

DR. SEARS'

TELOMERE SECRETS

Volume 2:
Upgrade to a Smarter, Faster Brain



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Uniquely Qualified to Keep You Healthier For Life



Al Sears, M.D. currently owns and operates a successful integrative medicine and anti-aging clinic in Royal Palm Beach, Florida, with over 25,000 patients. His cutting-edge therapies and reputation for solving some of the most difficult-to-diagnose cases attract patients from around the world.

As a graduate of the University of South Florida College of Medicine, Dr. Sears scored in the 99th percentile on his MCAT and graduated with honors in Internal Medicine, Neurology, Psychiatry, and Physical Medicine.

After entering private practice, Dr. Sears was one of the first to be board-certified in anti-aging medicine. As a pioneer in this new field of medicine, he is an avid researcher, published author, and enthusiastic lecturer. He is the first doctor licensed in the U.S. to administer TA-65, the most important breakthrough in anti-aging medicine today.

Dr. Sears is board-certified as a clinical nutrition specialist and a member of the American College of Sports Medicine (ACSM), the American College for the Advancement in Medicine (ACAM), the American Medical Association (AMA), the Southern Medical Association (SMA), the American Academy of Anti-Aging Medicine (A4M), and the Herb Research Foundation, (HRF). Dr. Sears is also an ACE-certified fitness trainer.

Dr. Sears currently writes and publishes the daily email broadcast, *Doctor's House Call*, and contributes to a host of other publications in the field. He has appeared on over 50 national radio programs, *ABC News*, *CNN*, and *ESPN*.

Since 1999, Dr. Sears has published 14 books and over 100 reports on health and wellness with a readership of millions spread over 163 countries.

In his first book, *The T-Factor, King of Hormones*, Dr. Sears perfected the use of natural and bio-identical testosterone boosters to help men restore the drive, ambition, muscle strength, vitality and sexual performance of their youth.

Dr. Sears followed up with *12 Secrets to Virility*, a full-blown strategy for male performance that includes his own patient-tested protocols for successfully dealing with men's health concerns like fighting excess estrogen, protecting the prostate, eliminating fat gain and keeping a sharp mind and memory.

In 2004, Dr. Sears was one of the first to fight against the conventional belief that cholesterol causes heart disease, proving that cholesterol is not the cause, but the part of the body that heart disease acts upon. In *The Doctor's Heart Cure*, Dr. Sears offers an easy-to-follow solution that effectively eliminates your risk of heart disease, high blood pressure and stroke.

In 2009, 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*. Expanding on the fitness principles in *The Doctor's Heart Cure*, he developed a fast, simple solution to restore muscle strength, guard against heart attack and burn excess fat. Today, PACE is practiced by thousands of people worldwide.

In 2010, Dr. Sears made history by bringing telomere biology to the general public. As the first U.S. doctor

licensed to administer a groundbreaking DNA therapy that activates the gene that regulates telomerase, his breakthrough book *Reset Your Biological Clock* shows how anyone can preserve the energy of youth by controlling the length of your telomere, the true marker of aging.

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), the Age Management Medicine Group (AMMG), and the Society for Anti-Aging, Aesthetic and Regenerative Medicine Malaysia (SAAARMM).

As the founder and director of Wellness Research Foundation, a non-profit research organization, Dr. Sears has made it his life's work to bring his patients the latest breakthroughs in natural therapies. As part of his ongoing research, Dr. Sears travels the world in search of herbs, novel cures and traditional remedies. Meeting with doctors and healers, Dr. Sears has brought back and revitalized much of the traditional knowledge considered endangered in today's modern world.

- During an expedition to the Peruvian Andes, Dr. Sears brought back a nutrient-dense oil made from the Sacha Inchi nut, containing the highest plant source of heart and brain boosting omega-3 fatty acids.
- In India, Dr. Sears studied at the oldest existing school of Ayurvedic medicine, the ancient Indian healing tradition, and was tutored by Ayurvedic doctors on the use of potent Indian herbs used to treat heart disease, cancer and Alzheimer's disease.
- While trekking through the Amazon rainforest in Brazil, Dr. Sears lived among the native Ashaninka Indians, incorporating their ancient knowledge of healing herbs into his own nutritional supplement formulas.
- In Jamaica, Dr. Sears met with the last living healer from the ancient and forgotten lineage known as the Maroons. Coming from West Africa 500 years ago, their knowledge was on the brink of extinction until Dr. Sears published a book showcasing their unique herbs and healing formulas.
- On the island of Bali, Dr. Sears had a meeting with the most famous of the ancient healers known as "Balians," – Ketut Leyir – and also met two of the country's foremost herbalists. Dr. Sears is publishing a book showing how to use Balinese herbs and make unique healing mixtures for the skin and body.

With a life-long interest in botany, herbology, physiology and anthropology, Dr. Sears has a unique capacity to investigate the evidence behind the stories and claims of traditional medicine from native cultures around the world.

By exposing the flaws of mainstream medicine and pioneering new solutions through innovative approaches to exercise, nutrition and aging, Dr. Sears continues to empower the lives of his patients and readers through his books, newsletters and regular media appearances.

Dr. Sears' Telomere Secrets:

Volume 2: Upgrade to a Smarter, Faster Brain

"It was akin to a Ponce de León effect..."

Referring to the Spanish explorer who sought the mythical Fountain of Youth, Dr. Ronald DePinho revealed the details of his groundbreaking experiment in the Harvard Gazette.¹

"When we flipped the telomerase switch on and looked a month later, the brains had largely returned to normal."

As a professor of genetics from Harvard Medical School and the director of applied cancer science at the Boston-based Dana-Farber Cancer Institute, Dr. Ronald DePinho was thrust into the limelight when the near-miraculous results of his therapy gave new life to the aging brains of the animals in his lab.

Restoring an old, shrunken brain to normal size would have been headline news all on its own. But there was more to the story.

Dr. DePinho's team of researchers discovered these rejuvenated brains gave birth to new nerve cells, developed new layers of the protective myelin sheath that surrounds nerve cells, and awakened slumbering brain stem cells so they could produce new neurons.

In other words, Dr. DePinho's therapy transformed faulty, aging brains into youthful, high-performing brains you might expect to find in a teenager.

What caused this remarkable reversal of aging?

Telomerase.

It's the enzyme that helps you rebuild the biological clocks at the end of your DNA called *telomeres*. Research into telomeres and how telomerase works is so revolutionary, it won the Nobel Prize for medicine in 2009.

Today, I'm going to show you how to tap the remarkable power of your telomeres and the age-reversing enzyme that helps maintain them.

That means you can use this very-same technology to restore and revive your own brain.

In this special report I'll show you how.

Regenerate Your Brain Cells with This Revolutionary Technology

At the end of each strand of DNA is a little bit of genetic material called the telomere (tee-lo-mere).

Telomeres are the "time keepers" attached to every strand of your DNA. Each time your cells divide, your telomeres get shorter. When your telomeres run down, cell division stops and your life ends.

By slowing down the loss of your telomeres, you not only extend your brainpower, you stay younger longer.

That's what I do for my patients. And it's important you know how this works.

As the telomere gets shorter, your body produces cells that are older, weaker and more decrepit.

This speeding up of telomere loss actually causes your body to transcribe an older, more dysfunctional part of your genome. That means your body becomes weaker, more frail and open to all the pitfalls of aging.

It's programmed old age for your brain... complete with all the telltale problems like memory loss, dementia and Alzheimer's.

In fact, the shorter your telomeres, the "older" your brain is, regardless of your actual age. In this way, your telomeres "tell" or instruct your brain cells how to behave based on how old they are.

But when you switch on telomerase and make telomeres longer, like Dr. DePinho did, you ***regenerate your brain cells...*** regardless of how old you are.

Just have a look at these study results.

Aging, Shrunken Brains Return to Normal Size

When Dr. DePinho turned on the enzyme telomerase, the aging brains in the old mice returned to normal size.²

Check out these pictures.

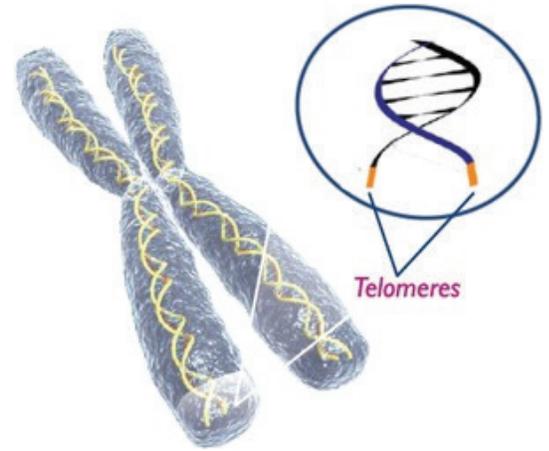
The brain on the left is taken from the group of old mice.

The "brain shrinkage," which happens naturally as you get older is clear to see. The brain on the left is clearly smaller, more narrow and weighs less.

The brain on the right is from the same group of old mice... ***but this one was revived and restored by Dr. DePinho's telomerase therapy.*** You can see how the brain on the right looks fuller and more robust. It weighs more, too.



The smaller, "shrunken" brain on the left shows the loss of size that comes with age... the brain on the right was restored to normal size by "switching on" telomerase.



The telomeres are the "protective tips" or "caps" at the ends of each strand of DNA. As a whole, your DNA contains the blueprint or program for EVERY cell in your body.

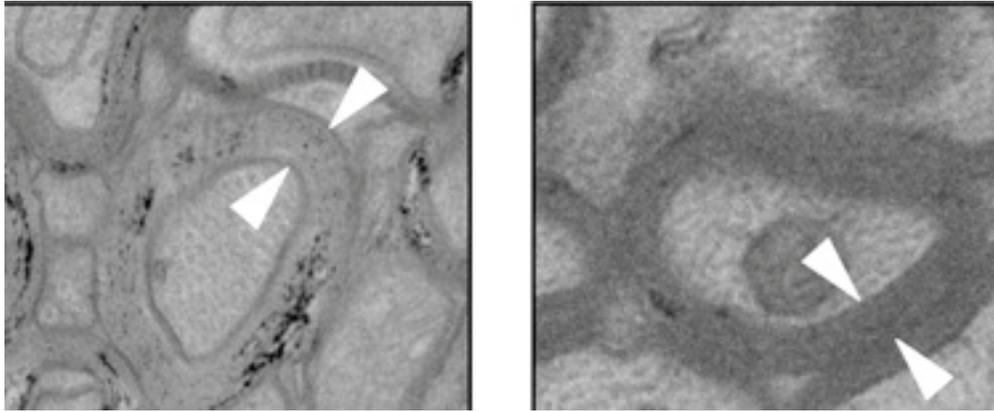
Here's something else... the aging brains that Dr. DePinho restored had a new, heavier layer of a very important covering known as the "myelin sheath." This insulating, protective cover surrounds the nerve cells in your brain and helps shuttle the electrical impulses your brain cells use to communicate with each other.

You may have heard of the myelin sheath. Not only does it get thinner and more vulnerable as you age, it's also the target of the amyloid-beta plaques that build up in Alzheimer's patients.

But miraculously, the myelin sheaths in the mice

revived by Dr. DePinho, grew a new, heavier layer of this critical insulation.

Here are the pictures.



The picture on the left shows a thin, narrow band where the myelin sheath has deteriorated with age. The photo on the right shows how the same myelin sheath has been restored to its full, youthful size.

In the picture on the left, you can see a very thin layer of grey that surrounds the nerve cell. This is the narrow myelin sheath in a nerve cell of one of the old mice.

By contrast, you can see the thicker, heavier myelin sheath in the photo on the right. This shows you how the protective covering was fully restored after the telomeres in these rejuvenated mice became longer.

Dr. DePinho noticed other changes, too.

To test whether their newly-restored brains gave the mice new functional ability, researchers set up a maze to see if the mice would avoid a certain area when they detected the scent of a predator or a foul smell.

Remarkably, these mice regained their sense of smell.

When these mice were still “old,” their olfactory nerve cells had atrophied and they had lost their survival skills. But once Dr. DePinho restored their brain function, their nerve centers regenerated and they were able to negotiate the maze with ease.

Even their memories and overall awareness improved.

Now keep in mind, NEVER in the course of human history has anyone accomplished something even close to this. Previously, only in science fiction novels could you hope to resurrect dead brain cells. In the real world, it was pure fantasy.

Today, this “miraculous” event is not only doable, it’s something you can actively pursue yourself. Given the right nutrients, you can start the process of regenerating your aging brain.

For the first time, you have the potential to avoid the painful and debilitating loss of cognitive function by restoring the youthful characteristics of your own brain.

And that’s good news, because you need to do *something*...

Shorter Telomeres are the Real Culprit Behind “Senior Moments”

When your telomeres shorten, it causes the next generation of cells to be weaker, more vulnerable and more decrepit. And these older brain cells make you a prime candidate for all of those “senior moments” that come from memory loss, lack of concentration and muddled focus.

And that’s not all...

Studies published in respected journals like *Annals of Neurology* and *Neurobiology of Aging* show shorter telomeres are connected to some of the scariest age-related brain concerns like stroke, dementia and Alzheimer’s.^{3 4 5}

But this decline in your ability to think, plan, strategize and remember, is NOT unavoidable. What doctors simply call “part of the aging process,” is really caused by shortening telomeres.

And as you’ll see, telomeres can be influenced. You can slow their loss, and even lengthen them. Later in this report I’ll show you how.

First, I want you to show you how this loss of brain power comes in three primary forms.

The 3 Enemies Zapping Your Brain Power

As you age, your brain comes up against 3 major problems... *all of which, are caused by shrinking telomeres.*

- Your brain shrinks, impairing neurons and dulling connections between neurons.
- Levels of neurotransmitters decline, slowing, marring and reducing messages.
- Brain circulation decreases, and oxygen delivery drops.

It’s true... just like the old mice in Dr. DePinho’s experiment, *your brain shrinks as you grow older.* What’s more, research has shown that the problem is worse in men.

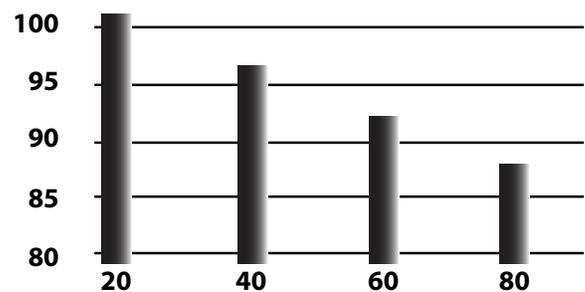
The shrinking starts in adulthood. Researchers believe that the average brain shrinks 2% per decade. *This means that at 80, your brain will be 12% smaller than at 20.*⁶

Another side effect of aging is the reduction of neurotransmitters in the brain.

The two main neurotransmitters that decrease are acetylcholine and dopamine. These two chemicals are crucial for neuron communication. A lack of these chemicals causes messages to travel slowly, to break, or to stop traveling all together.

The brain also loses some blood circulation as it ages. Blood brings nourishment to cells, and keeps the cells functioning. Without good circulation, your brain works less effectively.

Your Brain Shrinks with Age



By the time you’re 80, you’ve lost almost 15% of your total brain volume!

But here's the good news: You can reverse the loss... and in many cases you can restore youthful brain function.

Here's the first step.

Nourish Your Aging Brain with a Limitless Number of New Brain Cells

Decades ago, we were taught that your brain has a "set" number of brain cells. Remember hearing that once your brain cells died, that was it? It made it sound like your brain was in a constant state of degeneration.

And that's true in part.

But here's the difference: Today, we know that you CAN grow new brain cells... AND new neural networks that ramp up your brain power no matter how old you are.

When you activate the enzyme telomerase, and add length to your shortening telomeres, it kicks your brain into a growth cycle that creates new brain cells through a process called *neurogenesis*.

You see, your brain already has a population of neural stem cells. These "progenitor cells" can differentiate into brain neurons. In turn, these new brain cells create new networks by using *neurites*, the "branches" that stretch out and connect with other brain cells.

But these stem cells need to be "activated."

And there's a simple amino acid that's not only a proven telomerase activator, it stimulates the process of neurogenesis by building new neural networks in your brain.

Here's how it works.

Sharpen Your Mental Edge with This Overlooked Brain Booster

One of the most effective nutrients for rebuilding your telomeres and boosting your brain power is ALC.

Studies suggest that ALC *activates the human telomerase gene* through a chain reaction that starts with the increase of Nerve Growth Factor.⁷

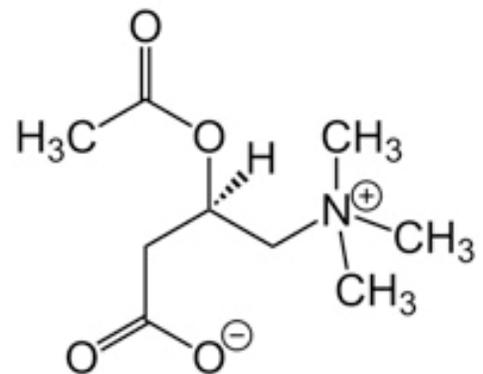
In just a moment, I'll explain why Nerve Growth Factor is so important and how it can help create a younger, faster, more responsive brain.

First, I want to show you why this particular amino acid is critical for keeping your mental edge.

ALC is the utility system for your vital organs. Your heart uses it in bulk to keep blood pumping. Your brain burns through it at lightning speed. Your liver and kidneys require it to work properly. Your sex organs thrive on it for optimum function.

Plus, 95 percent of all cells in your body rely on ALC to melt fat away. That's because ALC shuttles fat into your cells where it's used for energy, instead of being stored as fat.

The problem is your body can't make enough on its own. When



The chemical structure of acetyl-L-carnitine: Taken daily, ALC can rebuild and regrow your aging brain.

scientists looked at levels of this vital nutrient in muscle tissue across a range of age groups, they found a “drastic reduction,” in older folks.⁸

ALC stands for *acetyl-L-carnitine*.

You won't hear about this high-octane IQ fuel from most doctors. But it's the key to brainpower.

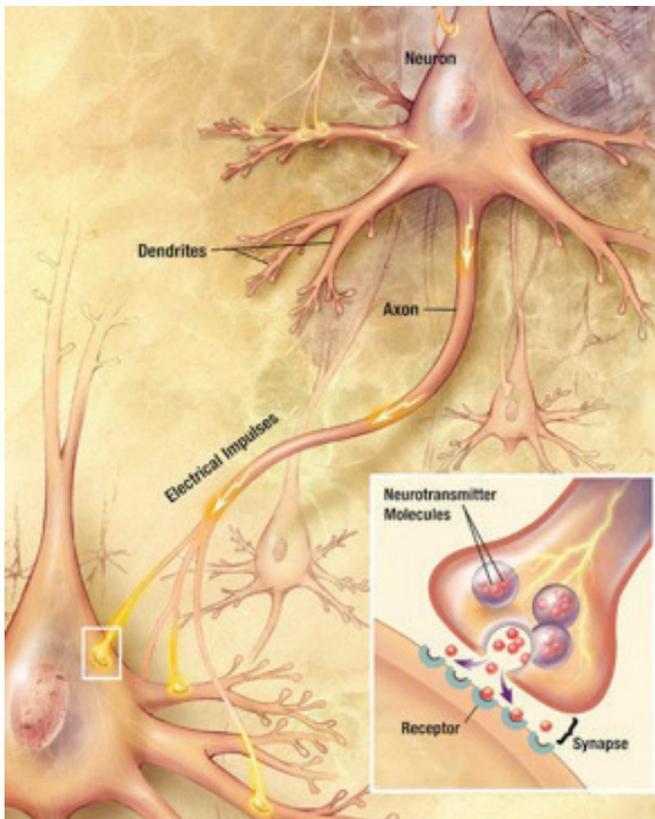
Studies show ALC keeps the mind from slowing down as time goes by. In fact it shores up your ability to recall words and names, follow what others are saying, and think and reason clearly. You'll never have to worry about those “senior moments.”

That's because ALC ramps up production of a brain chemical called acetylcholine. This is a neurotransmitter that helps your brain relay signals between the neurons responsible for cognitive thought, focus, and memory.

Your brain needs more and more acetylcholine as it ages, but can't make more of it on its own. ALC makes up the difference, keeping those neurons firing literally at the speed of light.

As I mentioned, poor blood circulation is another reason your thinking can get fuzzy with time. Your brain cells aren't getting enough oxygen. Clinical evidence has shown that ALC keeps your brain's cellular engines powered up in spite of decreased blood flow.⁹

It's also a potent antioxidant. You've heard about free radicals. They cause damage by latching on to healthy cells, disrupting their natural functioning, changing their DNA, and even killing them.



It's a little-known fact, but free radical damage lies behind a lot of the gradual loss of brainpower that comes with aging. High-energy cells throw off a lot of free radicals. Because they use so much energy, your brain cells are particularly vulnerable.

ALC puts the brakes on free radical activity. It boosts production of adenosine triphosphate (ATP), the basic fuel every cell in your body needs to make and transport energy.¹⁰

Higher levels of ATP boost your metabolism at the cellular level and can help you to lose weight. It also literally reverses the age-related cell damage that can lead to brain fog.

It even works in people who've already shown signs of senility or Alzheimer's.

The science proves it. Researchers recently looked at the effects of ALC in people with mild cognitive impairment and even early-stage Alzheimer's disease. With as little as 1.5 to 3 grams per day, they showed significantly improved brain function across the board after three months.¹¹

Your brain and nervous system are made up of nerve cells. The dendrites and axons are both forms of neurites, the “branches” that connect to other nerve cells. ALC works by regrowing nerve cells and forming new neural networks.

As if that weren't enough, ALC boasts a long list of health benefits that go far beyond the brain. It's been shown to ramp up male performance and slow nerve damage in diabetics.^{12 13}

There's even evidence that ALC can re-grow nerve cells.¹⁴

That's because ALC helps slow the loss, and restore the function of **Nerve Growth Factor (NGF)**... a powerful protein that controls the growth and maintenance of your brain's neurons.

As your telomeres get shorter, there's a decline both in the production of NGF and the number of NGF receptors you have in your brain cells. And this decline leads to a drop in brain performance and opens you up to memory loss and dementia.

That's why those studies I mentioned earlier found a connection between short telomeres and memory problems, dementia, stroke and Alzheimer's.

Even more impressive, ALC boosts neurite growth an incredible **100 TIMES MORE** than NGF alone.¹⁵ As we discussed, neurites are those "branches" that extend from the middle of the neuron and connect with other brain cells to form networks.

These neural networks are the key to a fast brain and alert mental state. The more networks you have and the faster these electrical impulses fire between cells, the clearer you can think and the better you remember.

I recommend at least 1,000 milligrams per day. And if you're feeling like you have memory concerns, or worse, you can safely take 3,000 mg a day.

Think of it this way: When your telomeres get shorter, it cuts off production of NGF and your overall brain power starts to tank.

ALC switches on telomerase, which rebuilds your telomeres... which in turn, reactivates NGF and a host of other performance-enhancing nutrients and enzymes, which fire up abilities you enjoyed when you were younger... but thought were gone forever.

So remember...

All of these brain-boosting changes are triggered by ALC's ability to influence your telomeres.

The telomere is at the heart of your brain's power and ability to function. At the end of the day, your telomeres have absolute control over how healthy your brain cells are, and how well they function.

Telomerase activators, like ALC, rebuild your telomeres and protect them from the accelerated loss that makes you grow old before your time.

By activating telomerase, you have the opportunity to produce younger cells... *even as you get older.*

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