

# ***Re-Energize*** **Your Tired Heart**

***Reactivate this Little-Known  
Enzyme and You'll Out-Perform  
People HALF Your Age***

By Dr. Al Sears, MD



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# Re-Energize Your Tired Heart

## Reactivate this Little-Known Enzyme and You'll Out-Perform People HALF Your Age

When your heart weakens, it's painfully obvious.

It may be one of the most noticeable changes associated with aging.

Your body only has one way to get oxygen to your 75 trillion cells, and that's through a fist-sized, muscular pump called your heart. And when your heart loses its pumping power, you lose power to EVERY cell in your body.

When that happens, every cell, organ and tissue in your body loses energy. Your performance drops system wide... *and you see that in every move you make.*

Your capacity to work, play, perform and achieve goes into a tailspin. Even your ability to get out of bed is jeopardized. All because your heart can no longer get enough oxygen to your cells.

While this may sound like a typical side effect of aging, it's not inevitable. In fact, new studies tell us your heart has a single "master mechanism" that decides how much energy your heart can hold onto as it gets older.

### The "Cellular Secret" that Rejuvenates Your Aging Heart

This "mechanism," called the *telomere* (tee-lo-mere), is embedded in the core of every one of your cells, but "burns down" and gets shorter with age. And the shorter it gets, the weaker your cells become.

Here's the good news: Telomeres come equipped with an enzyme designed to rebuild it. This enzyme is usually "switched off," but a series of discoveries has shown us how to switch it back on.

In this special report, I'll show you how to activate this enzyme and how you can easily revive your heart's energy, vitality and pumping power. Just by doing this one thing, you can restore your heart to a level of power and performance you enjoyed when you were in your 30s and 40s.

*And you can keep this performance boost for life.*

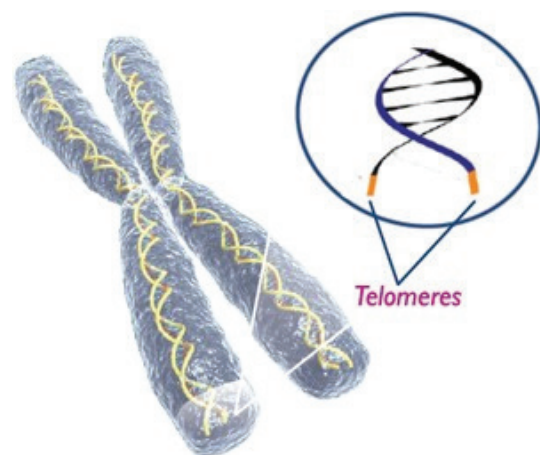
### Reignite Your Heart's Power with This Nobel Prize-Winning Technology

Located in every chromosome, 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 heart's power, you stay younger longer.

That's what I do for my patients. And that's what I'm going to show you today.

As the telomere gets shorter, your body produces cells that are



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.

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 heart... complete with congestive heart failure, heart attack and hardening of the arteries.*

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

This discovery was so groundbreaking, it won the Nobel Prize in Medicine in 2009.

And there's clear evidence that shorter telomeres weaken your heart and increase your risk of heart disease.

Just have a look at these study results.

## **Short Telomeres Set You Up for Heart Attack, Heart Failure, Clogged Arteries and Early Death**

When researchers investigated the first long-term connection between telomeres and heart health over the span of two decades, the results were clear and conclusive.<sup>1</sup>

Published in the journal *Arteriosclerosis, Thrombosis and Vascular Biology*, the team of doctors at a research hospital in Denmark **followed almost 20,000 people for 19 years.**

The people with short telomeres had a...

- 50% increased risk of heart attack
- 25% increased risk of early death

Another study, published in the same journal, found an alarming increase in heart attack risk... this time, **people with short telomeres had an increased risk between 280% and 320%!<sup>2</sup>**

These newly-reported results confirm what we now consider a FACT: *Shorter telomeres make you a target for heart disease.*

Aside from heart attack, your risk of atherosclerosis or hardening of the arteries goes up to.

In a study published in the prestigious journal *Lancet*, researchers found an association between short telomeres and atherosclerosis.<sup>3</sup> The people with short telomeres had accelerated aging of their blood vessels and had **a build up of plaque that correlated to someone 8.6 years older.**

This increased risk extends into the very fiber of your heart muscle.

In a study published in the *Journal of the American College of Cardiology*, researchers discovered that **people with heart failure had telomeres that were 40% shorter than normal.**<sup>4</sup>

Heart failure is now characterized by both telomere erosion and the death of cardiac "myocytes." These are the muscle cells in your heart and are responsible for generating the electrical impulses that control your heart rate, among other things.

*But there is good news.*

At the beginning of this report, I mentioned the telomere comes equipped with an enzyme designed to rebuild it.

That enzyme, called telomerase, can extend the length of your telomeres. And when you switch on telomerase and make telomeres longer, you *regenerate your heart's cells*... regardless of how old you are.

## The Newly-Discovered Power of the Famous “Red Wine” Nutrient

By now I'm sure you've heard of *resveratrol*.

Resveratrol is a nutrient found in red wine, and has been the focus of national media, being featured on 60 Minutes, Oprah and the Dr. Oz show. Known as a “longevity nutrient,” resveratrol has multiple heart benefits and is able to normalize your blood pressure and cholesterol levels.

But recently, researchers discovered something new about resveratrol... it has the power to switch on the gene that produces telomerase, the enzyme that rebuilds your telomeres.

Published in the English version of the *Chinese Medical Journal*, researchers found resveratrol, “*significantly increased telomerase activity*.”<sup>5</sup>

And that's great news... it means you have a simple and reliable way of rebuilding your telomeres and keeping your heart young and vital. And when we're talking about telomerase, it's important to remember that adding length to your telomeres means you can actually *make your heart younger*.

That's the key to understanding this newest breakthrough... You see, the length of your telomere dictates the kind of cell your body produces.

*Longer telomeres produce younger-acting cells.*

That's what gives you the experience a full “restoration.” Your body is literally creating a younger, more powerful heart... even though you're technically getting older with each passing day.

We've known for years that resveratrol can “turn on” genes that promote health and longevity, and “turn off” genes that cause cancer and heart disease. But this new study, throws the door wide open. For the first time, we have reliable evidence that a simple, easy-to-take nutrient can re-energize your tired heart.

Let me show you how this genetic switch works...

### Resveratrol Switches On Your “Anti-Aging Gene”

Your body has a gene that can increase lifespan dramatically... *one study saw an increase by as much as 100%*.<sup>6</sup>

All living things carry it, including humans. Even more exciting is the discovery that natural substances found in certain foods have the power to activate this gene.

We first discovered evidence of this “longevity gene” about twenty years ago. If you starve mice, giving them a nutritionally balanced diet with very few calories, their lifespan increases dramatically.

Later studies revealed that this strange effect wasn't limited to mice: calorie-restricted diets produced similar results in many life forms, from single celled organisms to plants and mammals.<sup>7</sup>

Very recently, we found the explanation for this mysterious phenomenon. They isolated a family of genes called *sirtuins* (“silent information regulator proteins”). Sirtuins kick in under conditions of severe stress, bringing about a miraculous transformation.

They transmit signals to every cell in your body that literally cancel out the effects of aging. The processes

that lead to cell death slow to a crawl, buying your body more time.

The discovery of sirtuins pointed to another amazing fact. Most folks think of genetics as written in stone. You have the genes you inherited, and that's it. What sirtuins show is that certain genes can be awakened and called upon to change your body in the course of a single lifetime.

### **Some of the Good Genes that Get “Switched On” With Resveratrol are Genes That:**

- Suppress aberrant cellular proliferation (prevents cancerous cells from multiplying).
- Induce DNA repair (fixes damaged chromosomes).
- Enable insulin to assist glucose uptake into cells (normalizes blood sugar).
- Facilitate production of beneficial high-density lipoprotein or HDL. (Ramps up good cholesterol).

### **Some of the Bad Genes that Get “Switched Off” With Resveratrol are Genes That:**

- Boost production of potentially harmful low-density lipoproteins or LDL (creates more of the bad cholesterol).
- Override normal patterns regulating cell division (cuts off your body's ability to regulate healthy cell production).
- Promote excess production of insulin and inflammation (causing fat gain, swelling and joint pain).
- Interfere with apoptosis (programmed cell death) of cancer cells (allows the bad or cancerous cells to grow without limits).

You're probably saying to yourself, “*Do I have to starve myself to live longer?*” The answer is no. Most adults find this strict lifestyle impractical. The problem of how to “wake up” sleeping sirtuin genes had scientists stumped for years. They had to find a more practical way to flip the “off switch” on aging.

Turns out there are foods that contain the natural compound resveratrol, and resveratrol unleashes the anti-aging power of sirtuins as effectively as calorie restriction.

### **Have You Heard about the “French Paradox”?**

Back in the 80's, researchers stumbled on a mystery they called “the French Paradox.” Conventional wisdom had long held that if you eat a lot of saturated fats, your arteries would clog up, putting you on the fast track to a major heart attack.

But when they compared the average diets among people in different countries, their theory went out the window. The French were eating all the fat they wanted – cheese, cream, meat, buttery pastries, cakes, and desserts, even foods made out of pure fat like paté – and yet they had much lower rates of heart disease than Americans, who ate just as much fat.

In other words, the French were having their cake and eating it, too. But why?

Further analysis offered a clue: the French love wine as much as they love fatty foods. Something in wine, they realized, was highly beneficial. So they performed more testing in the lab and uncovered the one of the

main causes: the grapes used to make wine were rich in resveratrol.

It turns out that different wines have different levels of resveratrol. Wines made from Muscadine grapes have the highest levels as shown in the following table.

Beverage	Total Resveratrol (mg/L)	Total Resveratrol in a 5 oz glass (mg)
Muscadine Wines	14.1 – 40	2.12 – 6
Red Wines (Global)	1.98 – 7.13	0.30 – 1.07
Red Wines (Spanish)	1.92 – 12.59	0.29 – 1.89
Red grape juice (Spanish)	1.14 – 8.69	0.17 – 1.30
Rose Wines (Spanish)	0.43 – 3.52	0.06 – 0.53
Pinot Noir	0.40 – 2.0	0.06 – 0.30
White Wines (Spanish)	0.05 – 1.80	0.01 – 0.27

If you're not a fan of red wine, you can also get resveratrol in:

- Raisins
- Plums
- Blueberries
- Cranberries
- Purple Grape Juice
- Peanuts
- Mulberries
- Eucalyptus Trees
- Japanese knot wood

## When Resveratrol Rebuilds Your Telomeres Your Heart Springs Back to Life

When resveratrol acts on your telomeres, two things happen: First, resveratrol protects your telomeres from becoming shorter. That immediately slows the aging of your heart. Second, resveratrol activates the telomerase enzyme, and gradually starts to rebuild your telomeres. *That enables your heart to produce younger cells.*

And that produces some remarkable benefits:

One way resveratrol protects your heart is by preventing blood clots, a major cause of heart attack, particularly in older folks. In one study, researchers gave healthy male subjects a blood-clotting factor along with high doses of resveratrol.

They found that resveratrol *prevented their blood platelets from sticking together.*<sup>8</sup> Not only does this help your heart, it also prevents strokes, another effect of clotting.

Another way it powers your heart involves miraculous capability called “angiogenesis,” a fancy term for blood

vessel growth. Resveratrol acts a bit like bypass surgery by creating new blood vessels to deliver more oxygen to your heart when it's not getting enough.

Resveratrol also acts as a potent antioxidant, binding with “free radicals,” the molecules that cause cell damage and lead to death over time.

Oxidative stress is the cause of many diseases and aging itself. And many scientists report that resveratrol slows down the oxidation of dangerous low-density lipoprotein (LDL) and scavenges very harmful hydroxyl radicals.

Resveratrol also helps to protect your levels of glutathione, which is your body's “master antioxidant” and detoxifier.

Finally trans-resveratrol drives down levels of bad fats called *triglycerides*.

These are the fatty acids that clog your arteries. Scientists have been able to lower triglyceride levels as much as 15 percent in pre-menopausal women using concentrated grape powder.<sup>9</sup>

**As powerful as resveratrol is, your telomeres are VERY sensitive to oxidative stress.** And that's why I recommend the most powerful antioxidants to my patients. If you were sitting in my consulting room, I'd tell you same thing.

To take full advantage of the telomere-building power of resveratrol, you need to back it up with the maximum antioxidant power of CoQ10.

## Nature's “Heart Miracle” Preserves Telomere Length By Keeping Your Cells Flush with New Energy

When I was in med school 25 years ago a small group of researchers were quietly laying the groundwork for a breakthrough that at the time sounded like science fiction.

Today it's reality. My patients are keeping the power of youth into old age. I've seen it first hand.

Being one of the first board certified doctors in anti-aging medicine, I've had a front row seat for this remarkable discovery. The phenomenal nutrient I'm talking about is a brand new form of CoQ10 called *Accel*.

The energy *Accel* supplies to your heart and major organs is so powerful; they just don't seem to break down or get older. All the limitations we associate with aging are going out the window.

The inventor of *Accel* – Dr. Tatsumasa Mae from Japan – showed me the test results when he stopped by for a visit. **The mice taking *Accel* were the equivalent of 80-year old humans, and they were running around like teenagers.**

But before I show you the power of this newer form of CoQ10, there's something you need to know... especially if you're taking a cholesterol-lowering medication known as a *statin* drug.

## Heart Patients Beware: Statins Wipe Out CoQ10

There's something drug manufacturers don't want you to know: Cholesterol-lowering statin drugs slash the levels of CoQ10 in the body.

While these drugs reduce the production of cholesterol in the liver, they also lower the production of CoQ10. In fact, studies found that ***statin drugs lower CoQ10 levels by as much as 40 percent.***<sup>10</sup>



Drug companies already know about this dangerous side effect. One company even developed a statin-CoQ10 combination drug to offset the CoQ10 stripped from the body but decided to put it on the shelf and hold the patent *without* releasing the new combination to the public.

Clearly the companies recognize that their drugs drain the body of CoQ10, and they have done nothing to educate physicians and patients about this very real danger of taking statins. Instead, they downplay this fact in hopes that the news about this side effect does not interfere with drug sales.

Unfortunately, most doctors don't know enough about the link between statin drugs and CoQ10 to recommend that their patients take supplements. Some misinformed doctors even discourage the use of CoQ10 and other nutritional supplements altogether.

## **Her Cardiologist Threw Her CoQ10 in the Trash**

I remember when a retired chorus line dancer from New York City came to my clinic for the first time. She had high blood pressure, even though she was taking two blood pressure medications and a statin drug. She said she felt constant fatigue and had increasing trouble with her memory.

When I measured her blood level of CoQ10, it was lower than 95% of the population. After taking 200 mg of a CoQ10 supplement daily for a couple of months, she was able to stop both blood pressure medications and now maintains a normal blood pressure. She also reported feeling “energized” and she recovered her memory.

But when she returned to the cardiologist to tell him the good news, he wasn't impressed.

She showed him the remarkable nutrient that normalized her blood pressure better than the drugs. Rather than rejoice in her success, he became irate, told her the CoQ10 could not possibly help her blood pressure and *threw her CoQ10 in the trash.*

Incredibly, this is not the only story like this one. Together they reveal a troubling double standard. Most doctors are well informed of the uses and benefits of drugs but uninformed and suspicious of nutritional solutions. Yet more than 100 studies show the cardiac benefits of CoQ10.

In this special report, you'll find out how and why CoQ10 works to strengthen the heart. Since it is difficult to get optimal levels of this substance from the typical modern American diet, you'll also discover how to use CoQ10 supplements in your heart-healthy routine.

## **I Use CoQ10 to Get My Heart Patients Off Dangerous Prescription Drugs**

At my clinic, more than HALF the patients who were taking drugs for high blood pressure were able to stop their medication once they began taking CoQ10. It's more than earned its reputation as a “miracle heart energizer.”

CoQ10 is an essential cofactor your body uses to make energy. You cannot survive without it. CoQ10 is a powerful anti-oxidant present in every cell in your body. And it's essential for the normal function of all your major organs.

CoQ10 is especially important to the energy-guzzling organs, like your heart, brain, kidneys, and liver. CoQ10 provides your body with the “high octane” fuel your cells need to make energy.

CoQ10 also:

- Destroys free radicals before they can damage your cell membranes.

- Prevents arteriosclerosis by reducing the accumulation of oxidized fat in your blood vessels.
- Eases heart disease, high blood pressure, and high cholesterol.
- Reduces chest pain and improves exercise tolerance in patients with chronic stable angina.
- Regulates the rhythm of the heart rate.

## **CoQ10 Keeps the Tiny “Power Plants” In Your Cells Running at Full Capacity**

CoQ10 is essential for your cells “power plants” or *mitochondria*.

Mitochondria are the structures in your cells that manufacture energy at the cellular level. Almost every cell in the body has its own energy-producing mitochondria designed to meet the needs of each individual cell.

Most cells contain between 500 and 2,000 mitochondria. And you’ll find the highest concentrations of mitochondria in the busiest cells of the body, including the heart, brain and kidneys.

Energy production at the cellular level begins when the body turns the food we eat into nutrients (glucose, amino acids, and fatty acids) the mitochondria can use to produce energy. Within the cells, the mitochondria -- through a multi-step process scientists refer to as the Krebs cycle -- manufacture adenosine triphosphate (ATP). ATP is literally your body’s source of energy. ***ATP is the fuel cells burn to perform their tasks.***

To make energy, the mitochondria use plenty of CoQ10, which helps in the chemical reactions required for energy production. This is essential to keep the powerhouses of the cells – the mitochondria — working efficiently. ***In this way, CoQ10 provides a virtual “Fountain of Youth” for your cells.***

When cells run out of CoQ10, the mitochondria simply cannot produce enough energy to meet the body’s demands. When the body is well stocked with CoQ10, it can operate efficiently. When stockpiles of CoQ10 run low, the mitochondria are less efficient and they may produce adenosine diphosphate (ADP), which is a less potent fuel.

Over time, running your body on cheap fuel will take its toll, damaging the mitochondria and contributing to a growing sense of fatigue, weakness and eventually, disease.

When your body is young, your mitochondria work tirelessly to produce the abundant energy associated with youth. Over the years, however, your mitochondria age and show signs of wear and tear, just as the rest of the body does. And when this happens, your mitochondria can grow “hard” and less efficient at producing ATP.

When your mitochondria break down, they produce less energy. If this happens long enough, you experience chronic fatigue. This makes the heart weak and inefficient. This systemic energy crisis can compromise the immune system as a whole, leaving your body more vulnerable to attack from bacteria, viruses, and additional pathogens.

A number of studies found that people who suffer from ailments associated with aging – including cardiovascular disease, Parkinson’s disease, and Alzheimer’s disease – all tend to have abnormally low levels of CoQ10 and high levels of mitochondria failure.

My clinic has measured hundreds, if not thousands, of CoQ10 levels with some surprising results:

- Young people (those in their twenties and younger) almost always have adequate levels of CoQ10.
- CoQ10 deficiencies are common in people in their forties and beyond.

- Long-duration endurance exercisers tend to have lower levels of CoQ10.
- Deficiencies in CoQ10 are very common in patients with heart disease, high blood pressure, diabetes or low HDL cholesterols.
- CoQ10 levels are often low in those avoiding red meat and extremely low in strict vegans.

If you are in one of these categories, as hundreds of patients discovered, CoQ10 supplements can make a dramatic difference in your energy level and cardiovascular health.

***But you need to take the RIGHT KIND of CoQ10.***

As I mentioned earlier, there is a new, more bioavailable form of CoQ10 that's making miracles almost commonplace. And when I saw the video of an experiment conducted by the inventor of this new CoQ10, which I call Accel, my jaw nearly hit the floor.

## **The Old Mice were Running Around Like Teenagers**

During his visit to my clinic, Dr. Mae gave me an exclusive look at his 15-month study testing Accel on mice. They split the mice into three groups.

One group of mice received a standard lab diet with no CoQ10. The second group received the same diet with the traditional form of CoQ10. The final group received the lab diet with the new form of CoQ10 – Accel.

At 12 months of age – the point that translates into late middle age for humans – the mice who took Accel aged at a rate **22% slower** than those taking the regular CoQ10 and **51% slower** than the mice taking no CoQ10.

The mice who received no CoQ10 were unresponsive and immobile. They had spinal and limb deformities, lesions in and around the eye and a discolored coat. Overall, they looked like dried-up corpses.

The mice who received the traditional form of CoQ10 had irritation around the eyes, a bent backbone and some discoloration of its coat. But in general, they looked a lot better than the mice who received no CoQ10.

Remarkably, the mice who took the new Accel, looked responsive and energetic. They had no physical deformities, no lesions and had a bright, glossy coat. ***They looked and acted like young, healthy mice.*** All of this in spite of the fact that they were actually very old – the equivalent of humans in their 80s.

## **Accel is 8X More Bioavailable Than the Old Form of CoQ10**

CoQ10 has been around for years. And it's been helpful as you know. But there were major drawbacks to the old type of CoQ10. ***It was weak and expensive.***

Accel makes a difference because it's in its stronger reduced form and is up to 8X better absorbed. ***That means your blood levels stay higher, longer.***

I remember when I had to tell some patients to take 400-mg of the old CoQ10 every 8 hours to keep their blood levels high enough. It worked, but it was a very expensive option. They could easily go through a couple of bottles a week.

With Accel, most people can get all the anti-aging power with just one caplet a day. That makes the miracle of CoQ10 available to you at a fraction of the cost.

## So What's the Difference Between the Two Forms of CoQ10?

Traditionally, all CoQ10 supplements use the old-style ingredient *ubiquinone*. But once this gets into your system, your body has to convert it into another substance called *ubiquinol*.

*Ubiquinol* is the form of CoQ10 that works miracles. And this is what you'll find in Accel.

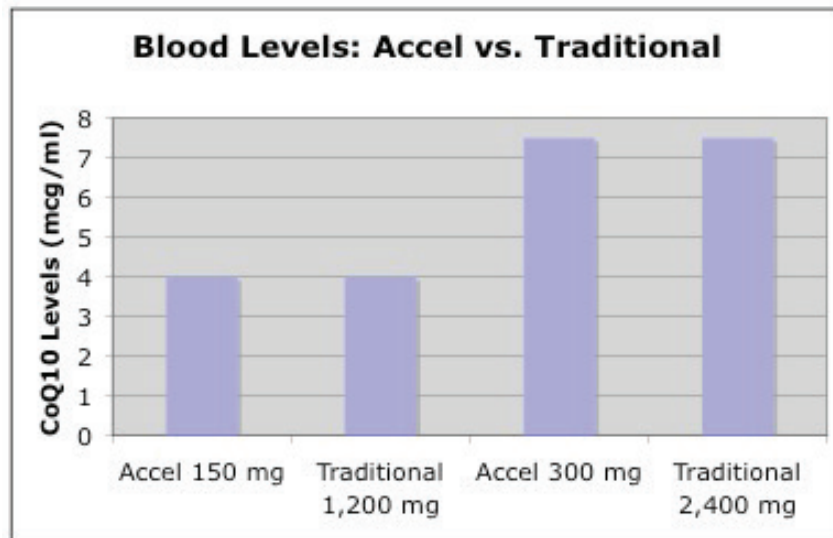
But there's a problem. Your body's ability to convert the old style starts to decline after age 45. As a result, your body doesn't get the full effect. And in many cases – if you're 50 or older – traditional CoQ10 won't give you the chance to stay young into old age.

But Japanese researchers – led by my friend and colleague Dr. Mae – discovered a reliable way to skip the conversion process. That means Accel gets into your blood at super high concentrations... ***with no effort on your body's part.***

The idea has been around for some time. But until now, no one could figure out how to make it stable enough to take on its own.

Accel gives you 8 times higher absorption and keeps your blood levels high over an extended period. ***High blood levels make all the difference.*** That's what you need to delay the effects of aging.

Have a look at the graph below. You can see the remarkable absorption power of Accel and how it compares with the old form of CoQ10.



Just 150 mg of Accel elevates blood levels to almost 4 mcg/ml. You would need 1,200 mg of the traditional form to match that effect.

And when you double the dose of Accel to 300 mg – you'd have to take a whopping 2,400 mg of the traditional CoQ10 to equal that power. (Remember: high doses of the traditional CoQ10 are inefficient and very expensive.)

What may be even more critical is how long Accel stays in your body compared to the old form. In one study using mice, the new Accel was present in the blood at a ***3.75-fold greater concentration after 8 hours.***<sup>11</sup>

This high concentration staying in your system for 8 hours is one of the keys to its age-defying potential. The same amount of traditional CoQ10 dropped to a low level (just 1.2 mcg/ml) after 8 hours – too low to have a

powerful anti-aging effect.

So far, you've discovered how resveratrol and CoQ10 protect the loss of your telomeres and in the case of resveratrol, actually **rebuild** your telomeres.

But to maintain what I like to call your "hundred-year heart," there are a few other nutrients you should consider.

## Is Your Heart "Starving" for these 4 Must-Have Nutrients?

In medical school, physicians receive very little training in nutrition. Traditional medical education focuses on disease rather than health. As a result, most doctors remain woefully unable to advise you about nutrition and nutritional supplements to help you heal your heart and avoid cardiovascular disease.

Yet good nutrition is essential for a healthy heart. Your heart never gets to rest. Until the moment of your death, your heart steadily and tirelessly keeps the rhythm of your life. Your heart can only perform this staggering feat if it has an adequate supply of nutrients.

*To keep your heart pumping strong, feed it the nutrients it needs.*

Research conducted at my *Wellness Research Foundation* along with the experience with thousands of patients shows that most heart disease sufferers are deficient in one or more of five key nutrients: CoQ10, L-carnitine, L-arginine, Vitamin E, and Vitamin C.

We've talked about CoQ10, and why resveratrol is now an essential for heart health. Now let's take a look at the four nutrients I consider the most overlooked.

## Do You REALLY Need to Take Supplements?

Let's assume you're the ideal patient. You eat your vegetables, you don't smoke, you drink in moderation, you avoid junk food, and you exercise every day. Do you, the role model of healthy living, really need to take vitamins?

In a word, yes.

Nutritional supplements help make up for some of the foods we don't eat – and they help compensate for some of the foods we do eat that aren't so good for us.

Studies found that people who take a daily multivitamin supplement have stronger immune systems and suffer fewer infections than those who do not take supplements.<sup>12</sup>

More to the point, a study published in the *American Journal of Clinical Nutrition* found that multivitamins can keep you younger, longer. It shows that people who take a daily multivitamin had younger DNA and had **5.1 percent longer telomeres** than people who did not take a multivitamin.<sup>13</sup>

So even your standard multivitamin helps protect your telomeres.

But there is much more convincing evidence that you **MUST** take supplements in our post-modern world:

- A 1992 U.S. Department of Agriculture study concluded that **only 4 percent** of the 22,000 Americans studied were getting even the minimum recommended daily allowance (RDA) of their essential vitamins.
- A more recent US government survey found that **NONE** of the 21,000 people surveyed managed to eat the recommended daily allowance of all the ten basic nutrients studied.<sup>14</sup>

- On any given day, **91 percent of Americans do NOT consume** the recommended amount of fruits and vegetables, with 70 percent not consuming any vitamin-C-rich fruits and 80 percent not consuming any carotene-containing vegetables.
- Today, foods have much less nutritional value than they did a generation ago due to modern methods of agriculture. You would need to eat **60 servings of spinach** to get the same amount of iron found in a single serving in 1948.
- In order to get the RDA for vitamin E today, you would need to eat 25 cups of spinach every day. And remember, several studies have suggested that doses of vitamin E much higher than the RDA may further protect your heart.
- Two-thirds of Americans consume diets **deficient in zinc**, which is vital for proper immune system functioning.

Americans often eat the same small number of foods every day, without much variety.

Unless you are the rare exception, you probably don't get even the minimum requirement of all your important vitamins and minerals.

What's more, these "minimum values" don't reflect the actual amounts you need for optimal health.

Nobel laureate Linus Pauling said, *"Recommended daily allowances only give levels of vitamins and minerals that will prevent death or serious illness from vitamin deficiency. To get real health benefits from vitamins, you need to get more than just the minimal recommended amounts."*

Many people have taken multivitamins for many years. Many multivitamin manufacturers now have formulas that include a wide range of anti-oxidants, which can simplify your routine for heart health.

Store your multivitamin in the refrigerator, as the active ingredients stay vital longer. In addition, seeing the vitamin bottle on the shelf next to the orange juice reminds you to take a pill every day.

One more tip: Unless you have iron deficiency, choose a multivitamin without iron. You probably don't need the additional iron. Extra iron can interfere with the absorption of other minerals, give you constipation, and leave a foul taste in your mouth.

## Rejuvenate Your Heart with these 4 "Super-Nutrients"

While a good multivitamin forms a foundation toward a well-nourished heart, you can further protect your heart with a few additional key nutrients: L-carnitine, L-arginine, tocopherols and tocotrienols (vitamin E), and antioxidant doses of vitamin C.

### L-Carnitine: Your Fat-Burning Furnace

L-carnitine plays an essential role in the healthy functioning of the body. Every form of life, from the simplest single-cell organism to the unfathomably complex human body, depends on carnitine for energy production within the cells.

Carnitine shuttles fat (or long-chain fatty acids, to be more precise) into the energy centers or mitochondria of the cells, where the fat can be burned to produce energy.

Without enough carnitine, the cell's furnace cannot work at peak efficiency and its energy-production system slows down or stalls. When the body has sufficient carnitine reserves, the cells can burn more fat and generate more energy.

In addition to generating energy, fat burning creates even more health benefits. For example, carnitine-enhanced fat burning prevents the accumulation of excess fat in the heart, liver, and muscles.

If allowed to build up, this fat contributes to a number of different health problems, such as heart disease, diabetes, and high triglyceride levels. Carnitine is present in greatest concentrations in the heart, brain, muscles, and testicles, all of which require lots of energy.

Carnitine is often referred to as “the energy vitamin,” but it is not really a vitamin at all. A vitamin is a substance that cannot be produced by the body and must be obtained through food. Because the body can synthesize carnitine from the amino acids lysine and methionine, carnitine is not a true vitamin.

Other people classify carnitine as an amino acid, but it isn't a true amino acid, either. While carnitine has a chemical structure similar to many amino acids, technically it is a nitrogen-containing, short-chain carboxylic acid. In simple terms, carnitine is a water-soluble, vitamin-like compound similar to the B-complex groups of vitamins.

More than 20 placebo-controlled studies support L-carnitine's role in protecting your heart.<sup>15</sup> ***Carnitine reduces arterial plaque, lowers LDL cholesterol, and increases HDL levels.*** These benefits appear in healthy subjects as well as in patients with heart disease.

You obtain carnitine from red meat and dairy. In fact, when scientists first isolated it from the muscle tissue of several animals, they named it carnitine, using the Latin root *carn*, meaning flesh or meat. Unless you eat a diet high in red meat and dairy, it can be difficult to obtain optimal amounts of carnitine from dietary sources alone.

***Take 500 milligrams of L-carnitine as a supplement every day.*** It is important that you choose the naturally occurring L-carnitine and not the synthetic D, L-carnitine. The D-form interferes with the natural action of the L-carnitine.

## **Build a Better Heart with L-Arginine**

L-arginine, a naturally occurring amino acid, is the precursor to nitric oxide. L-arginine improves blood flow because in the bloodstream it breaks down into nitric oxide, which helps dilate the blood vessels in the lining of the heart.

Without nitric oxide, your blood vessels narrow. Arterial plaque makes these vessels rigid and restricts blood flow. Recent studies show that arginine supplementation effectively increases the elasticity of blood vessels, ***providing a much safer alternative to prescription drugs.***<sup>16</sup>

L-arginine also assists in muscle building, and remember, your heart is a muscle. One double-blind study measured the change in muscle strength and lean muscle mass in men taking L-arginine.

Men in the study took either L-arginine or a placebo while participating in a strength-training program. Those taking the L-arginine showed a significantly greater increase in muscle strength and lean muscle mass after only five weeks.<sup>17</sup>

Supplements containing L-arginine have been used by athletes for more than 20 years but have become more popular in recent years. Why? Because of the popularity and expense of the prescription drug Viagra. ***Viagra, like, arginine improves blood flow by increasing nitric oxide.***

Good food sources of L-arginine include red meat, fish, chicken, beans, chocolate, raisins, nuts, sesame seeds, and sunflower seeds. You can also now find it in supplement form in most nutrition stores.

**Take 500 milligrams of L-arginine daily** with food to support muscle growth and heart health. Like

carnitine, buy only the L-form of this amino acid.

## 2 Forms of Vitamin E Lengthen Your Telomeres

You may already know that vitamin E helps protect your heart.

A number of studies show a link between vitamin E and lowered risk of heart disease. Two landmark studies in *The England Journal of Medicine* report heart protection from Vitamin E alone. One eight-year study tracked more than 87,000 registered female nurses.<sup>18</sup>

A related study followed nearly 40,000 male health care workers.<sup>19</sup> People who took daily vitamin E supplements (100 IU or more) for a minimum of two years had about a **40 percent (41 percent in women, 37 percent in men) lower risk of heart disease.**

They also had a **29 percent lower risk of stroke**, and a **13 percent reduction in overall death rates.**

This conclusion continues to be supported by the bulk of the evidence but some studies find conflicting results because the supplemental form of vitamin E is a **partial solution**. New evidence shows that a more natural group of vitamin E-like compounds are more effective.

In nature, vitamin E exists as a mixture of **four types of tocopherols** and **four types of tocotrienols**. So there are eight forms of Vitamin E in total.

The vitamin E you find on the drug store shelves contains a single type of tocopherol known as *alpha-tocopherol*. Taking too much of one tocopherol can block the absorption of the other tocopherols. For this reason, take a blend of both tocopherols and tocotrienols, which is much closer to the way these nutrients exist in nature.

Tocopherols and tocotrienols have many proven health benefits. Tocopherols and tocotrienols fight the free radicals in your body that cause diseases of inflammation (such as rheumatoid arthritis). They also lower your risk of heart disease by increasing your blood circulation. They also lower your risk of cancers of the prostate, colon, and breast.

Many patients have been able to give up their blood-thinning drugs after they begin tocopherol supplementation. There is evidence that a daily supplement of mixed tocopherols increases the elasticity of the arteries.<sup>20</sup> These nutrients also lower risk of heart disease by increasing blood circulation and decreasing the stickiness of platelets in your blood.<sup>21</sup>

***Today, we know that two forms of vitamin E can activate telomerase and lengthen your telomeres.***

The most well-known form of vitamin E, alpha tocopherol **protects against telomere shortening by activating and restoring telomerase.**<sup>22</sup>

That may explain why vitamin E can help prevent heart disease... but there's more:

One of the four lesser-known forms of vitamin E, gamma tocotrienol can, **“modulate the length of the telomere possibly via telomerase.”** During one study, telomere lengths were **16% longer** than controls when exposed to gamma tocotrienol.<sup>23</sup>

You find tocopherols and tocotrienols in “fatty foods,” including meat, fish, nuts, oils, dark-green leafy vegetables, seeds, and avocados. However, it is virtually impossible to consume enough of these nutrients in a typical diet. For example, you would have to eat two pounds of sunflower seeds every day to consume all of the tocopherols and tocotrienols you need.

**Take 400 IU of vitamin E (mixed tocopherols) with at least 5 mg (20mg is optimal) of mixed tocotrienols**



**daily.** Vitamin E and the other tocopherols are oil soluble. Like the old form of CoQ10, your body can only absorb these nutrients when you eat enough fat. Take them with a teaspoon of almond butter or other natural fat or oil like cod liver oil.

## Take Vitamin C for Longer Telomeres

Vitamin C earned a reputation as a preventative for colds since its discovery more than 70 years ago. And vitamin C has a lot more to offer! It is essential for many of the body's life-sustaining functions. For example, vitamin C:

- Fights free radicals.
- Helps form collagen and elastin, (supportive proteins in the tissues, especially your blood vessel walls).
- Sustains your immune system.
- Aids in the production of amino acids that regulate the nervous system.
- Helps break down histamines which are the inflammatory element of allergic reactions, among many additional functions.

The Noble Prize winning scientist Linus Pauling was the first to claim that vitamin C could extend your life. Dr. Pauling took between 12,000 and 18,000 mg of vitamin C every day for 40 years.

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

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

In 1998 a Japanese study tested vitamin C's effect on telomeres. ***It was found that raising the level of vitamin C in the cells could slow down the loss of telomeres up to 62%.***<sup>24</sup>

When it comes to cardiovascular disease, studies find a link between low levels of vitamin C and risk of stroke. A 10-year study of more than 2,400 middle-aged men established a relationship between vitamin C intake and reduced risk of stroke.<sup>25</sup>

Men with the lowest vitamin C levels had an ***increased risk of having a stroke 2.4 times greater*** than men who had higher vitamin C levels. The researchers found that taking vitamin C had more impact on the risk of stroke than being overweight or having high blood pressure.

In addition, researchers at the University of California analyzed the vitamin C intakes and death rates of more than 11,000 men and women.<sup>26</sup> The study showed a dramatic decline in death from heart disease among the men with the highest vitamin C intake, especially among those who took a vitamin C supplement.

Merely obtaining the recommended daily allowance for vitamin C through food did not seem to offer any protection against heart disease.

Keep in mind, the human body cannot synthesize or produce vitamin C. We can only get this nutrient from our diet -- or from supplements.

Unfortunately, one-fourth of all Americans do not get even the minimum amount of vitamin C (60

milligrams) that cells need to perform basic biological functions. Foods like oranges, strawberries, broccoli, and bell peppers contain substantial amounts of vitamin C. But still, it is difficult to consume therapeutic amounts of vitamin C from diet alone.

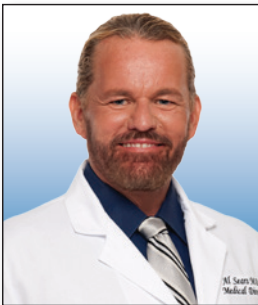
Some drugs, including aspirin, alcohol, analgesics, anti-depressants, anti-coagulants, oral contraceptives, and steroids, reduce the levels of vitamin C in the body. Diabetic and sulfa drugs may not be as effective when taken with large doses of vitamin C. Large doses of vitamin C may cause false negative readings when testing for blood in the stool.

**Take at least 500 milligrams of vitamin C twice a day with food.** At higher doses for shorter periods, vitamin C provides some protection against viruses. If you have a viral illness (such as a cold), take 1,000 milligrams every couple of hours with a full glass of water.

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## Meet Dr. Sears – Uniquely Qualified to Help You Live Better and Younger

**D**r. 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 was the first doctor licensed in the U.S. to administer the first telomerase activator, and has since developed his own telomere maintenance formula, one of the most important breakthroughs 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 monthly Newsletter *Confidential Cures*, and 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 15 books and 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 2006, Dr. Sears shocked the fitness world by revealing the dangers of aerobics, "cardio" and long-distance running in his book, *PACE: The 12-Minute 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 Royal 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 befriended and now works with 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.

- In Africa, Dr. Sears traveled to seven different countries, met with the ancient Batwa people to learn their nearly-forgotten healing secrets, and visited with eight of Africa's most renowned herbal healers to study their use of powerful and little-known herbs that cure disease, including cancer.

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.