

# FROM THE HEART

Newsletter from  
 **Saint Luke's**  
 CARDIOVASCULAR CONSULTANTS

## Lessons from Kindhearted, Intelligent Trees

By James H. O'Keefe, MD, photos by Perry Ralph

*"To understand biology is to understand that all life is linked to the Earth from which it came; it is to understand that the stream of life, flowing out of the dim past into the uncertain future, is in reality a unified force, though composed of an infinite number and variety of separate lives."* **Rachel Carson**

**T**rees have a secret life—they are gigantic beings who prosper for hundreds of years by tapping into an ancient interconnected web of life. Like a human village, individual trees bond with each other; the forest is their social network. Tree families live together with their tree neighbors, commu-



nicate with each other, support the young trees as they grow, and share nutrients with those who are sick or old or struggling.

A tree even warns its community to impending dangers by emitting chemicals from its leaves that drift on the breeze to alert neighboring tree family and friends that they are being attacked by insects or herbivores. Once forewarned, the trees as a group start pumping out chemicals that repel the insects, and other animals trying to eat their bark and leaves.

### Wood-Wide Web

There is much, much more to a mushroom than meets the eye—the vast majority of this fungus is continually growing below the surface as a network of thin threads, known as a mycelium. These fungal threads function like a soil-based internet, linking the roots of neighboring plants.

In this way the trees are all interconnected through these fungal threads and by their roots as well; enabling them to be constantly communicating with each other and redistributing sugar and other nutrients via this underground organic internet of the forest.

Life is supposed to be about the survival of the fittest—but the trees seem to be helping each other survive. Why are trees so altruistic with each other? Well for starters, a lone tree is vulnerable and tends to have a much shorter life than one that is part of a forest. By itself, a single tree is at the mercy of the wind and the weather and thus is more exposed to the harsh elements.

But many trees growing together in a forest and living as a community create their own ecosystem—one that tempers the extremes of heat and cold, stores water on the damp and fertile forest floor, which maintains a high humidity to protect the trees from drying out. The forest also provides shelter against the gale-force winds that can destroy a lone tree growing on its own. In this protected forest community trees stay healthy longer, living for centuries, sometimes even for a millennium or longer.

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## The Secret Life of Trees

German forester Peter Wohlleben writes about these astonishing new scientific insights in his spectacular and fascinating book, *The Hidden Life of Trees: What They Feel, How They Communicate: Discoveries from a Secret World*. A forest of trees needs its group to stay intact if the individual trees are to thrive. If some of them die off, it exposes gaps in the tree canopy that can disrupt the local ecosystem, making the trees more susceptible to diseases, and exposing them to unforgiving elements including the hot sun, violent storms, and hungry predators.

This forest internet that connects the plants together also gives the trees the ability to share water, nutrients, carbon, nitrogen, and minerals with one another. One year a robust and hardy tree may pump nutrients to its sickly neighbor, nourishing and supporting the ailing tree until it recovers. Next year, it may be the other way around, and now the rejuvenated tree might provide assistance for its formerly strong neighbor who has fallen ill.

The trees also reach up toward the sun to collect the sunlight, but respect their neighbors' space, so that everyone gets an adequate dose of sunshine to keep the whole forest vigorous and resilient as an intact

community.

I love to garden and I'm forever planting, trimming, and nurturing trees. I have noticed that if a branch grows into an always shady spot where it can no longer collect sun to photosynthesize and contribute to the vitality of the overall tree, its leaves tend to wither, and the branch eventually dies and falls off.

It's as though life in its wisdom understands that it's counterproductive to waste energy to keep things alive that are not contributing to the greater good, so it stops investing life force in these lone, selfish members, thereby dooming them to elimination. It's a fundamental truism of life that any living organism tends to do best when it's playing its natural role, integrated into the web of life around it—helping its family, friends, and neighbors also flourish.

## What the Trees Can Teach Us

This same dynamic is a powerful undercurrent in human existence. Author Ryan Holiday writes in his superb new book, *Stillness is the Key*, "Life without relationships, focused solely on one's accomplishments is empty and meaningless, in addition to being precarious and fragile." The writer Phillip Roth spoke proudly late in life about living alone and being

responsible or committed to nothing but his own needs. He once told an interviewer that his lifestyle meant that he could always be on call for his work, never having to wait for or on anyone but himself. "I'm like a doctor and it's an emergency room," he said, "and I'm the emergency." That may just be about the saddest thing a person has ever said without realizing it.

The world hurls at us so many hurricanes. Those who have decided to go through existence as an island are the most exposed and the most ravaged by the storms and whirlwinds.

On Sept. 11, 2001, Brian Sweeney was a passenger trapped on hijacked United Airlines flight 175, which was heading straight for the south tower of the World Trade Center. He called his wife from one of the plane's seatback phones to say that things were not looking good. "I want you to know that I absolutely love you," he told her voicemail. "I want you to do good, have good times; same with my parents. I'll see you when you get here." Imagine the terror of that moment, yet when you hear his voice coming through the phone ... not a trace of fear.

About 2,600 years ago Lao Tzu said, "Being deeply loved by someone gives you strength, while loving someone deeply gives you courage." If you

doubt this, consider the “momma bear” phenomenon. The intense maternal love of a mother—animal or human—gives her the courage and strength to do whatever it takes to protect her babies.

## A Bug’s Life

When I wake up in the morning and get ready to start my day, I will sometimes see a single ant scurrying around on the surface of my bathroom vanity. I think to myself, “What are you doing in here, little guy?” Wandering away from your nest with none of your ant buddies around you leaves you vulnerable and ineffective, on a dangerous and lonely adventure.

The tiny ant reminds me that on my own I couldn’t accomplish much of anything, and probably wouldn’t be alive for long. Indeed, ants and humans are two of the most social species on Earth. We can only survive and accomplish substantial goals when we collaborate with other individuals in our little colony.

My longtime friend Frank Forenich writes in his brilliant book *New Old Way*, “Your body is not an arbitrary isolated object that simply appeared on Earth. It’s a leaf on an immense tree, a continuation of a process that is vast beyond our ability to comprehend.

Your body is not decades old, but hundreds of millions of years old. Every cell in your body contains a story of continuity and connection. It’s an amazing awe-inspiring story. As Darwin himself put it, “There is a grandeur in this view of life.” Believe it or not, act like it or not, we are all children of a common ancestor.

David Brooks talks about “résumé virtues” versus “eulogy virtues.” According to Brooks, résumé virtues are the individual accomplishments, like high

test scores and professional success, which can bring money and fame.

On the other hand, eulogy virtues are altruistic personal traits, like kindness, compassion, bravery, and humility, sometimes referred to as “character.” Brooks argues, that our society rewards the résumé virtues and underappreciates the humbler eulogy virtues. Still, in our hearts, most of us understand that this second category of virtues is what matters most in life.

## Random Acts of Kindness

Functional MRI images show that generosity lights up the giver’s brain with a warm glow. Even small acts of generosity, such as supporting a broken-hearted friend, visiting someone who is hospitalized or in a nursing home, donating blood, or being helpful to your neighbor can increase a person’s happiness.

According to Seneca, “There is no enjoying the possession of anything valuable unless one has someone to share it with.” I have a friend who each year plays the role of “Secret Santa” and goes out in public just before Christmas, handing out thousands of dollars by giving \$100 bills to random strangers who appear to be in need of some help.

When a person selfishly pursues happiness and pleasure, they tend to become unhappy. Instead, when we pursue meaning and connection, deep and fulfilling contentment appears unbidden, spontaneously within us. Brené Brown summed it up nicely when she wrote, “Spirituality is recognizing and celebrating that we are all inextricably connected to each other by a power greater than all of us, and that our connection to that power and to one another is grounded in love and compassion.”



# Omega-3 Is Brain Food

By James H. O’Keefe, MD, Joan O’Keefe, RD, and William S. Harris, PhD

**J**oan recently saw a 16-year-old girl whose mother brought her in for dietary counseling. As Joan began interviewing the young woman (let’s call her Brittany) about her diet and lifestyle, tears of sadness appeared out of the blue and streamed down Brittany’s face,



dripping off her chin. Upon further questioning, it became clear that Brittany, as a junior in high school, was struggling with paralyzing anxiety and deep depression.

As she looked over the 10-day food diary Brittany had filled out, Joan commented, “She seems to be eating no fish or seafood.” Her mom laughed and said, “This kid hasn’t eaten a bite of fish or seafood since she was 2 years old!” So, Joan worked out a diet plan with Brittany, and because eating enough fish was not an option on the table, Joan recommended an omega-3 supplement.

Four weeks later at her follow-up appointment, Brittany came bouncing through the door like Tigger from Winnie the Pooh. Joan looked at her mom in amazement and asked, “Is this the same girl?”

This time the waterworks were tears of gratitude running down Brittany’s mom’s face, as she responded, “Yes, it is.” Ever since then, Brittany happily takes her daily omega-3 supplement on her own because she can feel the difference in her mood—making her day-to-day life brighter and more joyful, and the emotional hurdles of being a teenage girl easier to manage.

## Mood-Brightening Effects of Omega-3

When Joan was 27 years old and 5 months pregnant with Jimmy, our oldest child, we discovered that she had lymphoma—cancer of the lymph nodes. At the time, her wise mother Kathleen said to her, “Joanie, nobody promised you that your life was going to be a rose garden.”

We all go through times in our lives when unavoidable stresses descend upon us and test our coping abilities. Unfortunately, many of us do not have the built-in support systems most of our ancestors had; a large extended family nearby, life-long friends, a tight-knit community, friendly neighbors and an unwavering faith. Hopelessness, anxiety, road-rage, bullying, even shooting rampages and other tragedies, can erupt when these stresses overwhelm our brain’s capacity to cope.

It’s during these times when it is very important to have a healthy brain that can enable us to be hardy and resourceful. Nutritional deficiencies of DHA and EPA increase vulnerability to stress, and can increase risk of major depression, impulsive violence, and suicide.

Studies show that people who eat a diet low in omega-3 have an increased risk of suicide. Furthermore, low blood levels of DHA have been associated with an increased likelihood of attempting suicide (see figure). In a small randomized placebo-controlled trial, two grams per day of DHA + EPA decreased symptoms of depression, lowered stress levels, and reduced suicidal thinking.

In the largest study ever evaluating the effects of over-the-counter (OTC) nutrients on psychiatric well-being, researchers found that omega-3 was the most effective supplement for improving mental health.

Published in 2019 in the journal *World Psychiatry*, the meta-review analyzed 33 meta-analyses comprising nearly 11,000 people treated with various OTC supplements in randomized trials for mental disorders, such as depression, chronic stress/anxiety, personality disorders, schizophrenia, bipolar disorder, and attention-deficit/hyperactivity disorder (ADHD).

This study concluded that the most beneficial OTC supplement for brain health was omega-3, which significantly boosted mood in patients with major depression, and also substantially improved ADHD symptoms by reducing hyperactive, inattentive, and impulsive behaviors.

## Supercomputer Made of Fat

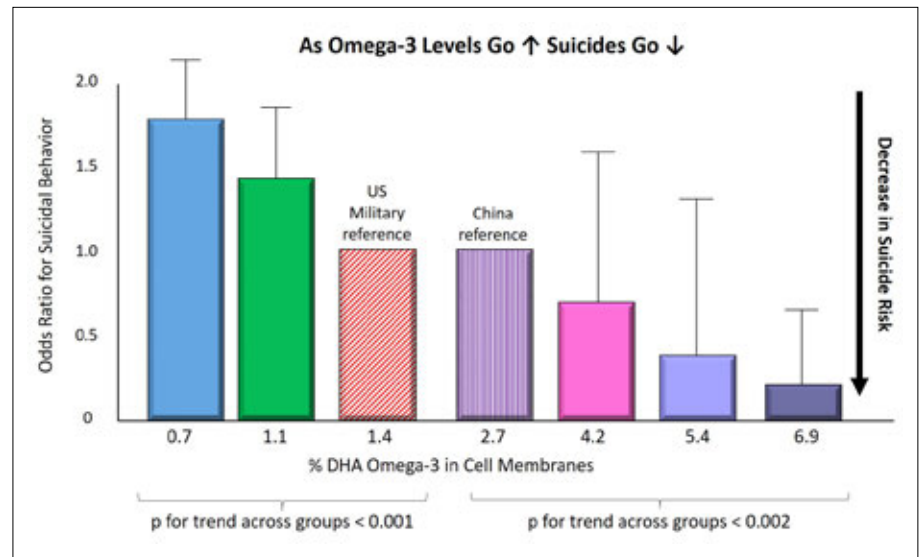
Your brain is the most complex, intelligent, and downright astounding creation in the known universe. Although it weighs just 3 pounds—a mere 2% of your body weight—your brain burns 25% of the calories you consume and 20% of the oxygen you breathe. In other words, your brain is by far your most energy-demanding organ, surging with precise and intricate electrical impulses that enable you to continuously monitor and control your body, make sense of the world, and navigate safely through your life.

If someone calls you a fathead, don't take it personally—60% of the dry weight of the brain is fat. Inside, the skull is packed with fatty components: the cell membranes that encircle each of the 100 billion cells in our brain are made up of phospholipids—a special type of fat that keeps the cells soft, supple, and responsive so that they can effortlessly communicate with the other cells in the brain.

Another unique type of fat called myelin insulates the nerves, which keeps the electrical signals true and information flowing fast and accurately. Axons are the long threadlike extensions from a nerve that reach out to carry and receive messages to and from other cells in the brain and body. Myelin sheaths are sleeves of fatty tissue that protect these fibers and ensure the fidelity of these electrical signals.

## Prevent Age-Related Brain Shrinkage

It's true that you are what you eat—and nowhere is this more apparent than in the brain. A sharp and cheerful mind requires a brain made up of the right types of fats. In order to build an optimally healthy brain with commu-



nicative cell membranes, responsive neurons, and intact myelin sheaths, we need to be consuming a lot of omega-3.

My mother, Leatrice, was born a few days after the Stock Market Crash of 1929. We recently threw her a blowout bash of a 90th birthday party here in Kansas City. Her mind is still as bright as ever, with a loving and kind nature and a great sense of humor.

I attribute some of Leatrice's remarkable and enduring mental capacities to her love of nuts, which have always been among her favorite foods. Yet, Leatrice, like Brittany, doesn't prefer the taste of fish. So, for decades we have brow-beaten her into taking an omega-3 supplement, and she begrudgingly swallows her fish oil pills each day.

The human brain tends to shrink as the decades roll by; a shriveled-up brain is typical among people with Alzheimer's and other neurodegenerative diseases. One of the best ways to keep your brain plump and fully functional is to feed it the right kinds of fat—like those found in oily fish—ideally fish caught in the wild.

A study of 240 people over 65 and with mild cognitive impairment

(memory problems) published in *The Journal of Alzheimer's Disease* randomized half of the patients to receive 2 grams per day of DHA for 12 months. The other half got a look-alike placebo. After one year, the group assigned to take DHA showed significantly less brain shrinkage than the placebo group.

These benefits were particularly apparent in the hippocampus—a region of the brain crucial for memory and spatial navigation, and the cerebral cortex—a region controlling higher level thinking and movement. In another analysis, this one an observational study, the authors reported a favorable association between a blood marker of omega-3 status (the Omega-3 Index) and brain volume—specifically hippocampal volume—on CT scans.

The bottom line is that the brain tends to shrink as we age, and as the neurons wither, our thinking power can diminish. A plump and youthful brain promotes a strong intellect, quick thinking, and preserved abilities to learn new things and adapt to change, regardless of your age. Consequently, it's important to eat fish and

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## Omega-3 is Brain Food

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seafood regularly, and take a purified and concentrated omega-3 supplement that contains the two most important omega-3s: DHA and EPA.

### Preventing Rust in the Brain and Body

A growing body of clinical research indicates that numerous mental illnesses are tied to increased levels of oxidative stress and inflammation. Think of this like rust in the brain and body. Higher dose omega-3 supplementation can provide powerful anti-inflammatory effects throughout your system, which turns out to be advantageous for keeping other vital organs healthy as well.

Joan recently saw another memorable teenager, an 18-year-old we'll call Zach, who suffers from Crohn's disease, a severe inflammatory bowel condition. Zach's breakfast each morning consisted of Mountain Dew and donuts. A health crisis required that his doctors surgically remove part of his small intestine. This got Zach's attention, and Joan made sure to turn it into a teachable moment. She told him, "You won't survive this unless you drastically change your diet."

Now Zach's breakfast is eggs and avocados, or unsweetened Greek yogurt with nuts and berries. He drinks water, sparkling water, tea, or coffee, takes his omega-3 supplement and is doing dramatically better.

### How Much Omega-3 is Optimal?

Doses of omega-3 for promoting a sunny disposition and a discerning mind start at a minimum of 1,000 mg (or 1 gram/day) and range up to 4 grams per day. Most experts advise 1 to 2 grams of EPA + DHA per day for optimal brain health.

The first step in changing anything is measuring it, so we recommend checking your omega-3 index using an over-the-counter test kit to determine exactly how much omega-3 your cell membranes contain. This is an easy test to do yourself. It requires only one drop of blood that you place on a special card and mail off. Most Americans have an omega-3 index of 4% or less; ideal is 8% or higher, and 90% of children and adults are not in this protective range.

Typically, people tolerate omega-3 without difficulty. After all, omega-3 is a food and there is no serious downside to consuming it. Gastrointestinal issues including upset stomach, loose stools or fishy burp/aftertaste are the most common side effects.

These can be minimized by taking a more purified, concentrated form of omega-3, as well as taking the pills or liquid omega-3 immediately before or with a meal. The latest studies have reassured us that omega-3s do not substantially increase the risk of bleeding unless high doses are used (more than 4 to 7 grams per day of EPA + DHA).

Because omega-3s are key building blocks for the developing brain, it is especially important for toddlers, children, and teenagers to be getting enough omega-3. It is also essential for pregnant and nursing mothers to take an omega-3 supplement.

### Take-Home Messages on Omega-3s

Eating the typical American diet predisposes a person to a dysfunctional brain. And living in America in 2020 can be stressful. Teenagers are especially vulnerable to emotional turbulence.

Omega-3 isn't a cure-all for mental health, but consuming plenty of these beneficial fats will help to keep your brain plump and non-inflamed, with an upbeat mood and a resilient mind. This is a simple, safe and effective way to help buffer you from the unavoidable stresses of modern-day life.

Importantly, the latest studies have also confirmed that high-dose omega-3 is protective for the heart and blood vessels—reducing risks for heart attack, stroke, and sudden death. Try to prioritize getting your omega-3s each day, by consuming fish/seafood and taking an omega-3 supplement.

*Disclosures: James O'Keefe is founder of CardioTabs, Joan O'Keefe is CEO of CardioTabs, and William Harris is founder of OmegaQuant.*

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## To My Mother, on Her Birthday

By Ibrahim M. Saeed, MD

All that we do for ourselves dies with us. All that we do for others remains and is immortal. I have seen these words of Albert Pike a dozen times, but now it means more than ever.

I saw Musa off to kindergarten, and I think of how you felt when you dropped me off on my first day. Small, brown, and skinny in front of a large brick building with unknown, untold opportunities inside.

Yusuf goes camping for a week and my heart goes with him. Of course he will be fine. Of course he won't be hungry. Of course he won't be cold. And now I know, of course you worried but didn't let me know you worried.

The giggle and warm embrace of Yaseen as he entangled himself in your tubes and wires because it was pure love. As we entangled our cold feet under your rear on the sofa watching Sherlock Holmes.

You noted those things in others that you valued above all. Strength of character. Kindness. Bravery. Loyalty. Intelligence and wit. Grit. Truth. Justice. Humanity. The spirit of adventure. The joy of dancing to Michael Jackson and Punjabi Bhangra. The tears at watching "The Color Purple" or "It's a Wonderful Life." The annoyance at the cowardice of Devdas. You valued truth and love above all.

Steadfast. Grace. Royal. A weeping willow. A shining citadel on a hill. That forever beacon that inspires us to be true, be better, and be grateful to our Lord and maker.

Happy 83rd birthday, Mama.

*(Author's note: This was written Aug. 17, 2019. My mother, the strongest woman in my world, passed on March 9, 2019).*

# Don't Go Bacon My Heart!

By James H. O'Keefe, MD, with Joan O'Keefe, RD

**R**ecent headlines proclaiming, “The Flip-flop on Meat—Now Bacon is OK” surprised and confused most Americans and enraged many nutritional experts. These headlines were prompted by a highly controversial group of articles published in the *Annals of Internal Medicine* that concluded the studies linking processed meat and red meat to poor health are flawed and are not conclusive enough to warrant the major health organizations’ advice to cut down on burgers and salami. What’s more, the authors also argued that people like their bacon cheeseburgers so much they are not likely to give them up, no matter what “diet experts” advise.

Keep in mind these are the same authors, who in 2016 published a similar article proclaiming that evidence against sugar was too weak to justify advice to cut down on sugar intake. Now, if there is one recommendation that any dietary expert worth their salt can agree upon, it’s that sugar is public health enemy #1.

Not surprisingly, the authors of these papers have been financially supported by a group of food corporations and agribusiness interests including McDonald’s, PepsiCo, Monsanto, Cargill (one of the largest beef processors in North America), and AgriLife (a program that promotes meat production and marketing). Talk about the fox minding the henhouse—definitely not a good idea to take health advice from these guys when it comes to deciding what’s for dinner.

These new bogus “guidelines” were not endorsed by any legitimate entities such as the American Heart

Association, the American Cancer Society, or the World Health Organization, who generally recommend eating meat “in moderation” because many studies have found heavy meat consumption is linked with premature death, various cancers, heart disease, and diabetes.

## Bacon Doesn't Cure Health Worries

Indeed, the studies linking processed meats, such as bacon, ham, hot dogs, and sausage with colorectal cancer are rather convincing. In the United States, colorectal cancer is the third most commonly diagnosed malignancy. Studies from the World Cancer Research Fund suggest that excessive consumption of processed meat and red meat increases the risk of cancer by 18%, which may not sound like a big risk—unless you happen to be one of the 18%.

The American Cancer Society estimates that cutting back on processed meats and red meat could prevent 8,000 cancer deaths over the lifetime of 1,000,000 people. Dr. Frank Hu, renowned nutritional expert from Harvard says, “A moderate reduction in red and processed meat consumption within a healthy eating pattern can reduce total mortality by 13%, heart disease mortality by 14%, cancer mortality by 11%, and type 2 diabetes risk by 24%. Few interventions, including drugs, can do all those things

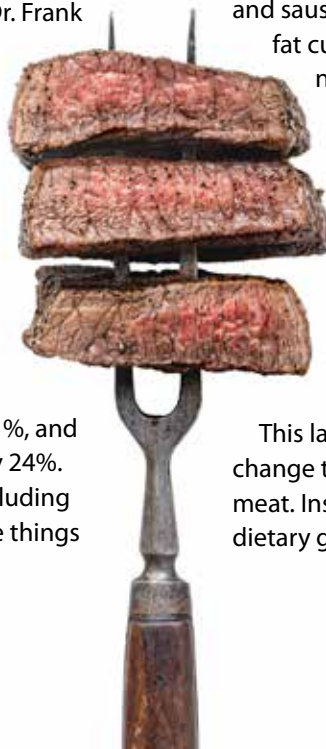
at the same time. Statins, for example, can reduce cardiovascular risk and total mortality, but actually increase risk for type 2 diabetes and have little effect on cancer.”

A few “Blue Zone” cultures scattered across the world enjoy exceptional health and remarkable longevity, where reaching 90 years of age is the norm and people experience 80% less cardiovascular disease and cancer, and 67% less Alzheimer’s dementia. What do these communities tend to eat? A diet made up mostly of fresh and unprocessed plant foods, including nuts, seeds, vegetables, fruits, and beans, along with fish, and yogurt. Meat is reserved for celebrations or special occasions, and intake of processed meat is almost non-existent. Common sense tells us to follow their example.

## Meat's Redeeming Qualities

But to be fair, red meat has a lot of redeeming qualities, such as high levels of vitamin B12, zinc, iron, and high-quality protein. On the other hand, processed meats, such as bacon and sausage, are mostly saturated fat cured with carcinogens like nitrites, heterocyclic amines, and excessive salt. For this reason, bacon, ham, sausage, and bologna are not on the Joan O'Keefe Diet—though a few bites of these savory foods once a month or less won't kill you. Think of bacon as the candy of meats—treat it as a rare treat.

This latest round of studies did not change the way Joan and I look at red meat. Instead of fretting about what dietary guidelines tell us to eat, we





focus on eating a variety of minimally processed foods—both plant and animal-based—and we consume very few ultra-processed foods. Eating this way makes us feel good. One of our favorite meals is hamburgers; Joan broils extra-lean hamburger to medium rare, and on top of a juicy 4-ounce burger we pile on home-made guacamole, fresh-cut onions, and tomatoes, spinach, and a bit of shredded cheese. No bun, no ketchup, no fries, and no Coke—because we don't feel as healthy after that kind of burger meal-deal.

Another favorite meal is K.C. strip steak. Again, Joan cooks it to medium rare, slices into thin strips and pairs it with a large kale salad dressed with extra-virgin olive oil and red-wine vinegar. We eat these sorts of lean, fresh red meats (lamb chops are another favorite) about once or twice per week, which happens to comply with the American Cancer Society's advice to limit red meat to "a few" servings a week or less. However, it's important to emphasize that the vast majority of the protein foods we consume are in the form of wild-caught fish or seafood, nuts, seeds, beans, and non-fat yogurt with an ounce or two of cheese once or twice a week.

For perfect health, you need to be consuming about 50 separate nutrients daily—doing so requires a person to eat a wide variety of foods. And we are not talking about a snack-pack variety of potato chips, Skittles, Oreos, and Dr. Pepper. Nope, you should be consuming a variety of foods that don't even have a label on them like fresh veggies, fruits, nuts, berries, fish,

seafood, eggs, and yes ... red meat.

## The Dark Side of Veganism

The EPIC-Oxford Study has been following 50,000 meat-eaters, fish-eaters, vegetarians and vegans for about 18 years now. The study shows that vegetarians have a higher risk of stroke, despite the fact that they have a lower risk for coronary heart disease (including heart attacks). These vegans and vegetarians in the EPIC-Oxford Study had lower blood levels of several critically important nutrients including vitamin B12, omega-3, vitamin D, iron, and some essential amino acids (protein building blocks).

Results of other studies from Japan have also shown that vegans—who eat little to no meat, fish, dairy or eggs—have an increased risk of stroke. Moreover, vegans have increased risks for depression, sarcopenia (loss of muscle mass), and osteoporosis. We humans are designed to be omnivores, and because vegans shun animal foods, they are typically deficient in many essential nutrients. Arguably the best thing a vegan could do for their health would be to eat a fillet of wild-caught salmon or a steak from grass-fed beef a few times a week.

## Nose-to-Tail Eating

When our ancient ancestors bagged a mammal, bird, or fish, they ate pretty much the whole animal. In contrast, today we mostly eat just muscle meat, thereby missing out on many key nutrients. For example, if you're interested in building strong sturdy bones, the best food to eat is ... bone. When you consume bones as part of a meal, you will supply your system with the exact mixture of nutrients it needs to construct new bone.

If you're looking to rejuvenate your skin and make your hair grow thick and lustrous, the best nutrient to eat is collagen—found in abundance not in steak or hamburger, but rather in the skin and bones of an animal. Having joint issues? Eat cartilage off the ends of bones when you have chicken or turkey for a meal. Cartilage contains glucosamine and chondroitin and other compounds that are difficult for an adult mammal to make from scratch, and which are essential for building and maintaining healthy joints.

Not ready to start whole-hog cooking and eating? Sardines, with skin and bones, are one option to get a more complete range of animal food nutrients. King Oscar Wild Caught Sardines in extra virgin olive oil are my personal favorite. I eat a can of these at least twice a week. But realistically, most people are not going to do this. A more practical option is to take collagen powder or pills to help beautify and revitalize your skin and hair.

Additionally, most people aren't getting enough calcium in their diet, and half of U.S. adults over age 50 have osteopenia or osteoporosis (weak bones). The easy and practical way to remedy this is to take a daily supplement made from organic bone. This provides calcium in its natural form of hydroxyapatite, along with magnesium and other essential minerals in an organic, collagen-rich protein milieu. This is a natural and effective way to strengthen and revitalize your skeletal health.

This is super important—don't get confused by all this glitzy marketing for expensive face creams, biotin or standard calcium supplements. If you can't or won't do nose-to-tail eating, and let's be honest, almost nobody can, consider taking an organic bone supplement and collagen. I promise, you will notice the difference.



# An Open-and-Shut Case: How the Saint Luke's Valve Center is Healing Hearts

By David Skolnick, MD, and Adnan Chhatriwalla, MD, Medical Directors, Saint Luke's Valve Center of Excellence

**O**n behalf of our colleagues at Saint Luke's, we would like to share with you the exciting work that we have done over the last several years as we established Kansas City's only Valve Center of Excellence, as designated by The Joint Commission.

By way of background, the heart has four valves (mitral, aortic, tricuspid, and pulmonic valves) that open and close as the heart pumps to ensure that blood circulates in one direction. Pathology occurs when the valve does not fully open (medical term: stenosis) or does not adequately seal (medical term: regurgitation). The most common forms of heart valve disease in our adult population include aortic stenosis and mitral regurgitation.

Creating a Valve Center of Excellence at Saint Luke's Mid America Heart Institute grew out of our vision of providing our patients and the broader community the full spectrum of high-quality surgical and non-surgical (also called transcatheter) interventions. The mission statement for our Valve Clinic is: Accuracy in Diagnosis; Excellence in Care. In recognition of our success, we received The Joint Commission certification for Valve Repair and Replacement in 2018. We are the only hospital in the region to have received this prestigious recognition of excellence in treating heart valve disease.

The incidence of significant valve disease increases with age and our population is growing older. Of those Americans over 75 years old, up to 4% have severe aortic stenosis and nearly

10% have significant mitral regurgitation. Both of these conditions are underdiagnosed and undertreated.

Without timely intervention, a predictable cascade of events occurs which leads to irreversible heart damage, heart failure, impaired quality of life, and eventually, premature death. Since the advent of valve surgery in 1960, open heart surgery was the only option. However, today many patients are not ideal candidates for surgery.

Over the last decade, impressive developments in medical research have challenged the limits of yesterday. Innovative technology has brought less invasive, catheter-based treatment options to our patients. You may have heard of the two FDA-approved procedures, TAVR and MitraClip™, which we shall explain here.

Life-saving catheter-based intervention brings new hope to patients. Incorporating this technology into routine clinical practice also requires a uniquely collaborative approach to patient care. It demands further sub-specialization within the fields of cardiac imaging, interventional cardiology, cardiac anesthesia, and cardiac surgery. Few hospitals have the depth of resources or the clinical expertise to offer this level of care. Studies in medical literature continue to demonstrate that patient outcomes are better at high-volume institutions. Our highly skilled and experienced team continues to repair and replace more heart valves than any other hospital in the Kansas City region.

The American College of Cardiology (ACC) recognizes that patients with se-



Dr. Skolnick



Dr. Chhatriwalla

vere heart valve disease achieve better clinical outcomes if they are cared for in specialized centers. This concept has been previously validated for critically ill patients with trauma, stroke or heart attack.

In this spirit, the ACC recently recommended the creation of a two-tier model for valve centers. Only a limited number of centers, including Saint Luke's, will have the higher designation and offer the full spectrum of treatment options in this swiftly developing field.

## Leading-Edge Interventions

Transcatheter aortic valve replacement (TAVR) is a game-changer for patients with aortic valve disease. TAVR allows the aortic valve to be replaced without open heart surgery. From the early days of this technology, Saint Luke's was a recognized leader in this new field. We are proud to have been the first to bring TAVR to our community in 2008. As one of 20 U.S. centers that participated in the landmark PARTNER trials for TAVR, we helped establish it as a new standard of care.

Today, that early involvement translates into more than a decade of experience with the same core team of cardiovascular physicians who have performed about 1,000 TAVR cases to



A heart model shows the TAVR in place.

date. Our 30-day mortality rate places Saint Luke's Hospital in the top 10% of U.S. hospitals. We have participated in a dozen nationally organized clinical trials and authored over 50 TAVR peer-reviewed manuscripts. Most of those publications were authored by members of our world-renowned Clinical Outcomes Research Group.

Mitral valve therapy is even more complex. The surgical skills needed to successfully repair mitral regurgitation are difficult to master. Our surgical program maintains a high volume of mitral valve repair procedures, and thus we have very good patient outcomes.



The MitraClip™ device.

However, individuals who are not ideal candidates for open heart surgical repair may be considered for a transcatheter mitral valve solu-

tion. Continuing the commitment for innovation, we began a MitraClip™ Program in 2015. This technique of edge-to-edge mitral leaflet repair is available in even fewer hospitals than TAVR. We participated in the landmark COAPT trial, published earlier this year, which demonstrated the benefit of this catheter-based procedure in patients with heart failure and mitral regurgitation. In the fast-moving field of transcatheter mitral valve replacement (TMVR) solutions are now on the horizon to address mitral valve disease when neither open heart surgery nor MitraClip™ is a viable option. As with TAVR a decade ago, our valve team is bringing the next game-changer, TMVR, to Kansas City.

### Sharing Our Knowledge

Our Valve Center recognizes the importance of ongoing education, for both our staff and our community. At the Saint Luke's annual two-day Heart Conference for primary care physicians, advanced practice providers, and nurses, we present lectures on the management of valve disease. We offer an advanced Structural Intervention Cardiology Fellowship to master the skills needed for catheter-based treatment strategies in valvular heart disease.

And, recently we hosted a community awareness program to teach patients about heart valve disease and new options for treatment in a less invasive fashion. As this field evolves, we are at the cutting edge of this revolutionary development. Saint Luke's will continue to excel in this exciting and rapidly changing field.

**If you or a patient or family member of yours has significant heart valve disease and would like to make an appointment, please call 816-932-VALV (8258).**

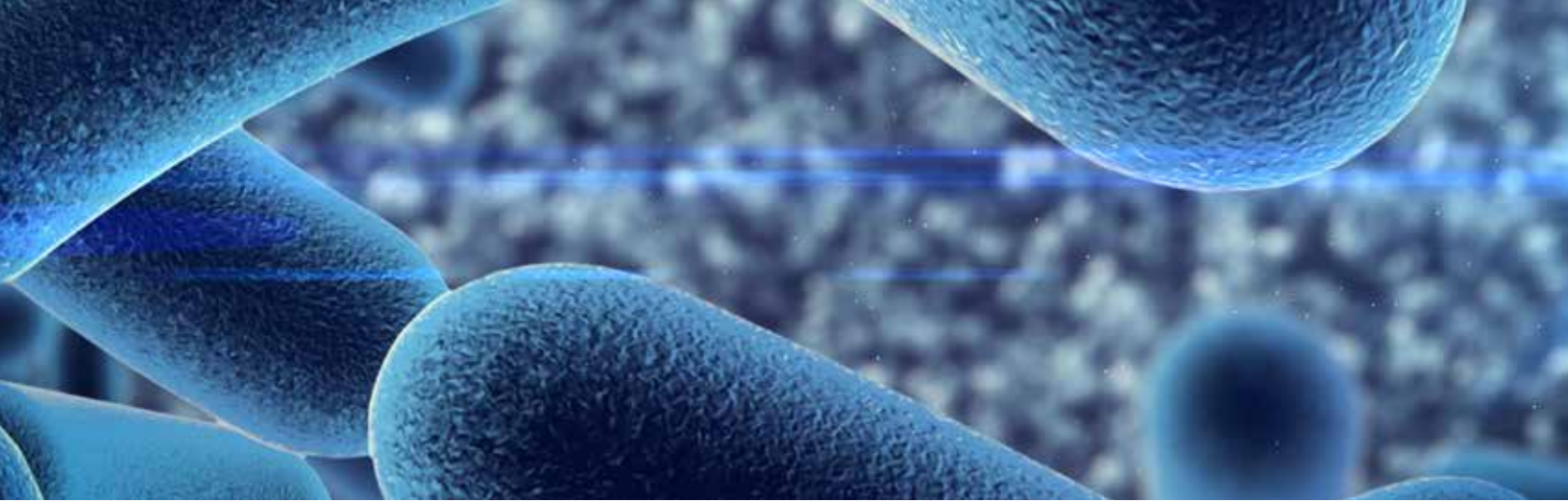
## Editor's Comment

Over the course of 30 years your heart will beat about a billion times, so by age 60 your heart has contracted 2 billion times; the typical 90-year-old has 3 billion heart beats on her ticker. That's like having 200,000 or 300,000 miles on the engine of a car—not surprisingly the moving parts eventually start to wear out.

Mitral regurgitation (leakage of the main inlet valve), and aortic stenosis (narrowing of the main outlet valve) are increasingly common age-related conditions—and when these valve problems become severe, they are often lethal. At Saint Luke's, we have an expert team of cardiologists who are among the best in the nation at fixing worn out valves without resorting to open heart surgery. Amazingly, they can repair your potentially deadly valve problem one day and send you home the next with a new lease on life.

This breakthrough technology enables our Saint Luke's Valve Center experts to fix heart valves using catheters and techniques that are similar to the stents that are deployed through blood vessels to open blocked coronary arteries without using surgery. I am confident and enthusiastic about referring my patients with serious heart valve problems to Dr. Adnan Chhatriwalla, Dr. David Skolnick and their team at the Saint Luke's Valve Center of Excellence. They are truly lifesavers!

**James H. O'Keefe, MD**



# You Contain Multitudes: Balance the Ecosystem Within

By James H. O’Keefe, MD, with Joan O’Keefe, RD

**T**rillions of tiny organisms are living inside you right now, exerting profound effects on everything from your immunity, gut, and cardiac health, to your weight and mental well-being. Countless bacteria inhabit our bodies—known collectively as the microbiome. Managing our microbiome has the promise to support overall health.

As I write this, I’m eating a bowl of naturally fermented sauerkraut. Also on the menu for breakfast this morning: about seven baby dill pickles, a bowl of non-fat unsweetened Greek yogurt with berries and nuts, two cups of coffee, and unsweetened psyllium fiber mixed in water, and gulped down. Joan taught me this—and it is a breakfast guaranteed to keep your gut happy and healthy with a robust microbiome.

This is not easy, which is why most Americans have GI (gastrointestinal) health that is not ideal. To cultivate a vibrant garden of beneficial organisms in your gut, you need to start by eating a mostly plant-based diet rich in fiber. Natural fiber from plant foods adds bulk to the stool, and keeps the food and bacteria moving along through the small bowel to the colon.

Once in the large intestine, the fiber is fermented into short-chain fatty acids, which help to prevent colon cancer.

Fermented foods, including sauerkraut, kimchi, kefir, kombucha, yogurt, and miso all contain bacteria that are beneficial to GI health and overall immunity. You should shoot for at least two servings of fermented food daily. We like to do this at breakfast, to start the day off right.

The indigestible fibers present in plant-based foods are known as prebiotics—these are perfect for feeding the good bacteria in your intestines. Excellent sources of prebiotics include onions, garlic, artichokes, green bananas, oatmeal, berries, psyllium (Metamucil), and pickles.

The plant pigments found in red wine, green tea, black coffee, berries, cherries, pomegranates, and dark chocolate are polyphenols. These micronutrients are antioxidants that encourage the growth of beneficial bacteria in your gut while deterring pathogenic bad bacteria.

The people who won’t eat the kind of breakfast that Joan recommends, might benefit from taking a probiotic. Most probiotics contain various

Lactobacillus and Bifidobacterium species that help to seed the GI tract with bacteria and promote a hearty microbiome. If you take a probiotic, look for one that has a large number of bacteria, (at least 50 billion CFU per capsule) with several strains proven to have human benefits.

Sugar, as well as artificial sweeteners, promote the growth of bad bacteria, impair immunity, disturb your hormonal balance, and predispose to the deposition of fat tissue in and around your abdomen. If you are trying to grow a healthy microbiome, avoid all added sugars and other refined carbs, along with artificial sweeteners like the plague.

Antibiotics, prescribed to kill off the bad bacteria that are making you ill, also cause a great deal of collateral damage by decimating the population of good bacteria in your system. If you have to take an antibiotic, make sure you are also eating some probiotic foods. Also consider taking a multi-strain probiotic to help repopulate your gut with good bacteria.

*Disclosures: James O’Keefe is founder of CardioTabs, and Joan O’Keefe is CEO of CardioTabs.*

# Right There!

By James H. O'Keefe, MD

**K**enny was a golden boy who was good at everything he set his mind to. He was a stand-out athlete in basketball and baseball, loved photography and music, and was valedictorian of his high school class. Kenny married Carolyn, and soon they had three young children and were seemingly living a storybook life. My good friend, Joe, is the middle child in that family, and when he was only 5 years old, his father suffered a catastrophic stroke from a ruptured aneurism that bled into his brain, leaving Kenny paralyzed and unable to talk at only 34 years old.

Joe recalls that during that crisis his family prayed that his father's misery would end, and that God would take him. Joe wrote, "How does a person who had so many interests and was so active, with a huge thirst for life, carry on after being stricken with such a debilitating illness. He could no longer walk or do the things he loved, he couldn't work or accomplish things, or gain wealth, or talk or write."

But Kenny was a fighter, and he battled through three separate brain bleeds and survived, albeit confined to a wheelchair for the rest of his life. Even though the stroke took away much of his prior life, Kenny didn't become less passionate, he simply transferred those passions over to caring more deeply about his family and friends.

Kenny had what we call expressive aphasia—which essentially means he was unable to speak. And although he could only say two things: "right there" and "beautiful." His ability to comprehend remained fully intact. Rather than sinking into depression and

giving up on life, Kenny instinctively focused on what he could still do—listen and be a supportive friend.

And listen he did—with rapt attention and empathetic loving eyes, never interrupting. Joe said that although his father could speak only a few words, he was the greatest communicator he'd ever known. Kenny was, according to Joe, "secure in his own skin, never worrying about what someone else thought."

Kenny saw the best in people, and had a gift of connecting with family, friends, neighbors, and even strangers. He made each person feel special. Joe remembers that, "When you walked into a room where Dad was, he didn't wait for you to engage him, he always engaged you."

When he saw someone he recognized he would usually reach out his one functional arm to hold their hand, and then lean over to kiss the back of their hand. Then Kenny would look admiringly into their eyes and say "beautiful." His grandson Joey said, "By not judging us, Grandpa Kenny gave us the confidence to grow into our own self at our own pace."

When a grandchild, neighbor or friend told him about something they had achieved, Kenny would celebrate with a joyful and proud, "Right there!" Joe recounts how, "Dad couldn't dance on his feet, yet he would always wheel himself out on the dance floor, moving to the rhythm usually with three or four dance partners round him. He had a wonderful sense of humor and would light up with his quick wit, and he taught us how to laugh at ourselves when we needed to be humbled."

Kenny was always keenly observing the scene around him and one time exclaimed, "Right there!!" in a loud warning when he noticed young children who were swimming too far

out into the chilly deep waters of a mountain lake. And during the still and quiet moments, as the wind blew gently through the trees, Kenny would point up to billowy clouds floating overhead, and whisper, "Right there."

On vacations, his family would be swatting flies, sipping their drinks and complaining about whatever, when with perfect timing Kenny would point to the ocean or the sunset and say, "Right there," reminding people to be grateful for the natural beauty around them. He knew that each day



was a blessing, and that we need to stay mindful because there will be no going back to this moment ever again.

St. Francis prayed, "Grant that I may not so much seek to be consoled as to console; to be understood, as to understand, to be loved as to love, for it is in the giving that we receive."

Kenny spent the last 44 years of his life devoting all of his attention and love to others, which had a profound impact on his family and friends. When Kenny died at age 78, the church was packed with 1,500 people who adored him as an empathetic listener, and a source of unconditional love. Christy, one of his admiring friends, wrote that Kenny taught her, "All there really is in life is ... right there. Just before us—to see, to celebrate, to acknowledge, to find joy in, to be grateful for what is ... right there."



## Putting Your Heart Into Life Makes All the Difference

By James H. O’Keefe, MD

*“The purpose of life is not to be happy. It is to be useful, to be honorable, to be compassionate, to have it make some difference that you have lived and lived well.”*

*Ralph Waldo Emerson*

The morning after a hurricane hit the Atlantic seaboard, an elderly man went down to the local beach to survey the damage wrought by the storm. As he strolled down the vast beach, he was shocked to see the shore littered with starfish. He also noticed a distant figure who was intermittently bending over to pick up one of the starfish and throw it into the sea.

As the two passed each other walking in opposite directions, the man politely asked, “Good morning. May I ask what you’re doing?” The woman replied, “I’m tossing the starfish back into the ocean before they dry up and die.”

The old man replied, “That’s a noble gesture young lady, but there are thousands of starfish on this beach. I’m afraid your meager efforts won’t make much of a difference.” The girl looked down, bent over, picked up another starfish and gently threw it back into the clear, cold, salty waves. Then she turned to look back at him and asserted, “I made a difference for that one.”

My great grandfather, Dr. Henry O’Keefe, who was born exactly 100 years before me, was a pioneer doctor up in North Dakota near the Canadian and Minnesota borders. He was the only physician for miles and miles in a sparsely populated prairie with no hospital nearby.

Nearly all babies were born at home, and indeed most of his work was done by house call—using a horse and buggy (or sleigh during the winter). One January day in the winter of 1886 after delivering a baby, he started for home about 4 in the afternoon. On his way back, a blizzard



suddenly descended upon him and he lost the trail in the whiteout. Heavy snow blanketed the grassland, but Dr. Henry, in his horse-drawn sleigh, pushed through the blinding snow-storm for several hours. Finally, he happened upon the home of one of the settlers, where he and his team of horses were taken in for the night, and waited out the storm.

During another winter his team of horses and sleigh broke through the ice while crossing the Forest River, plunging him into the water. Dr. Henry

grabbed the back of one of the horses, who pulled him out of the icy river, but the spooked horses ran off. Dr. Henry had to walk in his wet clothing for two miles until he came across a farm residence where he was lent a change of dry clothes. After warming himself on the hearth of their fireplace, the settler gave Henry a sleigh ride back to his home in Minto.

Sometimes when my life as a doctor seems to be especially demanding, I remind myself of the unimaginable difficulties my great grandfather dealt with just three generations ago. Back then most people succumbed to illnesses like tuberculosis, pneumonia and dysentery—all infectious diseases—for which he had no antibiotics.

Against all odds he survived into his mid-80s, and never retired from medicine. Thankfully, the appearance of automobiles and hospitals made the second half of his life much more reasonable. Dr. Henry knew clearly what his mission in life was, and that his community needed him. I suspect that is what gave him the strength to persevere through the daunting obstacles he faced.

## The Danger of Wandering Aimlessly Through Life

How would you rate yourself with regard to this statement? "Some people wander aimlessly through life, but I am not one of them." If you answered that you are NOT one who wanders aimlessly in life, congratulations—you'll probably live longer.

That question gets at the bigger issue of whether you have a sense of purpose or guiding meaning in your life. Researchers on this topic have found that what your specific purpose is doesn't matter, as long as it is something beyond just your own selfish interests.

You could be a mother who finds purpose in keeping a daughter or son safe and happy—even if it's been decades since that kid was a child. Or, you might love to nurture gardens and trees, which not only beautify our world, but also produce the oxygen we breathe, and purify our air by pulling carbon dioxide (CO<sub>2</sub>) out of the atmosphere.

Or, it might be volunteering for a cause that you care deeply about or

helping out a local school or hospital. What makes all the difference is that you have a sense of purpose. Having a commitment to a cause bigger than yourself will predictably boost your emotional well-being and bolster your physical health.

A scientific survey that followed 7,000 adults found that over the long term, the people with the lowest life-purpose scores were twice as likely to die prematurely when compared with people who had the highest sense of purpose. This feeling that you are dedicated to a higher cause is especially potent at protecting you against cardiovascular diseases, like heart attack, and stroke. When you are wholeheartedly devoted to something or someone, your heart grows stronger and more resilient.

Surprisingly, having a life purpose has been shown in scientific studies to be more important for decreasing the risk of early death than the standard cardioprotective behaviors like regular exercise, avoiding excess alcohol, and not smoking.

By the way, this is a universal truth about humankind. A study done in Japan discovered that adults who reported having "ikigai"—a Japanese term meaning "a reason for being" or "the things that make one's life worthwhile"—lived on average seven years longer than those without ikigai.

As an added bonus, studies also show that people with a sense of a higher purpose generally sleep better and tend to be less stressed and anxious. Lydia Denworth writes, "It seems having a reason to get up in the morning may be key to helping us sleep better at night."

Around the globe and down through the ages it is clear that when our heart is committed and we have a strong sense of purpose we not only live better, we tend to live longer.



Photo by Perry Ralph.



## Nature as Healer

By James H. O’Keefe, MD, photo by Perry Ralph

In our modern indoor digital lives, we tend to become oblivious to the fact that we need our natural surroundings to thrive. Writer Alan Watts says, “It is as essential to have air, water, plants, mammals, birds and fish as it is to have lungs, brains, kidneys, and a heart. The former are our external organs in the same way the latter are our internal organs.”

A new landmark study based on 20,000 people in England showed that a cumulative two-hour “dose” of nature each week will significantly improve your health and well-being, even if you simply sit outdoors taking in the trees and sky, and soaking in the peace and quiet.

This study confirms other research showing that time spent in parks, woods or the beach is good for us, but the new research is the first definitive scientific estimate on what the minimal dose of time spent outside in a natural environment is in order to confer the benefits to mind and body.

The authors say that making it a priority to get two hours outside in

nature each week should join the list of other proven health-promoting behaviors such as five servings per day of vegetables and fruits, and 150 minutes per week of exercise.

The benefits of getting at least two hours per week of nature-time were seen in people who were young and old, sick and healthy, rich and poor, and urban and rural people.

According to Dr. Mathew White—the lead author of this new study, “Getting out in nature seemed to be good for just about everybody. It doesn’t have to be physical exercise – it could be just sitting on a bench.”

Indeed, *shinrin-yoku*, also called Japanese “forest bathing” is popular among Tokyo residents who take a morning bullet train to escape to pristine woodlands for the day. This has been shown to reduce stress and lower blood pressure, even if the participants just sit passively in the forest.

It doesn’t matter if the two hours per week in nature are spent in one visit or in a series of shorter outings, or

whether the time is spent in an urban park, out in the woods, fishing at a lake or stream, or cycling along a tree-lined path.

The study found that the stress reduction was particularly robust if the time spent outdoors was in a setting of natural beauty, scenic vistas, flowers, plants, birds, and animals.

I’ll have to admit, this notion resonates with my soul. In one of my cherished memories of childhood, I was out walking next to my mother on a beautiful spring morning as she looked down at me, smiled and said, “Getting outside on a glorious day like today just makes you happy to be alive, doesn’t it, Jamer?”

I make it a priority to get outdoors for some exercise virtually every day. One of my favorite exercises is to swim in a lake, outdoor pool, or ocean and I jump in every chance I get. Heaven on earth for me is to flip over and stare at the clouds drifting overhead, while doing a quiet backstroke.



# Napping: Guilt-Free Pleasure Protects the Heart and Sharpens the Mind

By James H. O’Keefe, MD, with Joan O’Keefe, RD

**A** tranquil afternoon nap is a wonderful respite from the day’s hustle and bustle, a chance for your mind and body to unwind, relax and take a breather. Joan loves her daily nap—a habit she developed when our four kids were infants. At the time the afternoon nap was essential for the mental well-being of the children ... as well as the mom. Now, a new study out of Switzerland gives us another excuse to make time for a daytime snooze: napping once or twice a week appears to lower the risk of heart attack and stroke.

These Swiss researchers found that napping even for as little as 20 minutes, at least one or two times per week conferred the full benefit for reducing cardiovascular risk. This study, published in the medical journal *Heart*, analyzed the links between napping and the risk for serious cardiovascular events like heart attacks and strokes, among a cohort of 3,462 randomly selected residents of Lausanne, Switzerland.

These study participants were between 35 and 75 years of age, and they were followed for five years or more. More than half (58%) of the participants did not nap on a regular basis; 19% took one or two naps per week; 12% took three to five naps per week; and 11% napped six or seven times weekly.

The study concluded that people who napped even occasionally (once or twice weekly) reduced their risk of having an adverse cardiovascular event by 48% compared to individuals

who didn’t nap at all.

This association still held true, even after controlling for other confounding factors including age, sleep apnea, obesity, average sleep duration at night, high cholesterol, and high blood pressure. Somewhat surprisingly, the nap duration did not affect the degree of cardio-protection bestowed.

Because this was an observational study, not a randomized trial, it does not definitively establish a cause-and-effect relationship between napping and good cardiovascular health. In other words, it only tells us that people who nap at least once or twice a week tend to have healthier hearts than those who don’t nap. Still, it’s good enough reason for me to continue to indulge in an afternoon nap whenever I get the chance.

## Sleep on It

Many other scientific studies on the benefits of napping have legitimized the siesta. A 20- to 45-minute mini-vacation into dreamland during the day can reinvigorate the mind, make up for a poor night’s sleep, and help us to feel happier and healthier. So, go ahead and flop down for a spell after lunch, or anytime you feel the need. And importantly, don’t feel guilty about your nap—this is time well spent.

“I’ll sleep on it” is a sentiment sometimes used to defer a decision and give the person some time to mull it over for a while. A recent study out of the United Kingdom found that a daytime nap before a big decision is



a scientifically sound strategy. This study, published in the *Journal of Sleep Research*, discovered that the subconscious mind busily analyzes information during sleep, even during a daytime nap. This information processing that churns away unconsciously in the sleeping mind can lead to important new insights, and better decision-making upon awakening.

In this study, a 90-minute daytime nap seemed to improve the subsequent cognitive performance in study participants. The human brain gathers a large amount of information while awake, and during sleep our mind analyzes, organizes and integrates the data in a much deeper way, even though we are not conscious of the process.

By now, I hope I’ve convinced you to grant yourself the luxury of an occasional nap of 20 minutes or more, at least once or twice a week. If you do, you’ll be in good company. Some of the most brilliant people in history were famous nappers including Leonard da Vinci, Albert Einstein, Winston Churchill, John F. Kennedy, Eleanor Roosevelt, Thomas Edison, and Aristotle.



## Quotes from the Stoic's Heart

"You are never alone or helpless. The force that guides the stars guides you too." **Shri Dunartti**

President Harry Truman once remarked about Clement Attlee, Winston Churchill's replacement as Prime Minister of England, by saying, "He seems a modest sort of fellow." To which, Churchill replied, "He's got a lot to be modest about."

"Never interrupt an enemy making a mistake."  
**Napoleon Bonaparte**

"The most precious gift we can offer others is our presence. When mindfulness embraces those we love, they will bloom like flowers."  
**Thich Nhat Hanh**

"A long dispute means that both parties are wrong."  
**Voltaire**

"We must all either wear out or rust out, every one of us. My choice is to wear out."  
**Theodore Roosevelt**

"We work for money, but live for meaning. Money without meaning is worthless."  
**Ken Laudan**

"Of the seven deadly sins, only envy is no fun at all."  
**Joseph Epstein**

### From Carl Jung

"You are what you do, not what you say you'll do."

"The meeting of two personalities is like the contact of two chemical substances: if there is any reaction, both are transformed."

### From Fred Rogers

"The child is in me still, and sometimes not so still."

"The connections we make in the course of a lifetime—maybe that is what heaven is."

### From Marcus Aurelius

"The more we value things outside our control, the less control we have."

"The soul becomes dyed with the color of its thoughts."

"The best answer to anger is silence."

"Give yourself a gift: the present moment."

"The best revenge is not to be like your enemy."

"You have power over your mind—not outside events. Realize this, and you will find strength."

# Hot Flashes: Red Light Warning about Heart Hazards Ahead!

By James H. O'Keefe, MD

**S**uddenly you're feeling warm across your chest, neck and face. You look in a mirror and see that you're flushed, and your skin looks red and blotchy. And for no apparent reason, you're sweating and your heart is racing. This is not some crazy allergic reaction—it's just a garden variety hot flash—welcome to menopause.

We call these vasomotor symptoms (from the Latin words vaso for blood vessels and motor for movement) because they occur when the skin's blood vessels suddenly dilate. The leading theory is that plummeting sex hormone levels confuse the body's thermostat into thinking it's too hot, so the brain dilates the surface blood vessels and produces sweat, both which quickly cool the body down. This is also why most people feel an immediate chill after a hot flash.

Some 60 to 80% of women experience hot flashes as their ovaries stop making estrogen and progesterone in mid-life, and these spells generally occur for seven to 10 years after menopause. A man can get hot flashes too—if his testosterone drops to low levels, or if he's started on leuprolide—a drug for prostate cancer that blocks testosterone.

Until recently, hot flashes were considered to be a benign symptom of menopause that women had to just suffer through for a few years. But surprising new studies report that these random spells of flushing and sweating seem to be linked to increased future risks for heart attack, stroke, heart failure, and cognitive decline later in a woman's life.



A study presented at the North American Menopause Society in the fall of 2019 reported that recurring night sweats in menopausal women were associated with future risks of cognitive dysfunction, including difficulty with higher-level thinking tasks and/or inability to pay attention. The study also found that frequent hot flashes were linked to adverse cardiovascular events later in a woman's life.

The SWAN study enrolled 3,000 women in 1996 and has followed them closely ever since. These women were in their mid-40s when they started the study, so most of them went through menopause while being closely tracked by the SWAN research team.

What they found was that women with more frequent hot flashes had twice the risk of having heart attack, stroke or heart failure over the next two decades. The findings held true even after statistically adjusting the data for traditional cardiovascular risk factors, including tobacco use, obesity, high blood pressure, and diabetes.

The American College of Obstetricians and Gynecologists recommends hormone replacement therapy (HRT)

using estrogen with or without progesterone as by far the most effective treatment for the relief of night sweats and hot flashes. Theoretically, by eliminating the vasomotor symptoms, the HRT might also lower the risk of heart attack, stroke, and dementia for these women.

For decades, female HRT was considered dangerous, but the latest and best science now indicates that a woman with normal weight and no family history of breast cancer can safely use estrogen with progesterone under close medical supervision.

Transdermal estrogen using a patch is a good option, as is bioidentical hormonal replacement. Another option is raloxifene and other selective estrogen receptor modulators, which stimulate estrogen receptors in some tissues but not others.

These drugs may help lessen hot flashes and improve bone strength, but unlike HRT, they decrease the risk of breast cancer. Talk these important issues over with your gynecologist and/or primary care provider to see if HRT or raloxifene are options for treating your (or a loved one's) hot flashes and night sweats.

**18-Time Winner of the National Healthcare Advertising Awards!**

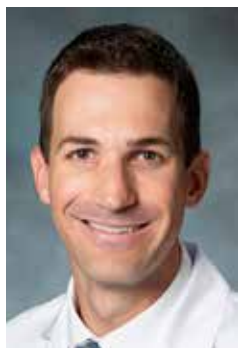
## Three Cardiologists Join SLCC

Please join us in welcoming three new cardiologists to Saint Luke's Cardiovascular Consultants. They include:

**Tim Fendler, MD**—Dr. Fendler performed his undergraduate studies at Saint Louis University, graduating summa cum laude with degrees in English and secondary education, then he worked for several years as a teacher. He subsequently decided to attend medical school, graduating from Kansas University School of Medicine, performing internal medicine training at Washington University. He began his cardiovascular disease fellowship training with SLCC in 2013, and since then he has completed the two-year NIH/T32 program, a three-year cardiology fellowship, and a one-year heart failure fellowship. He has published more than 20 manuscripts and is an emerging national leader in the arena of palliative care and heart failure. Dr. Fendler practices at Saint Luke's East.



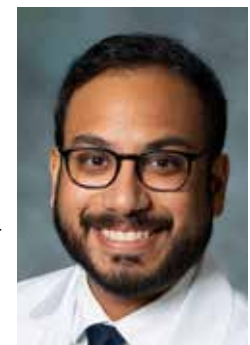
*Dr. Fendler*



*Dr. Fleddermann*

**Adam Fleddermann, MD**—Dr. Fleddermann earned his bachelor's and medical degrees from the six-year University of Missouri-Kansas City School of Medicine, and completed his internal medicine residency at Washington University in Saint Louis, where he was selected for the Clinical Scientist Training and Research track. He returned to Kansas City for his cardiology fellowship training, which he completed recently. During his fellowship, Dr. Fleddermann published original papers on the efficacy of direct-acting oral anticoagulants for off-label indications, and a paper describing a novel methodology for limiting low-value care. He will base his clinic at Saint Luke's East.

**Dany Jacob, MD**—Dr. Jacob is an interventional cardiologist with the Mid America Heart Institute. Dr. Jacob comes from Toronto, Canada where he completed an international baccalaureate program, and enrolled in bachelors of chemistry at York University. He obtained a medical degree at Saba University School of Medicine, where during his clinical training, he was awarded the Dean of Clinical Medicine Award. His post-graduate training included an interventional cardiology, cardiology, and internal medicine residency at the University of Missouri-Kansas City. Dr. Jacob is interested in the interpretation of ECGs, particularly in athletes. His research area includes athletic ECG screening criteria, and he has published on the implications of T-wave inversions in athletes and has presented in national meetings.



*Dr. Jacob*