

From the HEART

The best interests of the patient are the only interests to be considered.

A newsletter from Saint Luke's Cardiovascular Consultants

Fall 2026

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Gratitude: A Healing Medicine Each of Us Carries Within Us

James H. O'Keefe, MD

For more than three decades, one of the most fulfilling aspects of my professional life has been writing *From the Heart*. The idea wasn't mine originally.

In 1993, my friend and mentor, Dr. Ben McCallister—the visionary founder of Saint Luke's Mid America Heart Institute—encouraged me to start a newsletter that would allow us to communicate with patients about healthy living—not just prescriptions and procedures, but the habits, attitudes, and relationships that shape our well-being and happiness.

I wasn't enthused about taking on another work assignment at the time, but that simple suggestion from Ben, who was compellingly assertive in his charming and friendly manner, changed the course of my career.

Twice each year for the past 33 years, I've had the privilege of sharing what I've learned as a cardiologist, researcher, and fellow traveler through life. One lesson has become clearer with each passing year: Good health is about far more than avoiding disease. It is about learning to flourish despite the inevitable

stresses, disappointments, and losses that accompany every human life. One practice has consistently risen to the top of my own list of life-changing habits, and it doesn't cost a penny: gratitude.

Uncertainty and Change

Like all of you, I have my own private struggles and disappointments. The past two years have shaken the foundation of my world like never before. For the first time in my life, I am living alone. Well. . . not really alone. My beloved dog, Blue, is with me, and I've decided his middle name is Velcro because he follows me everywhere I go.

There is something profoundly healing about unwavering, unconditional love. Dogs, and perhaps above all mothers, have an extraordinary gift for offering it. They don't care whether we've had a successful day or a difficult one. They don't judge our mistakes or keep score. They simply remain steadfast, reminding us that we are worthy of love even when life feels uncertain.

Even so, cataclysmic change and heartache have disrupted my life, and the uncertainty and new stressors have made me all the more aware of how essential healthy coping mechanisms are. Arguably, it has never been more difficult than it is today to protect our emotional well-being.

Brain-Heart Connection

Throughout history, people believed emotions came from the heart. We now know they originate in the brain, but if you pay close attention, you can feel how overwhelming love, joy, grief, fear, or anger are experienced in the heart as much as in the mind. A joyful heart, an anxious heart, a broken heart—they are more than figures of speech. Our emotional lives are

intimately tied to our cardiovascular health. That's one reason I try to intentionally cultivate emotions that heal rather than harm. Gratitude sits near the top of that list.

I have four wonderful children whom I adore and a close and supportive extended family. I have a beautiful baby granddaughter, Quinn. My wildly creative 13-year-old grandson, Grant, and I are best friends.



Grant and Blue

I am eternally grateful to be in a profession that heals, and it's never been more gratifying because our medications, procedures, and strategies empower us like never before to prevent or fix most heart disease—still the number one killer in America. I have brilliant colleagues, loyal friends, thousands of patients, and faithful readers who continually give me new insights and inspire me with their courage and resilience. I have the gift of good health and the privilege of waking each morning with purpose and enthusiasm.

Yet, when life becomes complicated, our minds naturally gravitate toward darker thoughts: what we've lost, what isn't working, our anxieties about the future and about what we wish had

turned out differently. That's when I intentionally remind myself of my blessings.

Gratitude Changes Us

One of my favorite gratitude rituals happens in the swimming pool. Several mornings each week, I'll swim outdoors for about 25 minutes, during which I repeat a pattern of swimming freestyle for three laps then flip over and swim one lap on my back, looking straight up into the sky. I watch the clouds slowly change shape while birds glide overhead. For a few peaceful moments, there is nothing to accomplish, nowhere else to be, and nothing to solve. Sometimes I don't pray with words. I simply look upward and experience a deep sense of gratitude that I get to participate in this magnificent adventure called life on Earth. No matter my mood when I climb into the pool, I finish my swim feeling almost euphoric, grateful simply to be alive. I have discovered that awe and anxiety rarely occupy the same space in the human mind. When awe enters, anxiety quietly slips out the back door.

Modern science is finally catching up with what philosophers and spiritual traditions have understood for thousands of years. Gratitude changes us. Over the past decade, researchers have shown that people who regularly practice gratitude tend to sleep better, experience less anxiety and depression, enjoy stronger relationships, and report greater overall life satisfaction.

Studies have also shown that gratitude might improve blood pressure and heart rate variability—a marker of a resilient autonomic nervous system—along with reducing stress hormones and inflammation. People who cultivate gratitude often become more physically active, eat healthier diets,

and are more likely to engage in other behaviors that promote longevity. In other words, gratitude appears to improve health both directly and indirectly.

Worry: An Evolutionary Survival Skill

One fascinating aspect of gratitude is that it shifts our attention. Our brains evolved to scan constantly for danger. That survival mechanism kept our ancestors alive but can leave us worrying about problems that no longer threaten our existence. Gratitude gently redirects our attention toward what is already good and life-giving. That shift doesn't erase hardship. It simply reframes it as a difficult chapter or issue that will pass. In the middle of the night when I find myself tossing and turning—more aptly labeled rolling and ruminating—I try to think of things for which I am thankful. Gratitude is the antidote to rumination and worry.



Experts say it is good to develop a simple daily gratitude practice. Before going to sleep each night, write down three things that went well during the day. They don't have to be extraordinary. A kind or encouraging conversation. A delicious and nutritious meal. A beautiful sunrise or sunset (remember, every one you see is one of a finite number you'll

experience in your lifetime). A hug from your partner, friend, or family member. A child's or grandchild's laughter. A kiss from your dog. A phone call with a friend.

The more specific your gratitude, the more powerful the exercise becomes. Over time, something remarkable happens: your brain begins noticing blessings during the day because it knows you'll be looking for them that evening. Your attention changes. And eventually, your attitude about life changes with it.

Sharing Gratitude

I've also found that expressing gratitude directly to others may be even more powerful than simply feeling grateful. Tell your spouse or partner how much you appreciate them. Write a note to a teacher who changed your life. Thank a nurse, a colleague, or a neighbor. These small acts strengthen the relationships that give life its deepest meaning.

As a cardiologist, I've spent my career studying medications, procedures, and technologies that extend life. They are important, and many have transformed modern medicine. But some of the most powerful therapies don't come from a pharmacy. They come from habits like a walk in nature, investing in meaningful friendships, nurturing life around you, purposeful work, restful sleep—and acts of kindness and gratitude.

When Ben McCallister encouraged me to write the first issue of *From the Heart* in 1993, neither of us could have imagined that three decades later, these newsletters would become as much a gift to me as I ever hoped they would be to others. Writing them has forced me to keep learning, to keep growing, and perhaps most importantly, to keep looking for

reasons to be grateful. If these pages have helped you in some small way over the years, please know that you have helped me just as much. For that, I am deeply grateful.

Gratitude is helping me find my footing again. May each of us take a few moments today to notice the beauty that surrounds us, appreciate the people, animals, and plants that enrich our lives, and remember that every ordinary day is, in truth, an extraordinary gift. Gratitude won't eliminate life's hardships, but it has an almost magical way of putting them in perspective. Perhaps that's because gratitude doesn't change our circumstances nearly as much as it changes us.

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Scan the code with your smartphone or QR code reader app to go to a form to state your preferences. Thank you for helping us go green.



Olive Oil: Nature’s Food for Heart and Brain

James H. O’Keefe, MD

People often ask me, “If you had to pick two foods for longevity, what would they be?” My answer usually surprises them. It’s not an exotic berry from the Amazon. It’s not an expensive energy bar. It’s high-polyphenol extra virgin olive oil (EVOO) and nuts.

For decades, studies of Mediterranean populations have shown that people who regularly consume nuts and extra virgin olive oil enjoy lower rates of heart disease, stroke, dementia, type 2 diabetes, and premature death. In the landmark PREDIMED trial, a Mediterranean diet enriched with either extra virgin olive oil or nuts reduced heart attack, stroke, and cardiovascular death by about 30%. Olive oil may increase testosterone levels by influencing enzymes involved in testosterone production. One study performed in young male volunteers from Morocco reported EVOO at a dose of two tablespoons daily for three weeks increased blood levels of testosterone by 17%.

But here’s the catch: not all olive oils are created equal. Look for extra virgin olive oil (EVOO), meaning it’s extracted mechanically without heat or chemical solvents. High-quality EVOO is rich in heart-healthy monounsaturated fat—primarily oleic acid—but what really sets it apart is its abundance of polyphenols.

The healthiest EVOOs are high in polyphenols—natural plant compounds that function as powerful antioxidants and anti-inflammatory

agents. They improve blood vessel function, help protect LDL cholesterol from oxidation, nourish our gut microbiome, and keep our mind sharp as we age.

I’ve come to think of EVOO not simply as a healthy fat, but as one of the richest sources of beneficial plant polyphenols in the human diet that just happens to be carried in a healthy fat. The monounsaturated fat serves as the vehicle, but the polyphenols are much of the magic. These remarkable compounds help protect the oil itself from oxidation and, once we consume them, appear to protect our own cells and blood vessels from oxidative stress and inflammation.

One of the most fascinating observations in nutrition research is that many of the world’s longest-lived populations—from Sardinia, Ikaria, Sicily, and southern Italy to parts of Spain—have traditionally consumed generous amounts of extra virgin olive oil. Their diets aren’t low in fat. They are rich in the right fats. And they have among the best longevity in the world

How can you recognize a high-polyphenol olive oil? Your taste buds are actually pretty good at it. Taste a half of teaspoon of EVOO by itself. About 20 seconds after you swallow it, you should sense a peppery aftertaste that makes you cough or feel a slight burn in the back of your throat. This is caused largely by oleocanthal, one of olive oil’s healthiest polyphenols. In general, a more peppery bite usually means more polyphenols. I have

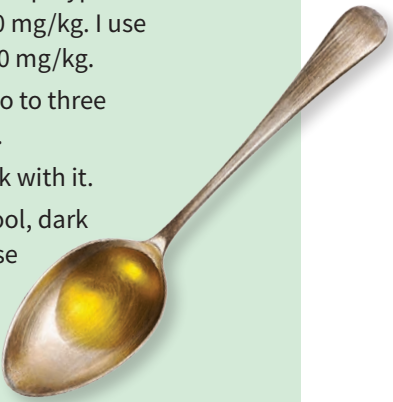
become a connoisseur of EVOO, and the intensity of that black pepper aftertaste is my dominant clue that helps me decide if it’s a great olive oil.

One question I hear frequently is whether it’s okay to cook with extra virgin olive oil. The answer is an emphatic, “Yes.” For years we were told that heating olive oil destroyed its health benefits. Fortunately, that turns out to be largely a myth. While some polyphenols are gradually lost during cooking, high-quality EVOO is actually one of the most heat-stable cooking oils available. Its antioxidants are, in a sense, sacrificial—they help protect the oil itself from oxidation during cooking. Even after sautéing or roasting, much of the oil’s nutritional value remains intact.

Fortunately, you don’t have to choose between cooking and eating it raw. I

Olive Oil Prescription

- Choose EVOO—a recent harvest date is a plus.
- Choose a dark glass or metal container to protect the oil from light.
- Choose EVOO with a polyphenol content above 400 mg/kg. I use one that has >1200 mg/kg.
- Aim for at least two to three tablespoons daily.
- Eat it raw and cook with it.
- Store EVOO in a cool, dark place and try to use it within about a year of harvest.



do both. In addition to cooking with it, I make a point of consuming raw EVOO every day, typically drizzled over vegetables, salad, fish, beans, hummus, or even taken straight from a shot glass or spoon. This preserves all of those delicate polyphenols. For most people, I recommend two to three tablespoons (30–45 mL) daily, preferably replacing butter or other less healthy fats rather than simply adding extra calories.

My own diet is somewhat different from what I recommend for the average person. Because I’m very physically active, eat very few refined grain products, avoid foods with added sugar, and obtain a large portion of my calories from nuts, EVOO, avocados, fish, and non-starchy vegetables, I consume about 100 mL of EVOO each day—six to seven tablespoons. I also eat generous amounts of walnuts, pecans, pistachios, almonds, cashews, and peanuts daily. Some people are surprised when I tell them that olive oil, nuts, and avocado provide at least 60% of my daily calories, with about 25% protein and 15% carbs supplying the remaining calories. Because healthy fats replace refined carbohydrates rather than add to them, they’ve become my primary fuel source. I don’t recommend that amount for everyone, but it works well within the context of my Mediterranean-style eating pattern and active lifestyle.

As I’ve often discovered in medicine, the greatest health breakthroughs aren’t always the newest ones. Sometimes they’re ancient traditions that modern science is only now beginning to understand. For thousands of years, people around the Mediterranean didn’t know what polyphenols, endothelial function, LDL oxidation, or the gut microbiome were. They simply knew that olives and fresh olive oil were among nature’s greatest gifts. Modern science is finally catching up to ancient wisdom.

Saint Luke’s Cardiovascular Consultants

José Aguilera Heredia, MD	Sanjaya K. Gupta, MD	Alejandro Perez-Verdia, MD
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James H. O’Keefe, MD, Editor-in-Chief
SaintLukesKC.org

Lisa Harkrader, Managing Editor
LisaHarkrader.com

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Dr. O’Keefe



Lisa Harkrader

GLP-1 Bridge Program: Inexpensive Weight-Loss Medications Through Medicare

James H. O’Keefe, MD

For years, one of the most frustrating conversations I’ve had with my patients over 65 went something like this: “Dr. O’Keefe, these new medications sound wonderful—but Medicare won’t cover them, and I can’t afford \$1,000 a month.” By law, Medicare has long been prohibited from paying for medications prescribed purely for weight loss. That is finally changing, at least for now, and I want you to understand what’s available.

What is the Bridge Program?

Starting July 1, 2026, Medicare launched a pilot program called the **Medicare GLP-1 Bridge**. For the first time, it allows eligible people on Medicare to get GLP-1 medications for weight management for a flat **\$50 per month**—a fraction of the usual cash price, which can run anywhere from about \$150 to \$700 a month.

It’s called a bridge because it’s temporary. The program runs from **July 1, 2026, through Dec. 31, 2027**, meant to bridge the gap until a longer-term plan is decided. I want you to know that up front, so you can plan accordingly.

Which medications are covered?

The program covers the GLP-1 medications approved specifically for weight loss: the **Zepbound®**, **KwikPen®**, **Foundayo™**, a newer weight-loss pill, or **Wegovy®** (both the injection and the newer pill). One of the nicest features is that the **\$50 copay stays \$50 even as your dose goes up**—which matters, because

most people need a higher dose over time to maintain their results.

Do you qualify?

Two things determine eligibility. First, you must be enrolled in a **eligible Medicare Part D** (prescription drug) plan. Second, it’s based on your weight and health:

- If your **BMI is 35 or higher**.
- If your **BMI is 30 or higher** and you also have a weight-related condition such as
 - heart failure with preserved ejection fraction
 - high blood pressure with readings still above >140/90 despite two or more blood pressure meds
 - chronic kidney disease at least 3a in severity.
- If your **BMI is 27 or higher** and you also have a diagnosis such as
 - prediabetes (Hemoglobin A1C ≥ 5.7%)
 - previous heart attack or stroke
 - blocked arteries in your heart, legs, or neck.

How to get started

This program works a little differently than a typical prescription, so here’s the practical path:

Talk with your doctor about whether a GLP-1 is right for you. If it is, your doctor submits a **prior authorization** request to a central Medicare system (administered by Humana)—not through your usual Part D plan. Once it’s approved, you simply pick up the medication at your pharmacy and pay the **\$50 copay**. Any physician can

submit the request; they don’t need to be a Medicare-enrolled provider.

A few honest caveats

I always want to give you the full picture. First, that \$50 monthly copay **does not count toward your Part D deductible or your annual out-of-pocket drug cap**—so it’s an added cost, not one that helps you reach those limits. Second, if you receive **Extra Help** (the low-income subsidy), that assistance can’t be applied to these particular drugs. Third, this pilot **ends in December 2027**, and what comes after is not yet settled—and we know that many people regain weight when they stop these medications, so this deserves a real conversation about your long-term plan.

One more clarification that trips people up: The \$50 price is only for weight loss. If you’re already taking one of these drugs for another approved reason—type 2 diabetes, cardiovascular risk reduction, fatty liver disease, or sleep apnea—you’ll keep getting it through your regular Part D plan at your plan’s usual price.

The Bottom Line

If cost has been the thing standing between you and a medication that could meaningfully improve your health, this program may open a door that was closed for a very long time. It isn’t perfect, and it isn’t permanent—but it’s a genuine opportunity. If you think you might qualify, talk to your doctor about whether it’s a good fit for you.

Caring for Other Life Keeps Us Vibrantly Alive

James H. O’Keefe, MD

Recently, on a blistering summer afternoon with the heat index hovering around 106°F, I stood in the air-conditioned comfort of my kitchen and looked out the window. A small gathering of birds had assembled in the shade beneath my trees, and they looked exhausted. Robins hopped slowly across the baked ground. Bright red cardinals, mourning doves, wrens, and sparrows sought relief wherever they could find it. It was obvious that this relentless heat was taking a toll on the wildlife that must endure whatever nature delivers.

Something about their quiet struggle touched my heart. As I’ve grown older, I’ve noticed that moments like this affect me more deeply than they once did. Perhaps that’s one of the unexpected gifts of aging. I find myself paying closer attention to the quiet needs of the living world around me—a thirsty bird, a lonely neighbor, a grandchild eager to tell me a story, or my faithful dog

waiting patiently by the door. These small opportunities to care for another living being no longer feel

ordinary. They feel sacred. I’ve come to believe that every time we answer one of those quiet invitations with compassion, something within us is nourished as well.

Then I noticed that my birdbath was bone dry and the birdfeeders were empty. So, I stepped out into the sweltering afternoon heat, filled the birdbath with fresh, cool water, and replenished the feeders. Within minutes, my backyard transformed into a joyful celebration. Birds splashed and bathed themselves, drank deeply, fluttered from branch to branch, puffed up their feathers, and patiently waited their turn at the feeders. Watching them, I felt an unexpected warmth spread through me—a deep sense of contentment that had nothing to do with accomplishment or productivity.

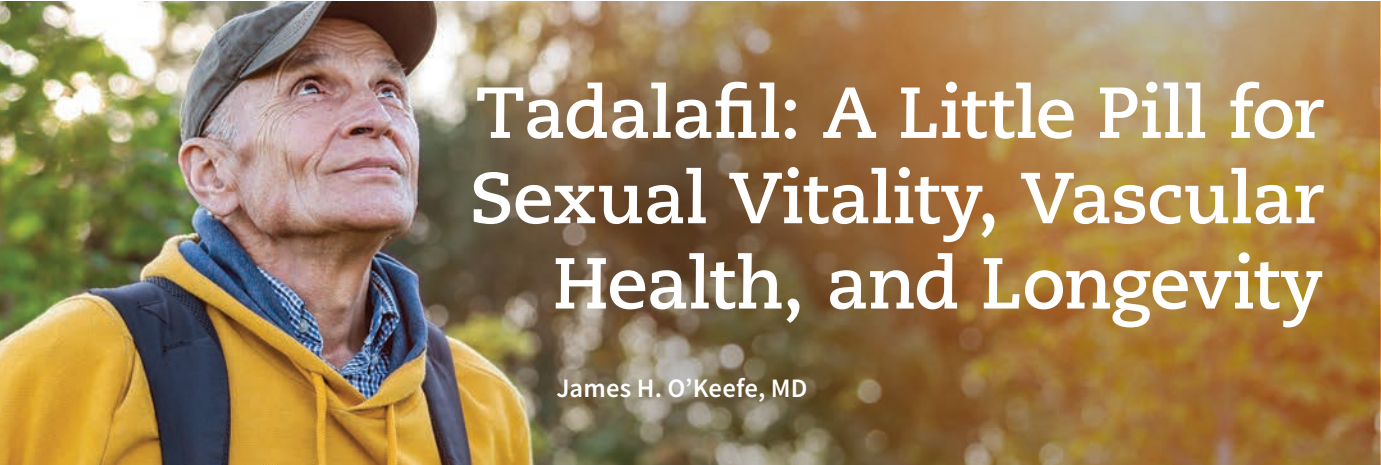
It struck me that providing cool water and food for a few overheated and desperately thirsty birds was a meaningful act. Perhaps that’s because life has never been a solitary endeavor. Every one of us is the product of two parents, who came from two parents, in an unbroken chain stretching back through 3.8 billion years of evolution. Every ancestor in that unimaginably

long lineage survived long enough to reproduce and help the next generation survive. When you stop to think about it, the odds that you—and only you—would come into existence are almost beyond comprehension. Simply being here is nothing short of miraculous.

One of the greatest misconceptions about evolution is that it rewards only the strongest. In reality, survival has always depended on adaptability, cooperation, and caring for others. As Richard Dawkins explained so eloquently in *The Selfish Gene*, genes are passed forward when they promote behaviors that ultimately enhance survival and reproduction. Throughout human history, those behaviors have included nurturing children, protecting family members, cooperating with neighbors, helping your tribe survive, and building communities.

In other words, we evolved not only to survive—we evolved to belong. Modern science continues to reinforce this truth. We are biologically wired for connection, empathy, and purpose. Chronic loneliness, social isolation, and a lack of meaning don’t simply diminish happiness—they measurably shorten lives. In

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A few months ago, one of my male patients sheepishly asked a question many men wonder about but few are comfortable discussing. “Doc, I heard tadalafil might be good for longevity, not just sex. That sounds too good to be true. Is it?” It’s a fascinating question.

Most people know tadalafil (Cialis®) and sildenafil (Viagra®) as treatments for erectile dysfunction. What many don’t realize is that erections depend on healthy arteries, good endothelial function, and robust nitric oxide signaling. Erectile dysfunction is often the proverbial canary in the coal mine—an early warning sign that blood vessels throughout the body may not be functioning optimally. As a cardiologist, that gets my attention.

Ironically, these drugs weren’t developed to improve erections. In the 1990s, researchers were testing a medication for angina. It wasn’t very effective for chest pain, but the male volunteers kept reporting an unexpected side effect—and were stubbornly reluctant to return the pills.

A failed angina drug became one of the biggest pharmaceutical successes in history. More importantly, it taught us something profound: Improving

blood vessel function can improve much more than just the heart.

Sexual Health Is a Mirror of Systemic Health
Loss of libido can signal low testosterone, depression, poor sleep, chronic illness, medication side effects, cardiovascular disease, or relationship problems. Of course, healthy sexual desire naturally changes with age, yet I continue to be impressed by how many of my patients remain physically intimate well into their 70s and beyond.

I’ve also noticed that couples who maintain close, loving relationships



often seem to retain a youthful vitality—a sparkle in their eyes and a spring in their step. Whether intimacy promotes health or healthier people simply remain more intimate is

difficult to know. Most likely, both are true. Of course, not everyone is partnered. What matters most is maintaining meaningful human connections, purpose, and love.

Why Researchers Are Interested
Over the past decade, researchers have noticed that men taking PDE5 inhibitors, like tadalafil, appear to experience lower rates of heart attack, heart failure, cardiovascular death, and possibly dementia.

These findings come primarily from observational studies, so they cannot prove cause and effect. Men seeking treatment for erectile dysfunction may simply be healthier or more engaged in their medical care.

Even so, the biological rationale is compelling. Tadalafil enhances nitric oxide signaling, allowing blood vessels to relax more effectively. It improves endothelial function, modestly lowers blood pressure, increases blood flow, improves exercise capacity, and also treats benign prostatic hyperplasia (BPH), helping many men urinate more easily as they age.

Could It Promote Longevity?
Several large observational studies involving hundreds of thousands of men have reported remarkably

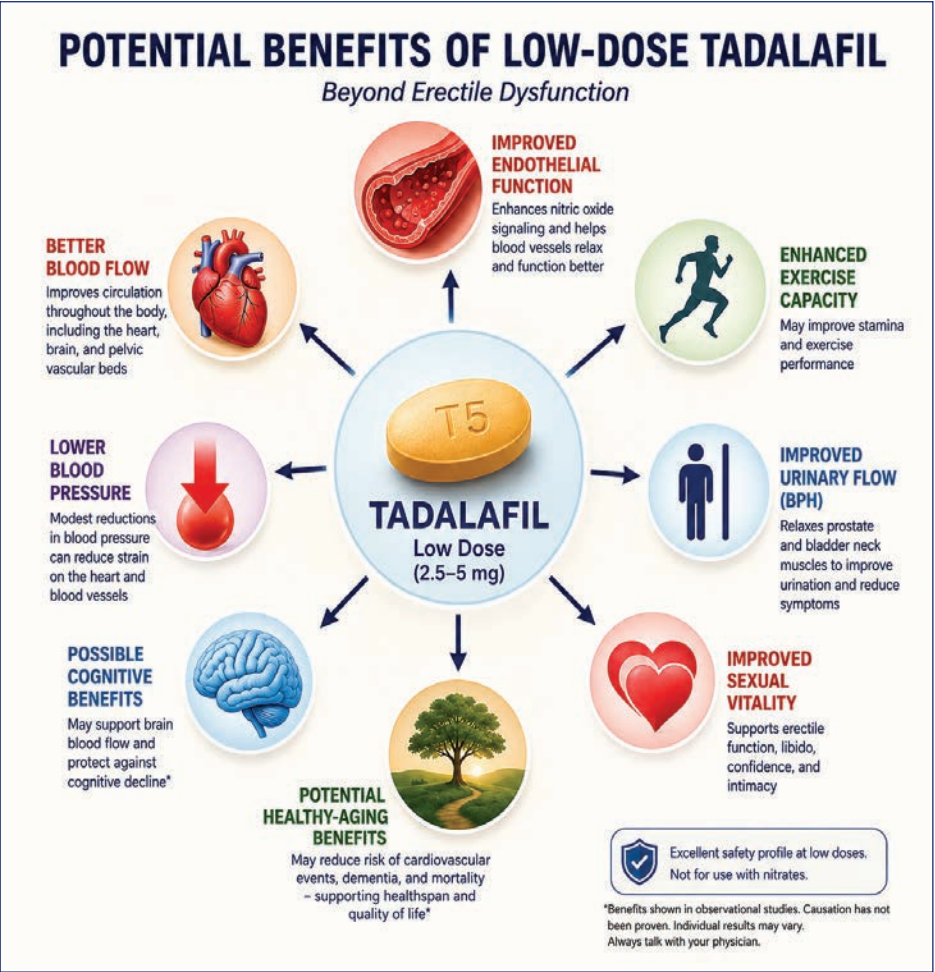
consistent findings. A 2024 meta-analysis combining 13 studies found about a 22% reduction in major cardiovascular events and 30% lower all-cause mortality among PDE5 inhibitor users. More recent studies involving over half a million men also found lower rates of heart attack, stroke, dementia, and death. Particularly intriguing was a Swedish study of men recovering from a first heart attack, where PDE5 inhibitor use was associated with a 38% reduction in mortality.

These studies don’t prove tadalafil extends life, but the consistency of the findings has captured the attention of cardiovascular and longevity researchers. Some studies also suggest lower rates of Alzheimer’s disease among users, possibly because of improved cerebral blood flow and healthier blood vessels.

There may be another benefit that’s harder to measure. A satisfying sex life strengthens intimate relationships, and decades of research consistently show that close, loving relationships are among the strongest predictors of health, happiness, and longevity.

Dosing and Safety
The traditional dose for erectile dysfunction is 10 to 20 mg taken before sexual activity. Many longevity-focused physicians now prescribe much lower doses—typically 2.5 to 5 mg daily or every other day. Because tadalafil remains in the body for about 17½ hours (hence its reputation as a “weekender pill”), these low doses maintain relatively stable blood levels with few side effects while also improving erectile function and urinary flow.

Fortunately, tadalafil has an excellent safety record. Side effects are usually mild and include headache, facial flushing, nasal congestion, heartburn,



or mild dizziness. The one major contraindication is concurrent use of nitrate medications such as nitroglycerin, which can cause dangerously low blood pressure.

Generic tadalafil has also become remarkably inexpensive. A 90-day supply often costs only \$10–30 through discount pharmacies.

Take-Home Message
For men with mild erectile dysfunction, urinary symptoms from an enlarged prostate, or concerns about vascular health, low-dose daily or every-other-day tadalafil offers proven benefits with very little downside. The evidence for improving quality of life is undeniable. The evidence for improving cardiovascular health—and perhaps even longevity—

is promising, although not yet definitive.

My personal view is that tadalafil deserves much more research as a healthy-aging therapy. It would be premature to recommend it solely to extend lifespan, but it may ultimately prove to be one of those rare medications that helps us feel better today while improving our odds of staying healthier tomorrow.

In the end, longevity isn’t just about adding years to life. It’s about adding life to your years. If tadalafil can improve vascular health, intimacy, confidence, and quality of life—and perhaps even help us live a little longer—that makes it a conversation worth having.

Anti-Aging Gold Rush: Separating Science from Hype

James H. O’Keefe, MD

Every week seems to bring a new podcast, YouTube video, or social media influencer promoting the latest peptide injection. It’s easy to understand the excitement. Who wouldn’t want to stay healthier, stronger, and more youthful for as long as possible?

As a cardiologist and medical researcher, I’ve devoted much of my career to understanding how we can extend not just lifespan, but healthspan—the years we remain energetic, independent, and free from chronic disease. I’m genuinely excited by scientific advances that move us closer to that goal. But I’ve also learned an important lesson over the years. Enthusiasm should never outrun science.

The Dangers of Gray-Market Peptides

One of the fastest-growing trends today is the use of injectable peptides purchased through online vendors, wellness clinics, and other gray-market sources. Nearly all of these compounds—including BPC-157, TB-500, growth hormone secretagogues, and other experimental peptides—have never completed the rigorous human studies required before the FDA approves any drug for routine medical use. In fact, many of these peptides were rejected by traditional pharmaceutical companies after preliminary animal testing suggested potentially dangerous side effects.

Even more concerning, many of these products are manufactured outside the stringent quality standards required for prescription medications. The contents may not match the label, dosing may be inaccurate, and contamination with impurities or bacteria is a real possibility.

Trenbolone (aka Tren) is technically not a peptide but an injectable anabolic steroid hormone, an ultra-potent testosterone-like compound developed by veterinary medicine to promote rapid muscle growth in cattle before slaughter. Peptides and Tren are popular, especially with young people who are “looksmaxxing”—doing everything they can to optimize their physical appearance. These peptides claim to build muscle, burn fat, improve energy, give you a tan without sun exposure, increase libido, among other things.

Some of these compounds stimulate pathways involved in blood vessel growth, cell proliferation, or growth hormone signaling. The same pathways that cause rapid transformation of one’s body and appearance could theoretically accelerate the growth of an undetected cancer, raise blood pressure, worsen cholesterol, cause diabetes, trigger heart attack or stroke, and shorten, not lengthen, life expectancy. Unfortunately, we simply don’t know because the necessary human safety studies have never been done, and

plenty of anecdotal evidence suggests that these compounds are not safe for long-term use.

Medicine has taught us this lesson repeatedly. Treatments that appear brilliant in theory—or produce dramatic testimonials online—sometimes fail when they’re finally tested carefully. Others turn out to cause more harm than good.

SGLT2 Inhibitors: The Safer, Well-Studied Longevity Drug

The good news is that there is a medication with remarkably strong evidence suggesting it may help slow many of the biological processes associated with aging. It isn’t exotic. It isn’t expensive. And it isn’t sold on the gray market.

The medication class is called SGLT2 inhibitors, originally developed to treat type 2 diabetes. The two most extensively studied drugs are empagliflozin (Jardiance®) and dapagliflozin (Farxiga®), which have been used by millions of people for 13 years now.

Over the past decade, these medications have been evaluated in more than 100,000 participants in large randomized clinical trials. They consistently reduce heart failure hospitalizations, slow kidney disease progression, lower cardiovascular mortality, and reduce overall mortality in high-risk patients. Remarkably,

many of these benefits occur whether or not someone has diabetes.

Perhaps even more exciting, these medications appear to mimic some of the same beneficial biological effects produced by exercise, intermittent fasting, and calorie restriction. They activate cellular repair pathways, enhance autophagy (our cells’ housekeeping system), improve mitochondrial function, reduce inflammation, and shift metabolism toward greater resilience. These are exactly the kinds of mechanisms scientists believe are fundamental to healthy aging.

To be clear, we do not yet have clinical trials proving that healthy people live longer simply because they take an SGLT2 inhibitor. That study still needs to be done. But among all of the medications currently being discussed as potential geroprotectors (agents to slow aging and reduce risk of age-related diseases), this class has the strongest combination of biological plausibility, clinical outcome data, safety, and real-world experience.

My Experience

For the past four years, I have personally taken empagliflozin (Jardiance®) as part of my own healthy aging strategy. I don’t take it because I have diabetes, heart failure, or kidney disease—I don’t. I take it because, after spending years reviewing the scientific literature on longevity medicine and frequently prescribing these drugs to my patients, I concluded that SGLT2 inhibitors slow aging and reduce risk for age-related disease, like heart failure, heart attack, atrial fibrillation, kidney failure, dementia, and cancer. Hmm. . . who would be a candidate for a drug to safely slow aging and improve healthspan and lifespan? In my considered opinion, almost everyone. And during my four years

on empagliflozin I have experienced no side effects whatsoever.

Until recently, cost was a major barrier (about \$2000 for a 90-day supply). Fortunately, that has changed. Generic dapagliflozin is now available through discount pharmacies, often for \$30 or less per month. Because dapagliflozin and empagliflozin have produced remarkably similar benefits in clinical trials, I believe either is an excellent choice when a physician and patient decide together that this therapy is appropriate.

Any medication used in healthy people for years or decades to slow aging and prevent disease needs to be extremely safe. SGLT2 inhibitors are very safe, but they trigger some loss of sugar and sodium in the urine, which causes a mild diuresis—eliminating excess fluid. That sugar in the urine also predisposes to vaginal yeast infections in about 6% of women and “jock itch” in 2% of men. So increased attention to urinary hygiene and a shower or bath daily are recommended. You should put a temporary hold on this medication during acute illness, fever, vomiting, diarrhea, poor oral intake, or before major surgery. Exceedingly rare side effects include ketoacidosis and more serious genital infections. We are very familiar with prescribing SGLT2 inhibitors for patients in our Saint Luke’s Charles & Barbara Duboc Cardio Health & Wellness Center.

Over the years I’ve learned that the healthiest skepticism isn’t cynicism—it’s humility. Nature is extraordinarily complex, and when we try to outsmart her with shortcuts, she often has the last word. That’s why I’ve come to trust careful science more than clever marketing, and long-term evidence more than short-term excitement.

When we do choose to add a medication, I believe we should insist

on the same standard we’ve always expected in modern medicine: Show me the evidence. In the end, science and wisdom—not novelty—should guide our longevity strategy.

Youth is granted to everyone, but old age only to the chosen.

Not everyone makes it. Not everyone endures. Not everyone learns. Not everyone heals. Not everyone stands back up when life knocks them down.

Reaching old age is not a matter of luck. It is the result of battles won in silence, scars carried without shame, and a heart that, despite everything, remains grateful.

Enjoy your age. Honor your story. Be thankful for every day. Because it is not just about growing older—it is a privilege. It is a miracle.

Do not be in a rush to be young again. There is an incomparable beauty in being mature, whole, and at peace with yourself and your life. It is a blessing.

Live. Be grateful. Enjoy. Love. And never stop shining. Because anyone who has made it this far is already a warrior, a survivor, and an inspiration.

—Anonymous



Why We Need Friends

Kathleen O’Keefe



Last weekend I took a trip with some friends from my first job. We’ve stayed in touch over the years, watching each other take new jobs, dump bad boyfriends, marry better boyfriends, change hairstyles, become mothers, and move apartment after apartment until, in a few cases, that apartment became a house in the woods.

Two of my old co-workers and I loaded up my car. I say *my* lightly because this is the car that I share with two of my siblings. The car that migrates around Brooklyn, shuttling different arms of the family to work, Costco, and weekend trips out of the city. My friends and I brought far too much stuff for a one-night trip. Bags and pillows and sun hats. Three shoe options for 24 hours. Baked goods to grace the kitchen counter upon our arrival. Stuffed animals for our friend’s babies. Chicken salad as a snack for the road. That’s the comforting thing about traveling by car; the packing space is a lot more generous than a carry-on plus one personal item.

We were driving upstate to visit another friend from work. The fourth member of what you could call our four-person work clique. A safe zone of sorts. Years of showing up every day and bringing camaraderie, open ears, and a bottle of cold brew to split in the mornings. A secure place to

unload when everything else felt like too much.

This weekend, the three of us who live in Brooklyn drove to see the one friend who lives outside the city. She, her husband, and their three children live in a cabin in the woods they bought during COVID with a very enviable interest rate. It’s dreamy there. Sort of hard to describe the feeling of pulling down her gravel driveway. Like exhaling. No Slack pings or emails or Amazon delivery alerts. Just children laughing in the backyard, birds arguing in the trees, and a cicada string quartet humming beneath it all.

That evening we picked blackberries from the bush until the evening light dimmed too low to spot the thorns. We looked up at a sky full of stars, ones that we wished we knew the names of. We blew up the air mattress and ate sweets until our bellies ached.

We did our nighttime skincare and toothcare routines in front of each other. I noticed the toothpaste



brands they brushed with, the serums they swore by. I saw who was splurging on what these days, and who didn’t bother with a routine at all. I marveled at their makeup-stained toiletry pouches and the sound of, “I forgot a hairbrush,” and, “Who has floss?” Because what that really means is they knew someone else would bring it. And I find a strange comfort in that. In those things that don’t make the pack because *one of my friends will have it*.

I relished in this act of witnessing bedtime. Sharing products. Exchanging brands and methods and tips. Charmed by the contrast of one friend playing dress up in the closet and skipping a face wash entirely, while another marinated under her red-light mask. This, I thought, is so intimate. So, girlhood.

The next afternoon, clouds rolled in and all our phones screamed those alerts that make every phone ring in unison. *FLASH FLOOD ALERT*. So, we smothered the turkey sandwiches we’d planned to eat at the park in tinfoil and headed back to the city.

What followed was possibly the most terrifying three hours of driving I’ve ever experienced. An unrelenting torrential downpour blanketed all 60 miles of highway back to Brooklyn. The kind of rain where the windshield wipers were going as fast as they

could, and it still wasn’t nearly fast enough. And if that wasn’t enough, smoke from Canadian wildfires drifted in, painting the world an opaque yellow haze that erased what little visibility remained.

I braced myself, clenching my jaw and tightening my grip on the wheel, contracting what felt like every muscle in my body to get my friends and me home safely. All of a sudden, I felt responsible for everyone in the car. Every few seconds, my brain served up a new worst-case scenario: the car flipped on its side, twisted metal, rain pouring in through shattered windows—everything drenched, chaotic, and horrifying.

Through my shrieking and praying (to whoever that god is I talk to sometimes), my friends coached me. “One foot to the right to get back in the lane.” “No one on your left. Good to cross over.” “Turn NOW.” “In two miles, you’re taking Exit 22C.... now 1.6. 1.3.”

My friend seated in the passenger seat quietly adopted the role of hazards duty. Every time the rain intensified to the point of zero visibility, without a word between us, she’d flip on the hazards and remind me, “It’s okay. Just let them pass.”

We inched our way home. One panic followed by words of affirmation after another. A 90-minute drive doubled, then tripled, as we slowed to 15 miles an hour on a highway filling with standing water and draped in wildfire smoke. Every weather app advised us not to be outside unless absolutely necessary. The air quality climbed to 240 AQI, labeled “extremely unhealthy.”

The highway and horizon and tree line and downpour blurred into one black curtain. I searched for the white lane lines. Over and over again.

The farther south we drove, the thicker the smoke became. I strapped on an N95 mask and prayed—to something, anything—again. Pulling onto the shoulder felt even more dangerous than continuing, given that no one could see anything.

So, I drove. And drove. Slow. And slower. And hung on every word of support. And took advantage of all six eyes in that car. And reminded myself that all bad things end.

At 10 p.m., we arrived in Brooklyn safely. I felt gratitude. A deep, moving sense of it. For being alive. For having patient people around me. For a healthy body and a working car. For no accidents. For finding a parallel parking spot that wasn’t in a black puddle of city rainwater.

I walked through my front door feeling like I’d just danced at a rave for 18 hours. In stilettos. Or swam a mile in a weighted vest.

This tween-feeling sleepover followed by a life-threatening drive home made friendship feel, suddenly, obvious. And crucial. Parked in Brooklyn, our unworn shoe choices tumbled out of the open trunk. We hugged each other goodbye, rescued a red ballet flat from the rainwater, and giggled at how absurd the whole day had been.

Platonic love doesn’t always look like the love of your life. It doesn’t sweep you away in a cloud of romance or swallow you whole and spit you out a doodle owner with a rock on your hand after a few years of dating. Instead, friendship is built in small, almost forgettable moments.

Good friends aren’t always next to us. They have husbands and apartments and careers that carry them elsewhere. But in little ways, they leave permanent fingerprints on us. They’re

the ones who drift through our lives for a dinner, a weekend, or a few years as a roommate. They become the keepers of versions of us no one else remembers. They are our witnesses.

Good friends choose to keep showing up, even though no one’s making them. They listen. They check in. They become fluent in our moods. They celebrate our wins as if they’re their own, and they sit quietly beside us when life falls apart. They’re honest with us in a specifically brutal way no one else can match. They nudge the silly parts of us awake.

And, oh my God, life gets HARD. Jobs change. Money comes and goes. We move. Pets die. Loved ones die. Careers end. Whole versions of ourselves disappear. But friendship, amid all of that, has the potential to remain.

I guess I was reminded this weekend how much I need my friends. The real ones. The ones who tell me what night cream finally healed their eczema. The ones who pack floss because they knew someone would forget it. The ones who quietly flip on the hazards before I think to ask. The ones who hum me back to calm with: “Go slow. Let them pass.”

Friendship doesn’t always announce itself as the great, big love of your life. Sometimes it looks like someone pointing out the lane lines until you make it home.



To read more from Kathleen, visit her **free** substack by scanning the QR code with your smartphone camera or going to **KathleenOkeefe.Substack.com**.

Hard Bones, Soft Arteries

James H. O’Keefe, MD

As we age, few medical conditions rob us of our independence more than osteopenia and osteoporosis. More than half of adults over age 50 have low bone density. Fragility fractures—especially hip fractures—are among the leading causes of hospitalization, disability, nursing home placement, and premature death in older adults. One in four dies within a year after a hip fracture, and many survivors never regain their independence. The encouraging news is that bone loss is not inevitable. With the right nutrition, exercise, hormones when appropriate, and key nutrients, we can often build stronger bones while protecting our hearts and blood vessels.

For years, doctors gave simple advice about bone health: Take calcium supplements. Lift weights. It sounded logical. Bones are largely made of calcium, osteoporosis is common, and many Americans don’t get enough calcium. Problem solved, right?

Not so fast. Over the last decade, the science has become more nuanced—and more encouraging. As I reviewed the latest research and co-authored a scientific paper on this topic, I realized that building strong bones while preserving healthy arteries requires a smarter strategy than simply swallowing calcium carbonate tablets.

People with thinning bones are more likely to have calcified arteries, heart attacks, strokes, and cardiovascular death. Traditional calcium supplements may even worsen arterial calcification in some individuals.

The Calcium Paradox

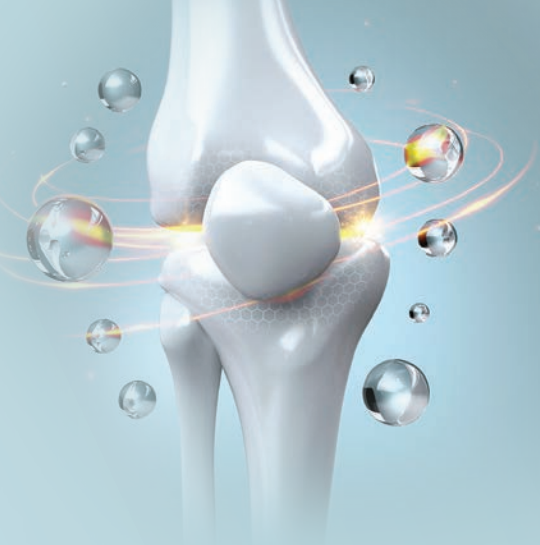
Calcium is essential for bone strength, yet excess calcium circulating in the bloodstream can contribute to arterial calcification. The issue isn’t calcium itself—it’s how we consume it. Large doses of calcium carbonate or calcium citrate cause abrupt spikes in blood calcium. These supplements are essentially chalk—more like swallowing small stones than eating food. Some studies suggest these spikes may contribute to vascular stiffness and plaque calcification.

Calcium from food is absorbed much more gradually and comes packaged with nutrients that help direct calcium into bones instead of arteries. Nature rarely delivers nutrients in isolation.

What I Recommend Instead

I encourage patients to think about bone health as an overall nutritional pattern rather than simply correcting a calcium deficiency. The foundation includes:

- Adequate protein intake from fish, seafood, skinless poultry, and modest amounts of lean red meat
- Plenty of vegetables, fruits, nuts, seeds, and legumes
- Healthy vitamin D levels
- Magnesium-rich foods such as leafy greens, nuts, seeds, and dark chocolate
- Potassium-rich foods including fruits, vegetables, and low-sodium V8 juice
- Minimizing ultra-processed foods and excess sodium
- Adequate vitamin K2 intake



Some of my favorite calcium sources include yogurt, kefir, cheese in moderation, sardines, canned salmon with the bones, leafy greens, almonds, chia seeds, bone broth, and organic bone meal supplements.

Our hunter-gatherer ancestors probably obtained much of their calcium by consuming small bones, bone marrow, connective tissue, and collagen—not purified calcium salts in tablets. Bone contains far more than calcium alone. It also provides collagen protein, phosphorus, magnesium, trace minerals, and calcium hydroxyapatite—the natural structural material that gives bone its remarkable strength.

Why I Like Bone-Based Calcium

This is why I became interested in organic bone meal supplements containing calcium hydroxyapatite. Hydroxyapatite is the natural form of calcium found in human bones and teeth. It appears to produce less of the abrupt rise in blood calcium seen with conventional calcium supplements while delivering many of the building blocks healthy bones require.

Rather than relying on inexpensive calcium carbonate or other calcium salts like calcium citrate, look for a bone health supplement that combines organic bone meal, which provides calcium in the natural form of hydroxyapatite, along with collagen protein, magnesium, and vitamins D3 and K2.

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Living Wholeheartedly

Be kind, for everyone you meet is fighting a hard battle.

—*Ian Maclaren*

To love deeply gives you courage. To be loved deeply gives you strength.

—*Lao Tzu*

I can teach you a love potion made without any drugs, herbs, or special spell—if you want to be loved, love.

—*Hecato (circa 100 B.C.)*

The point of life, I think, is to make the world better for your family, your community, for humanity, We’re here for a short time, and it’s not all about us.

—*Ezekiel Emanuel*

For many years prior to a GLP-1, I viewed food as the reward for doing the movement. Now on a GLP-1, I view food as fuel for my movement.

—*Jamie Selzler*

You don’t develop courage by being happy every day. You develop it by surviving difficult times and challenging adversity.

—*author unknown*

People who thrive have the ability to lean into adversity and also to engage others as they face it.

—*Mark Schulz*

One mark of a good friendship is emergence. Interactions go beyond mere exchanges. They generate something entirely new—something neither of you would have produced on your own.

—*Michael Easter*

There is almost no situation that hatred improves, but love enhances nearly everything. Love emboldens courage. It inspires discipline. It strengthens justice. It gives purpose to wisdom.

—*Ryan Holiday*

Good lives are built from the things that make them hard.

—*Daniel Coyle*

The price of security is insecurity—until it’s not useful.

—*Dan Harris*

There is no greatness where there is no simplicity, goodness, and truth.

—*Leo Tolstoy*

Common sense is genius dressed in its working clothes.

—*Ralph Waldo Emerson*

All I got is time, but not enough left to waste it.

—*from “up again” by mike.*

The older I get, the less I know for sure.

—*Michel de Montaigne*

Don’t cry because it’s over; smile because it happened.

—*attributed to Dr. Seuss*

Humility is not thinking less of yourself; it is thinking of yourself less.

—*C. S. Lewis*

If you regularly use an alarm to wake up in the morning, you are not getting to bed early enough.

—*James H. O’Keefe*

Surround yourself with people who make you happy, who make you laugh, who help you when you’re in need. People who genuinely care. They are the ones worth keeping in your life. Everyone else is just passing through.

—*author unknown*

Age is an issue of mind over matter. If you don’t mind, it doesn’t matter.

—*Mark Twain*

Sorry if I’m not all here today. I’m still on the waiting list for a brain transplant.

—*anonymous*

Do not take life too seriously. You will never get out of it alive.

—*Elbert Hubbard*

Don’t carry grudges. While you’re carrying the grudge, the other person’s out dancing.

—*author unknown*

Brain Food Surprise: Red Meat and Alzheimer’s Risk

James H. O’Keefe, MD



My mother, Leatrice, was one of the smartest people I’ve ever known—and I have the privilege of working with brilliant people every day. She lived to the age of 91 and remained mentally sharp until just hours before her death.



A few weeks before she died, she was resuscitated from a sudden cardiac arrest and airlifted to a large hospital in Fargo. Determined to return home despite her doctors’ admonitions, she did something

remarkable: From an ICU bed, without her cell phone or purse, she used a landline to arrange her own medical van transfer back to our small hometown hospital in Grafton, North Dakota, reciting every number—credit card, insurance info, contact numbers, etc.—from memory.

This was all the more impressive because she carried one Apo ε4 allele—the notorious gene that predisposes to Alzheimer’s disease. Another fun fact about Leatrice: Her favorite food was steak. Emerging research suggests something surprising—diet may interact with this gene in ways we didn’t expect.

Apo ε4 Explained

The Apo ε4 gene is one of the biggest genetic risk factors for Alzheimer’s. You get one Apo ε gene from each parent. Apo ε3 is neutral, Apo ε2 is protective, and Apo ε4 is problematic—especially for women. Men with one Apo ε4 allele appear to have a slightly increased or neutral risk. Women face about a fourfold increased risk with one copy and tenfold risk with two. About one in four adults carry at least one copy, and 2% have two copies.

A new landmark study by Swedish researchers at the Karolinska Institute published in *JAMA* looked at Apo ε status, red meat, and dementia. Apo ε4 carriers who ate about 4.5 ounces of red meat daily were no more likely to develop Alzheimer’s than non-carriers. The 15-year study adjusted for factors like age, activity, smoking, and education. Apo ε4 carriers who frequently consumed fresh red meat had lower mortality too.

This fascinating and surprising novel study found that if you are among the 25% of the U.S. population that has the Apo ε4 gene, regular consumption of lean, fresh red meat may protect you against Alzheimer’s. Two other recent large observational studies also found that eating red meat a few times a week was associated with a lower risk of Alzheimer’s dementia. For all three of these paradigm-shifting studies, consuming more fresh,

unprocessed red meat neutralized the increased Alzheimer’s risk of Apo ε4.

Ironically, my mom’s love of red meat (she hated fish) likely contributed to her healthy brain for the 9+ decades of her life. Jimmy, my oldest son, inherited his Granny Lee’s green eyes and love of red meat. His favorite meal is steak frites—grilled hanger steak with French fries. I told Jimmy not to hold out hope that some new study will conclude French fries turn out to be healthy too—that’s never going to happen. Even so, after this study, we celebrated with a medium-rare filet and toasted Leatrice with a glass of wine.

Making My Mess the Message

This is a deeply personal issue for me. If one parent has an Apo ε4 allele, each of their children has a 50% chance of inheriting this pernicious gene. So I and many of my close relatives have this gene; yet nobody in my family has ever had Alzheimer’s. Admittedly, we are a physically hyperactive and social bunch who follow a generally healthy lifestyle, and I make sure we all take omega-3 (fish oil).

I first discovered my Apo ε4 status when I was a second-year medical student. We were testing our total cholesterol levels as part of a biochemistry lab assignment; mine was 240 mg/dL, whereas my classmates had levels in the healthy range—140 to 180 mg/dL. At the time, I was a competitive runner

eating a healthy diet. This discovery, at first devastating, turned out to be a powerful motivator in my career and professional passions. In fact, Apo ε4 is associated with higher cholesterol—even in healthy eaters. Cholesterol buildup in the brain may contribute to Alzheimer’s. Interestingly, statins, which lower cholesterol, also appear to reduce dementia risk, and once again, this beneficial effect is more apparent in Apo ε4 individuals. Starting in my 20s, I have been taking medications to keep my cholesterol low.

I also figured out in medical school that I was particularly susceptible to inflammation from sugary or starchy treats (sweet beverages, candy, chips, baked goods, etc.) and fast food. After consuming these ultra-processed foods, I could feel inflammation in my gums, and I instinctively knew that I needed to avoid them if I wanted to stay healthy. Eventually I discovered that I thrive best when eating like a hunter-gatherer—now I know why.

Worst Dietary Villain: Sugar, Not Red Meat

My patients often tell me, “I eat such a healthy diet—no red meat at all.” For decades, I’ve replied, “A little red meat won’t kill you.” What might kill you or cause obesity, heart disease, diabetes, and Alzheimer’s is a steady diet of sugar and ultra-processed foods. In my experience, having a sweet-tooth addiction to sugar is very common among my patients with Alzheimer’s.

Single-ingredient, natural, and unprocessed whole foods are what we’re meant to eat. Patients who avoid red meat entirely are not necessarily healthier, especially if their diets rely heavily on processed foods or refined carbohydrates. What I have done for myself—and increasingly believe is the right approach—is to eat a high-protein, high-fiber, vegetable-rich diet that includes a modest amount of

fresh and lean red meat and, if need be, keep cholesterol levels down by using safe and effective meds like statins, ezetimibe, and Repatha—all of which have been shown to prevent heart attack, stroke, and cardiovascular death for those at risk.

Apo ε4 is an ancient gene that evolved one to six million years ago, when our prehuman ancestors were eating a hypercarnivorous diet, so Apo ε4 carriers are evolutionarily adapted to a diet higher in meat. Indeed, lean fresh red meat is rich in many brain-healthy nutrients like high-quality protein, vitamin B12, iron, and zinc, all of which are not abundant in plants.

Before you decide to become a carnivore, keep in mind red meat is typically high in saturated fat, which raises cholesterol and can increase risk of cardiovascular disease, so choose lean cuts. Specifically, round roast and steak, sirloin, top loin, and chuck steaks are lean, and a 3.5-ounce cut (about 100 grams) only contains 4.5 grams of saturated fat. Avoid charred, burned, over-cooked, and processed meats—these are not good if you are aiming for longevity. Hot dogs, bacon, sausage, ham, salami, and other processed meats increase risk of cancer and heart disease. Instead,

enjoy fresh, lean red meat in modest amounts, paired with non-starchy veggies dressed with olive oil and vinegar or lemon.

Genes May Set the Stage, but Lifestyle Writes the Script

The prevalence of the Apo ε4 gene varies widely across populations, with the highest frequencies in populations following the primeval ancestral hunter-gatherer lifestyles—including African, Oceanic Indigenous, and Northern European groups. Apo ε4 is less common in populations with long histories of agriculture and grain-based diets, such as Middle Easterners, East Asians, and Southern Europeans.

The Apo ε4 gene may have conferred an advantage in physically demanding, resource-variable environments by



Strategies to Lower Alzheimer’s Risk

Category	What to Do	Why It Matters
Physical Activity	150–300 minutes per week of moderate exercise + strength training two times per week	Boosts brain blood flow, reduces inflammation, supports neuroplasticity
Hunter-Gatherer Diet	Non-starchy vegetables, greens, berries, nuts, fish, EVOO, unprocessed red meat, plus water, coffee, and tea	Linked to slower cognitive decline and lower dementia risk
Omega-3s	Fatty fish two times per and/or a fish oil supplement	Supports brain structure, reduces inflammation and stroke risk
Cardiometabolic Health	Make sure your blood pressure, cholesterol, glucose (hemoglobin A1c) levels are low	Vascular health is directly tied to brain health
Sleep	7–9 hours per night; treat sleep apnea	Helps clear amyloid and restore brain function
Cognitive and Social Engagement; Intimacy	Stay mentally active and socially connected	Builds cognitive reserve; reduces decline risk
Weight and Metabolism	Maintain healthy weight; avoid insulin resistance	Metabolic dysfunction increases Alzheimer’s risk
Alcohol and Drugs	No smoking, avoid regular use of benzodiazepines (Ambien, Xanax), and limit alcohol (≤1 drink per day)	Protects brain and vascular systems
Mental Health	Manage stress and depression	Chronic stress accelerates cognitive decline
Lifelong Learning	Continue education; learn another language or musical instrument	Strengthens cognitive reserve
Sensory Health	Correct hearing and vision loss	Maintains ability to perceive and retain new info
Brain Protection	Prevent head injury (use helmets, practice fall prevention)	Trauma increases dementia risk
Oral Health	Morning and night: brush with electric toothbrush, floss your teeth, and/or use a water flosser; dental cleanings every 6 months	Reduces gum inflammation and tooth loss and reduces risk of Alzheimer’s
Genetic Awareness	Consider home genetic test such as 23andMe	Enables earlier, targeted prevention

enhancing the absorption of nutrients from foods such as red meat during times of scarcity. This prehistoric gene evolved in small bands of individuals living in the wild, maintaining very physically active lifestyles, eating a high-protein, high-fiber diet comprised of single-ingredient whole foods, and free of refined grains, added sugars, and ultra-processed foods. In such a milieu, Apo ε4 would confer robust health and not predispose to Alzheimer’s or heart disease. In contrast, in modern environments characterized by caloric excess, easily digestible high-sugar foods, and sedentary behavior, Apo ε4 amplifies risks for dementia and cardiovascular disease.

What This Means for You

I highly recommend an at-home DNA test; 23andMe (23andme.org) is my favorite. There is a 75% chance you won’t have the Apo ε4 gene, but know that if you do carry it, you can take steps to ensure you won’t develop dementia. It is a simple and relatively inexpensive (\$80 to \$200) kit you order online that involves collecting a bit of saliva and mailing it back in a pre-addressed envelope.

If you carry one or two copies of Apo ε4, you can transform any anxiety that knowledge generates into motivation to live like a 21st century hunter-gatherer eating a high-fiber, whole-food diet that includes fresh lean red meat a few times a week, taking two grams daily of EPA + DHA omega-3, keeping alcohol to not more than three to six drinks per week, staying very physically and mentally active, and making sure your blood pressure and cholesterol levels are nice and low. Even if you aren’t Apo ε4 positive, unprocessed red meat can be a healthy component of your diet. And what’s good for the brain is good for the heart, and great for your longevity.

Caring for Others *continued from page 7*

fact, studies consistently show that persistent loneliness carries health risks comparable to smoking, obesity, and physical inactivity.

The good news is that the opposite is equally true. When we invest in the well-being of life around us—our spouses, children, grandchildren, friends, neighbors, communities, pets, gardens, or even the birds in our backyard—we activate something ancient and life-giving within ourselves. Acts of kindness lower stress, strengthen social bonds, and remind us that we still matter. We become participants in something far larger than ourselves.

I’ve long believed that the quality of our lives is directly proportional to the quality of our relationships. Increasingly, I think that’s more than a nice sentiment—it’s biological reality. Good health depends on nutritious food, regular exercise, restorative sleep, and avoiding harmful habits. But it also depends on how deeply we are woven into the living fabric of family, friendship, community, and the natural world.

As a cardiologist, I’ve spent my career studying the human heart. But over the years I’ve come to appreciate that a healthy heart is far more than an efficient pump. It is also the seat of compassion, generosity, gratitude, and connection. Perhaps the healthiest hearts are not simply the ones that beat the longest, but the ones that spend a lot of energy helping other life.

Maybe that’s why filling that birdbath felt meaningful. It wasn’t about rescuing wildlife or performing some heroic act. It was simply about

paying attention. About noticing a need and responding with a small act of care. Yet in helping those birds, something inside me was nourished as well. I walked back into the house feeling lighter, more grateful, and somehow more alive.



The meaning of life may not lie in accumulating more wealth, achieving greater success, or endlessly trying to optimize ourselves. Instead, it may be found in helping other life flourish. It might mean showing up for a friend who’s struggling. Calling your parents. Playing with your grandchildren. Petting your dog. Planting a tree. Tending a garden. Volunteering in your community. Or simply filling a birdbath on a scorching summer afternoon or a frigid cold winter day.

When we care for the life around us, we don’t simply make the world a little better. We remind ourselves that we are an essential part of this astonishing web of life. And in helping other life flourish, we often discover that something beautiful happens within us as well. Perhaps that’s one of nature’s most elegant designs: By helping life thrive around us, we help keep our own hearts—and our own lives—vibrantly alive.



Saint Luke's
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4330 Wornall Road, Suite 2000
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Bones

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Vitamin D improves calcium absorption. Magnesium supports both bone and cardiovascular health. Vitamin K2 helps direct calcium into bone instead of arteries. Collagen provides the structural framework that gives bone its toughness while also supporting youthful skin, lustrous thick hair, and strong nails. The goal: complete nutritional support for building strong bones and teeth.

A Bigger Lesson About Nutrition

This topic reinforces a lesson I've learned throughout my career: Focusing on isolated nutrients often misleads us. Human physiology is wonderfully complex. Our bodies respond to dietary patterns, nutrient interactions, hormones, inflammation, the gut microbiome, sleep, exercise, and stress—all working together.

When patients ask me the best strategy for protecting their bones, my answer is simple. Lift weights at least twice a week. Walk every day. Carry heavy things. Eat real food. Aim for roughly one gram of protein per pound of ideal body weight. Spend time outdoors. Build muscle. Don't smoke. Get enough sleep. If you're a woman in perimenopause or menopause, discuss hormone replacement therapy with your physician. If you're a man with symptoms of testosterone deficiency, have your testosterone level evaluated.

Finally, nourish your body with nutrients in forms that more closely resemble the way nature intended. For many people, I recommend a bone meal supplement such as CardioTabs Bone Essentials®, two capsules twice daily with food. I've personally taken four capsules of Bone Essentials every

day for the past decade. During that time, my bone density has actually improved—a result that's unusual after age 40 without prescription medications. While no supplement can substitute for a healthy lifestyle, I believe Bone Essentials provides the nutrients bones need in forms that more closely resemble real food.

Healthy aging isn't simply about adding years to life—it's about preserving the strength, vitality, and independence to enjoy those years. Few investments pay greater dividends than building hard bones while keeping your arteries supple.

Disclosure: Dr. James O'Keefe is founder and Chief Medical Officer of CardioTabs, a nutritional supplement company that creates and sells products including Bone Essentials and other bone and heart health supplements.