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Dear Friend,

I'm sure I don't have to tell you about the high cost of medical care these days.

As costs continue to soar, more and more Americans find themselves driven into bankruptcy because they can't pay their medical bills. Too often, they even lose their homes.

Maybe you have a friend or a loved one who has been affected by this disturbing trend. It may have even happened to you — although, I certainly hope not.

This is one reason I have dedicated myself to keeping my patients, as well as readers like you, healthy, strong, and out of the hospital.

And a cornerstone of my philosophy is based upon prescribing natural remedies like vitamins, minerals, and herbal supplements.

Most physicians will tell you supplements have no medical value and that you're wasting your money.

Medical schools don't teach nutrition. And the medical establishment makes billions from treating sick people.

But nature has always provided preventions and cures for every disease.

At my wellness clinic, I've seen how supplementing your diet works wonders on patients — even those who come to me with serious pre-existing conditions.

A recent study backs up the medicinal and financial power of supplements. It found that people who take them spend much less money on hospital bills and other medical expenses.

*The report estimates that overall medical costs in America would drop by more than \$17 billion a year just by giving supplements to people at risk of various medical conditions.*

I've used vitamin supplements in my practice my entire career.

And I've seen firsthand how they can turn around my patients' health and how they can save fortunes by keeping them off Big Pharma medications and out of the hospital.

In your December 2025 *Confidential Cures*, you will learn:

- Why Big Pharma continues to run a smear campaign against a vitamin that is not only vital to your health, but can help keep you strong, active, independent — and out of a nursing home.
- Why Parkinson's rates are skyrocketing — eclipsing almost every other chronic condition — and how you can protect, and rebuild, your brain, so you can avoid this devastating disease.
- Which inexpensive mineral protects your brain against Alzheimer's better than Big Pharma's dangerous drugs...while boosting cognitive performance, and so much more.

To Your Good Health,

Al Sears, MD, CNS

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# Big Pharma Continues Its Smear Campaign Against It... But This Simple Nutrient Can Restore Your Youthful Strength

For decades, the medical establishment has fed you the same tired line: Muscle loss after 50 is inevitable. They say it's aging... Genetics... And not enough protein...

So-called “fitness gurus” push you toward expensive protein powders, plant-based protein bars, and exhausting gym routines that leave you more depleted than when you started.

Here's what's wrong with that approach...

Protein and exercise are only part of the equation.

And if you're missing the rest, all the protein shakes and strength training in the world won't save your muscles.

The real problem — the missing piece that could help you recover the physical edge you had at 30 — is a silent deficiency in one overlooked vitamin.

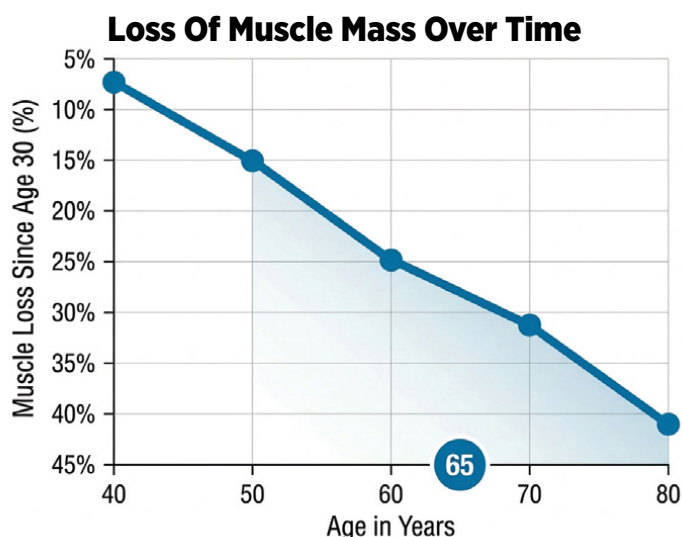
This simple nutrient acts as the biological “master switch” for muscle repair.

Without this switch getting turned on, your muscles can't respond to protein. They can't rebuild from exercise.

I'm talking about a simple nutrient supplement that most doctors — at the urging of Big Pharma — continue to say is “harmful.”

Of course, this crucial nutrient was never harmful. It's been the victim of a decades-long smear campaign that warned supplementing could lead to a toxic buildup in your liver and even death.

Sure, there's a possibility of toxicity if you take outrageous doses for an extended period of time. But taking too much of anything can be dangerous, including Tylenol, NSAIDs, and ibuprofen.



**At 65, you've potentially lost up to 30% of your muscle mass. By age 80, you could lose 40% of your muscle mass.**

The assault on this vitamin comes from misleading studies sponsored by drug companies.

You see, they have their own synthetic version that they've patented as drugs. They're hoping you'll trust their drug version instead of the natural form.

Meanwhile, most doctors have been convinced by these Big Pharma funded studies, so they tell you to avoid it at all costs.

***I'm talking about vitamin A.***

Not the inactive kind found in carrots and sweet potatoes that your body barely converts. I mean true retinol — the active form found only in select animal foods.

Retinol is the form of vitamin A your body absorbs and stores from foods. Once inside your cells, retinol is converted into retinoic acid —

the compound that actually acts as the “master switch” for muscle repair.

And here’s the kicker: The same health “experts” who demonized red meat, butter, and egg yolks have systematically stripped this critical nutrient from your diet.

They’ve pushed you toward plant-based diets that provide very little bioavailable vitamin A. All while your muscle stem cells — the backup repair crews that rebuild damaged tissue — have been quietly shutting down.

The result? You’re weaker. You recover more slowly. You lose muscle mass year after year, no matter how much protein you force down or how hard you train.

But it doesn’t have to be this way.

In this issue of *Confidential Cures*, I’m going to show you hard scientific evidence that vitamin A is the missing link in muscle preservation.

You’ll discover why the natural retinol in foods your ancestors ate regularly literally flips the genetic switches that keep your muscles young and responsive.

And I’ll give you a simple, actionable plan to restore your body’s muscle-building capacity — starting today.

## **Your Body Has A Built-In Muscle Repair System**

Inside your muscles right now are specialized stem cells responsible for muscle growth, maintenance, and repair throughout your life. They’re called satellite cells.

Think of them as your body’s emergency repair team.

When you exercise, when you strain a muscle, or when normal wear and tear damages muscle fibers, these satellite cells spring into action. They multiply, fuse with damaged muscle, and rebuild the tissue stronger than before.

This is how you maintain muscle mass, recover from workouts, and how you stay strong, mobile, and independent well into your 70s and 80s.

But here’s the problem...

These satellite cells don’t work on autopilot. They need a specific signal to activate. They need a molecular “switch” that tells them when to wake up and start repairing.

That switch is retinoic acid — the active form of vitamin A.<sup>1</sup>

Without adequate vitamin A, your satellite cells stay dormant. They go into what scientists call “deep quiescence” — essentially, they fall asleep and won’t wake up.<sup>2</sup>

So even if you eat all the protein in the world, even if you lift weights religiously, your muscles can’t repair themselves properly.

And every year that passes with low vitamin A levels, your satellite cells become less responsive. The repair system gradually shuts down. Muscle tissue deteriorates. Weakness sets in.

The medical term for this is “sarcopenia” — age-related muscle loss. Your doctors will tell you it’s just part of getting older.

The good news is it doesn’t have to be...

## **Groundbreaking Study Shifts Our Understanding Of Muscle And Aging**

Over the past few years, several major studies have exposed a fundamental flaw in how we’ve viewed muscle loss.

In one Italian study, researchers tracked 986 adults age 65 and older, measuring their blood vitamin levels and testing their muscle strength and walking ability.

Those with the highest retinol levels had up to 20% stronger quadriceps, faster walking speed, and better balance compared to those with the lowest levels — even after researchers accounted for age, diet, and physical activity.<sup>3</sup>

The effect was especially pronounced in men.

But it gets better...

A large-scale U.S. analysis found that for men, each dietary increment in retinol intake was linked to 2% greater odds of increased muscle mass. Higher vitamin A intake also translated to a significantly lower risk of sarcopenia.<sup>4</sup>

This study included thousands of participants ranging from age 20 to 80. And the benefits held up even after adjusting for inflammation and oxidative stress.

A large population study in Korean adults found that higher dietary retinol intake from animal foods was associated with significantly greater handgrip strength, independent of protein intake, age, or activity.<sup>5</sup>

And here's what really clinches it: A clinical study of 136 older adults showed that retinol-binding protein 4 — the transport protein that carries vitamin A through your bloodstream to your muscles — and retinoic acid explained up to 11% of the variation in lower body strength — even after controlling for age, gender, and body mass.<sup>6</sup>

The bottom line: In adults over 50 — especially men — retinol is emerging as a crucial factor for preserving muscle strength, functional independence, and vitality as you age.

And these effects show up regardless of protein intake, exercise habits, or inflammation levels.

## How Vitamin A Keeps Your Muscle Stem Cells Young

A 2023 study published in *Nature Aging* revealed exactly how vitamin A preserves muscle.<sup>7</sup>

Researchers discovered that retinoic acid signaling directly maintains the “stemness” of satellite cells. It keeps them in a healthy resting or “quiescent” state, ready to activate when needed.

Without adequate retinoic acid, satellite cells enter what the researchers called “deep quiescence” — a dormant state from which they can't easily return.

Think of it like this: Normal quiescence is like a soldier on standby, ready for action. Deep quiescence is like that same soldier being drugged into a coma. He's still alive, but he can't respond when called.

The study showed that vitamin A supplementation in aging mice completely prevented this shift into deep quiescence. The satellite cells stayed responsive. The mice maintained their muscle mass and strength well into old age.



**Older adults with the most vitamin A could push nearly 9 pounds more with their legs than those with the lowest levels.**

When the researchers blocked vitamin A signaling, the satellite cells immediately shifted into deep quiescence. Muscle repair capacity plummeted. Sarcopenia set in rapidly.

The conclusion was clear: Vitamin A isn't just helpful for muscle maintenance and repair. It's absolutely essential.

## The Plant Lie That's Destroying Your Muscles

For 20 years, health “experts” have pushed plant-based diets as the gold standard. They've insisted you can get all your vitamin A from carrots, sweet potatoes, and spinach.

*There's just one problem:*

Beta-carotene is NOT vitamin A. It's a precursor your body must convert into retinol — the active form your cells actually use.

And that conversion process is shockingly inefficient — especially as you age.

A study in the *Journal of Clinical Nutrition* measured the conversion rate in adults over 50.<sup>8</sup>

The results were devastating.

In younger adults, the conversion rate is already poor — about 12:1. You need 12 molecules of beta-carotene to make 1 molecule of usable retinol.

But in adults over 50, that ratio plummets to 28:1 or worse.



A large carrot contains about 10,000 IU of beta-carotene. After conversion, you get maybe 400 IU of actual vitamin A — if you're lucky.

But an ounce of beef liver has 8,000 IU of preformed retinol. And it's ready to use with no conversion needed.

The liver has 20 times more bioavailable vitamin A than the carrot.

Egg yolks from pastured hens deliver 250 IU of ready-to-use retinol per yolk. Wild salmon has 150 IU per serving. Grass-fed butter packs 350 IU per tablespoon.<sup>9</sup>

All preformed retinol. All immediately usable by your body.

Meanwhile, plant-based advocates tell you to avoid these foods because of cholesterol or saturated fat.

They're literally starving you of the nutrient your muscles need to survive.

## **Vitamin A Powers Your Muscles At The Cellular Level**

Vitamin A doesn't just activate satellite cells. It also protects the powerhouses inside your muscle cells — your mitochondria.

Mitochondria are the tiny engines that produce ATP — the energy currency your muscles run on. Every contraction, every movement, every ounce of strength you have depends on healthy mitochondria.

As you age, mitochondria naturally decline in number and function. This mitochondrial dysfunction is a major driver of muscle loss, weakness, and frailty.<sup>10</sup>

But here's what recent research shows: Vitamin A directly prevents mitochondrial decline in muscle tissue.

In fact, a study published in March 2025 found that animal-derived vitamin A supplementation preserved mitochondrial function, increased ATP production, and prevented the metabolic dysfunction that leads to sarcopenia.<sup>11</sup>

**"As you age, mitochondria naturally decline in number and function. This mitochondrial dysfunction is a major driver of muscle loss, weakness, and frailty."**

The researchers wanted to understand exactly how this works at the cellular level. So they turned to animal models.

What they found was revealing.

When they deprived muscle cells of vitamin A, the mitochondria in muscle stem cells rapidly declined. ATP production dropped. Muscle function deteriorated.

But when they gave aging, vitamin A-deficient mice retinoic acid supplements, their mitochondrial health was restored. Their muscle metabolism improved. Their muscle repair capacity bounced back — even when their total protein intake stayed the same.

It wasn't about protein. It was specifically about vitamin A.

This explains why so many older adults eating high-protein, low-fat, plant-heavy diets still lose muscle. Their mitochondria are starving for vitamin A.

## **The Medical Conspiracy That Keeps You Weak**

At this point, you might be wondering: If vitamin A is so critical for muscle health, why isn't this standard medical advice?

The reality is mainstream doctors rarely, if ever, bring sarcopenia up with patients... even though it affects around 45% of the older population.<sup>12</sup> You won't see any TV ads about it either.

That's because there's no drug to treat it, so Big Pharma has no profit.

They've also spent billions convincing you that animal fats are dangerous, that cholesterol will kill you, that you need to eat "clean" and avoid red meat.

But here's the truth...

Our ancestors thrived on muscle-building superfoods — not protein powders and meal replacement bars. They ate organ meats regularly. They consumed butter, eggs, and fatty fish without a second thought.

And they maintained their strength well into old age.

## Your Prescription For Lifelong Strength

The safest — and most effective — way to restore your vitamin A is through real food. The kind your grandparents ate before the low-fat diet craze destroyed an entire generation's health.

Here's what to focus on:

- **Make Liver Your Secret Weapon.** Just 3-4 ounces of this organ meat a week gives you more bioavailable vitamin A than any supplement on the market. I enjoy it, but I know a lot of people don't. If you're not a fan of liver, you can take 3,000-4,500 mg of desiccated liver capsules daily.
- **Eat 2-3 Whole Eggs Every Day From Pastured Hens.** The yolks are packed with retinol, plus vitamin D, K2, and choline — all critical for muscle repair.
- **Enjoy Wild-Caught Fatty Fish Twice A Week.** Salmon, sardines, mackerel, herring deliver retinol plus omega-3s that calm inflammation and speed muscle recovery. Aim for two 6-ounce servings weekly.
- **Use Grass-Fed Butter Liberally.** One to two tablespoons daily will keep your levels where they need to be.

**NOTE:** Do NOT take high-dose vitamin A supplements.

Synthetic, lab-created vitamin A can build up to toxic levels and damage your liver. They're sold as retinyl palmitate and they're made by combining an ester of retinol with synthesized palmitic acid.

But it's not natural vitamin A.

## Do PACE For More Muscle-Building Power

For years, I've advocated an exercise training method based on the way our ancestors moved: short bursts of intense activity followed by rest and recovery.

I call it Progressive Accelerating Cardiopulmonary Exertion, or PACE.

PACE works by triggering your body's adaptive response. Instead of long, exhausting workouts that break down muscle, you do brief bouts of exercise that increase in effort and exertion. This signals your body to build muscle and increase capacity.

Here's how this ties in with vitamin A... When you do PACE-style resistance training, you create controlled muscle damage that activates those satellite cells we talked about earlier.

With adequate vitamin A on board, those satellite cells respond powerfully. They multiply, fuse with damaged fibers, and rebuild the muscle stronger.

But when you combine animal-sourced vitamin A with PACE training, you create a synergistic effect. The vitamin A primes your satellite cells. The exercise activates them. Your muscles respond like they did when you were decades younger.

I've seen 70-year-old patients add significant muscle mass using this protocol. And not in months — in weeks.

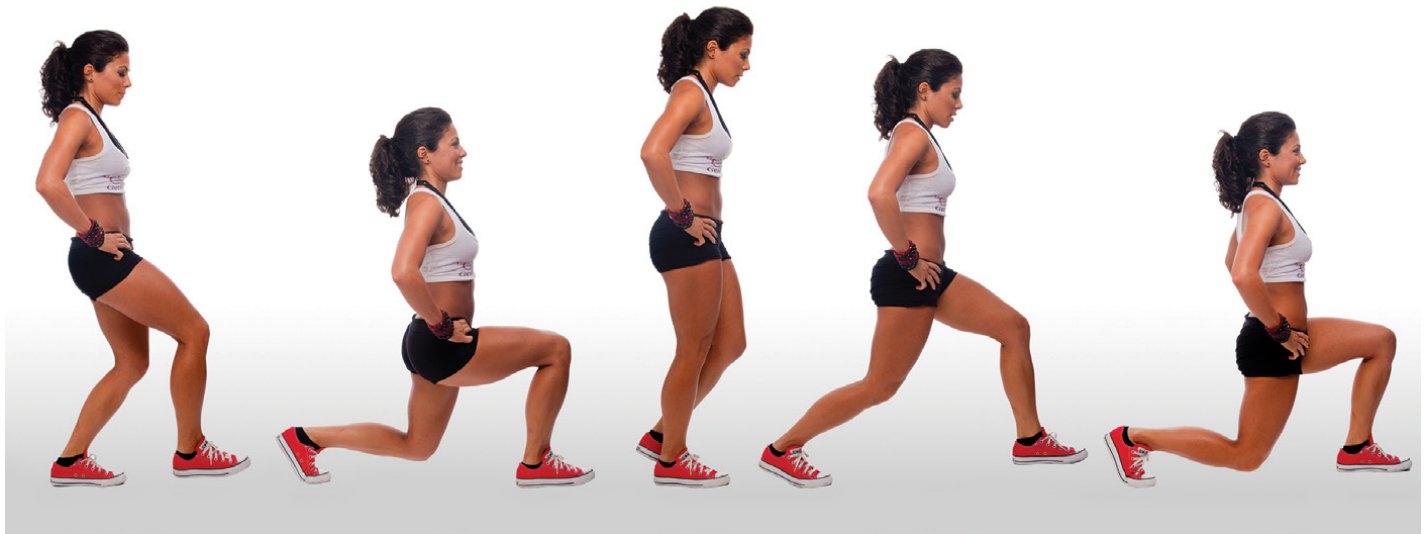
It works because you're working with your biology, not against it.

For the greatest impact, I recommend starting with the largest muscles in your body — your thighs.

In one study, researchers had older men do exercises similar to what I recommend in my PACE program. They worked out three times per week on their lower bodies. They experienced up to a 107% increase in quadriceps strength and an impressive 226% increase in hamstring (knee flexor) strength after 12 weeks of this type of training.<sup>13</sup>

You don't need a gym to get these benefits. Here are two to try at home:

- **Seated Knee Extensions:** Sit on a sturdy chair, loop a resistance band or ankle weight around your ankle, and straighten your leg out in front of you, squeezing your thigh. Lower slowly. Repeat and switch legs.



- **Alternating Lunges:** Step forward with one foot, bend both knees to lower your body, then return to standing. Switch legs and repeat. This works both your quads and hamstrings together.

Start with three sets of each exercise. To make it truly PACE, increase the challenge slightly with each set by adding repetitions, resistance, or reducing rest time.

This progressive overload helps your muscles adapt and grow stronger — and no fancy equipment is required.

#### References

1. Zhuang L, Jang YC, et al. "Retinoic acid signaling maintains muscle stem cell quiescence and mitigates age-related muscle loss." *Nat Aging*. 2023;2(10):865-876.

- Zhuang L, Jang YC, et al. "Retinoic acid signaling maintains muscle stem cell quiescence and mitigates age-related muscle loss." *Nat Aging*. 2023;2(10):865-876.
- Bartali B, Semba RD, Ferrucci L, et al. "Antioxidants and physical performance in elderly persons: The InCHIANTI study." *Am J Clin Nutr*. 2004;79(3):260-267.
- Fang M, et al. "Systematic exploration of the association between vitamin A intakes and sarcopenia prevalence in American adults." *Food Sci Nutr*. 2024;12(12):10786-10799.
- Jang JI, et al. "Oily fish, retinol and magnesium intake are positively associated with handgrip strength in adults: Results from the KNHANES 2016-2018." *Nutrients*. 2021;13(11):4061. doi:10.3390/nu13114061.
- Ryu M, et al. "Retinol-binding protein 4 and retinoic acid are associated with muscle strength and power in older adults." *Nutrients*. 2020;12(2):387.
- Zhuang L, et al. "Retinoic acid signaling maintains muscle stem cell quiescence and mitigates age-related muscle loss." *Nat Aging*. 2023;2(10):865-876.
- Tang G. "Bioconversion of dietary provitamin A carotenoids to vitamin A in humans." *Am J Clin Nutr*. 2010;91(5):1468S-1473S.
- USDA National Nutrient Database. "Vitamin A content in common foods." Accessed October 31, 2025.
- Sahin E, DePinho RA. "Axis of ageing: telomeres, p53 and mitochondria." *Nat Rev Mol Cell Biol*. 2012;13(6):397-404.
- Fraczek PM, et al. "Vitamin A retinoic acid contributes to muscle stem cell and mitochondrial function loss in old age." *PMC (NIH)*. 2025 Mar 24.
- Zhang R, et al. "Global research trends in sarcopenia: a bibliometric analysis of exercise and nutrition (2005-2025)." *Front Nutr*. 2025; 12:1579572.
- Frontera WR, et al. "Strength conditioning in older men: skeletal muscle hypertrophy and improved function." *J Appl Physiol*. 1988; 64: 1038-44.

# Living Near A Golf Course Increases Your Risk Of Parkinson's 126%...

## Protect Yourself From The Brain Epidemic That's Rising Six Times Faster Than Alzheimer's

I've seen a lot of epidemics in my decades of medical practice — but the quick rise of Parkinson's disease may be one of the most alarming trends yet.

Over the past 25 years, Parkinson's cases have exploded, rising 60% faster than Alzheimer's.<sup>1</sup>

That's not a typo. The disease once thought to strike only the elderly now hits people in their 40s and 50s... and it's growing faster every year.

But here's something that will shock you — and that Big Medicine will probably never tell you.

If you spend your weekends on the golf course, your risk of developing Parkinson's is a jaw-dropping 126% higher.<sup>2</sup>

*Golf, the pastime of health-conscious, active people, has become one of the most dangerous hobbies in America.*

And it's not just golfers themselves who are at risk — it's also dangerous for people who work at golf courses and even residents who live nearby.

You see, every lush fairway and putting green is drenched in pesticides, fungicides, and herbicides — the same chemicals that researchers now link directly to Parkinson's disease.

Gardeners who have been exposed to these chemicals are also at risk.

In 2012, a study in *Environmental Health Perspectives* found that men exposed to pesticides such as paraquat and rotenone had 2.5 times the risk of developing Parkinson's.<sup>3</sup>



**Playing golf or living near a course increases your risk of developing Parkinson's. But there are many ways you can protect your health.**

These are not obscure industrial chemicals — they're common ingredients in lawn sprays, golf course turf treatments and on the farmlands that grow the fruit and vegetable you eat.

In fact, paraquat is so toxic that it's banned in over 50 countries — but not in America.

Both paraquat and rotenone are known to attack your mitochondria — the tiny power generators inside each of your cells.

These toxins choke off the ability of your neurons to produce ATP — the cellular fuel that powers your brain cells.

When your mitochondria die, your neurons follow.

But the effect of these horrible chemicals on ATP production is only part of the story...



## Where Parkinson's Really Begins

For years, neurologists believed Parkinson's started in the brain — specifically in the *substantia nigra*, a small but critically important structure deep inside the brain where dopamine-producing neurons die.

But a raft of new research — including groundbreaking studies by scientists at Harvard and Tufts universities — reveals something revolutionary...<sup>4</sup>

Parkinson's most likely begins in your gut — not your brain.

It turns out those same toxins that wreck your mitochondria also disrupt your gut microbiome, the delicate ecosystem of trillions of microflora that line your intestines, resulting in severe dysfunction of the gut-brain axis.

Multiple studies now reveal that your gut microbiome supports the health of your heart function, metabolism, nutrition, immune system, mental well-being, brain function, and much more.

Here's what happens...

1. **Disruption Of The Microbiome:** Pesticides, like paraquat and rotenone, as well as other toxins, kill off beneficial gut bacteria that produce protective compounds called short-chain fatty acids.

At the same time, these chemicals encourage microbes that produce a barrage of inflammatory byproducts, like endotoxins, ammonia, and toxic secondary metabolites that overwhelm your gut lining.

It also causes a microbial imbalance in your gut — called dysbiosis — in which bad microbes thrive and beneficial ones die, leaving you vulnerable to a range of diseases including Parkinson's.<sup>5</sup>

2. **Systemic Inflammation:** Once these toxic byproducts leak into your bloodstream, they ignite a state of chronic, whole-body inflammation.

Your immune system stays switched “on,” flooding your tissues with inflammatory cytokines that don't just damage your

organs — they cross the blood-brain barrier, activate your brain's immune cells, and create the perfect storm for oxidative stress, mitochondrial failure, and neuron loss.

This inflammatory mess becomes a direct driver of the brain degeneration seen in Parkinson's.<sup>6</sup>

3. **Protein Misfolding:** This toxic storm sets the stage for the misfolding of alpha-synuclein — a sticky protein that clumps together inside nerve cells.

These toxic aggregates — known as Lewy bodies — choke off cellular function, disrupt mitochondrial energy production, and eventually kill the dopamine-producing nerve cells that control movement.

Lewy bodies aren't just a sign of Parkinson's... they *are* the molecular wreckage that drives the disease forward.<sup>7</sup>

4. **Leaky Gut Syndrome:** When your microbiome falls out of balance, it erodes the tight junctions that keep your intestinal wall sealed. As these gaps widen, your gut gets “leaky,” allowing food particles, bacterial fragments, and toxins to enter your bloodstream.

This triggers your immune system to go on high alert, driving body-wide inflammation that travels to your brain through blood and the vagus nerve — priming your nervous system for a misfolded-protein cascade that fuels Parkinson's.<sup>8</sup>

Recent studies now show that these misfolded proteins can start in the gut's nerve cells — and then travel up the vagus nerve into your brain, spreading like an infection.

Some researchers have labeled this the “gut-first pathway to Parkinson's.”<sup>9,10</sup>

It is now clear that Parkinson's is not a mystery of genetics or bad luck — as conventional medicine thought for years,

*Instead, it is a preventable epidemic fueled by environmental toxic overload and mitochondrial collapse.*

## The Mitochondrial Meltdown That Follows

Your dopaminergic neurons — the brain cells that produce dopamine — are especially vulnerable to toxins, because they are energy hungry. These cells need more fuel than almost any other cell in your body.

That means when mitochondrial energy production slows down, neurons starve and die.

This is why toxins like rotenone, paraquat, and glyphosate - the main ingredient in Roundup — are so dangerous. They destroy your mitochondria and unleash oxidative stress, creating a cascade of inflammation that ends in neuronal death.

Even worse, once the alpha-synuclein clumps form, they spread from cell to cell like prions — transmissible neurological diseases, the most infamous of which is Creutzfeldt-Jakob disease, the human equivalent of “mad cow disease.”

These clumps corrupt the healthy neurons in their path, which is precisely how Parkinson’s slowly marches through the brain.

The problem is that Conventional Medicine still treats Parkinson’s like a dopamine deficiency — because the symptoms of Parkinson’s are caused primarily by dopamine loss in the substantia nigra.

That’s why Big Pharma’s solution is dopamine replacement drugs like levodopa (L-DOPA), which is absorbed by the nerve cells in your brain and turned into dopamine.

And yes, these drugs can temporarily improve symptoms like tremors or stiffness. But they do nothing to stop — or even slow — the progress of the disease.

There is also significant evidence that flooding the system with synthetic dopamine precursors accelerates the loss of natural dopamine neurons over time — which in the long run makes the symptoms of Parkinson’s disease even worse.<sup>11</sup>

Meanwhile, the real root causes — toxic exposure, mitochondrial failure, and gut inflammation — are ignored.

But knowledge can give you power. We know now that this process starts in the gut and the mitochondria... and that’s exactly where we can fight back.

## The Natural Way To Protect — And Rebuild — Your Brain

The truth is, Parkinson’s is not inevitable. It’s a man-made disease — born from decades of chemical exposure, poor diet and mitochondrial neglect.

But the good news is that you can protect your neurons — even rebuild them — by restoring mitochondrial health, detoxing, calming inflammation and healing your gut.

Here’s what I recommend to my patient:

■ **Detox Your Life:** Golf courses, roadside vegetation control and industrial farming all use neurotoxic products like paraquat that raise your risk of Parkinson’s disease. You should always avoid these places after chemical treatment.

You can also start to eliminate these toxins from your life by consuming only organic fruits and vegetables, which are usually — but not always — free of toxic pesticides and herbicides.

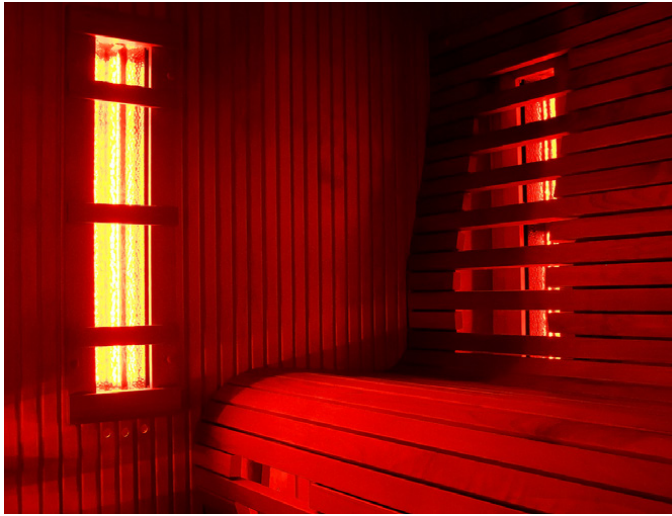
I recommend that you buy fruits and vegetables that are local and in season. If possible, find out if your local farmer uses rotenone, because some organic farms still use it as a pesticide.

While paraquat and rotenone are not generally sold to home gardeners, you should avoid strong concentrate weed killers. Always check the active ingredient listed on the label. Also sprayed-on products that use terms like “brush killer,” “total vegetation control,” or “industrial strength,” are more likely to involve restricted chemicals.

Meanwhile, glyphosate, which is sold under the brand name Roundup, is a pesticide that Monsanto’s GMO seeds are genetically engineered to withstand and have been linked to Parkinson’s and Alzheimer’s, and breast cancer cells growth.<sup>12,13</sup>

Instead, use herbicides based on vinegar, clove oil, or other botanical acids... or do manual weeding, which is also healthy physical exercise.

I also recommend a daily detox by sweating in a sauna or exercise, drinking plenty of water, and milk thistle, which is a potent antioxidant called silymarin that helps detoxify the liver and restore healthy liver function.



**Sweating out toxins in a sauna is a great way to detox.**

■ **Heal Your Gut-Brain Axis:** Start by cutting gut saboteurs from your diet. This means you should immediately reduce processed carbohydrates.

Avoid products that contain refined sugars, fructose, and processed grains, like wheat, rice and corn, as well as breakfast cereals and cereal bars, and keep sweetened foods to a minimum.

Instead, focus your meals on high-quality protein and organic vegetables, and include plenty of onions, garlic, asparagus, artichokes, and almonds, which are prebiotics that promote a healthy gut microbiome — the complex community of trillions of microflora that live in your gut and support the health of your heart function, metabolism, nutrition, immune system, mental well-being, and much more.

Some foods also include inulin, fermentable prebiotic plant fibers. Bananas, chicory root, dandelion greens, leeks, peas, and beans all have this type of fiber.

Meanwhile, probiotics like kefir and yogurt help redress that balance. The problem is that not all yogurts are created equal.

The vast majority of yogurts on supermarket shelves are packed with added sugar — especially in America, but only slightly less so in Europe. These are far more likely to upset the microbial imbalance in your gut than improve it.

I often advise my patients to repopulate their gut bacteria to rebuild a healthy microbiome. But I never recommend sweetened yogurts... and only a few of the so-called “natural” yogurts are worth considering.

You’re always better off with organic unsweetened Greek or “Greek-style” yogurts. These have the highest number of bacterial colonies. Unsweetened kefir products are also excellent for your gut. Both of these options have around twice as many active cultures as most yogurts.

Unsweetened Greek yogurt also contains beneficial gut bacteria that produce butyrate, which protects your brain cells from inflammation.

■ **Recharge Your Mitochondria:** Clinical studies show that ozone therapy is a powerful mitochondria healer. This is the same ozone that protects our planet from the sun’s UV rays.

When it’s harnessed properly, this special “energized” kind of oxygen is one of the most powerful healing tools on Earth.

Here at the Sears Institute of Anti-aging Medicine, I use an ozone technique called Autohaemotherapy.

This simply involves drawing a small amount of the patient’s blood and infusing it with medical-grade ozone and oxygen. Then, I slowly reintroduce the oxygen-rich blood back into the patient with an IV.

Studies show that ozone therapy can reduce systemic inflammation, improve oxygen utilization, and restore mitochondrial function — a triple win against Parkinson’s pathology.<sup>14</sup>

Meanwhile, other great mitochondrial healers include:

- **CoQ10 (Co-enzyme Q10):** This vital coenzyme is high-octane fuel for your mitochondria and a powerful antioxidant. It’s used by every cell in

your body to power everything it does. Because your neurons are among the most energy hungry cells in your body, CoQ10 is essential. It turbo charges your mitochondria to produce more brain cell energy.

Unless you're eating organ meats most days, you're not getting enough CoQ10 from your diet. I recommend everyone gets 100 mg of CoQ10 daily to protect against most diseases. But studies show that high-dose CoQ10 — between 1,200 and 2,400 mg daily — can slow functional decline in Parkinson's patients.<sup>15,16</sup>

And be sure it's the right CoQ10... The more common form of CoQ10 is called ubiquinone. But the ubiquinol form is the most potent. Ubiquinol carries an extra electron and is eight-times more powerful than ubiquinone. And it stays in your bloodstream longer than conventional CoQ10.

- **PQQ (Pyrroloquinoline Quinone):** While CoQ10 does an amazing job of squeezing more power out of your mitochondria, PQQ triggers brain cells to build new mitochondria. That means your neurons will produce more fuel, so your brain works more energetically and more efficiently.

PQQ is a micronutrient and a potent antioxidant found in a few varieties of fruits and vegetables, including kiwi fruit, sweet green peppers, carrots, potatoes, cabbage, sweet potatoes and bananas.

You can also take a supplement. I recommend 10 mg of PQQ daily.

- **Acetyl-L-Carnitine (ALC):** This powerful nutrient ferries fatty acids into your mitochondria, ensuring they can efficiently burn fuel and produce ATP energy. But ALC also shields neurons from oxidative stress, stabilizes mitochondrial membranes, and supports acetylcholine production, a neurotransmitter essential for motor control and cognitive sharpness.

The best source of L-carnitine is grass-fed red meat. But you can also supplement. I suggest at least 500 mg of ALC every day on an empty stomach.

Look for a formula with only L-carnitine and not D, L-carnitine. D-carnitine is synthetic.

- **D-Ribose:** This simple sugar is the *backbone* of your body's energy currency. Every molecule of ATP that powers your brain cells is built on ribose.

By supplying pure, bioavailable ribose, you're giving your cells the raw material they need to rapidly rebuild ATP, restore metabolic function, and recover from the energy collapse that accompanies inflammation, oxidative stress, and mitochondrial damage — all central to Parkinson's pathology.

You can take D-Ribose as supplement. Start with 5 grams (1 rounded teaspoon) 2-3 times per day and simply mix in water or your favorite beverage.

■ **Use Stem Cell Therapy To Regenerate Damaged Neurons:** I believe stem cells — combined with mitochondrial restoration and gut healing — represent the true frontier of Parkinson's recovery.

And this isn't science fiction. It's happening now.

One of the most exciting breakthroughs in Parkinson's research is the discovery that stem cells — your body's master repair cells — can actually *rebuild* the very neurons that Parkinson's destroys.

In other words, these stem cells can be guided to become dopaminergic neurons, the same specialized nerve cells in the substantia nigra responsible for movement control.

Once implanted, they don't just survive... they integrate, form new synaptic connections, and begin producing dopamine naturally, restoring the communication pathways that Parkinson's has disrupted.

Even more impressive, stem cells release powerful growth factors that reduce inflammation, calm overactive immune responses, and stimulate your brain's own repair mechanisms.



In two groundbreaking clinical trials, patients who received transplanted dopamine-producing stem cells showed measurable improvements in motor control — without the side effects of drugs.<sup>17</sup>

## References

1. Luo Y, et al. "Global, regional, national epidemiology and trends of Parkinson's disease from 1990 to 2021: findings from the Global Burden of Disease Study 2021." *Front Aging Neurosci.* Jan 2025
2. Krzyzanowski B, et al. "Proximity to golf courses and risk of Parkinson Disease." *JAMA Netw Open.* 2025 May 1;8(5):e259198.
3. Tanner CM, et al "Rotenone, paraquat, and Parkinson's." *EHP.* 2011 Jun;119(6):866-872.
4. Mitchell J. "Parkinson's may take a 'gut-first' path." *Harvard Gazette.* Sept 6, 2024
5. Huang Y, et al. "Review: The role of intestinal dysbiosis in Parkinson's Disease." *Front Cell Infect Microbiol.* 2021 Apr 22;11:615075.
6. Mulak A, Bonaz B. "Brain-gut-microbiota axis in Parkinson's disease." *World J Gastroenterol.* 2015 Oct 7;21(37):10609-20
7. Puspita L, et al. "Oxidative stress and cellular pathologies in Parkinson's disease." *Mol Brain* 10, 53. 2017.
8. Forsyth CB, et al. "Increased intestinal permeability correlates with sigmoid mucosa alpha-synuclein staining and endotoxin exposure markers in early Parkinson's Disease." *PLOS ONE* 6(12): e28032. 2011.
9. Mitchell J. "Parkinson's may take a 'gut-first' path." *Harvard Gazette.* Sept 6, 2024
10. Chang JJ, et al. "Upper gastrointestinal mucosal damage and subsequent risk of Parkinson Disease." *JAMA Netw Open.* 2024 Sep 3;7(9):e2431949.
11. Olanow CW. "Levodopa: Effect on cell death and the natural history of Parkinson's disease." *Mov Disord.* 2015 Jan;30(1):37-44.
12. Thongprakisang S, et al. "Glyphosate induces human breast cancer cells growth via estrogen receptors." *Food Chem Toxicol.* 2013 Sep;59:129-36
13. Samsel A, Seneff S. "Pathways to modern diseases. glyphosate's suppression of cytochrome P450 enzymes and amino acid biosynthesis by the gut microbiome." *Entropy* 2013, 15(4), 1416-1463
14. Viebahn-Haensler R, León Fernández OS. "Mitochondrial dysfunction, its oxidative stress-induced pathologies and redox bioregulation through low-dose medical ozone: A systematic review." *Molecules.* 2024 Jun 8;29(12):2738.
15. Shults CW, et al. "Effects of coenzyme Q10 in early Parkinson disease: evidence of slowing of the functional decline." *Arch Neurol.* 2002 Oct;59(10):1541-50.
16. Seet RC, et al. "Does high-dose coenzyme Q10 improve oxidative damage and clinical outcomes in Parkinson's disease?" *Antioxid Redox Signal.* 2014 Jul 10;21(2):211-7.
17. Parkinson's Foundation. "Two new trials explore stem-cell therapy for Parkinson's." *Science News.* May 08, 2025. Available at: <https://www.parkinson.org/blog/science-news/cell-replacement>.

# **New Hope For Alzheimer's: Research Finds This Trace Mineral May Stop The Dreaded Disorder — And Reverse Brain Aging**

If Alzheimer's is one of your greatest fears, you're not alone. My patients tell me they fear this dreaded mind-erasing condition more than cancer, heart attacks, and strokes.

Unfortunately for most patients, their doctors' knowledge starts and stops with Big Pharma's drug failures.

But there's a simple mineral that can change everything.

I'm talking about lithium.

For hundreds of years, people have been "taking the waters" at Warm Springs, Georgia – and similar springs around the world – to improve their health. These waters are rich in naturally occurring lithium, and soaking in them provides the benefits of lithium orotate.

These waters were so revered they were visited by the likes of Thomas Jefferson, Mark Twain, and at least five American presidents including Grover Cleveland, William McKinley, William Howard Taft, Theodore Roosevelt, and Franklin D. Roosevelt.

In addition to water, naturally occurring lithium orotate is found in rocks, dirt, and plants. The concentrations vary by area, but it's found almost everywhere. And that includes a lot of drinking water.

Decades of research shows that natural trace levels of lithium in drinking water contribute to better health, particularly mental health.

Not only does lithium in drinking water reduce suicide rates and help stabilize mood disorders, it also protects against dementia.<sup>1</sup>



**FDR swam in lithium-enriched water at Warm Springs (or Lithia Springs) Georgia, to help relieve his polio symptoms. Today we know that the lithium in the water has neuroprotective benefits.**

## **Lithium Orotate Protects Your Brain**

Building on the benefits of naturally occurring lithium, scientists started looking into how micro doses of lithium orotate specifically affected human health.

Doses as low as 300 mcg (mcg) daily can make a difference, especially when it comes to brain health. That's partly because your brain needs lithium to function properly, just like it needs other minerals.

- A 2025 study found that lithium deficiencies can trigger the slide into dementia and Alzheimer's disease.<sup>2</sup> Lithium delivers several solid brain protecting benefits including:<sup>3,4,5,6,7</sup>

- Increasing levels of BDNF (brain-derived neurotrophic factor), a protein that acts like fertilizer for brain cells by promoting their production, growth, survival, and self-repair
- Managing neurotransmitter activity, including GABA and dopamine, to improve mood stability and cognitive flexibility
- Reducing buildup of beta-amyloid plaques in the brain by binding to them
- Stabilizing circadian rhythms – the body clock – to improve cognitive function, especially working memory and impulse control

In a clinical trial of Alzheimer's patients, microdoses of just 300 mcg per day significantly reduced their cognitive decline.<sup>8</sup>

Another trial found that long-term low-dose lithium supplements led to better performance on cognitive tests for patients with cognitive impairment.<sup>9</sup>

And that's just the beginning of what tiny doses of lithium orotate can do for you.

### **Lithium Stops The “Aging Accelerator”**

Your body produces enzymes GSK-3 (glycogen synthesis kinase-3) known as “aging accelerators.” These enzymes have key roles in many cellular processes including metabolism, communication, and cell death.

When GSK-3 increases, it can trigger many age-related and chronic diseases including:

- Alzheimer's
- Parkinson's
- Cardiovascular disease
- Rheumatoid arthritis
- Cancer
- Dementia
- Depression

Lithium orotate can help prevent all that by inhibiting GSK-3 enzymes. The mineral blocks GSK-3 activation and activity, stopping it from speeding up the aging process and causing deadly damage.

## **A Tale Of Two Lithiums...**

Lithium orotate is not the same form of lithium usually prescribed for mental health disorders.

That's lithium carbonate, which requires much higher doses — up to 1,200 mg a day — to be effective. That's 4,000 times the beneficial dose of lithium orotate.

And it's why lithium carbonate causes many negative side effects... while lithium orotate does not.

### **Lithium Orotate Increases Longevity And Brings Whole Body Benefits**

Lithium does so much more than protect your brain. It plays key roles in many body processes, like other essential minerals — it just hasn't been recognized as one by mainstream medicine.

But I've known about what happens when you don't get enough lithium in your diet or drinking water. I've seen it derail overall health. And as soon as that micro amount of lithium gets restored, it sparks positive effects for your life and longevity.<sup>10</sup>

Here are even more ways that microdoses of lithium orotate can keep you well:

- **Promotes Longevity.** People who have lithium in their drinking water live longer. One study found that low-dose exposure to lithium through drinking water extended their lives and reduced premature death from all causes.<sup>11</sup> Another study found that trace levels of lithium in the tap water was linked to prolonged lifespans.<sup>12</sup>
- **Protects Telomeres.** Telomeres — the “caps” on the ends of DNA strands that shield them from damage — are fundamental to youthful aging. Lithium stops telomeres from getting shorter and even lengthens them, giving cells extra anti-aging protection.<sup>13</sup>

- **Increases Stem Cell Production.** Lithium encourages the growth, multiplication, and healthy maintenance of stem cells, the most powerful cells in your body.<sup>14</sup> That allows your body to renew and refresh cells, organs, and tissues for healthier aging.
- **Fights Inflammaging.** Chronic low-level inflammation speeds up aging and disease processes, making you sicker and older before your time. Lithium suppresses inflammatory enzymes so they can't get out of control and cause systemic trouble.
- **Combats Oxidative Stress.** Lithium orotate has antioxidant properties that fight free radicals to minimize oxidative stress, especially in the brain. Research shows that lithium can prevent and reverse DNA damage caused by free radicals and decrease oxidative stress in your whole body.<sup>15</sup>
- **Boosts Metabolism And Energy.** Research shows that lithium can boost mitochondrial function, leading to increased energy. It can also increase thermogenesis, which creates heat to manage energy metabolism.<sup>16</sup>
- **Manages Type 1 And Type 2 Diabetes.** Lithium can improve insulin sensitivity, making it easier for insulin to escort glucose out of the bloodstream and into your cells.<sup>17</sup> It can help lower both fasting and after-meal blood sugar levels. Lithium improves the way your body manages and uses glucose to help stabilize blood sugar.
- **Curbs Obesity.** While prescription lithium carbonate can cause weight gain leading to obesity, micro doses of natural lithium orotate have the opposite effect. Research shows that low-dose lithium prevents weight gain even in animals eating high-fat diets.<sup>18</sup> And trace amounts of lithium in drinking water have been shown to lower obesity rates.<sup>19</sup>
- **Improves Cardiovascular Health.** Even though the high-dose lithium carbonate used to treat mental health disorders can cause cardiac problems, microdoses of lithium orotate improve cardiovascular function. Part of that is due to its antioxidant and anti-inflammatory properties. Low-dose lithium

also improves vascular function by relaxing blood vessels and reducing atherosclerotic plaque formation.<sup>21,20</sup>

- **Promotes Healthy Bone Formation.** Lithium boosts bone density and reduces the risk of osteoporosis. People taking lithium had higher bone mineral density in the hips, spine, and whole body. Studies also show that lithium reduces fracture risk by as much as 20%.<sup>21</sup>
- **Supports Immune System Function.** Lithium improves immune cell activity and increases the number of lymphocytes and T cells.<sup>22</sup> It also has antiviral properties, including effectiveness against coronaviruses.<sup>23</sup>
- **Fights Depression.** Lithium is well-known for stabilizing moods in bipolar disorder. It also has strong antidepressant powers and is known to reduce the risk of suicide. Trace levels of natural lithium have the same effects, lowering suicide rates and boosting mood.<sup>24</sup>

All of this and the ability to prevent cognitive decline, saving you from the devastation of Alzheimer's disease, from as little as 300 mcg of lithium orotate a day.

### 3 More Minerals That Boost Brain Power

Your brain consumes a lot of resources, every minute of every day for your whole life. That includes essential minerals like lithium. And when your mineral levels run low, your brain will slow down.

Here are three critical brain-saving minerals you'll want to make sure you're getting enough of.

**1. Magnesium.** Up to 90% of older Americans have magnesium deficiency. That's a huge problem when you consider that magnesium is essential for brain health.

Magnesium protects your brain cells from inflammation and prevents cognitive decline. It also plays a role in communication between brain cells, keeping the blood-brain barrier intact, and stopping headaches – including migraines.

When it comes to boosting magnesium levels, I always have my patients start with diet.



I recommend pumpkin seeds, almonds, cashews, peanuts, avocado, figs, and leafy greens like spinach. I also have them use the right kind of salt. I'm talking about sea salt, which is unrefined and contains all the minerals and co-factors nature intended.



**Snacking on pumpkin seeds is an easy way to increase magnesium.**

Since it's almost impossible to get all the magnesium you need from food, fill in the gaps with supplements.

I suggest supplementing with 1,000 mg a day. The most absorbable forms are magnesium citrate, glycinate, taurate, and aspartate. Take it with vitamin B6 to increase the amount of magnesium that accumulates in your cells.

**2. Selenium.** Your brain can't function at peak performance without enough magnesium. It's known to reverse age-related cognitive decline, promote new brain cell creation, and restore memory loss.

This mineral doubles up as a powerful antioxidant that protects your brain cells against free radicals. It plays a critical role in thyroid hormone production, which also affects brain function.

Again, I recommend boosting selenium through food as the first step. Brazil nuts contain a lot of selenium, about 100 mcg each. Other high-selenium foods include sunflower seeds, oysters, halibut, sardines, eggs, and shiitake mushrooms.

When it comes to selenium supplements, make sure you choose the proper form and take the right amount. Selenium is a mineral — a metal. Those can be tough for your body to absorb in their inorganic form.

That's why you'll want to look for organic forms your body can easily process, such as selenomethionine and selenocysteine. I suggest supplementing with between 100 to 200 mcg daily.

**3. Zinc.** Zinc plays a key role in the central nervous system, controlling brain function and brain cell development. Your brain needs zinc for learning, memory, including spatial and social memory.

Low zinc levels can increase oxidative stress, speed up cognitive decline, and cause depression. On the flip side, excessive zinc can cause cognitive problems. So it's important to keep this essential mineral in balance.

Zinc has the side bonus of boosting the effectiveness of selenium, especially when it comes to cellular protection. The two minerals work to repair DNA and protect cellular health and integrity.<sup>25</sup>

Start by adding more zinc-rich foods to your diet. Those include grass-fed beef and lamb, oysters, cashews, kale, eggs, and dark chocolate.

It can be tricky for your body to get enough zinc from diet alone. Absorption rates vary from 5% to 50%, depending on how much phytate — a plant compound that binds to zinc and blocks its absorption — is present in the meal.

That's why I recommend taking 30 mg of zinc picolinate, the best-absorbed form, every day.

#### References

1. Fraiha-Pegado J, et al. "Trace lithium levels in drinking water and risk of dementia: a systematic review." *Int J Bipolar Disord.* 2024 Aug 30;12(1):32.
2. Aron L, et al. "Lithium deficiency and the onset of Alzheimer's disease." *Nature.* 2025;645:712-721.
3. Lu B, et al. "BDNF and synaptic plasticity, cognitive function, and dysfunction." *Handb Exp Pharmacol.* 2014;220:223-50.
4. Malhi GS, et al. "Potential mechanisms of action of lithium in bipolar disorder." *CNS Drugs.* 2013 Feb;27(2):135-53.
5. Sofola-Adesakin O, et al. "Lithium suppresses Abeta pathology by inhibiting translation in an adult Drosophila model of Alzheimer's disease." *Front Aging Neurosci.* 2014;6:190.
6. Rohr KE, et al. "The impact of lithium on circadian rhythms and implications for bipolar disorder pharmacotherapy." *Neurosci Lett.* 2022 Aug 24;786:136772.
7. Xu S, et al. "Relationship between circadian rhythm and brain cognitive functions." *Front Optoelectron.* 2021 Sep;14(3):278-287.

8. Nunes MA, et al. "Microdose lithium treatment stabilized cognitive impairment in patients with Alzheimer's disease." *Curr Alzheimer Res.* 2013 Jan;10(1):104-7.
9. Forlenza OV, et al. "Clinical and biological effects of long-term lithium treatment in older adults with amnesic mild cognitive impairment: Randomised clinical trial." *Br J Psychiatry.* 2019 Nov;215(5):668-674.
10. Hamstra SI, et al. "Beyond its psychiatric use: The benefits of low-dose lithium supplementation." *Curr Neuropsychopharmacol.* 2023;21(4):891-910.
11. Zarse K, et al. "Low-dose lithium uptake promotes longevity in humans and metazoans." *Eur J Nutr.* 2011 Aug;50(5):387-9.
12. Fajardo VA, et al. "Trace lithium in Texas tap water is negatively associated with all-cause mortality and premature death." *Appl Physiol Nutr Metab.* 2018 Apr;43(4):412-414.
13. Lundberg M, et al. "Lithium and the interplay between telomeres and mitochondria in bipolar disorder." *Front Psychiatry.* 2020 Sep 29;11:586083.
14. Ferensztajn-Rochowiak E, et al. "The effect of lithium on hematopoietic, mesenchymal and neural stem cells." *Pharmacol Rep.* 2016 Apr;68(2):224-30.
15. Khairova R, et al. "Effects of lithium on oxidative stress parameters in healthy subjects." *Mol Med Rep.* 2012 Mar;5(3):680-2.
16. Finch MS, et al. "Creatine and low-dose lithium supplementation separately alter energy expenditure, body mass, and adipose metabolism for the promotion of thermogenesis." *iScience.* 2024 Mar 11;27(4):109468.
17. Jung SR, et al. "Lithium and exercise ameliorate insulin-deficient hyperglycemia by independently attenuating pancreatic  $\alpha$ -cell mass and hepatic gluconeogenesis." *Korean J Physiol Pharmacol.* 2024 Jan 1;28(1):31-38.
18. Geromella MS, et al. "Low-dose lithium supplementation promotes adipose tissue browning and sarco(endo)plasmic reticulum  $\text{Ca}^{2+}$  ATPase uncoupling in muscle." *J Biol Chem.* 2022 Nov;298(11):102568.
19. Fajardo VA, et al. "Examining the relationship between trace lithium in drinking water and the rising rates of age-adjusted Alzheimer's disease mortality in Texas." *J Alzheimers Dis.* 2018;61(1):425-434.
20. Williams LJ, et al. "Lithium use and bone health in women with bipolar disorder: A cross-sectional study." *Acta Psychiatr Scand.* 2024 Apr;149(4):332-339.
21. Ng VWS, et al. "Lithium and the risk of fractures in patients with bipolar disorder: A population-based cohort study." *Psychiatry Res.* 2024 Sep;339:116075.
22. Szalach LP, et al. "The immunomodulatory effect of lithium as a mechanism of action in bipolar disorder." *Front Neurosci.* 2023 Aug 17;17:1213766.
23. Nowak JK, et al. "Lithium and coronavirus infections. A scoping review." *F1000Res.* 2020 Feb 7;9:93.
24. Ishii N, Terao T. "Trace lithium and mental health." *J Neural Transm (Vienna).* 2018 Feb;125(2):223-227.
25. Yildiz A, et al. "Effect of the Interaction Between Selenium and Zinc on DNA Repair in Association With Cancer Prevention." *J Cancer Prev.* 2019 Sep;24(3):146-154.

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

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**NOTES:**

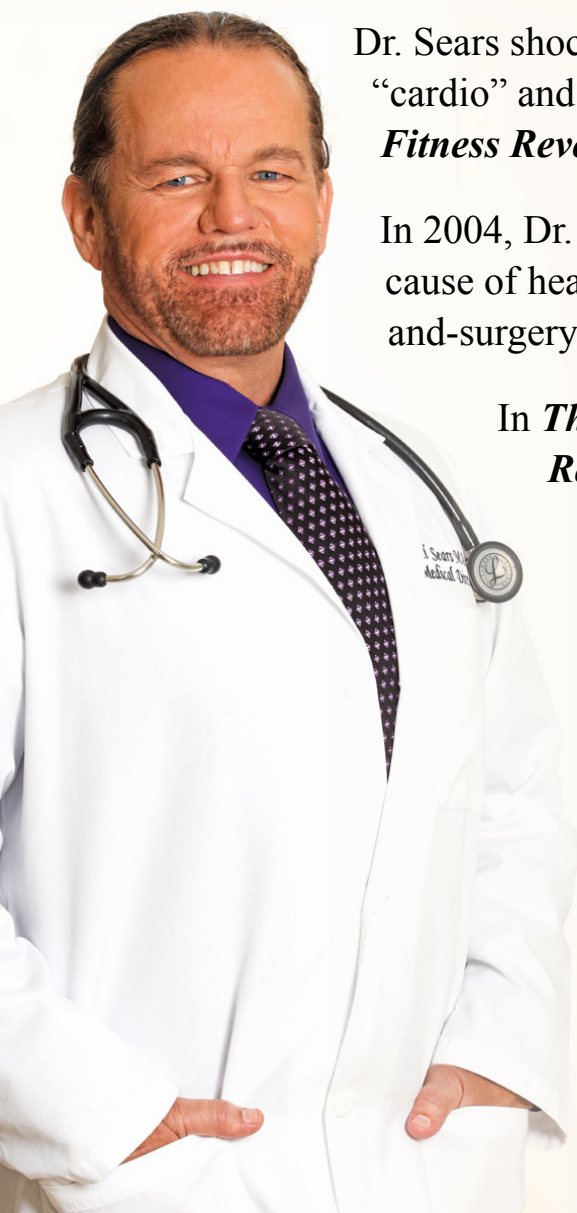
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# Al Sears, MD

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

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

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



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

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

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

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