

October 2025

Vol. XIV Issue 10

Dear Friend,

It's time to dispel one of the most pervasive lies from mainstream medicine.

A lie perpetrated by doctors and nutritionists who should know better... because real science is staring them in the face.

You see, the modern diet we've all been sold by Big Agra and the powers that be in our federal government is just that — a modern invention.

It has no connection to what helped our ancestors become who we are today.

But chronic illness is also a modern phenomenon.

Disorders like Alzheimer's were practically unheard of until the mid-twentieth century.

This isn't a coincidence.

Look at the advice organizations like the Alzheimer's Association gives you. According to them, the only way to avoid chronic conditions like dementia is to ditch red meat and eat grains and nuts instead.

Of course, cheap grains are Big Agra's most profitable commodity. This isn't a coincidence, either.

And these dictocrats have the nerve to claim an unnatural diet like the one they promote helps you avoid Alzheimer's.

But as usual, the opposite is true.

Humans evolved to eat fat. It's what gave our ancestors big brains. And it's what will continue to protect your brain moving forward.

Once we abandoned our ancestral way of eating — full of healthy fats — we started the long and dangerous process of starving our brains of the building blocks necessary for memory and repair.

But increasing a unique class of fat molecule — *one that continues to be ignored by mainstream medicine* — could be the critical link to restoring cognitive function.

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

- Why this unique kind of fat — called plasmalogens — may be the most important nutrient for your brain, your memory, and your future. I'll also show you how you can rebuild your plasmalogen shield naturally to protect yourself against all kinds of neurodegenerative conditions.
- How years of eating factory waste — sold to an unsuspecting public as “health food” — continues to be the driving factor behind the country's heart disease crisis. Learn how to safely eliminate them from your diet and replace them with healthy substitutes that slash disease-causing inflammation.
- The first essential fatty acid to be discovered in almost 100 years. Today, one in three people are deficient. But increasing levels of this saturated fat is key to healthy aging — and can even reverse many of the chronic diseases plaguing us today.

To Your Good Health,

Al Sears, MD, CNS

In This Issue...

A Deficiency In This Phospholipid Could Be Behind The Alzheimer's Epidemic.....	2
Your Body's Fat Balance Is Broken.....	8
More Proof That Diet Dictocrats Are All Wrong About Saturated Fat.....	13

New Research Reveals: A Deficiency In This Phospholipid Could Be Behind The Alzheimer's Epidemic

No conventional doctor will tell you this, but you are being misled, if not outright lied to, about the causes — *and the cures* — of memory loss and dementia.

Every year, Big Pharma spends billions chasing a new therapy for Alzheimer's disease, as well as other forms of cognitive decline. They launch one new drug after another, promising the world that this time, they've figured it out.

And every year, they fail.

The truth is, mainstream medicine has no cure and offers no hope for these devastating, mind-wasting conditions that steal your memories, destroy your language skills, turn loved ones into total strangers, and all-too-often end your ability to function at home.

It's no wonder that most of my patients fear Alzheimer's more than cancer.

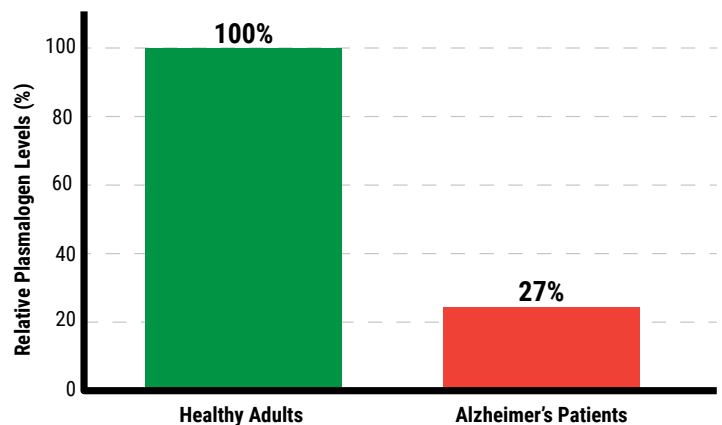
But the problem is, doctors and Big Pharma-funded scientists are looking in the wrong place.

You see, neurodegenerative conditions like Alzheimer's, Parkinson's, vascular, and Lewy body dementia aren't caused by plaques and tangles. They're caused by the slow breakdown of your body's most fundamental defenses.

And there's one class of molecules — almost never mentioned in mainstream medicine — that independent scientists now believe holds the missing key.

I'm talking about a special type of fat molecule that makes up over 20% of your brain's structure.¹

Plasmalogen Levels in Healthy Adults vs. Alzheimer's Patients



Compared to healthy adults, patients with Alzheimer's have as much as a 73% reduction in plasmalogen levels.

They're called plasmalogens — and they're one of the most powerful brain boosters I've ever come across.

Many doctors have never even heard of them. Medical schools barely mention plasmalogens. And Big Pharma ignores them because they can't patent nature, so there's no profit in them.

But the science is undeniable:

- Alzheimer's patients have up to 73% lower levels of plasmalogens compared to healthy adults.²
- Low plasmalogen levels track with Parkinson's, memory loss, and accelerated aging.³
- And when scientists supplement them in human trials, patients experience measurable improvements in cognition, mood, and sleep.⁴

Today you'll learn why plasmalogens may be the most important — and overlooked — nutrient for your brain, your memory, and your future.

I'm also going to show you how you can rebuild your natural plasmalogen shield to protect yourself against almost all forms of these awful neurodegenerative conditions.

What Are Plasmalogens And Why Do You Need Them?

Plasmalogens are a special class of phospholipids. These are fats that form the membranes around your cells.

But they're not ordinary fats.

They contain a rare vinyl-ether bond that makes them stronger and more protective for your cells, particularly in high-demand organs like your brain, heart, eyes, and muscles.

This unique structure provides your cells with a protective shield, allowing plasmalogens to absorb damage from harmful molecules and neutralize oxidative stress before it can damage them.

Think of them as reinforced bricks in the walls of your cells — strong, flexible, and built to last.

They're also essential for brain connections. Plasmalogens help your neurons form synapses, the tiny links that allow brain cells to communicate. Without enough plasmalogens, these connections weaken, making memory, focus, and learning more difficult.

Plasmalogens also help organize tiny “working zones” in cell membranes called “lipid rafts,” where important brain signals are processed. They make your cells more resilient, help reduce inflammation, and even support mood and sleep.

In short, plasmalogens aren't just another fat — they're a cell-protecting, brain-boosting powerhouse — but the problem is, they decline naturally as you age.

You see, starting in your 40s, plasmalogen levels start to drop. By your 70s, you may have lost half of your reserves.

“Plasmalogens aren't just another fat — they're a cell-protecting, brain-boosting powerhouse — but the problem is, they decline naturally as you age.”

This loss is a big deal because plasmalogens are essential for keeping your brain, heart, and muscles working properly. Low plasmalogen levels are linked to memory problems, cognitive decline, Alzheimer's, and Parkinson's disease.

That's bad news for your brain. And it's why signs of dementia can sometimes begin in your 40s, but strikes most commonly in seniors.

Without enough plasmalogens:

- Brain cells become more vulnerable to damage from free radicals.
- Synapses — the connections between neurons — weaken, slowing memory and learning.
- Inflammation can spiral out of control, affecting both your brain and body.
- Muscle and nerve function decline, contributing to fatigue and frailty.

In other words, plasmalogens are like the scaffolding of your cells. If you keep them strong, your brain and body will stay more resilient.

That's why researchers have consistently found:

- Alzheimer's patients have severe plasmalogen deficiencies.⁵
- Parkinson's patients have reduced plasmalogen levels in the motor and memory regions of the brain.⁶
- Studies reveal that even healthy adults with low plasmalogens exhibit faster cognitive decline.⁷
- An 85-year-old with high plasmalogen levels can have the dementia risk profile of someone 10 years younger.⁸

For decades, mainstream medicine has funneled billions into Alzheimer's and dementia drugs that don't work.

Meanwhile, the real solution has been hiding in plain sight.

Some scientists now even say that Alzheimer's may be rooted in a plasmalogen deficiency.⁹

Clinical Proof: From Memory To Mood

Extensive research now shows that plasmalogens don't just look good on paper. They deliver measurable benefits — from sharper memory to better mood and sleep... and much more.

And unlike most so-called “miracle molecules,” plasmalogens already have multiple human trials behind them.

Here's just a small sample...

- **Memory and Cognition.** In several clinical trials, patients with cognitive impairment or early Alzheimer's who took plasmalogen supplements experienced noticeable improvements in memory and thinking skills. One study showed that after taking plasmalogens for several months, participants performed significantly better on memory tests, particularly participants under 77 years old.

The key takeaway is that early intervention matters — the sooner you start supporting your brain, the more impact you will see.¹⁰

- **Mood and Mental Clarity.** Plasmalogens don't just protect neurons — they support the biochemicals that control your mood. Studies show that healthy adults taking plasmalogen supplements reported better focus, less anxiety, and improved sleep quality over just a few weeks. Participants felt calmer, sharper, and more energized. In one randomized, double-blind, placebo-controlled trial, researchers found that taking plasmalogens reduced negative mood, improved sleep quality, and enhanced concentration in healthy young adults.

And in a pilot trial with Parkinson's patients, researchers found that plasmalogen supplementation improved non-motor symptoms, including sleep and mood.^{11,12}

- **Neuromuscular and Energy Support.** Older adults in trials who received plasmalogen precursors also saw improvements in mobility, balance, and endurance. Their muscles and nerves seemed to communicate more effectively, and markers of oxidative stress in the body improved. The studies revealed that plasmalogens support

mitochondrial health, fatty acid utilization, and endurance by stabilizing membranes and reducing oxidative stress.

In other words, plasmalogens help your whole body run more smoothly.

These Silent Protectors Benefit Every Cell In Your Body

No drug on earth has been shown to have the same range of safe, natural benefits as plasmalogens.

But while your brain is the biggest winner, studies also show that plasmalogens have the power to protect your entire body...

- **Heart And Vascular Protection.** Plasmalogens are packed into your heart muscle. They guard mitochondria — the tiny energy generators inside each of your cells — and neutralize free radicals before they can cause damage to your blood vessels. Several studies reveal that low plasmalogen levels correlate with higher cardiovascular risk — but high levels of plasmalogen correlate with heart health.¹³

- **Immune System Support.** White blood cells use plasmalogens as fuel for defense. They enhance neutrophils and macrophages — your immune shock troops. They also keep inflammation balanced, preventing chronic “silent fires” in your body.¹⁴

- **Mitochondrial Energy And Endurance.** Plasmalogens stabilize cellular membranes and improve fatty acid utilization. The result is a more efficient mitochondria, better endurance, and less fatigue. Some athletes use plasmalogen supplementation for energy, stamina, and recovery.¹⁵

- **Eye Health.** Your retina and lens are loaded with plasmalogens. They protect against oxidative stress from UV light and the high metabolic demand of vision. Studies have demonstrated that plasmalogens are abundant in retinal photoreceptor membranes and play a critical role in protecting against oxidative stress and light-induced damage. Decline of plasmalogens is linked to macular degeneration and cataracts.¹⁶

• **Anti-Aging And Longevity.** Plasmalogen decline begins at 40 and accelerates rapidly after age 70 — in parallel with Alzheimer's, heart disease, immune dysfunction, cognitive decline, and frailty. Multiple researchers now see plasmalogens as a master longevity switch, keeping your cells resilient against aging itself.¹⁷

You Can Rebuild Your Plasmalogen Shield

Your body can make plasmalogens — but only if it has the right raw materials, and only if your cells aren't under constant attack.

The truth is, your plasmalogen levels aren't sinking by accident — they're being *sabotaged*. The modern world we live in is a perfect storm for burning through these critical fats.

The biggest culprits are:

- **Oxidative stress** — From pollution, processed foods, and sugar overload.
- **Chronic inflammation** — The hidden root of nearly every modern disease.
- **Toxins and heavy metals** — These accumulate in your tissues and poison your cells.
- **Aging** — Even without the above accelerants, the more you age, the greater the natural slowdown in plasmalogen production.

The truth is, by the time you hit midlife, most people are already running on fumes — with a dangerous plasmalogen deficit that leaves the brain, muscles, and heart wide open to decline.

But the good news is that you can easily restore your plasmalogen levels. I recommend a three-step protocol to my patients.

Step 1: Boost Plasmalogen Levels From Food Sources. You won't hear this from the so-called nutrition experts but plasmalogens aren't hiding in kale or quinoa. Forget the plant-based hype — these brain-saving plasmalogens are found almost *exclusively* in animal foods. The richest sources are:

- **Marine Sources.** Squid, octopus, scallops, and mussels are loaded with plasmalogens —

the same forms your brain depends on to stay sharp. In a clinical trial involving Parkinson's disease patients, oral administration of purified ether phospholipids derived from scallops led to an increase in blood plasmalogen levels and an improvement in several symptoms.¹⁸

- **Grass-Fed Beef And Lamb.** Fatty cuts of beef and lamb, along with dark meat chicken and skin, and organ meats like kidney, liver, and heart also deliver impressive amounts of plasmalogens.
- **Eggs.** Egg yolks provide nearly 40 times more plasmalogens than whites. Yolks also provide choline, which is critical for phospholipid synthesis. Despite years of misinformation from mainstream doctors and nutritionists about the dangers of egg yolks, they contain a range of nutrients that your body evolved to require. I recommend eating eggs every day.

Step 2: Lifestyle Changes Can Supercharge Your Plasmalogens. Everyday habits can make or break your plasmalogens.

- **Eat A Fat-First Diet.** My advice is to flip the food pyramid upside down and forget the government's carb-heavy plate. A fat-first approach — keto or low-carb — boosts lipid metabolism, feeds your brain lipids, and boosts plasmalogen production. Adopting a keto diet is much easier than you might imagine. It's high in animal fat and protein, but very low in grains and other carbohydrates. It works because when your body doesn't have carbs to burn for energy, it burns fat instead.
- **Detox Is Key.** Modern life is a nonstop assault on your plasmalogens. Processed foods, pesticides, heavy metals, and environmental chemicals act like little saboteurs, silently degrading your brain and nerve lipids. Detoxifying isn't some trendy fad — it's essential self-defense. The first step is cutting processed foods from your diet. Then focus on getting rid of toxins using chelation.

Chelation grabs toxins from your body and drags them out — painlessly. I've found that patients get the best results when they combine IV chelation with oral chelation. I recommend

activated charcoal to grab heavy metal molecules, toxins, poisons, and other chemicals and remove them from your body. You can find it in almost any local drug store.

- **Work Out The Right Way.** Exercise isn't just about weight loss or looking good — it's also a great plasmalogen booster. Every time you get your blood pumping, your body cranks up the enzymes that help produce these critical brain, muscle, and nerve lipids. Even moderate activity, like brisk walking and resistance training will help.

But for the biggest plasmalogen boost, I recommend high-intensity exercise, like my PACE program. This uses brief but vigorous routines of increasing intensity — and the beauty of it is you only need to exercise for 12 minutes a day. To learn some good PACE exercises, check out my YouTube channel: <https://www.youtube.com/user/AlSearsMD/videos>.

Step 3: Supplements Are The Final Piece Of The Puzzle. The truth is, as you age, diet and life take you only part of the way to the plasmalogen levels you need.

I recommend a combination of supplements to give your memory, focus, and energy the best chance against the assaults of aging and modern toxins. But the most important supplement is DHA...

- **Take DHA To Supercharge Your Memory.** Omega-3 fatty acids — especially DHA (docosahexaenoic acid) — are incorporated into plasmalogens as their fatty acid side chains. In other words:
 - DHA is the key building block of plasmalogens.
 - DHA contributes to membrane fluidity, flexibility, and signaling.
 - Plasmalogens act as carriers that help deliver DHA into brain tissue.

DHA is the most abundant omega-3 fatty acid in your brain. It makes up over 90% of all the omega-3s found there.



Squid oil is your best source for both DHA and plasmalogens.

If you're a regular reader, you know that DHA is what allowed humans to evolve our big, complex brains. It's the key to sharp, fast thinking.

You see, DHA is critical for the function of your neuronal membranes — influencing everything from membrane fluidity to the speed of signal transmission between brain cells.

The best source of both DHA and plasmogens is squid oil. Look for a DHA-rich squid oil that has been harvested from the pristine ocean waters near the Arctic. To keep your brain function strong, I recommend up to 1,000 mg of squid-based DHA every day.

DHA isn't the only supplement that supports plasmalogens. I also recommend:

- **Choline.** A must-have building block. Without it, your brain can't maintain its protective lipid membranes.
- **Vitamin B12 And Folate.** Enable the methylation pathways that build phospholipids.
- **Antioxidants.** Take vitamins C and E, as well as carotenoids, like astaxanthin, lutein, and beta-carotene. These will defend your existing plasmalogens from attacks and destruction.

A Final Word On Vitamin Synergy

Plasmalogens don't work alone.

They interact with the fat-soluble vitamins your body craves but rarely gets enough of. You may

have been told to pop a multivitamin and call it a day, but that won't protect your plasmalogens.

These critical brain fats thrive when paired with the right fat-soluble nutrients: Together, they act like a reinforced armor for your neurons.

- **Vitamin A:** This vitamin should be taken together with carotenoids. These antioxidant powerhouses protect cell membranes. Plasmalogens absorb oxidative hits first, but carotenoids are the backup, sparing your lipids and extending your brain's defenses.
- **Vitamin D3 And K2:** Vitamin D3 has been shown to reduce neuroinflammation and support neurotrophic signaling, while K2 (menaquinone-4) keeps your brain's protective myelin sheath healthy. Paired with plasmalogens, they reinforce the structural and biochemical environment your neurons need to stay sharp.
- **Vitamin E:** It provides an antioxidant "shield" that preserves plasmalogens from oxidation. Vitamin E works hand-in-hand with plasmalogens, sitting in the lipid bilayer and neutralizing free radicals before they destroy your brain's structural fats.

References

1. Nagan N, Zoeller R. "Plasmalogens: biosynthesis and functions." *Prog Lipid Res.* 2001 May;40(3):199-229.
2. Igarashi M, et al. "Disturbed choline plasmalogen and phospholipid fatty acid concentrations in Alzheimer's disease prefrontal cortex." *J Alzheimers Dis.* 2011;24(3):507-17.
3. Mawatari S, et al. "Decreases of ethanolamine plasmalogen and phosphatidylcholine in erythrocyte are a common phenomenon in Alzheimer's, Parkinson's, and coronary artery diseases." *Brain Res Bull.* 2022 Oct 15;189:5-10.
4. Watanabe H, et al. "The Impact of Ascidian (*Halocynthia roretzi*)-derived plasmalogen on cognitive function in healthy humans: A randomized, double-blind, placebo-controlled trial." *J Oleo Sci.* 2020 Dec 1;69(12):1597-1607.
5. Su XQ, et al. "Plasmalogens and Alzheimer's disease: a review." *Lipids Health Dis.* 2019 Apr 16;18(1):100.
6. Kaya I, et al. "Brain-region-specific lipid dysregulation in L-DOPA-induced dyskinesia in a primate model of Parkinson's disease." *NPJ Parkinsons Dis.* 2025 Aug 23;11(1):258.
7. Wood PL, et al. "Circulating plasmalogen levels and Alzheimer Disease Assessment Scale-Cognitive scores in Alzheimer patients." *J Psychiatry Neurosci.* 2010 Jan;35(1):59-62.
8. Goodenowe D, et al. "Association of serum ethanolamine plasmalogen with risk of incident all-cause dementia in a nested case-control study." *J Alzheimer's Dis.* 2022;88(3):1045-1056.
9. Goodenowe DB, et al. "Peripheral ethanolamine plasmalogen deficiency: a logical causative factor in Alzheimer's disease and dementia." *J Lipids.* 48(11):2485-2498.
10. Goodenowe DB, et al. "Targeted plasmalogen supplementation: Effects on blood plasmalogens, oxidative stress biomarkers, cognition, and mobility in cognitively impaired persons." *Front Cell Dev Biol.* 2022 Jul 6;10:864842.
11. Fujino T, et al. "Effects of plasmalogen on mood, sleep, and cognition in healthy volunteers: a randomized, double-blind, placebo-controlled study." *Front Cell Dev Biol.* 2022 Jun 2;10:894734.
12. Mawatari S, et al. "Improved non-motor symptoms in Parkinson's disease after plasmalogen supplementation." *Parkinson's Disease.* 2020. Feb 19;2020:2671070.
13. Beyene HB, et al. "Development and validation of a plasmalogen score as an independent modifiable marker of metabolic health: population based observational studies and a placebo-controlled cross-over study." *EBioMedicine.* 2024 Jul;105:105187.
14. Bozelli JC, et al. "Plasmalogens and Chronic Inflammatory Diseases." *Front Physiol.* Oct 2021.
15. Morales PE, et al. "Muscle lipid metabolism: Role of lipid droplets and perilipins." *J Diabetes Res.* 2017;2017:1789395.
16. Saab, S & et. "Plasmalogens in the retina: From occurrence in retinal cell membranes to potential involvement in pathophysiology of retinal diseases." *Biochimie.* 107. 10.1016/j.biochi.2014.07.023.
17. Gu J, et al. "Plasmalogens Eliminate aging-associated synaptic defects and microglia-mediated neuroinflammation in mice." *Front Mol Biosci.* 2022 Feb 23;9:815320.
18. Mawatari S, et al. "Improvement of blood plasmalogens and clinical symptoms in Parkinson's Disease by oral administration of ether phospholipids: A preliminary report." *Parkinson's Disease.* Article ID 2671070. 2020.

Your Body's Fat Balance Is Broken

But Switching To Your Grandmother's Cooking Fats Can Slash Inflammation 70%

Over the past few months, I've watched a parade of nutrition and heart-health "experts" speak out publicly in support of seed oils — desperately trying to reassure consumers that these toxic oils are "completely safe" and even "good for you."

It's a full-on public relations stunt designed to silence people like me. I've been teaching my patients how to avoid these toxic oils for decades.

But no matter how they try to spin it, the truth is clear: The vegetable oils lining supermarket shelves — canola, soybean, cottonseed, and others — are among the worst things you can put in your body.

They weren't even considered food a century ago! They were industrial waste, dumped by factories.

This isn't conspiracy. It's history.

Today, seed oils dominate 20% of the average diet.¹ But here's the brutal truth:

Your body treats them as poison.

Unlike traditional fats your ancestors thrived on, industrial seed oils flood your system with unstable omega-6 fatty acids. This imbalance sparks cellular chaos: chronic inflammation, gut damage, and oxidative stress that corrodes your heart, joints, and brain.²

It's why modern diseases — diabetes, infertility, arthritis — exploded alongside seed oil consumption. Omega-6 overload from seed oils hijacks your immune system, turning it against you. Studies link them to leaky gut, soaring IBD rates, and infertility.³



A century ago, industrial seed oils were simply a byproduct of industrial waste. Then Big Business transformed them into "edible" cooking fats.

And as I've been saying for years, these toxic seed oils are the driving force behind America's heart disease crisis.⁴

From Factory Waste To "Heart-Healthy" Food

In the early 1900s, companies like Procter & Gamble faced a problem: Cotton farming produced mountains of toxic cottonseed waste. Instead of disposing of it, they chemically transformed it into Crisco, a "miracle" cooking fat.

With slick advertising, they convinced families this lab-made sludge was cleaner and safer than butter or lard.

This wasn't true, but by the 1950s, their campaign had a powerful ally: the American Heart Association. After receiving massive donations from seed oil producers, the AHA began endorsing these oils as heart-protective, igniting a 70-year nutritional disaster.⁵

Generations of Americans trusted doctors and nutrition labels, unaware they were consuming inflammatory factory byproducts.

And the “heart-healthy” claim? It's a cruel joke. Autopsies reveal artery plaque packed with linoleic acid from these oils.⁶

As you dutifully swapped butter for “cholesterol-free” margarine, your cells starved. Traditional fats like tallow and lard deliver fat-soluble vitamins (A, D, K2) that build hormones, insulate nerves, and fight infections.⁷ Seed oils offer none of that — just empty calories that accelerate aging.

How Industrial Fats Ignited America's Heart Disease Crisis

In 1900, infectious diseases like pneumonia and tuberculosis dominated U.S. death certificates, while heart disease accounted for a fraction of deaths.⁸

By 1950, it had exploded into the nation's leading cause of death, claiming over 355 lives per 100,000 people.⁹

This 20th-century catastrophe didn't stem from genetics or aging. It emerged in lockstep with the chemical alteration of America's diet.

At the dawn of the 20th century, Americans cooked with traditional fats: butter, lard, coconut oil, and olive oil. These stable, minimally processed fats aligned with human biology, providing energy without oxidative stress. Heart disease mortality remained so low — below 5% of total deaths — that physicians rarely encountered coronary cases.¹⁰

Autopsies from that time show people had clean, healthy arteries — completely different from the clogged, damaged blood vessels doctors found by mid-century.¹¹

But by 1909, cottonseed oil — marketed as “compound lard” and touted as “pure” — had taken over America's cooking.

Then World War II accelerated the disaster.

Soybean oil flooded American kitchens as a cheap alternative to rationed animal fats.

But these oils required brutal chemical processing — bleaching, deodorizing, and partial hydrogenation (turning them into solids and making them more shelf-stable) — to mask their bitter taste and rancidity.



The Deadly Timeline: When Heart Disease Exploded

1900-1920: Seed oil use starts climbing. Heart disease deaths double.

1930-1950: Soybean oil use goes up four times. Heart disease becomes America's #1 killer, hitting 307 deaths per 100,000 people by 1950.

1960s: Seed oils make up 70% of all dietary fats. Heart disease peaks at 621,000 deaths yearly — 10 times more than in 1900.

Nothing else matches this pattern. Smoking was highest in the 1910s-1940s, but heart disease kept rising after that. People ate less animal fat as margarine and shortening replaced butter and lard.

Even better disease control can't explain this heart disease explosion. Deaths from infections like tuberculosis went down, but heart attacks and strokes went way up.

Why These Oils Destroy Your Body

Seed oils aren't poisonous by nature. It's the industrial processing that ruins them. High heat and chemical solvents create polyunsaturated fats with weak bonds that break easily.¹²

When you eat these damaged fats, they get into your cell walls where they rot — damaging proteins, DNA, and blood vessel walls.¹³

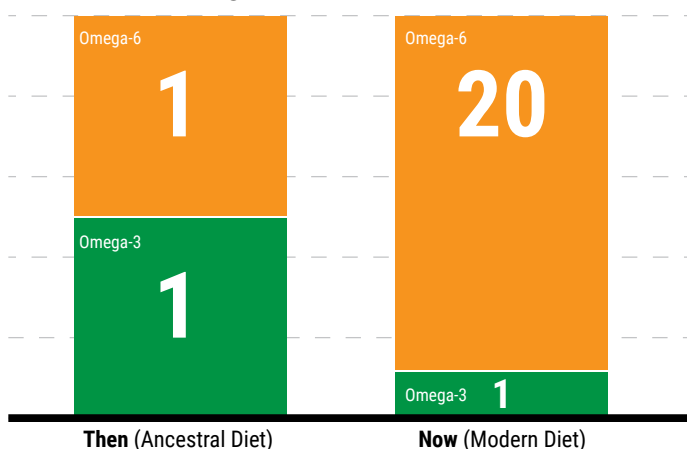
This rotting process triggers chronic inflammation — the real cause of clogged arteries. Meanwhile, stable saturated fats like coconut oil don't rot and don't cause this problem.

Modern studies show countries that eat lots of seed oils have 42% more heart disease deaths than countries using traditional fats — even when everything else is the same.¹⁴

Your Body's Fat Balance Is Broken

Your ancestors ate omega-6 and omega-3 fats in perfect balance — about 1:1. Today, you're drowning in a 20:1 flood of omega-6 from seed oils.

Omega Balance Over Time



This omega-6 flood doesn't just add calories — it reprograms your cells.

When omega-6 takes over your cell walls, it pumps out inflammation signals that cause chronic inflammation — the root of heart disease, arthritis, and depression. Even worse, too much omega-6 blocks omega-3's healing powers.

Studies show small changes can have a big impact on your health. One major study found that dropping omega-6 ratios from 16:1 to 4:1 was associated with a 70% drop in mortality for heart patients.¹⁵

For arthritis patients, a lower ratio dramatically reduced pain by cooling inflammation.¹⁶

But the standard American diet ranges from 10:1 to a shocking 20:1. And at those ratios, asthma gets worse, cancer grows, and brain health fails.

Why? Your cell fat content directly controls how your genes work. Too much omega-6 flips genetic switches that speed up aging and disease.

How Big Food Poisons You In Plain Sight

Industrial food processing introduces invisible toxins that sabotage your health at the cellular level.¹⁷

While health authorities spoon-feed you reassurances that these processing methods are “generally recognized as safe,” mounting research reveals a disturbing truth: these chemicals are metabolic hand grenades with delayed fuses.

Two industrial villains you should be aware of: hexane extraction and hydrogenation.

Hexane — a neurotoxic petroleum solvent — is routinely used to extract oils from soybeans, canola, and other seeds.

Here's the kicker: because it's classified as a “processing aid” rather than an ingredient, it never appears on food labels.

Your liver converts hexane into a compound that literally triggers death in nerve cells by deactivating nerve growth factor — the essential nutrient that keeps your neurons alive.

Studies show even low-level exposure correlates with neuropathic symptoms like numbness and weakness.¹⁸

Your nervous system is being poisoned in slow motion, and nobody's telling you.

This chemical also unleashes oxidative destruction in your liver and kidneys. Animal studies show it slashes your body's master

antioxidant (glutathione) by 45% while boosting cell damage markers by 110%.¹⁹ The result is cellular breakdown and organ shrinkage.

Hydrogenation — the industrial process that transforms liquid oils into solid fats — creates something even more sinister: trans fatty acids.

Trans fats have an abnormal molecular structure that your cellular machinery simply can't process.

Human studies confirm the carnage: consuming trans fats inflames your arteries, raising inflammatory markers by up to 73%.²⁰ They also transform your cholesterol into smaller, denser, more dangerous particles that easily invade arterial walls.

Even more alarming, trans fats destroy gut immunity, triggering intestinal inflammation and damaging the gut barrier. This bacterial chaos directly triggers insulin resistance and fatty liver disease within weeks.²¹

Harvard cardiologist Dr. Dariush Mozaffarian didn't mince words when he stated that every 2% increase in trans-fat calories boosts heart disease risk by 23%²² — creating a “perfect storm” for chronic diseases that Big Food conveniently ignores.

Flush Inflammation With My Healthy Kitchen Protocol

I've witnessed remarkable transformations in my patients who slashed joint pain, reversed bloating, and dropped stubborn weight in as little as three weeks by following the simple steps outlined below.

1. Make Healthy Fat Swaps. Start by dumping every bottle of the “Hateful Eight”: soybean, corn, sunflower, grapeseed, canola, cottonseed, safflower, and rice bran oils. Replace them with cornerstone fats that your body actually recognizes:

- Pasture-Raised Lard. Rich in vitamin D and monounsaturated fats that support cell repair.
- Grass-Fed Ghee. Packed with inflammation-fighting butyrate that soothes your gut lining.
- Grass-Fed Tallow. Rich in stearic acid that maintains cellular integrity even at high heat. And unlike seed oils, it won't create toxic byproducts when cooking.

- Extra-Virgin Coconut Oil. Contains lauric acid that zaps harmful bacteria while reducing oxidative stress.
- Cold-Pressed Olive Oil. Delivers polyphenols that block inflammatory cytokines at their source.

2. Clean Out The Kitchen. Grab a trash bag and go through your pantry and fridge for these hidden health dangers.

- Crackers And Chips. Even those masquerading as “health food” are usually seed oil traps.
- Nut Butters. That “natural” jar is likely hiding safflower or similar. Opt for simple ingredients — just nuts and maybe salt.
- Rice And Grain Packets. Those convenient microwaveable pouches are swimming in canola oil.
- Salad Dressings. Nearly all commercial dressings use soybean or sunflower oil as their base. Switch to organic avocado oil dressings or better yet, make your own in minutes using good olive oil, vinegar, mustard, and herbs.
- Butter Substitutes. Many “heart-healthy” spreads are actually inflammatory nightmares.
- Hummus And Dips. Store-bought varieties typically contain cottonseed or grapeseed oil. DIY with tahini, chickpeas, olive oil, and lemon — tastier and healthier.
- Plant-Based Meats. They're loaded with canola oil. Choose real meat every time.
- Frozen Meals. Scrutinize the ingredients list — if “vegetable oil” appears in the first five ingredients, it doesn't belong in your body.

3. Shop Smart. Replace the oil-soaked snacks with foods that soothe inflammation and promote your overall health. Start with a small shopping list and gradually build on it over time.

- Proteins. Grass-fed beef or organ meats; wild-caught salmon and other fatty fish; pastured eggs; and nuts such as almonds and walnuts.
- Produce. Dark leafy greens, berries, broccoli, and onions (loaded with quercetin that calms overactive immune responses).

- Pantry Staples. Raw almonds, turmeric root, fermented sauerkraut, and black pepper (which enhances turmeric's anti-inflammatory power by an astounding 2,000%).

4. Stop Burning Your Oils And Poisoning Your Meals. Mainstream cooking advice ignores how heat turns healthy fats into inflammatory grenades.

When oils hit their smoke point, they shatter into free radicals and acrid compounds linked to brain damage, cancer, and raging inflammation.

Extra virgin olive oil smokes at 410°F, but most home frying stays safely below 375°F — meaning you can sauté and roast without fear if you respect its limits.

I suggest buying a \$10 infrared thermometer. Scan your pan before adding oil. Keep ghee below 450°, coconut oil below 350°, and extra virgin olive oil and beef tallow below 400°. This one habit eliminates 90% of oxidation disasters.

High-heat methods like grilling and deep-frying combust oils into toxins. Try steam-sautéing instead.

For example: Warm a tablespoon of ghee on medium-low (under 300°), toss in greens or fish, add 2 tablespoons of water, then clamp on a lid. The steam cooks food through while the oil stays pristine — locking in 40% more anti-cancer flavonoids than boiling.²³

And stop using oil repeatedly — it's a silent killer. Reheating frying oil just once spawns lipid peroxides that accelerate brain aging and Alzheimer's risk. Solution: after pan-searing chicken, wipe the pan with a paper towel.

5. Balance Your Fat Intake. Aim for roughly:

- 50% saturated fats (tallow, coconut oil, butter).
- 30% monounsaturated fats (olive oil, avocado, lard).
- 20% polyunsaturated fats ONLY from whole foods like fish, pastured eggs, and nuts — never from refined oils.

Your body recognizes these traditional fats. They're the building blocks of every cell

membrane, crucial for hormone production, and essential for absorbing fat-soluble vitamins. When you restore these foundational elements, cellular communication improves, inflammation subsides, and energy production normalizes.

Many people report noticing changes within just days of making this switch — clearer thinking, improved digestion, and less joint stiffness as their cells finally receive the right materials to function properly.

Quality matters tremendously. Look for “pasture-raised,” “grass-fed,” and “cold-pressed” on labels. Store oils properly — away from heat and light — and replace them if they develop any off smells.

Your body has been waiting for you to make this simple but revolutionary change. It's time to give it what four million years of human evolution designed it to use.

References

1. Mozaffarian D, et al. “Trans fatty acids and cardiovascular disease.” *N Engl J Med*. 2006;354(15):1601-1611.
2. Okada Y, et al. “Trans fatty acids exacerbate nonalcoholic steatohepatitis through intestinal epithelial barrier dysfunction.” *J Clin Invest*. 2022;132(8):e152748.
3. Zapolska-Downar D, et al. “Trans fatty acids induce apoptosis in human endothelial cells.” *J Physiol Pharmacol*. 2005 Dec;56(4):611-25.
4. National Center for Health Statistics. Heart Disease Deaths. Health, United States. CDC.
5. CDC. “Decline in Deaths from Heart Disease and Stroke.” *MMWR*. 48(30):649-656.
6. Mensink RP, et al. “Effects of dietary fatty acids and carbohydrates on the ratio of serum total to HDL cholesterol.” *Am J Clin Nutr*. 2003;77:1146-1155.
7. DiNicolantonio JJ, et al. “The effect of coconut oil on health: evidence and controversy.” *Circulation*. 2020;141(10):803-814.
8. U.S. Census Bureau. Vital Statistics: Mortality. 1900.
9. U.S. Department of Health. Vital Statistics of the United States 1960.
10. U.S. Census Bureau. Vital Statistics 1900.
11. Mensink RP, et al. “Effects of dietary fatty acids and carbohydrates on the ratio of serum total to HDL cholesterol.” *Am J Clin Nutr*. 2003;77:1146-1155.
12. Grootveld M, et al. “Heating-related toxicity of common cooking oils.” *Toxicol Res*. 2020;9(4):569-579.
13. Zapolska-Downar D, et al. “Trans fatty acids induce apoptosis in human endothelial cells.” *J Physiol Pharmacol*. 2005;56:611-625.
14. Guasch-Ferré M, et al. “Olive oil consumption and risk of cardiovascular disease and mortality in the PREDIMED Study.” *BMC Medicine*. 2014;12:78.
15. Simopoulos, AP. “The importance of the ratio of omega-6/omega-3 essential fatty acids.” *Biomed Pharma*. 2002;56(8):365-79.
16. Sibille KT, et al. “Omega-6:Omega-3 PUFA ratio, pain, functioning, and distress in adults with knee pain.” *Pain*. 2018;159(3):501-507.
17. Shanahan C. “How Vegetable Oils Destroy Our Health.” Weston A. Price Foundation. 2023.
18. Liu Q, et al. “Toxic effect of n-hexane and its metabolite on peripheral myelin: an ultrastructural study.” *Biomed Environment Sci*. 2020;33(7):522-530.
19. Liu Q, et al. “Toxic effect of n-hexane and its metabolite on peripheral myelin: an ultrastructural study.” *Biomed Environment Sci*. 2020;33(7):522-530.
20. Okada Y, et al. “Trans fatty acids exacerbate nonalcoholic steatohepatitis through intestinal epithelial barrier dysfunction.” *J Clin Invest*. 2022;132(8):e152748.
21. Zapolska-Downar D, et al. “Trans fatty acids induce apoptosis in human endothelial cells.” *J Physiol Pharmacol*. 2005;56:611-625.
22. Mozaffarian D, et al. “Trans fatty acids and cardiovascular disease.” *N Engl J Med*. 2006;354(15):1601-1611.
23. Cicerale S, et al. “Chemistry and health of olive oil phenolics.” *Crit Rev Food Sci Nutr*. 2009;49(3):218-225.

The First Essential Fatty Acid Discovered In 90 Years Provides:

More Proof That Diet Dictocrats Are All Wrong About Saturated Fat

Your body has *always* known what foods are best for it. But for decades, we were told to ignore our instincts — and pay attention to “the science” instead.

I’m talking about bad science like “stay away from saturated fat because it will raise your risk of heart disease.”

As a regular reader, you know nothing could be further from the truth.

Your body needs saturated animal fats.

They are a natural part of your diet — and they don’t raise your risk of heart disease.

And now... breakthrough research shows that saturated fats are one of the richest sources of the first essential fatty acid to be discovered in over 90 years.

I’m talking about an odd-chain saturated fat called pentadecanoic acid, or C15:0.

This exciting new research reveals that this essential fatty acid is just as important as omega-3.¹

And just like omega-3 fats, your body can’t readily make C15:0.

You have to get it from your diet.

Today, we realize that higher dietary intakes of C15:0 can reduce the risk of cardiovascular disease and heart attacks.

But a game-changing clinical trial proves that pure C15:0 goes even further...

In the randomized, double-blind study, participants were divided into three groups.²



A newly discovered essential fatty acid found in saturated fats can reduce your risk of cardiovascular disease and more.

The first group was placed on a caloric-restricted diet. The second group went on a caloric-restricted diet that followed a modified Mediterranean-style diet. The third group followed the same diet but added C15:0.

After three months, those who were given C15:0 had the greatest results, including:

- Greater weight loss
- Decreased body fat, including less visceral fat
- Lower insulin and glucose levels
- Reduced triglycerides
- Less liver fat
- Healthier gut microbiome
- Better blood pressure

How The Diet Dictocrats Got It All Wrong

This groundbreaking discovery means that when you eat low-fat versions of butter, milk, cheese, and yogurts — as the diet dictocrats have been advising for more than half a century — you're missing out on this key fatty acid that strengthens and protects the outer part of a cell.

You see, C15:0 works by protecting your cells against the inflammatory damage that's at the root of dozens of modern disorders.

This includes chronic conditions like heart disease... diabetes... autoimmune diseases like rheumatoid arthritis... gastrointestinal disorders like inflammatory bowel disease, Crohn's disease and ulcerative colitis... fatty liver disease... and lung diseases like COPD and asthma.³

C15:0 has also been found to be essential for your brain, allowing you to age smarter.

And some peer-reviewed studies have discovered that people with higher C15:0 levels live longer.⁴

This confirms the anti-aging power of C15:0, which isn't surprising because the same study reveals that this essential fatty acid protects and boosts your mitochondria, the microscopic energy powerhouses that are found in each one of your cells.

Researchers have known for years that your mitochondria hold the secret to preventing — and in some cases reversing — dozens of chronic conditions that strike us from middle age onwards.⁵

Destroying The Saturated Fat Myth

It's good news that fatty acids like C15:0 are getting the attention they deserve. I've been shattering this "fat is bad" myth for as long as I've been practicing medicine.

The research just doesn't back it up.

In fact, the whole saturated-fat myth has been debunked by science. Because saturated fats do

not clog your arteries. And they don't harm your heart.

The truth is, saturated fat is **GOOD** for your heart.

The famous Nurses' Health Study followed more than 80,000 nurses for 20 years. It found that saturated fats had NO impact on heart disease risk.⁶

A review of 21 studies in the *American Journal of Clinical Nutrition* evaluated data from more than 350,000 people over 23 years.

It found no evidence that saturated fat increased the risk of heart disease or stroke.⁷

In another study, researchers in England analyzed fat removed from clogged arteries.⁸ It turns out only 26% of it was saturated. The other 74% was unsaturated. That's the same type of fat you find in "heart-healthy" polyunsaturated fatty acids (PUFA) found in the seed oils recommended by the AHA.

In other words, seed oils — not saturated fats — are more likely to give you heart disease. In the Sydney Diet Heart Study, Australian researchers followed 458 heart patients for seven years. They instructed half the patients to reduce saturated fat in their diet to less than 10% of calories and increase PUFAs to 15% of calories.

The results showed that people eating more polyunsaturated fat and less saturated fat had HIGHER death rates overall. They also had higher death rates from cardiovascular disease and coronary heart disease. In fact, the death rate for the so-called "healthy" fats was about 70% higher.

The researchers estimated that replacing 5% of your saturated fat calories with "heart-healthy" seed oil increases cardiovascular risk by 35%.

And it increases risk of death from all causes by 29%.⁹

You see, seed oils with polyunsaturated fat are NOT stable. They break down and become oxidized. In your body, they cause free radical damage and inflammation that leads to all chronic diseases. But saturated fats are very stable. The

bonds between their molecules are very strong. They don't break down or oxidize even at high heat.

How This Saturated Fatty Acid Improves Health

Humans evolved to eat animal fat. And today, we know eating saturated fat, especially C15:0 can:

- **Reduce Inflammation.** Several studies show that certain saturated fats can lower inflammation by improving cell membrane integrity and reducing oxidative stress. For example, a study in *The Journal of Nutrition* found that odd-chain saturated fats like C15:0 were linked to lower markers of systemic inflammation, including CRP.^{10,11}

Another clinical trial showed that diets higher in dairy-derived saturated fats decreased inflammatory biomarkers. These findings suggest that saturated fat, especially from whole-food sources, may actually protect against chronic inflammation rather than fuel it.¹²

- **Protect Against Diabetes.** A growing body of evidence, including human studies, animal models, and cellular research suggests that C15:0 helps protect against type 2 diabetes by improving metabolic function and insulin sensitivity.

In lab-grown muscle cells, C15:0 was shown to stimulate the uptake of glucose, even without insulin. It also enhanced insulin's ability to promote glucose uptake, indicating an insulin-sensitizing effect.¹³

- **Strengthen Your Immune System.** Studies show that C15:0 lowers pro-inflammatory molecules like TNF- α and IL-6, which can harm immune function.

It also activates peroxisome proliferator-activated receptors (PPARs), which play a crucial role in regulating immune responses and maintaining metabolic balance.

Higher blood levels of C15:0 are also linked with more white blood cells and neutrophils, boosting innate immunity.¹⁴

- **Boost Brain Health.** A new study funded by the Office of Naval Research backs up what I've been telling my patients for decades: Your brain thrives on the right kinds of fat, including C15:0.¹⁵ In the study, researchers discovered that C15:0 blocks two enzymes that quietly sabotage your brain as you age.

The first, FAAH, breaks down your natural "feel-good" molecules — the same endocannabinoids that keep your mood, memory, and immunity balanced. C15:0 slows FAAH down, keeping those vital molecules circulating longer so you feel sharper, calmer, and more resilient.

The second enzyme, MAO-B, destroys dopamine — your spark for motivation, memory, and joy. As MAO-B ramps up with age, dopamine drops. But fatty15 helps stop that process in its tracks, preserving healthy dopamine levels for a clearer, more vibrant mind.

- **Improve Your Heart.** In a large cross-sectional analysis of the U.S. National Health and Nutrition Examination Survey (NHANES), higher levels of C15:0 were linked with a lower risk of hypertension.¹⁶

And in a large Swedish study, researchers followed 4,150 adults age 60 and older for 16 years. They found that those with the highest levels of C15:0 had a 24% lower risk of developing cardiovascular disease compared to those with the lowest levels.¹⁷

In a follow-up, the researchers analyzed 17 additional studies involving thousands of people worldwide. The results were consistent: individuals with the highest dairy fat biomarkers had about a 12% lower risk of heart disease.

Separate observational studies have shown associations between higher circulating C15:0 levels and lower risk of cardiovascular disease, lower triglycerides, and better lipid profiles.¹⁸

3 Easy Ways To Get More C15:0

I suggest getting about 300 mg to 400 mg per day. Here's what I tell my patients...

1. **Get More C15:0 From Your Diet.** Eating a couple tablespoons of grass-fed butter or a serving of full-fat mozzarella or Gouda cheese from grass-fed cows provides up to 130 mg a day.

Other good sources include ghee (90 mg per tablespoon), grass-fed hard cheeses like cheddar (80 mg per ounce), and heavy cream (30 mg per tablespoon).

Smaller amounts can be found in yogurt, lamb, grass-fed beef, bison, whole milk, organ meat, and fatty fish such as sardines and mackerel.

2. **Switch Dangerous Seed Oils For C15:0.** One of the best things you can do for your health is to stop cooking with cheap, unstable seed oils — canola, soybean, corn — that trigger inflammation, increase insulin resistance, and promote fat storage.

Replace them grass-fed butter, ghee, and beef tallow. These healthy stable fats can handle the heat without breaking down into harmful free radicals.

Butter is best for sautéing at low to medium heat. Ghee and tallow do well at higher heat. They're a great choice for frying and roasting.

3. **Supplement With Pentadecanoic Acid.** As the research continues to grow and demand expands worldwide, it's becoming easier to find supplements. Look for pure C15:0 supplements standardized to 100 mg to 500 mg per serving.

Check that the fat comes from “grass-fed dairy” or “milk fat–derived pentadecanoic acid.” High-quality supplements are derived from ruminant fats (like milk fat) rather than synthetic mixtures.

To make sure I'm getting all the C15:0 I need, I like to cook a thick, fatty steak in a fistful of butter.

Here are three of my favorite recipes:

Pan Seared Steak With Rosemary Butter



Serves 2

Ingredients:

- 2 one-pound ribeye steaks, grass-fed
- ½ tsp Himalayan sea salt
- ½ tsp freshly ground black pepper
- 1 Tbsp olive oil
- 1 stick (8 Tbsp) unsalted grass-fed butter
- Fresh rosemary, coarsely chopped
- 2 cloves garlic, peeled and quartered
- 2 sprigs fresh rosemary, for garnish

Directions:

1. Let steaks come to room temperature for a half hour. Thoroughly pat dry with paper towels. Season with salt and pepper.
2. Heat a large cast-iron skillet until very hot. Add olive oil to coat the bottom and bring back to high heat. Add 4 tablespoons of butter and stir to combine with oil.
3. Add steaks and sear for 3 to 4 minutes until you see a brown crust forming. Flip and cook another 3 minutes.
4. Lower heat to medium and add the remaining butter, garlic, and chopped rosemary. Spoon over the steaks for about 1 minute.
5. Remove from skillet onto a plate. Top with heated butter mixture and a spring of rosemary and serve.

Lamb Chops With Creamy Dijon Cognac Sauce



Serves 4

For the meat:

- 8 individual grass-fed lamb chops, at room temperature
- 2 Tbsp ghee
- Himalayan salt
- Freshly ground black pepper

For the sauce:

- 1 medium shallot
- ¼ cup, plus 1 Tbsp cognac
- 1½ cups heavy cream, from grass-fed cows
- 2 Tbsp Dijon mustard
- 1 tsp finely chopped rosemary
- ¼ cup aged Gouda cheese
- Kosher salt and freshly ground black pepper to taste
- Fresh rosemary for garnish

Instructions

1. Set the oven rack to the middle position and preheat to 350°F.
2. Season the chops with salt and pepper.
3. Preheat a large cast-iron skillet over medium-high heat for 3 to 4 minutes. Add the ghee and let it melt until it shimmers but doesn't smoke.

4. Place the chops in the hot pan, two at a time. Cook for 3 to 4 minutes on each side until a deep brown crust forms. Using tongs, sear the fatty edges for a minute.
5. Remove the chops from the skillet onto a plate, cover, and let rest.
6. Add the chopped shallots to the pan. Sauté until they just begin to brown (about 5 minutes).
7. Add ¼ cup of cognac to the pan and scrape up the brown bits. Simmer for 2 minutes. Add the cream and mustard and slowly simmer until sauce begins to thicken (about 5 minutes).
8. Add the aged Gouda and stir until well combined. Add the rosemary, remaining cognac, and more salt and pepper to taste.
9. Ladle the cream sauce onto a plate. Place the lamb chops on top and serve.

Mozzarella Cream Sauce



Serves 4

Note: For the first five items, choose ingredients from pasture-raised, grass-fed cows.

Ingredients

- 2 Tbsp butter
- 1 cup full-fat milk
- 3-4 ounces full-fat cream cheese
- ¼ cup heavy cream
- 1 cup shredded mozzarella cheese
- Himalayan salt
- Freshly ground black pepper

Instructions

1. In a saucepan over medium heat, melt the butter until it is bubbling.
2. Slowly whisk in the full-fat milk, cream cheese, and heavy cream until the mixture is smooth. Continue to cook, stirring frequently, until the sauce thickens.
3. Reduce the heat to low.
4. Stir in the shredded mozzarella cheese until it has completely melted and the sauce is smooth. For the smoothest result, add the cheese gradually.
5. Season with salt and pepper to taste.
6. Spoon over baked cauliflower or zucchini for a satisfying side dish. Or serve over shrimp or crab for a rich main dish.

References

1. Venn-Watson S, Butterworth C. "Broader and safer clinically relevant activities of pentadecanoic acid compared to omega-3: Evaluation of an emerging essential fatty acid across twelve primary human cell-based disease systems." *PLoS One*. 2022 May 26;17(5):e0268778.
2. Chooi Y, et al. "Effect of an Asian-adapted Mediterranean diet and pentadecanoic acid on fatty liver disease: the TANGO randomized controlled trial." *Am J Clin Nutr*. 2024 Mar;119(3):788-799

3. Venn-Watson SK et al. "Pentadecanoic acid (C15:0), an essential fatty acid, shares clinically relevant cell-based activities with leading longevity-enhancing compounds." *Nutrients*. 2023;15(21):4607.
4. Venn-Watson SK, et al. "Broader and safer clinically relevant activities of pentadecanoic acid compared to omega-3: Evaluation of an emerging essential fatty acid across twelve primary human cell-based disease systems." *PLoS ONE* 17(5):e0268778. 2022.
5. Neustadt J et al. "Medication-induced mitochondrial damage and disease." *Mol Nutr Food Res*.2008;52(7):780-8.
6. Simin Liu, et al. "A prospective study of dietary glycemic load, carbohydrate intake, and risk of coronary heart disease in US women." *Am J Clin Nutr*. 2001;71(6):1455–1461.
7. Siri-Tarino P, et al. "Meta-analysis of prospective cohort studies evaluating the association of saturated fat with cardiovascular disease." *Am J Clin Nutr*. 2010;91(3):535–546.
8. Felton CV et al. "Dietary polyunsaturated fatty acids and composition of human aortic plaques." *Lancet*. 1994;344(8931):1195-6.
9. Ramsden CE et al, "Use of dietary linoleic acid for secondary prevention of coronary heart disease and death: evaluation of recovered data from the Sydney Diet Heart Study and updated meta-analysis." *BMJ*. 2013;346:e8707.
10. Venn-Watson SK, et al. "Pentadecanoic acid (C15:0), an essential fatty acid, shares clinically relevant cell-based activities with leading longevity-enhancing compounds." *Nutrients*. 2023;15(21):4607.
11. Venn-Watson SK, et al. "Broader and safer clinically relevant activities of pentadecanoic acid compared to omega-3: Evaluation of an emerging essential fatty acid across twelve primary human cell-based disease systems." *PLoS One*. 2022;17(5):e0268778.
12. Yuan M, et al. "Saturated fat from dairy sources is associated with lower cardiometabolic risk in the Framingham Offspring Study." *Am J Clin Nutr*. 2022 Oct 28;116(6):1682–1692.
13. Fu W, et al. "Pentadecanoic acid promotes basal and insulin-stimulated glucose uptake in C2C12 myotubes." *Food Nutr Res*. 2021 Jan 22;65:10.29219/fnr.v65.4527.
14. "C15:0 for promoting a healthier immune system." <https://fatty15.com/pages/immune-health>. Accessed on September 18, 2025.
15. Venn-Watson S, Jensen E. "Aging-associated amyloid- β plaques and neuroinflammation in bottlenose dolphins (*Tursiops truncatus*) and novel cognitive health-supporting roles of pentadecanoic acid (C15:0)." *Int J Mol Sci*. 2025;26(8):374.
16. Chen T, et al. "Associations between serum pentadecanoic acid (C15:0) and heptadecanoic acid (C17:0) levels and hypertension: a cross-sectional analysis of NHANES data." *Lipids Health Dis*. 2025 Jun 20;24(1):219.
17. Trieu K, et al. "Biomarkers of dairy fat intake, incident cardiovascular disease, and all-cause mortality: A cohort study, systematic review, and meta-analysis." *PLoS Med*. 2021 Sep 21;18(9):e1003763.
18. Venn-Watson S, Schork N. "Pentadecanoic acid (C15:0), an essential fatty acid, shares clinically relevant cell-based activities with leading longevity-enhancing compounds." *Nutrients*. 2023 Oct 30;15(21):4607.

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.

NOTES:

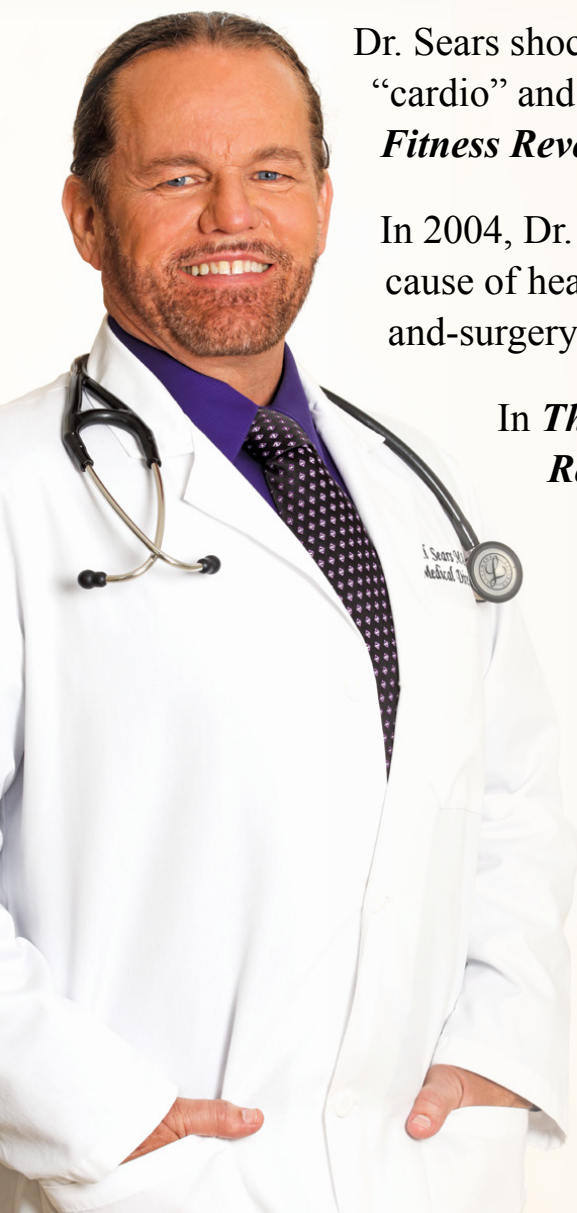
[illegible]

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).