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Shedding New Light on the Melatonin Miracle

Boosting and lowering key hormones is part of the foundation of anti-aging.

I remember back in 1990 when the *New England Journal of Medicine* published a now landmark study on human growth hormone, or hGH.¹ That’s the same year that I started using hGH in my practice.

At the time I didn’t know anyone else who was doing that. Or using any bio HRT for that matter. I was one of the first to offer the natural “bio-identical” hormones to boost testosterone, progesterone, and estrogen.

Now over 20 years later, there’s something I’ve discovered about hormones – including melatonin – which I suspected for quite some time...

Many of the “miracle” effects of hormones turn out to have a hidden benefit... they preserve and lengthen telomeres.

As a regular reader, you know telomeres are located at the ends of your chromosomes and they control aging. Every time your cells divide, your telomeres get shorter. As they get shorter, your body produces cells that are older, weaker, and more decrepit.

Hormones can help preserve and lengthen your telomeres, keeping you strong, mobile, active, and feeling young.

How can you get this effect for yourself? That’s what I’m going to show you today: How your hormones affect your telomeres, how that increases the benefits of hormones, and all about where melatonin fits in and how to maximize your melatonin to maintain your telomeres and youth.

The Hidden Force Influencing How Well You Age

Below the surface, antioxidants and hormones both exert a protective and revitalizing force, because they both help regulate the enzyme telomerase, which rebuilds the telomere.

Turns out telomeres have receptors that “listen to” and “talk to” the hormones in your body.

Hormone levels and the length of your telomeres control your experience of aging more than anything else... including your chronological age.

You could be 80 years old and feel like a teenager, because you have optimized levels of key hormones. On the other hand, you could be in your 30s and feel like you have one foot in the grave.

What this really means is there’s another opportunity for you to control aging. Another weapon to stay mobile, young, independent, and strong as you age.

Later this year, I’ll be publishing a new book that further explores how to benefit from this breakthrough.

Continued on the next page...

In This Issue...

Shedding New Light on the Melatonin Miracle	1
Finally, Telomere Health Found to Hold Secret to Reverse Arthritis	5
Can This Little-Known Nutrient Clean Out Your Body Filter?	8

And one of the things I'll be talking about that is not well-known even in the anti-aging community is hormones and their relationship with telomeres.

I've found eight different hormones that positively affect your telomeres, and I'll show you how you can use these hormones to lengthen your telomeres.

But because you're a *Confidential Cures* member, I want to give you a sneak preview and share some of this research before anyone else sees it.

Your Telomeres Communicate With Hormones

There's a large body of overlooked and little-talked-about research that reveals hormones to be one of the active regulators of the telomerase enzyme.

This is where the FDA dropped the ball in allowing Big Pharma to make chemical, synthetic versions of hormones and sell them as "hormone replacement." They didn't replace anything.

You see telomeres have hormone receptors. That means hormone levels in the body "tell" or "inform" your cells as to whether or not they should produce telomerase and whether telomerase should continue repairing and rebuilding the cell.

In this way, the hormone molecules tell the telomerase enzyme, "Hey, we're still young and vibrant, so keep telomerase active and continue to rebuild and revitalize these cells."

By contrast, when the molecules of a specific hormone are too few in number, it signals to the telomerase enzyme the person is "old," and repair and maintenance work slows down.

The resulting faster loss of telomere length informs the cell that it's "old," and the cell takes on the older, slower and less active behavior.

In one of the first studies to recognize this connection, researchers at Johns Hopkins used testosterone hormones to regulate the telomerase enzyme in the prostates of rats.² Human studies soon followed, and these breakthroughs deepened our understanding of the connection.



You may already know melatonin as the "sleep" hormone, produced in your brain but it's also an ultra-powerful anti-aging nutrient.

For instance, I've also found estrogen has the same effect for postmenopausal women.^{3,4}

If telomeres are the clock that regulates aging, and hormones can turn on or off the enzyme that rebuilds the telomere... then we've shown conclusively that hormones affect the mechanism of aging.

One of the most remarkable examples of this is the way the hormone melatonin affects aging and telomeres...

"Sleep" Hormone Reawakens Your Telomeres

You may already know melatonin as the "sleep" hormone, produced in your brain.

It's also an ultra-powerful antioxidant that Dr. William Regelson and Dr. Walter Pierpaoli should have brought to the mainstream with their seminal book, *The Melatonin Miracle*.

I have a copy on a shelf in my office.

Back in 1996, Dr. Regelson said they wrote the book, "...because pharmaceutical companies are likely to drag their heels on melatonin research, owing to the difficulty of patenting a substance found in nature."⁵

He was right then and he's right now. Mainstream medicine and their partners at the FDA and Big Pharma are still dragging their heels.

Continued on the next page...

Regelson and Pierpaoli believed the biggest benefit from melatonin came from its antioxidant effect.

But in doing research for my new book, I've discovered that for anti-aging, it's the expression of telomerase that truly makes melatonin so potent.

We have plenty of scientific evidence that melatonin helps protect the eyes from oxidative damage, especially the retinal pigment epithelium cells (RPE). These cells form a barrier that protects your retina.

One study I read gave 100 people with macular degeneration doses of melatonin at bedtime for three months. This helped reduce changes in the macula, protected the retina and delayed macular degeneration.⁶

But the study also found that the melatonin helped prevent telomeres from shortening.⁷

Another study from Gazi University in Turkey looked at melatonin's role in aging and telomeres. They divided 37 rats (both young and old) into two groups receiving equal periods of light and dark. For 21 days one group received melatonin, and the control group got nothing.

At completion of the study, they tested each group for telomerase activity and oxidative stress markers. In both young and old rats, the ones given melatonin had significant increases in telomerase levels and significant decreases in oxidative stress. Proving melatonin is not only a powerful antioxidant but also boosts telomerase expression.⁸



It's very simple: increasing melatonin helps lengthen telomeres and make your cells and entire body act younger.

It's very simple: increasing melatonin levels helps signal telomeres – through their hormone receptors – to increase telomerase expression, which lengthens telomeres and creates younger cells.

Maybe this is why melatonin also has such a wide range of health benefits:

- It boosts your immune system
- It fights inflammation
- It fights brain aging
- It gives you a sense of well-being
- It's anti-cancer and anti-tumor
- It's detoxifying⁹

How You Can Safely Get More Melatonin

The first thing you want to do is normalize your own melatonin production and maximize it so your melatonin cycle is functioning as well as it can. This has a lot to do with how you prepare to sleep, and getting rid of some of the artificial sources of light and electromagnetic activity that can stop your brain from producing enough melatonin. For example, here are the three things I recommend my patients do:

- 1. Sleep in quiet and darkness.** If you sleep with the TV or the light on, you're interfering with your brain's natural sleep cycle and production of melatonin. Turn it all off and sleep in total darkness. Even blocking the light from under a door or covering the blue glow from an electronic device could stop you from waking up.
- 2. Make sure you spend some time in the bright sunshine as regularly as you can.** The pineal gland in your brain makes melatonin by comparing the brightness of the sunshine during the day with the darkness of the night. Getting this sunlight in the morning is the best time for your melatonin production.
- 3. Be aware of electronic signals in your bedroom.** Do you listen to the radio while

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you're trying to sleep by sending music from your smartphone to a Bluetooth speaker? Do you have your phone next to your bed at night? Do you have your DVR, laptop, iPad, and phone all in your room at night? Get rid of them. And unplug your TV at night. These disrupt nighttime melatonin and pineal gland function.

Once you've stabilized and enhanced your natural melatonin function, then you can look for ways to get more of it for the anti-aging effect.

I've called melatonin a "hormone," and it is. And I know that for some people, hormones can seem frightening because of the side effects people have experienced from artificial hormones.

Mainstream medicine took something our bodies produce naturally – that's present in nature – and perverted it. But natural hormones at proper levels are completely safe.

Melatonin is amongst the safest. There is no evidence to date to tarnish its perfect safety record.¹⁰

Even though foods like pineapples, bananas, oranges, oats, sweet corn, rice, tomatoes and barley contain melatonin, getting enough from your diet is very difficult.

Instead, it's best to find a completely natural and high-quality melatonin supplement.



DVRs, laptops, iPads, phones and other electronics in your room can disrupt nighttime melatonin and pineal gland function.

Many doctors and health experts recommend about 3 mg a day for treatment and around 500 micrograms for prevention. But to increase telomerase expression and help lengthen your telomeres, you need a much larger dose.

At my clinic, we now recommend patients take 10 mg of melatonin daily, to kick-start telomerase expression. Even though it's a much larger dosage than you'll hear most doctors recommend (because they have no idea of its effect on your telomeres), it's completely safe.

Another tricky thing about melatonin is the form it comes in. It's not as effective in a pill, because it'll take longer to enter your bloodstream. And pills that are not well made get destroyed in your gut, and you never get the full effect. Look for melatonin liquids or sprays – they're fast-acting and just as affordable. ■

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Finally, Telomere Health Found to Hold Secret to Reverse Arthritis

With the discovery of the telomere, we've cracked the aging code. For the first time ever, we can alter it.

This dovetails perfectly with how I've always thought of what anti-aging medicine should be.

For me and my practice, it's not about living longer; it's about living younger. Staying well throughout your life. I want you to keep your youthfulness and independence no matter what your chronological age is.

No one wants to end up in a wheelchair or a nursing home, not being able to walk or lift anything because of the progressive loss of strength and mobility that often results from aging.

Why do I feel this is so important that I'm writing to you about it now?

Because, if you maintain your telomeres, there's a good chance you can stay active and independent throughout your life and avoid muscle weakness, joint problems... and especially arthritis pain.

So, in this article, I'm going to show you why maintaining your telomeres is so important to banishing arthritis, and I'll give you my two-part prescription to stay arthritis pain-free.

Telomere Length Plays a Big Part in Arthritic Pain

Arthritis is a huge concern for my patients, because it robs them of strength and mobility. It makes them unable to do all the things they love to do.

For example, one study looked at more than 1,000 people with arthritis. It showed that those with osteoarthritis in their hands had significantly shorter telomeres. In fact, those with osteoarthritis had telomeres that were the same average length as someone 11 years older.¹

I also found a study that's even more revealing. This is one of the most interesting studies I've ever read on telomeres and disease, and it's important you know about it.

What the researchers did was to test cells from different places around the area of people's osteoarthritic knees. They took samples at two distances from the central spot where there were arthritic lesions.

They found that the telomeres of the cells closest to the area of arthritis were critically short, compared with cells

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Surprise ... Tea!

A new study has found that tea improves muscular and bone strength. This is very important to help prevent and beat arthritis pain.

Your muscle and bone breakdown comes from oxidative stress and inflammation.

Tea's healthy compounds, called "polyphenols," reduce oxidative stress and inflammation, preventing this breakdown, and even improving muscular strength and bone mass.

A recent study funded by the National Institutes of Health's National Center for Complementary and Alternative Medicine looked into tea's effects on muscle.

In the study, 150 post-menopausal women with osteopenia (the beginning of osteoporosis, or brittle bones) were given tea or performed Tai Chi exercises.

After six months, the tea alone caused an improvement in muscle strength and bone-building biomarkers.¹

1. Shen C, et. al. "Effect of green tea and Tai Chi on bone health in post-menopausal osteopenic women..." *Osteoporos Int.* 2012;23(5):1541-52.



taken from farther away. And, more of the cells around the arthritic area were dead.²

That's an incredible revelation, but one that makes total sense. When your cell strength is failing in an area of your body, it begins to weaken, grow old, and fail.

I researched this further and discovered this is true for cells in all body tissues. The cells around the heart,³ in the lungs⁴ ... almost every organ will have shortened telomeres in the area of a problem or disease.

But, by reversing this process and maintaining or even increasing the length of your telomeres, you can protect your joints and maintain your health, strength and independence.

How?

Well, one thing I like to do is to look at different people from around the world and see how they stay active and healthy.

A good example is from some of the oldest-lived people in the world, on the island of Okinawa in Japan. They live very long and almost disease-free lives.

And they stay extremely active until a very old age.

I used to think that we couldn't say why they were so active and independent for so much longer than almost everyone else in the world. But with all the research into telomeres and how they affect aging, I believe we can make a pretty accurate guess.

One thing that stands out in their diet is that they drink a lot of green tea. Most Okinawans drink 6-8 cups a day.⁵ The traditional Japanese tea cup is smaller than ours, so that means about 3-4 cups a day for Westerners.

But still, that's a lot of tea.

What makes green tea different from other teas around the world is that it helps maintain telomeres.

Researchers from the Department of Medicine and Therapeutics at the University of Hong Kong published a study in the prestigious *British Journal of Nutrition* that looked at green tea and telomere protection.

They studied over 2,000 people from China who were 65 years of age and older, and compared the telomere length



Sanpin tea is made from the very young leaves of the plant grown in a hot climate from rich soil. It has five times more EGCG than black tea.

of those who drank the most and least green tea.

Those who drank the most green tea had telomeres that were 0.46 kb longer than those who drank the least. That translates to telomeres that were five years younger.⁶

So, here's how I recommend you use green tea to help maintain your telomeres. It's just two steps, and I call it...

Old Meets New: Ancient Okinawan Key Unlocks Telomere Treasure

Part 1: Drink Sanpin tea.

Sanpin is not just any "green tea." Other green teas, like oolong tea, are made from the same plant, *Camellia sinensis*. But sanpin is made from the very young leaves of the plant grown in a hot climate from rich soil. Getting the leaves young and processing them very little is what gives sanpin tea more EGCG. Five times more EGCG than black tea, for example.

Start with whole tea leaves or with a tea bag. You can usually find either at Asian specialty shops, but if you don't have one near you, try one that I like, arbor-teas.com. They have organic leaves. You can also try okinawaway.com for pre-packaged sanpin tea bags.

A fun way to have sanpin tea is to try a sanpin mimosa. Instead of mixing a whole cup of orange juice with champagne, use a half cup of tea, a half cup of orange juice

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and champagne. To spice it up, I like to add a bit of turmeric to it, which they often add to tea in the East.

One of the things you can use along with turmeric in sanpin tea is the spice black pepper. It helps make EGCG more bioavailable – helps you absorb it. Studies show the black pepper component piperine makes EGCG up to 130% more bioavailable.⁷

When you drink green tea, look for preservatives and fake colorings and artificial flavorings so you can avoid them.

To make the perfect cup of tea:

- Add a teaspoon of sanpin leaves into a tea infuser and steep in a cup of hot water for 3 to 5 minutes.
- Let it cool off before you drink it. For a sweeter tea, add stevia to taste.

When I drink green tea, I put a squeeze of lemon in it if I want a little extra flavor. If I want to sweeten it, I use agave nectar, but be careful that it's not sweetened with aspartame or one of those artificial chemical sweeteners.

Part 2: Supplement with green tea's telomere-protecting compound EGCG.

I always recommend food as your best source of nutrients. When you get something from its natural source, it will come with all the other nutrients and co-factors nature intended. That way, your body gets the nutrients in the form it's supposed to.

However, in today's world, there are a lot of things that can cause you to not be able to fully absorb all the nutrients you're getting. Toxins, additives in processed foods, and



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I always recommend food as your best source of nutrients, but you can get EGCG in capsule form. Make sure the product you get is at least 45% EGCG.

prescription medications are just a few things that can keep nutrients from being absorbed.

So, in many cases, I will recommend a supplement, because that's exactly what they're for: to supplement your food.

You can get EGCG in capsule form. But again, I recommend supplementing, not replacing your sanpin tea. I suggest you take 50 mg of EGCG in an extract form. Make sure the product you get is at least 45% EGCG. Some of them will say "98% polyphenols" or "75% catechins," but that's not the same thing. My own antioxidant formula that has EGCG, for example, is 50% EGCG. ■

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Can This Little-Known Nutrient Clean Out Your Body Filter?

Years ago, I became one of the first doctors to talk about the little known forms of vitamin E called tocotrienols.

At first I was so impressed by their effect on the heart, I added them to my CoQ10 formula. At the time, I knew they helped the heart because tocotrienols raise HDL and suppress, regress and slow the collection of plaque in the arteries.¹

But the benefits of tocotrienols don't stop there.

Tocotrienols are also neuroprotective, reduce inflammation, and do something even more profound... they can help cure fatty liver disease.

Why is this important to you?

Because your liver gives you the energy you need to get through the day. It detoxifies your body. Plus, it turns nutrients into their usable forms.

This helps your body act more youthful and keeps the needle in your energy tank on "full."

Having a diseased liver is a disaster. But you'll never hear this from the mainstream medicine. They want to talk about "restless legs." Why? Because they created a drug for it.

But the natural forms of vitamin E – the four tocotrienols and the four tocopherols – can't be patented. So, big money interests can't make their own drug version and sell it to you at a huge markup.

They can't sell it to you for your heart, and they can't sell it to you as a liver cure.

So, what do they do? They bash vitamin E every chance they get...

...because behind the scenes, they're rushing to develop their own liver disease drug.

It wouldn't surprise me if you hadn't heard this. The company developing it just quietly announced a stage 3 test for its fatty liver drug. The results drove Wall Street wild. (It's the first fatty liver drug.)



The cure for fatty liver disease isn't an expensive, synthetic drug. Big Pharma doesn't want you to know this, but a special form of vitamin E can save your body's most important detoxifying filter.

Of course, as soon as the drug is approved and in production, you'll hear all about how liver disease is such a big problem. There will be commercials for their drug on every channel.

Only then will you hear about how terrible liver disease is.

But they'll never tell you how a simple, natural cure for fatty liver disease exists.

But I will.

What is fatty liver disease, and why is it so little-known and so dangerous?

When the disease starts, having a fatty liver produces symptoms you may be familiar with... low energy, a lack of libido, loss of immunity. In fact, many of these symptoms are so common that doctors don't even connect them to your liver.

But I've found that healing my patients' livers can often avoid this disease and restore them to robust health. In fact, I found a new study that mirrors the results I get at my wellness center.

Continued on the next page...

It's a randomized placebo-controlled clinical trial from Malaysia. Researchers split 87 fatty liver disease (FLD) patients into two groups. One that received 200 mg of tocotrienols twice daily, and the rest acted as a control group for a year.

Then they used ultrasound to look at their livers. If fatty liver disease is present in the liver, it will increase the echo in the test.

What they found was remarkable. The tocotrienol group saw their previously elevated echo rates significantly lowered until they were close to normal. Even more conclusive, this same group showed a major rate of remission of the disease.²

Effectively, this study proved what I had found in my own practice. Tocotrienols can help cure fatty liver disease.

Whose Liver Are You Calling Fat?

Mainstream medicine still believes only heavy drinkers get fatty liver disease. But years ago, as cases of fatty liver began to rise, I discovered it's not just a drinker's disease.

When I looked closely, the problem for many was something I've been warning people about since before I graduated medical school – the modern American diet.

The liver is a vital part of your digestion and metabolizing of food. It receives nutrients from the small intestines and processes them.

The bad fats, chemicals, preservatives and additives that



Dr. Octavio Zolezzi, my friend and guide through the jungles of Peru, shows me an open annatto, the seed pod of the achiote tree – the world's best source of tocotrienols.

have infested the modern diet are difficult for your liver to fully metabolize. These “leftovers” then hang around in your liver, making it fatty.

For instance, the liver struggles to completely metabolize high-fructose corn syrup. In a study from the University of Florida, they found fructose corn syrup intake was 2-3 times higher in patients with fatty liver disease.³ It's not a coincidence.

Fatty liver is part of metabolic syndrome (which also includes obesity, diabetes, hypertension, high cholesterol, and cardiovascular disease) and can progress to the more severe steatohepatitis... and from there, cirrhosis, liver cancer, or even liver failure.⁴

With tocotrienols, you can cure fatty liver and prevent it from progressing.

Tocotrienols' Two-Pronged Attack Against a Fatty Liver

Tocotrienols reach maximum concentration in the liver,^{5,6} and are able to interact with different pathways, proteins and processes in the body. This flexibility helps cure fatty liver disease by flushing triglycerides (fat in your liver) and reducing inflammation.

In my practice, we've had great success using tocotrienols to flush this fat out. One study from Singapore I've read found tocotrienol extract reduced triglyceride levels by 28% in their study.⁷

Tocotrienols directly regulate fatty acids and reduce triglyceride accumulation.

The regulation of these proteins, along with inhibiting inflammation from tumor necrosis factor alpha (TNF α), a highly inflammatory molecule, helps to heal your liver.⁸ Because it's this inflammation that causes damage to the liver.

Tocotrienols also act as a powerful antioxidant in the liver, delivering 40-60 times more antioxidant activity than their sister vitamin E forms, the tocopherols.⁹

This activity is important, because it helps fight off the oxidation that comes with fatty liver. Most vital is protecting your mitochondria – the energy-producing centers of your

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cells – and keeping the energy they produce.

As I've talked about in *Confidential Cures*, mitochondrial energy loss can lead to further health problems and may even contribute to cancer, if the cell doesn't have the energy to defend itself.

We also have evidence that mitochondrial loss is important in liver disease.

Tocotrienols' antioxidant powers stop the power outage in your mitochondria. A major study from Ohio State University confirms this.

In the study, potential liver transplant patients with end stage liver disease were treated with tocotrienols.

They measured the severity of the people's liver disease using the Model for End-Stage Liver Disease system (MELD). Based on this scale, treatment with tocotrienols lowered disease severity in 50% of the patients.¹⁰

How You Can Get Tocotrienols

With patients who have fatty liver disease or are at risk for developing it, the first thing I do is suggest altering their diet.

Eliminate processed foods, sports drinks, sodas, junk foods, HFCS, GMOs and trans-fats from your diet entirely. These help spurn on fatty liver, as we've talked about.

Next, you should always try to add tocotrienols to your diet naturally. You can do this by eating plenty of nuts, eggs, and dark-green leafy vegetables. Other excellent sources are palm oil and coconut oil.

But my favorite is annatto oil. I first encountered it in the Andes Mountains. After you ascend the Andes from the east and start down into the Amazon basin, annatto



You can add tocotrienols to your diet naturally by eating plenty of nuts, eggs, and dark-green leafy vegetables. Other excellent sources are palm oil and coconut oil.

grows in the foothills before you get to the dense rainforest.

Annatto oil has more tocotrienols than any other oil, including palm kernel or rice. Annatto oil is full of tocotrienols, especially the delta tocotrienol.

If you're not getting enough from your diet, or you just find it too difficult to add it to your diet, you can always get a tocotrienol-rich supplement.

Make sure you're not getting the synthetic version of only one form of vitamin E.

Stay away from any vitamin E labeled d-alpha or especially dl-alpha tocopherol. The "dl" means it's synthetic. And, if it only contains "alpha-tocopherol," it's got only one of the eight forms.

Some vitamin makers will list each tocopherol and tocotrienol individually. Others may list all of the forms as "mixed tocopherols and tocotrienols." Try to get at least

Continued on the next page...

Share Your Story With Me

I've made it my personal mission to bring you back hidden and forgotten cures from around the world, and return to your body what's missing from our modern environment so you can live a full life without worry.

I often hear great things about my books, special reports, and products from patients who come in to my clinic. But I'd love to hear from you, too. [Click here to take a moment below to share your thoughts with me.](#)

400 IU a day, but no more than 200 IU of alpha tocopherol, so that it doesn't lessen the effects of the tocotrienols. ■

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Al Sears, M.D., 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 Doctor's Heart Cure***, 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).

The information and material provided in this letter are 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 competent medical professional before acting on any recommendations in this publication.