Brussels sprouts, parsley, bell peppers, black currants, guava, and papaya are also a great way to lengthen your telomeres.

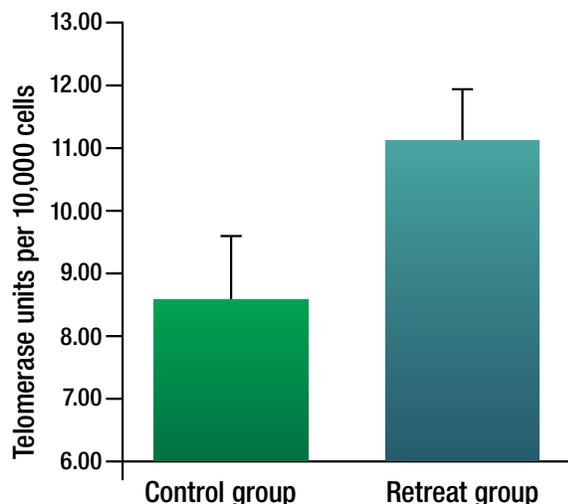
In another study, researchers used vitamin C to slow the age-dependent shortening of telomeres in vascular cells. The telomeres in cells treated by vitamin C were up to 62% longer than the telomeres in untreated cells.<sup>7</sup>

You can also take vitamin C supplements. To help reverse aging, I recommend 5,000 mg to 8,000 mg every day. Be sure to divide that amount into multiple smaller doses throughout the day.

**3. Meditation:** 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 get up before the sun.

## MEDITATION TURNS ON TELOMERASE



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

Or sit cross-legged on the floor for an hour without scratching your nose. There are hundreds of ways to meditate. It's very easy to get started. And it's also one of the best ways 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.<sup>8</sup>

**4. L-arginine and L-citrulline:** Adopting a diet rich in these biochemical cousins boosts telomere length and raises your age quotient.

Studies show these amino acids team up to create **nitric oxide** in your body, which has been shown to activate telomerase.<sup>9</sup>

But when nitric oxide production is blocked, telomeres become shorter, and cells die before their time.<sup>10</sup>

Great food sources include peanuts, almonds, sunflower seeds and walnuts, tuna, chicken, salmon, lobster, shrimp, eggs, spinach and watermelon.

If you're not getting enough of these nutrients from your diet, supplement capsules are available online and from most health food stores. I recommend daily doses of 1,000 mg of L-citrulline and 6,000 mg of L-arginine.

But make sure you get the L form and not the synthetic DL forms.

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# Your Lungs Just Got More Powerful

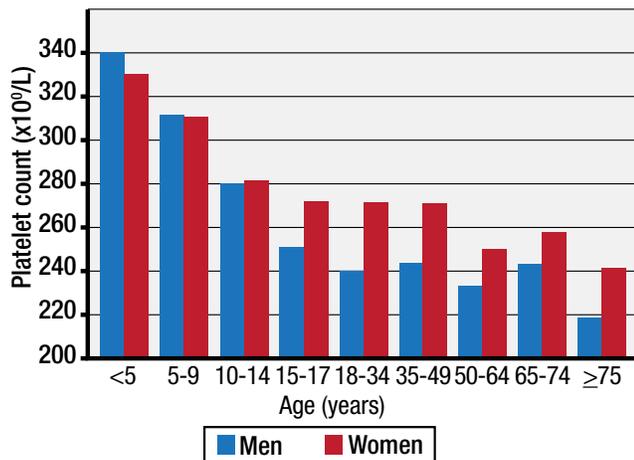
**L**ungpower is the No.1 predictor of how long you'll live. How well your lungs function determines how long you'll stay active and healthy.

I've been teaching that to my patients for decades.

And now new research reveals your lungs do a lot more than breathe...

Scientists at UC San Francisco have just discovered that **your lungs contain a hidden backup reservoir of blood stem cells and platelets.**

## PLATELET COUNT DECLINES AS YOU AGE



*Platelets are produced in healthy and youthful lungs at a rate of around 10 million an hour — but look at how your platelet count declines as you age.*

That's big news for your immune system and your body's ability to repair itself.

And the discovery holds huge potential for treating blood cancers like leukemia, lymphoma and myeloma, as well as other disorders like anemia, hemophilia and blood clots.

Mainstream medicine is still years away from harnessing the potential of this scientific breakthrough. They still don't believe that there's a way to increase lung volume after you turn 50.

They couldn't be more wrong.

It's **never** too late to build your body's defenses back into peak shape — no matter what your age or state of health.

I tell my patients it can make the difference between growing old before your years or living as long as you can, with all the powers and privileges of youth intact.

Let me explain...

## Your Own Personal Reserve of Blood Stem Cells and Platelets

Your body is constantly defending itself against attacks from bacteria, viruses, fungi, cancer cells and other toxins that cause inflammation.

When your immune system isn't strong enough to douse the flames of chronic inflammation, all kinds of internal and external damage happens. Tissue dies, organs malfunction, it takes longer to recover from illnesses, and diseases strike.

You grow old from the inside out.

You may already know that your physical strength and robust health depend on your lungs. Part of what gives you the capacity to live robustly is about getting enough oxygen from the air you breathe.

But now, using mouse models, UCSF researchers have discovered that the lungs are also a storage depot for stem cells that grow into the red blood cells that carry oxygen and the white blood cells that make up your immune system.

Using video microscopy in living mice lungs, researchers also found a giant population of *megakaryocytes*. These are bone marrow cells that produce platelets, which allow your blood to clot when you have a wound. Platelets also release **growth factors** that trigger repair and regeneration.

The release of growth factors helps your body fight off conditions of aging, like:

- Cancer
- Heart disease
- Arthritis
- Alzheimer's
- High blood pressure
- Erectile dysfunction
- Stroke

In other words, the stronger and healthier your lungs, the younger your body will act and feel.

We used to believe that platelets and blood stem cell production took place only in bone marrow. Now we know that your bone marrow and lungs work together as a kind of blood factory, bolstering platelet production.

**To their surprise, the scientists discovered more than 50% of the body's platelets are produced by the lungs.**<sup>1,2</sup>

Experiments are now ongoing with human subjects...

But the UCSF team has almost certainly discovered something new about the lungs of all mammals.

Platelets are the smallest type of cells that circulate in your blood. When they see damaged blood vessels, they bind together to make blood clots. They seal up the damage. Without platelets you would bleed to death from the tiniest scratch.

**But the real magic of platelets lies in their powers of rejuvenation and regeneration.**

They secrete growth factors — like *platelet-derived growth factor (PDGF)* and *transforming growth factor beta (TGF-beta)* — that attract and stimulate stem cells to damaged areas. Once they get there, the stem cells multiply rapidly to grow new, healthy blood vessels and tissue.

Studies show that, when stimulated, these growth factors are potent regulators of cell growth and division for:

- **Fibroblasts** – the cells that provide structure, strength and resilience for your skin and tissues. Fibroblast regeneration holds the key to youthful skin and *cardiac fibroblasts* are involved in chemical and electrical signaling in your heart.<sup>3</sup>
- **Smooth muscle tissue cells** – the cells that form muscles in your bladder, stomach, intestines, and in the walls of passageways, like the arteries and veins of your circulatory system.
- **Glia** – a type of brain cell important in preventing diseases like Alzheimer's.
- **Osteoblasts** – the cells responsible for formation of new bone and cellular control of bone remodeling.<sup>4</sup>

This discovery is turning everything we know about how our bodies produce blood upside-down. And what was really shocking is what the UCSF scientists learned about “cellular traffic.”

Large populations of blood stem cells and megakaryocytes traveled all the way from bone marrow to the lungs. These stem cells then joined a reservoir of other blood stem cells, where they wait for the signal to top up the bone marrow's supply when it ran short.

*At the same time, they observed millions of megakaryocytes produced millions of platelets — at an amazing rate of around 10 million per hour! — as they circulated through the lungs.*

Now that we have this new knowledge, the real key is to find a way to access this rich source of healing and regeneration in your lungs.

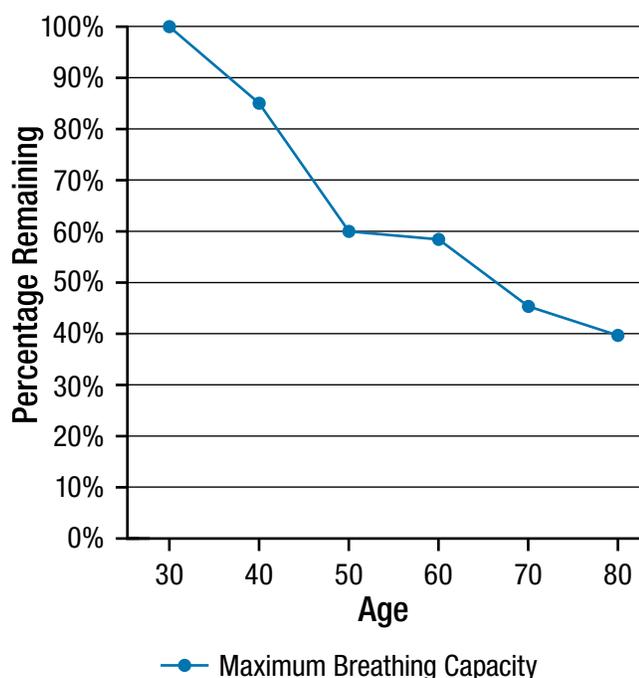
But there's a problem...

## Your Lungs Are Shrinking

You may not be aware, but you are probably losing lung capacity. Your lungs tend to shrink with age.

Studies show that you if don't do anything about it, you can lose 45% of your lung capacity by age 75.<sup>5</sup>

### AGE-RELATED LOSS OF LUNG FUNCTION



*Your lung capacity declines as you age, but despite what you've been told, it can be reversed.*

**Reduced lung capacity is the most destructive effect of aging.** It impacts your heart health and the ability of your arteries to pump life-giving blood and oxygen to every part of your body, including all your vital organs.

Sooner or later, you get tired more quickly, you're less virile, you get colds and the flu more often, and it takes longer to recover from illness.

And given what we now know about the importance of your lungs in the production of platelets — that means as your lung capacity diminishes, so does your platelet count. And so does the reserve army of your immune system.<sup>6</sup>

Studies have already linked lung disease with low platelet count, a condition called *thrombocytopenia*.<sup>7</sup>

It's no wonder the Buffalo Health Study found that **the stronger your lungs work, the less likely you are to die of any cause.**<sup>8</sup>

Fortunately, you can implement a simple exercise program that will improve your lung capacity and minimize the consequences of losing lung volume. I tell my patients: If you focus on improving lung capacity, the rest will take care of itself.

## Boost Your Lungpower in Just 12 Minutes

Mainstream medicine knows almost nothing about the innate healing power you have in your own body. And no Big Pharma drug on the planet can boost the capacity and strength of your lungs.

Studies show that exercise is the **ONLY** way to increase lungpower.

But before you set out for a walk, you need to know that not every kind of exercise will work. You have to do a program like my **PACE** anti-aging system.

You see, just walking, running, cycling, or swimming for 30 minutes won't get you the results I'm talking about.

PACE stands for **Progressively Accelerating Cardiopulmonary Exertion** and it uses brief but vigorous routines of increasing intensity to help expand the capacity of your lungs.

Studies show PACE works up to 18 times better than light exercise, such as the kind of walking your doctor might suggest.<sup>9</sup>

After only a few weeks of doing PACE, even my older patients soon develop the lungpower of much younger people — even those with heart disease.

PACE builds up your lungpower so you get more life-giving oxygen flowing throughout your body, especially your heart and lungs.

At the same time, stronger and more efficient lungs mean they're producing more platelets. And they're brimming with reserve units of blood stem cells waiting to bolster your immune system in case you have an injury or disease.

Studies show that **PACE**-like exercise also activates bone marrow stem cells, and gets them circulating in the blood. Once in the bloodstream, they patrol your body to fight off dangerous germs and repair damage to muscle and tissue.<sup>10</sup>

*The really great thing about **PACE** is you only need 12 minutes a day. And you don't need expensive equipment or a gym membership to do it.*

## Here's How To Do It...

You can choose any exercise that will make you pant for breath.

All you have to do is increase the challenge to your lungs and heart little by little, and then accelerate it. By increasing the intensity of your workouts, your lungs respond and adapt by getting stronger and increasing their capacity.

You can boost your lungpower right in your own neighborhood... right at home..

I have patients in Cincinnati who live near a hill. They practice **PACE** by walking up the hill as fast as they can. And by now they can run up the hill. He's in his 70s and she's in her late 60s. They say it's changed their lives.

Do you live on a hilly street? Is there a park in your town with a hill? You can follow their **PACE** workout, too:

- Start by walking up the hill. Measure your heart rate when you get to the top after walking.
- The next time you go up the hill, give yourself more of a challenge. If you walked the first time, then "power walk" the next time.

Get your arms out in front of you and move your hips when you walk.

- Take your heart rate again, stop and relax. Get a drink of water.
- On your third time up the hill, try jogging.

You'll start to notice that it takes more effort for each set. You'll be winded and panting. This is what we call "oxygen debt."

When your body realizes that you are demanding more oxygen, it triggers the adaptive response of increasing your lung size.

Or try this classic **PACE** exercise if you prefer your workout at home — a simple *crunch*.

## How To Do a Crunch

- Lie on the floor face up with knees bent and feet flat on the floor about hip-width apart.
- Place your hands behind your head to support your neck.
- Lift both your head and your feet at the same time and crunch together squeezing both the upper and lower abdominal muscles.
- Release head and feet to the floor.
- Repeat for three or four minutes at a speed and level of intensity that makes you comfortable.
- Rest and recover.

Aim for three sets. To make it a true **PACE** workout, increase the challenge when you're ready. For instance, instead of bending your knees, straighten your legs and stretch your hands toward your feet. Now lift your head and legs at the same time crunching your abdominal muscles together.

## 2 Easy Ways To Increase Platelets

If you've been reading my newsletters for a while, you've read about the life-changing power of my **PACE** program before.

Here are two other ways to increase your platelet counts:

1. **Take these B vitamins.** You can boost your body's production of platelets by getting more B9 (folate) and B12.

Some of the best sources of folate are spinach, asparagus, avocado and beets. For B12, choose grass-fed beef, chicken liver, wild-caught salmon and turkey.

You can also supplement. I recommend 800 mcg of B9 and at least 100 mcg of B12 daily.

2. **Get enough of the sunshine vitamin.** We've known for a long time that vitamin D plays a critical role in the function of stem cells in bone marrow that produce platelets.

The easiest way to get more vitamin D is to get out in the midday sun *without sunscreen*. A recent study showed that a sunscreen containing SPF 15 or greater reduced vitamin D production by 99%.<sup>11</sup>

The trick is to expose parts of your body that don't normally get sun exposure. So roll up your pant legs and sleeves and get outdoors.

I also recommend supplementing. I recommend taking a supplement called *cholecalciferol*, or D3. It's identical to the vitamin D your body produces. Take 5,000 IU per day.

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# The Truth About Long-Lost Vitamin X

The flower power days of the 1960s ushered in a wave of interest in bell-bottom jeans, psychedelic drugs and The Beatles.

I was too young to be part of the hippie movement, but I remember it. Hippies were about rejecting popular culture. They were in tune with nature and believed in the healing power of plants.

No matter how you feel about the “peace, love and happiness” culture of the ‘60s, we owe those hippies our thanks for sparking an interest in traditional healing in America.

One of the plants that found its way to the West during this time was **centella**.

At the time, claims were made that it contained a “longevity nutrient” called “vitamin X,” which acted as a tonic for the brain and promoted long, healthy life.

It turned out “vitamin X” doesn’t exist...

And once scientists determined there was no “secret ingredient” in centella, they were quick to dismiss the plant as unimportant.

But in doing so, they completely missed the point. Because it turns out this plant is one of the most remarkable brain boosters I’ve ever found.

## Gotu Kola: My Go-To Brain Booster

Other names for centella include *pennywort*, *tiger herb* and *gotu kola*. You may have heard of gotu kola, but don’t confuse it with the kola nut. That’s the fruit of the kola tree that grows in Africa and contains caffeine.

Centella is a creeping plant that’s native to the wetlands of Asia, India and northern Australia.

It has been used in the Ayurvedic tradition of India and in ancient Chinese medicine for millennia, as one of the “miracle elixirs of life.”<sup>1</sup>

Centella revitalizes your brain and nervous system, and it’s a tonic that helps you feel sharp and alert and recharges your memory. Studies show it may also help stop plaque formation in Alzheimer’s disease, and prevent dopamine neurotoxicity in Parkinson’s.<sup>2,3</sup>



*The brain-shaped leaves of the incredible centella plant, also called gotu kola.*

I have also used it for years to help patients protect themselves from stroke — and to reverse the terrible, debilitating damage strokes can cause.

The latest research backs me up. Studies now reveal that centella is a true powerhouse against stroke, confirming what traditional healers have known for thousands of years.

Today, I’m going to show you some of my favorite ways to take centella. You also learn how this ancient herb speeds up the healing power of your brain, and shields your body’s most important organ against the threat of stroke damage and dementia in the future.

## Thousands of Years of History

Traditional healers in India have used centella as a treatment for *leprosy, lupus, varicose ulcers, eczema* and *psoriasis*. And modern scientific studies back up its wound healing properties and ability to stimulate the production of collagen, the protein your body uses as building blocks for skin, bone, tissue and blood vessels.

In Africa, I've seen healers use centella to treat ulcers, burns and pain. And it's also an *immuno-stimulant* that brings down fever.

Traditionally, it has also been used to treat ailments as varied as:

- Varicose veins;
- Diarrhea;
- Addiction;
- Fatigue;
- Depression;
- Epilepsy;
- Septicemia;
- Malaria;
- Open sores and itching.

But multiple studies now prove centella contains a treasure trove of highly medicinal phytonutrients — including *triterpene saponins, phytosterols, flavonoids, tannins* and *fatty acids*.

Together they make centella a potent antibacterial, antiviral, anti-inflammatory, anticarcinogenic, anxiolytic, antiulcerogenic, nerve-calming, wound-healing, cerebral tonic, immunity booster, diuretic and circulatory stimulant.<sup>4</sup>

Centella is also *anti-aging*, because it not only helps combat the infections and inflammation that cause disease in your body, but it also enhances your brainpower and memory — even as you get older.

And one study revealed that centella increases levels of T and B lymphocytes, the white blood cells that defend your body from attackers.<sup>5</sup>

Water extract of centella also increases the production of IL-2 and TNF- $\alpha$  in immune cells, which helps your immune system destroy cancer cells. IL-2 is important because it helps your body make more T lymphocytes and helps activate your B lymphocytes.

***But its most powerful property is its ability to revitalize your brain and nervous system, increase attention span and concentration, and combat age-related cognitive decline.***<sup>6</sup>

Studies now reveal that centella can actually help you get smarter...

## Grow More Brain Cells

For years, scientists believed the adult human brain couldn't grow new brain cells. They thought we were born with all the brain cells we'll ever have — and that when they were gone, they were gone for good.

But a 1999 study by researchers at Princeton University proved the opposite.

Their study, published in the prestigious *Journal of Science*, revealed the continuous growth of new brain cells in adult macaque monkeys. Then, in 2013, a study published in the journal *Cell* found that humans also produce new neurons, and that even in old age, your brain still produces around 700 new neurons a day.<sup>7</sup>

In other words, despite what “medical experts” may tell you, your memory and cognitive performance doesn't have to decline, but can actually *improve as you age*.

In a number of studies, centella has been shown to boost memory performance, problem-solving abilities, intelligence and mental energy.<sup>8</sup>

It does this by increasing *neurite* growth in brain cells. This is important, because neurites grow into *dendrites* and *axons*.

Dendrites are the signal receivers on your neurons. Meanwhile, axons form the network that links your brain cells together.

By growing new dendrites and *axons*, centella promotes higher and faster brainpower. Studies prove it can improve cognitive performance in healthy and cognitively impaired middle-aged and elderly subjects.<sup>9</sup>

Further studies also give us lots of evidence that centella is a powerful antioxidant and brain protector, as well as a nerve growth factor.

Centella is also an anti-depressant and anti-anxiety treatment, providing a mild, relaxing sense of virtual euphoria.

Ancient Ayurvedic texts poetically refer to it as the “Herb of Enlightenment.” It’s prized for meditation and is said to balance the left and right hemispheres of the brain.

And the very latest studies now prove its power against stroke...

## Reverse the Damage of a Stroke

Your brain contains two types of matter — white and gray.

Gray matter is made up of neurons, which store information. You depend on your gray matter to see, hear, smell, taste, feel and control your thoughts and emotions, as well as to learn.

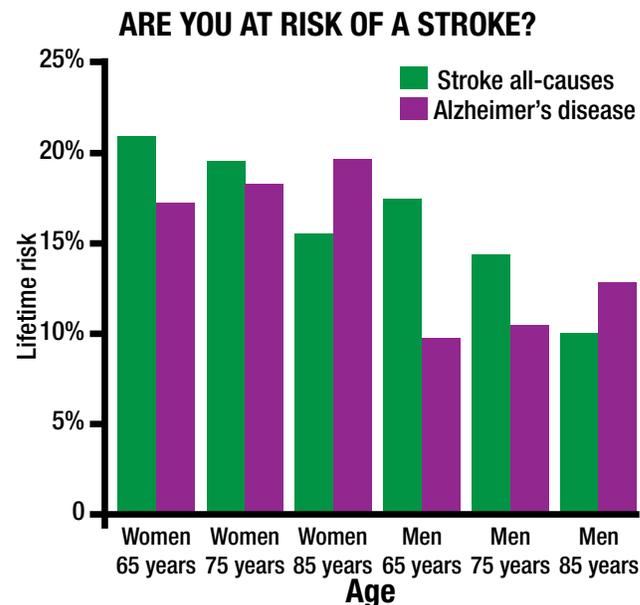
For more than a century, doctors and scientists studied only gray matter. The other tissue, your white matter, didn’t seem to do anything — so it was ignored.

But white matter does matter. Essentially, it’s your brain’s superhighway. White matter is made of axons, the network of branch-like connections that transport signals between brain cells.

When a stroke hits, the lack of blood flow kills white matter cells and causes lesions in the brain, like scar tissue. These scars block your superhighway and prevent brain-signal traffic from moving.

That’s where the remarkable powers of centella come in.<sup>10</sup>

*Centella’s power to speed up neurite growth actually regrows your neural communications network.*



*Stroke and dementia are the main neurological causes of death.*

And there’s another reason why this herb works wonders. It has a powerful healing effect on your hippocampus. That’s the part of your brain that controls learning, language, the formation of new memories — as well as the emotional connection you have with old memories.

This simple, ancient herb is still overlooked by mainstream medicine, but it could save the lives of millions of stroke victims.

And according to one study, around 25% of stroke patients suffer from post-stroke dementia within two years, losing 20-30% of their memory, attention span and cognitive ability.<sup>11</sup>

A recent study conducted in Indonesia, where centella is used commonly in both traditional and mainstream medicine, concluded that therapy with an extract of the herb at 750 mg per day for six weeks was “effective in improving cognitive impairment after stroke.”

The extract is called TTFCA, which stands for *triterpenic fraction of Centella asiatica*. This contains centella's most potent components. And it has shown special strength at improving memory.<sup>12</sup>

Other studies have shown centella is highly effective at preventing strokes in the first place — by promoting healthy veins and combatting high blood pressure. TTFCA improves the dilatation of blood vessels, which decreases blood pressure and improves blood flow throughout your body — from the largest veins to the tiniest of capillaries.<sup>13</sup>

## The Best Ways To Take Centella

I watched local healers in Africa take the leaves and roots of centella and boil them down to make a tea for a wide variety of ailments.

Although it's a little bitter to the taste, you can add it to juice or stir in honey. Make it two or three times per day.

Here's the recipe:

- For fresh leaves, dry them in the shade and shift them around from time to time to help them get fully dry. Or you can buy previously dried leaves online or in many specialty health food stores.
- Grind them up into a fine powder.
- Add the powder to a small pan of water. Because centella is very powerful, start with a very small amount until you know how it affects you.
- Boil slowly.
- Strain before drinking. You can cool the mixture and add it to juice as well.

But if tea's not your thing, you can try these supplement options:

- **As a Liquid Extract:** It's good if the extract is made from fresh (undried) centella plants, and includes the leaves and the roots. Try to make sure the plants are organic, and haven't been fumigated or irradiated.

To protect against stroke, I recommend you take 6-10 drops per day in juice or water — or under your tongue. To repair stroke damage I recommend you take 20 drops per day — but build up slowly to see how you react.

- **As a Powdered Herb:** You can get dried and powdered centella leaves capsules. You'll want to make sure that it has the active ingredients for your brain, two *triterpenes* called *asiatic acid* and *madecassic acid*.

Some products also have volatile oils included, which is also good. Look for at least 10% triterpenes, and take 400-600 mg — usually two capsules — three times per day.

- **As a Standardized Extract:** These capsules contain centella powder standardized to a percentage of the active ingredients, TTFCA.

Dosages for centella standardized extract can vary between 50 mg and 250 mg. The higher or lower the percentage of the extract will let you know whether to take it two or three times per day.

Whether you make a tea, use a powder or liquid extract, don't take centella extract continually. Just use it for two weeks on, and two weeks off, and it will work for you.

The main risk with heavy doses is that it can cause drowsiness, so it shouldn't be taken before driving.

It's also important to remember these dosages are largely based on animal studies and on my own observations among African healers and in my own clinic. They are not clinically proven recommendations.

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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.

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# 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).