

FROM THE HEART

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

Change Your Schedule, Change Your Life

By James H. O'Keefe, M.D., with Joan O'Keefe, R.D.

We used to laugh about Joan's parents, Leonard and Kathleen, because they would be in bed by 8 in the evening. They lived to be 94 and 99, respectively, and enjoyed strong hearts and sharp minds their entire lives.

Now it's our turn. Our grown kids make fun of Joan and me for our early-to-bed, early-to-rise routine. Joan has been the queen of an early bedtime for decades, and in recent years I've come to appreciate the power of this habit. I have made it a priority to get to bed early, and this has been life-changing for me. I feel happier and stronger; I will never go back to being a night owl.

Let's suppose you eat a healthy diet, exercise regularly, and get optimal sleep. If you had to sacrifice one of these, which would one would you consider untouchable? Which of these fundamental habits is the most important to your survival? Surprisingly, it's sleep. In fact, nothing else comes close. For example, if you were deprived entirely of sleep versus food versus exercise—you'd die most quickly from sleep deprivation—in just 11 to 14 days.

Epidemic of Time Sickness

The pace of life has accelerated to the point that time sickness has crept into our daily existence. We live with one eye on the clock, constantly fretting about to-do lists, and spending our days running from one chore to the next. To make matters worse, most Americans today are not sleeping long enough, and when they finally do retire to the bedroom, they take their cell phone with them.

Many people stay up late watching TV, surfing the net or working on the computer. This "night owl" schedule raises your blood levels of insulin and cortisol—both are hormones that make you obese, unhealthy

and stressed. When these potent hormones are jacked up, you have irresistible cravings for junk food like sweets, fried foods and other fattening, processed chow. Living like this is at odds with your natural biorhythms, and it will suck the joy out of life, sap your energy, pack on belly fat and age you prematurely.

You have a natural cycle called the circadian rhythm. Every 24 hours your system resets itself when you first are exposed to daylight. This circadian rhythm affects almost everything, including your mood, alertness, digestion and healing. Many of the most common ailments and complaints today are due to a modern lifestyle at odds with this natural biorhythm. A great new book by Dr. Suhas Kshirsagar called "Change Your Schedule, Change Your Life," focuses on synchronizing your life with these circadian rhythms.

Your Internal Clock in the Hypothalamus

Your body always knows what time of day or night it is, even if you do not. You may be hyperaware of time due to all of your deadlines and commit-

continued on page 2





Change Your Schedule, Change Your Life

continued from page 1

ments, yet your body runs on another type of clock—one that governs all of your cells and systems. This internal clock is housed in your hypothalamus—near the center of your brain—and it is the control center that regulates many key functions like your body temperature, hunger, thirst, hormone levels, wakefulness, blood pressure and bowel activity.

In order to keep everything humming along nicely, your hypothalamus constantly monitors your body and brain, as well as your environment to keep you safe and healthy.

One of the strongest signals affecting the hypothalamus is the presence of light versus dark. There is a specific part of the hypothalamus called the suprachiasmatic nucleus (SCN) that senses light so that your brain can synchronize your body to the cycles of day and night. When the bright light of the morning sun hits your retina, the hypothalamus powers up your system so you can greet the day with energy and enthusiasm. In the evening, as the sun goes down, the hypothalamus secretes the hormone melatonin, which makes you drowsy and ready for bed.

Life on Earth since its very beginning has evolved in this perpetual rhythm of daylight followed by nighttime in a 24-hour cycle; and it also has moved through four different seasons over the course of 365 days.

These rhythms of life are very deeply ingrained in your identity—there's no getting around it.

The body runs on a master cycle every day, with periods of activity alternating with rest. The quality of your activity depends on the quality of your rest. If you make it a priority to synchronize your lifestyle to this natural circadian daily rhythm, it will be much, much easier to stay healthy and happy. So when you get to bed early, get up with the sun, and eat most of your food in the midday, your hormones settle into their youthful ranges, which promotes a lean body, a bright mood and ideal health.

“There is no tissue within the body, and no process within the brain that is not enhanced by sleep, or demonstrably impaired when you don't get enough.”

Professor Matt Walker, Ph.D.

Make these four simple steps among your top priorities each day:

- 1**. Set a consistent bedtime that's before 10:30 p.m., and stick to it.
- 2**. Do some outdoor exercise in the morning before eating breakfast.
- 3**. Eat your largest meal at lunch rather than suppertime.
- 4**. Fast at least 12 hours every night.

Doctor's Orders

Get to bed by no later than 10 to 10:30 p.m. Getting your sleep is arguably the single most important thing you can do for your well-being. Good sleep reduces the risk of obesity, promotes robust health, improves mood and most importantly—it's one of life's simple pleasures. The last train leaving for a really good night's sleep departs at 10:30 p.m. Better to get on board the 10 o'clock train or even the 9:30. If you don't turn off the lights and snuggle in until 11 p.m. or later, you will not be able to fully refresh your brain and revitalize your body overnight.

Get outside in the morning for at least 10 or 20 minutes of movement. Whatever works best for you: walk, stroll, garden, bicycle, swim, stretch or any other outdoor physical activity you enjoy. The fresh air and morning light will reboot your internal clock and boost your mood. Moreover, when you do exercise after a 12-hour fast, you will burn belly fat to fuel your efforts. Drink caffeinated coffee or tea first thing in the morning, even before you go out for your exercise. Don't use sugar or other sweeteners in the coffee or tea though.

Eat a moderate-sized breakfast and a hearty lunch. Your smallest meal of the day should be your evening meal. When you eat a large, heavy meal in the evening, the insulin levels rise and direct all the calories to be deposited



in fat cells. On the other hand, the calories you consume in the morning or at lunchtime are routed to the brain and muscles to fuel your productivity, leaving no leftover calories to store as fat.

Don't eat any calories for at least 12 hours after your evening meal. The last call for any food or calories of any sort is 7:30 p.m., and all screens should go dark by 8 or 8:30 p.m. Then start your bedtime routine by 9 p.m.—brush your teeth, floss, and perhaps take a nice warm bath, listen to quiet music, or do some reading. I love to do some yoga in the late evening, just before bedtime. Do not use prescription medicines for insomnia. If you need a sleep aid, before bedtime try melatonin, 2 to 3 mg, or aspirin, 81 mg (chewed and swallowed), or magnesium threonate, 1 to 3 capsules.

By synchronizing your life to the natural rhythms of your body and mind, you will become aware of time in a new way. It no longer will be a marker of looming deadlines, or a game clock winding down as you scurry from one chore to the next, but rather a series of opportunities.

Morning shouldn't arrive to the sound of a jarring alarm clock, after which you drag yourself out of bed and then dash to the office. Instead, it's a time to power up your system by getting outside for some exercise and natural light, then break your nighttime fast with wholesome natural food.

The noon hour is a time to pause from your work, and nourish your

body with a filling meal, then get outside again for a little fresh air and a short walk. The evening is a time to re-connect with yourself as you prepare to rest and rejuvenate. When you fall into step with these natural circadian rhythms, vibrant health will emerge effortlessly.

Most importantly, get to bed by no later than 10:30 p.m. You should be able to wake up without an alarm seven to nine hours later. If you don't feel fully rested, or still need an alarm to wake up, move your bedtime to earlier. This is time well spent—it will improve the quality of your life like nothing else can.

Nightly Brainwashing

Your brain is your hardest working organ, pound-for-pound burning far more calories than any other tissue in the body. The human brain comprises only 2.5 percent of a person's weight, but burns 25 percent of total calories.

Unsurprisingly, all that thinking throws off a lot of smoke, and by bedtime a great deal of metabolic debris has accumulated inside your brain. You know how problems that just seem overwhelming at the end of a hard day, feel much more manageable after a long restful slumber? That's because after 16 hours of problem-solving, planning, multi-tasking and worrying, your brain is gummed up with smoke and debris. So, we need to shut down the command center and let the cleaning crew come in and rinse out the waste, organize the files, de-clutter the archives and consolidate the memories while the brain cells rest and rejuvenate.

During deep sleep is when blood pressure falls and neurons shrink, making room for the CSF (cerebrospinal fluid) to course through the brain, rinsing out the debris and cleansing the neurons. This literal brainwashing takes about four hours to complete; our hormones and systems are primed to go into this deep, slow-wave brain-cleaning sleep from any time after 9 p.m. for the next five hours.

Regardless of when you went to bed, starting about 2 a.m., it's dreamtime, which is more about purging unneeded memories, like where you parked at the grocery store yesterday, and strengthening new learning. My grandmother, Dorothy O'Keefe, used to tell me, "An hour of sleep before midnight is worth two hours after midnight."

Modern science has proven her folk wisdom to be spot on. Eight hours of sleep from 10 p.m. to 6 a.m. will cleanse and reinvigorate your brain better than if you had slept from midnight to 8 a.m.

Nurse Practitioner on Board at CWC

The Cardio Wellness Center's newest advanced practice provider is nurse practitioner, Laura Amos, RN, APRN, FNP-C. Laura was born and raised in Kansas City, Mo. She became interested at a young age in the profession of nursing, following in her mother's footsteps as a nurse who has practiced for more than 40 years at Saint Luke's Hospital.



Laura Amos

Laura developed a passion for preventive medicine early in her career. Her first bachelor's degree was in psychology. She then pursued an accelerated bachelor's degree in nursing from William Jewell College.

Laura began her career at Saint Luke's Mid America Heart Institute in the Coronary Intensive Care Unit, where she quickly learned in-depth knowledge of cardiovascular disease and developed her nursing skills, especially critical thinking. She then transitioned to become the Saint Luke's Cardiovascular Consultants weekend rounding nurse, helping to coordinate the hospital services for the cardiologists at all area locations.

She advanced her career further, graduating in December 2017 with a master's degree in nursing from the University of Central Missouri. She is now certified as a family nurse practitioner.

Laura has two children, Wyatt, age 8, and Scarlett, age 4. She enjoys exercise, especially running and yoga. She also likes reading, cooking, traveling and spending time with family.

"I am honored to be part of the Cardio Wellness Center, which is a unique and inspirational preventive cardiology program. Being able to work and train with Dr. Becky Captain and Dr. James O'Keefe, has been a dream come true," she said. "We have an exceptional team in the CWC and I am learning from the best. I look forward to working with all of our patients to educate and motivate them to achieve better heart health."

To schedule an appointment with Laura, call 816-751-8327.

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James H. O'Keefe, M.D.,
Editor-in-Chief saintlukeskc.org



James H. O'Keefe, M.D.

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Leadership Changes at SLCC

Dr. Kenneth Huber has been President of Saint Luke's Cardiovascular Consultants (SLCC)



Kenneth Huber, M.D.

for the past 13 years. Under Dr. Huber's leadership since 2005, our group has almost tripled in size, and we have strengthened our position as a top tier cardiology program.

Our clinical programs are cutting-edge, with experts in all of the major fields of cardiology including non-surgical valve replacement or repair, ablation of atrial fibrillation, non-surgical repairs of aneurysms and PFOs, and stenting of coronary arteries.

Dr. Huber will be passing the torch as the President of SLCC to Dr. Michael Main.



Michael Main, M.D.

Dr. Main has been a cardiologist with SLCC for 20 years. He currently serves on the board of directors of the American Society of Echocardiography and the Board of Governors of the American College of Cardiology.

Three Cardiologists Join SLCC

Meet the newest members of the Saint Luke's Cardiovascular Consultants team:

Anna Grodzinsky, M.D.

Dr. Grodzinsky attended medical school at the University of Missouri-Kansas City. She completed her residency in internal



Anna Grodzinsky, M.D.

medicine, chief residency, and clinical fellowship in cardiovascular disease at the University of Missouri-Kansas City. She also completed an NIH research fellowship in cardiovascular outcomes at Saint Luke's Mid America Heart Institute. She practices clinical cardiology and is primarily based at the Saint Luke's North location. She continues her work in cardiovascular outcomes research with a special interest in women's cardiovascular disease, and in the intersection of diabetes and cardiovascular outcomes.

Specialties: Cardiovascular research, clinical cardiology

Mohammed Saghir, M.D.

Dr. Saghir is a Kansas native and received his medical degree in 2006 from Washington University School of Medicine in St. Louis. He completed his residency in



Mohammed Saghir, M.D.

internal medicine at the Mayo Clinic in 2009. This was followed by a fellowship in cardiovascular diseases at Barnes-Jewish Hospital/ Washington University. Dr. Saghir is board certified in internal medicine, cardiovascular diseases, echocardiography, nuclear cardiology, and cardiovascular CT. He joined Saint Luke's Cardiovascular Consultants in 2018 and works primarily at the Saint Luke's South location.

Specialties: Clinical cardiology, valvular heart disease, cardiac imaging

Mike Nassif, M.D.

Dr. Nassif is originally from Ames, Iowa. He received his medical degree from the University of Iowa Carver College of Medicine, Iowa

City, Iowa. He performed his residency in internal medicine at Barnes-Jewish Hospital, St. Louis, Mo., and served as chief resident.

He was chief fellow in cardiology at Washington University School of Medicine, St. Louis, Mo. Most recently, he completed a cardiovascular outcomes research fellowship with the Mid America Heart Institute-University of Missouri-Kansas City. Dr. Nassif is board certified in internal medicine. He joined Saint Luke's Cardiovascular Consultants in 2018 and is based at the Saint Luke's Plaza location.

Specialties: Heart failure, clinical research



Mike Nassif, M.D.

The Power of Fasting and a Regal Breakfast: When You Eat is More Important than What or How Much

By James H. O’Keefe, M.D., with Joan O’Keefe, R.D.

The latest science has proven what Joan has been saying for years: when you eat is more important than what, or even how much you eat. In fact, the timing of your meals may be the single most important factor in determining how fat or lean you will be.

Most people gulp down a quick bite in the morning, eat a medium-sized lunch and consume their largest meal in the evening. A growing body of research indicates this may be exactly the opposite of what’s ideal. Recently, a study of 50,000 U.S. adults showed that we can markedly reduce our risk of obesity by beginning our day with a large breakfast, eating a medium-sized lunch and then consuming just a light supper, or even no supper at all. In other words, you should be eating most of your calories much earlier in the day, and avoiding eating or drinking calories later in day.

Age-old proverb: Eat breakfast like a king, lunch like a prince, and dinner like a pauper.

Israeli researchers enrolled dozens of overweight or obese women and put them on 1,400-calorie-a-day diets comprised of the same foods. However, half of the women in the study were randomly assigned to consume 700 calories at breakfast, 500 calories at lunch and 200 calories at supper. The other half were assigned to reverse the order, with the largest meal at supper and a very small meal at breakfast.

Despite the fact that all of the women consumed the same number

of calories per day, after three months the group consuming the large breakfast fared much better than the group eating the large dinner. The big breakfast eaters lost two-and-one-half times more weight, with most of their fat coming off their waistlines. The message was very clear: breakfast should be your largest meal of the day, and dinner should be your lightest meal.

Fasting May be the Fountain of Youth

Fasting is another dietary strategy that is turning out to be extremely effective for burning off belly fat, and improving health and well-being. Intermittent fasting, also called time-restricted eating, has been practiced for millennia in cultures around the globe, and now is becoming all the rage among scientists and health conscious people for its unique and powerful benefits.

Eating a sizable meal triggers spikes in your blood levels of fat and sugar, which in turn cause low-level inflammation. A 12- or 16-hour nightly fast cleanses your bloodstream, lowers inflammation, resets your metabolism and trims your waistline. This time-restricted eating pattern will kick-start your energy level and improve your sleep.

Ann is dear friend and colleague who has struggled with her weight all her life. She has tried countless diets, and her weight has yo-yoed up and down because she has never been



able to sustain meaningful weight loss. In July 2017, her frustration ended when she adopted an intermittent fasting program where she consumes no calories for about 18 hours every day. She fasts during her 8-hour nighttime sleep, but she also fasts for about 10 waking hours during each day. While fasting during waking hours, Ann does drink a lot of water, coffee and tea, but she consumes nothing with calories or artificial sweeteners. Since she started her intermittent fasting routine, she has lost 50 pounds and has kept it off. Unlike all of her previous weight loss diets, Ann is very enthusiastic and disciplined about her fasting routine.

Ann told me, “I usually fast 18 hours, and then for six hours I can eat and drink my calories. On the weekends it varies since I make breakfast for the family, so my fasts on Saturday and

Sunday are about 12 to 14 hours. I noticed with fasting that my body composition has changed; now I have less belly fat and more muscle, and I also have more energy.”

Ann tried to do the keto (very low carb) diet, but it made her feel weak. Now she does consume some carbs, but is careful to eat healthy options, such as an occasional slice of sourdough bread, and she replaces pasta with zoodles (noodles made out of zucchini), and substitutes cauliflower rice for regular rice.

Ann says, “Oh, when I eat, I eat! If I have one meal, it is a big one—LOL. But every meal usually has a big salad. And during my daily fast, I consume nothing but plain water, black coffee, and green tea. I’ve noticed that this ‘clean fasting’ doesn’t turn on my hunger hormones. Fruit-flavored water, or artificially sweetened drinks, may have no calories, but the flavors trigger hunger signals for me. Green tea will even turn them on for me at times. So I sometimes save my green tea for near the end of my fast.”

Two decades of experimental studies strongly suggest that people and animals who do intermittent fasting live longer, maintain sharper brain function as they age, stay more lean and fit, and have lower rates of cancer and Alzheimer’s disease compared to those who eat food throughout their waking hours.

Joan and I recommend finishing up supper by 6 or 7 p.m., and then not eating again until breakfast, at least 12 hours later. If you want to extend your fast out to 18 hours, try to front-load your calories at breakfast and lunch with a very light, late afternoon supper.

Eat Like a Peasant, Enjoy Splendid Health

By James H. O’Keefe, M.D.

My great grandfather, Henry O’Keefe, M.D. (1859-1941) was a country doctor in North Dakota; he would routinely go out in the winter to do house calls in a horse-drawn sleigh to tend to the sick. He was often paid “in kind,” which happened when his patients didn’t have money to pay him, so they bartered by giving him a chicken, eggs, nuts, or vegetables.



Researchers at the University of Leicester in England correlated health records from the 19th century with diets followed at the time in various regions of the United Kingdom. This recent study found that those who were living in isolated areas out in the countryside of England and Scotland, and in rural Ireland, had the healthiest diets and the best health. What’s more, these rural folks had the lowest death rates from tuberculosis, a disease that is linked with poor nutrition.

The researchers noted that 19th century peasants in the United Kingdom would often get paid with cheap food such as vegetables, potatoes, fish and milk, rather than money. On the other hand, the wealthier classes could afford to be pickier about what they ate, and so tended to prefer meat and butter, and foods made with sugar and white flour. These wealthy folks generally had more obesity and overall worse health in the long run.

The peasants mostly ate cheap, seasonal vegetables like onions, cabbage, leeks, carrots and turnips. The available fruits were apples in the fall and winter and cherries in the summer. They also ate plentiful chestnuts and hazelnuts, often roasted. Instead of expensive meat, they ate omega-3-rich oily fish and seafood, including herring, oysters, mussels, cod and haddock. Consequently, these peasants were 90 percent less likely to develop coronary disease, cancer and Alzheimer’s than we are today.

People who are conscientious about nutrition are often willing to spend a small fortune in expensive restaurants and for trendy superfoods in their pursuit of a good health. But, the meager diet of poor Victorian peasants proved to be better than the eating habits of the wealthy who were living “high on the hog.”

This simple peasant diet was similar to what we currently refer to as the Mediterranean diet, which was also the diet traditionally eaten by the peasants of these Mediterranean cultures. This diet has been found to be ideal for reducing risk of type 2 diabetes, high blood pressure, Alzheimer’s dementia, and heart disease.

These peasants’ limited choices in food meant they had to rely on natural and unprocessed foods, which is a more nutritious diet. According to an English cookbook written in 1849 called *Cottage Cookery*, recipes that would be staples in a rural peasant’s diet included cabbage and potato soup, stirabout—an Irish porridge of oats and milk, and stewed ox-cheek with onions.



Photo by F.J. Glynn

Follow Your Heart

"If you can see your path laid out in front of you step by step, you know it's not your path. Your own path you make up step-by-step; that's how you know it's your path."

Joseph Campbell

"Bad weather always looks worse through a window than it actually is when you get out there."

"I walk around like everything is fine, but deep down, inside my shoe, my sock is sliding off."

"Life is dangerous. That's what makes it interesting."

John Twelve Hawks

"You may not like change, but you'll probably like being irrelevant even less."

"Here, you see, it takes all the running you can do, just to keep in the same place."

Lewis Carroll

"Laugh and the whole world laughs with you, snore and you sleep alone (until you get a CPAP)."

"Willpower is soluble in alcohol."

"The opposite of play is not work, it's depression."

Stuart Brown

"I can't be held responsible for what my face does when you talk."

"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."

Brene Brown

"The heights by great men reached and kept were not attained by sudden flight. But they, while their companions slept, were toiling upward in the night."

Henry Wadsworth Longfellow

"We did not domesticate wheat. It domesticated us."

Yuval Noah Harari

"When doctors treat patients, the first step is to inspire the patient with hope."

"An individual human existence should be like a river; small at first, narrowly contained within its banks, and rushing passionately past rocks and over waterfalls. Gradually, the river grows wider, the banks recede, the waters flow more quietly, and in the end, without any visible break, they become merged in the sea, and painlessly lose their individual being."

Bertrand Russell

Breathe to Calm Your Heart and Nerves

By James H. O'Keefe, M.D.

Breathe in slowly and deeply through your nose, with your mouth closed to the count of 4. Now hold that breath for the count of 7, and then exhale slowly through your nose to the count of 8. Repeat this “4-7-8 breath cycle” three more times. Congratulations, you just successfully meditated.

This little exercise, which typically takes less than 2 minutes, instantly lowers your heart rate and blood pressure, reduces stress, improves focus and even boosts the immune system. Some people prefer a shorter breathing cycle, one where you breathe in for 3, hold for 4, and breathe out for 5. It's not important which one of these breathing exercises you prefer, as long as you make it part of your daily routine.

It's ideal if you can find a quiet environment where you can sit down and close your eyes. Pause for a moment and try it right now. Can you feel the difference? Most people will notice an immediate wave of relaxation moving through their system, calming the mind and melting away any chest tightness. As you breathe in slowly, you should feel your belly expanding as your diaphragm pulls down, drawing the air into your lungs and filling them to capacity. Each time you exhale, try to empty your lungs out almost completely.

For millennia, yogis have used breathing exercises to promote mindfulness, improve vitality and become more enlightened. Science in the 21st century is confirming the health benefits of breath work exercises, like the one detailed above. Relaxation breathing is meditation for individuals



who won't or can't meditate. Even doing four to eight cycles of this simple breathing exercise once or twice daily can reduce anxiety, lighten mood and improve sleep.

Controlled breathing works by altering the autonomic nervous system, which regulates the unconscious processes, including pulse rate, blood pressure, digestion, immunity and the body's acute reaction to stress. Our breathing is the only bodily function that can be controlled entirely either by the conscious mind or the unconscious mind.

Thus, consciously altering our breathing to a slow deep pattern sends signals to the subconscious mind saying, “If we're breathing like this, I can assume we're in a very safe situation and all is well,” which then stimulates the parasympathetic nervous system, relaxing your heart and arteries and calming your mind. This relaxation breathing also down-regulates the “fight or flight” sympathetic nervous system. In this way, breath work is a unique and powerful

way to seize control of the autonomic nervous system.

I try to do this twice daily: once during the day, if and when I notice myself feeling harried or tense, and usually again when in bed at night, just before I doze off. In fact, this is a reliable way to induce sleep, whether you want to fall asleep initially or find yourself trying to fall back to sleep after awakening in the middle of night.

Recent scientific studies suggest that a simple practice of breath work can alter brain chemicals as much as prescription antidepressant medications. Relaxation breathing can also reduce the stress hormone cortisol and lower inflammatory cytokines in the bloodstream.

Just give it a try—start with only four cycles of either the 4-7-8, or the 3-4-5 breath work as described here, and maybe progress to eight cycles if you have the time. It's a simple and practical habit that can allow you to harness the healing power of your autonomic nervous system.

How to Attain the “Good Life”

By James H. O’Keefe, M.D.

My wife, Joan, is an only child and she was always very emotionally close to her parents while they were alive. She went away to college at San Diego State University, which was far away from her home in northern California. When she was feeling stressed about her classes or her relationships or whatever, she would call home hoping for answers and support. Her mother would listen patiently, and then tell her daughter, “Well Joanie, everything is fine at home.”

And, although Joan was hoping for specific answers, or at least some advice, her wise mother knew that what her daughter needed most was simply the reassurance that the foundation of her life was secure. And you know what? That made all the difference in the world for her. When Joan would hear that, she’d relax knowing that her parents were there to help her weather any tempest that might be brewing in her young life.

A recent survey asked a large group of millennials what their most important life goals were. Most of them wanted to become rich and famous. They seemed to have the impression that the best way to have a happy and successful life was to lean in to their work, push harder, make lots of money, and achieve more and more.

Somehow, our frenzied, consumer-oriented, materialistic 21st century deludes us into believing that striving for fame and fortune is what we

need to do to build a good life. But it turns out that the truth about health and happiness is quite different from these impressions. We know this in part because of a remarkable study that enrolled a large group of teenagers in Boston, and then followed them closely throughout their entire lives.

The Harvard Study of Adult Development, currently under the direction of Robert Waldinger, M.D., may well be the longest continuous study ever done. In 1938 during the Great Depression, this research team enrolled 268 Harvard students and 456 young men from impoverished families who were living in inner-city Boston. These teenagers grew into adults who entered all walks of life; some became factory workers, lawyers, bricklayers, accountants and doctors; one of them, John F. Kennedy, became president of the United States.

Some struggled with alcoholism, many others with tobacco addiction. Some developed depression, and others schizophrenia. Some of these men climbed the social ladder from the very bottom all the way to the top, and others made that journey in the opposite direction.

For 80 years now the research team has been collecting information about these men using phone interviews, physical exams and questionnaires. Some of the study participants who grew up in the poor neighborhoods would ask the researchers, “Why do you keep wanting to study me? My life just isn’t that interesting.” However, according to Dr. Waldinger, the Harvard men never asked that question.

The Good Life is Built with Good Relationships

So after eight decades of collecting and analyzing massive amounts of data, what are the life lessons this unique study taught us? Well, the secrets to health and happiness were neither about fame and wealth, nor about working harder and harder. And it also wasn’t their blood pressure or cholesterol that best predicted how gracefully they were going to age; rather it was how satisfied they were with their personal relationships.

The clearest message to emerge from this powerful study was simply this: Good relationships are by far the single most important factor in keeping us happy and healthy throughout our lifelong journey.

Solid, close relationships appear to buffer us from some of the slings and arrows that arise with the passing decades. Being emotionally attached to the people in your life via mutually secure relationships has a halo effect on your mental and physical health. The study participants who were in relationships where they felt they could really count on their partner to be there for them in times of need, stayed mentally sharp and retained their ability to make new and lasting memories.

In contrast, the people who were in hostile, unloving, or insecure relationships where they did not feel like they could count on their partner to “have their back,” experienced earlier memory decline. By the way, good relationships don’t necessarily have to be smooth all the time. Some of the couples would often bicker with each other, but as long as they felt that they





could really count on the other person when the going got tough, those disagreements didn't seem to take a toll on their health and well-being.

Like the young millennials, many of the volunteers in the Harvard study decades ago believed that they needed to go after wealth, fame and high achievement if they wanted "the good life." But after following 724 men very closely for 80 years, one single message rang out loud and clear: the people who fared the best were the people who focused on building and maintaining strong relationships with family, with friends and with their community.

Robert Waldinger, professor of psychiatry at Harvard Medical School says, "Social connections are really good for us, and loneliness kills. It turns out that people who are more socially connected to family, to friends, to community, are happier, they're physically healthier, and they live longer than people who are less well connected.

And the experience of loneliness turns out to be toxic.

People who are more isolated than they want to be find that they are less happy, their health declines earlier in midlife, their brain functioning declines sooner and they live shorter lives than people who are not lonely. And the sad fact is that at any given time, more than one in five Americans will report that they're lonely.

So what about you? Let's say you're 25, or you're 40, or you're 60. What might leaning in to relationships even look like? Well, the possibilities are practically endless. It might be something as simple as replacing screen time with people time, or livening up a stale relationship by doing something new together, long walks or date nights, or reaching out to that family member who you haven't spoken to in years; because those all-too-common family feuds take a terrible toll on the people who hold the grudges."

The take-home message is that strong, close relationships are very good for our health and well-being. This simple wisdom is as old as the hills, and something that you probably already instinctively knew. But as critically important as this advice is, it tends to be often ignored. Why?

Many people would prefer to take a pill to try to fix their problems, or hire someone to do this work for them. But this is one chore for which there really are no shortcuts; no quick fix to make our relationships good, and keep them that way. Relationships tend to be messy and complicated; and the difficult work of tending to family and friends is not sexy or glamorous. Instead it's a demanding and often thankless job that virtually never ends.

George Vaillant, a previous director of the Harvard Adult Development study wrote, "The only thing that really matters in life are your relationships to other people."

How a Heart-Healthy Lifestyle Promotes Sight for Life

By John C. Hagan III, M.D., FACS, FAAO

Editor's Note: Dr. Hagan is a practicing ophthalmologist with Discover Vision Centers and a patient of Dr. James O'Keefe. Dr. Hagan is editor of Missouri Medicine and associate editor of Kansas City Medicine medical journals. He has edited two medical textbooks and published over 150 articles in peer-reviewed medical journals. He is in the American Academy of Ophthalmology Hall of Fame. Ophthalmologists are the eye doctors who provide medical and surgical eye care.



Our vision is produced by the most marvelous of all the body's organs, our eyes and our brain. Many of the things Dr. O'Keefe recommends to keep your heart healthy will also benefit your vision.

By making healthy changes in lifestyle, diet, exercise, not smoking and seeing an ophthalmologist on a regular basis, it is possible to have good sight for your entire life.

How Can a Healthy Cardiovascular Lifestyle Save Your Sight?

Smoking. Let's start with people who smoke and/or use nicotine products. Few things are as damaging to our vision. Cataracts occur at a younger age in smokers and grow faster. Age-related macular degeneration is four times more common in smokers than non-smokers, progresses faster and is much more likely to turn into the "wet" (exudative) type that causes much more damage than the "dry" (non-exudative) form. Glaucoma in smokers is more difficult to treat. Nicotine can cause the arteries

and veins of the eye to block off with catastrophic loss of vision. Smoking in an individual with diabetes dramatically shortens life expectancy and exponentially raises the risk of blinding eye disease.

Cardiovascular Diet. A diet rich in vegetables, select fruit, fiber, fish, berries, nuts and omega-3 supplements can reduce the development of cataracts, macular degeneration, both types of ocular tear problems, and systemic disease-caused eye damage.

Exciting new research indicates that glaucoma may also be prevented or treatment assisted with an excellent diet. Of special importance to vision are the dark leafy green vegetables that contain lutein, which is ultra-important to keep the macula healthy. These veggies also contain a nitrogen-producing compound that improves blood flow to the optic nerve.

I strongly encourage my patients to eat spinach, kale, collards, greens, peas, Brussels sprouts, chard, broccoli, arugula, sweet potatoes and squash. People on warfarin should ask their physician about these foods. Poor diets, high in processed sugars, lead to obesity and obesity leads to diabetes,

hypertension, and elevated blood lipids, all which can cause major eye damage. In fact, diabetic eye disease is the leading cause of new blindness in the United States.

Regular Exercise. As a generalization, I encourage my patients to do 30 minutes of walking-type exercise most days, even if the time is broken up into several shorter segments. Exercise lowers the pressure in the eye and improves circulation to the retina and macula. By helping with control of hypertension, diabetes, elevated blood fats, lowering the risk of blood clots forming in the eye or coming from the heart or carotid arteries (emboli), exercise improves the odds of keeping good eyesight.

Obesity Prevention: Overweight and obese individuals get cataracts more often and have much higher rates of systemic disease-caused retina and macular disorders.

My practice has a large number of people in their 80s and 90s who are healthy and enjoy 20/20 vision. With very few exceptions, they have lived a lifestyle that promotes heart and vision health.

Noise Can Hurt Your Heart

By James H. O’Keefe, M.D.

Two of our kids, Kathleen and Jimmy, live and work in Manhattan, the one in New York, not Kansas. When Jimmy first moved there, he learned to sleep to a recording of soothing sounds of nature, like a soft breeze rustling the leaves to mask the urban noise outside his window. Kathleen and Jimmy, who now live in the Chelsea and West Village neighborhoods of New York City respectively, grew up in quiet Prairie Village. They may live in the “city that never sleeps,” but they still need a peaceful slumber each night.

When you sleep, you automatically shut down your other four senses, but your hearing stays “on,” so noises can disturb the depth and quality of your sleep, even if they don’t awaken you.

It turns out that noise isn’t just annoying; it can eventually take a toll on your health and well-being. Loud noise activates our “fight or flight” response. This over-activity of the sympathetic nervous system can make you jittery, wear down your resilience, and lead to anxiety and depression.

You probably already know that loud noises can be damaging to your hearing. Prolonged exposure to sounds louder than 85 decibels (dB), such as a leaf blower, live rock concert, gunshot blast or fireworks, can indeed cause permanent hearing loss.

But now, experts are calling for noise pollution to also be considered a risk factor for cardiovascular disease, similar to air pollution, smoking or obesity. Startling new studies from scientists in Germany and Denmark show that people and animals who are exposed to frequent loud noises suffer higher rates of heart failure, irregular

heart rhythms, like afib, and heart attacks. Noise pollution causes a surge in stress hormones, and subsequently causes elevations of blood pressure, cholesterol and blood sugar.

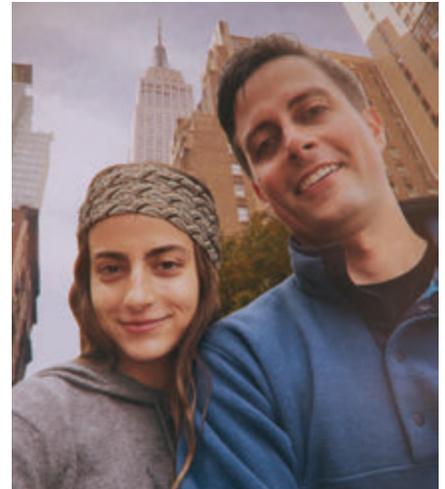
New research published in the Journal of the American College of Cardiology shows that chronic loud noise also appears to be a driving factor behind oxidative stress and metabolic disturbances leading to diabetes, atherosclerosis (plaques and blockages in the arteries) and premature aging.

We don’t know the exact sound volume threshold that triggers the heart disease risk, but experts warn us to avoid chronic exposure to sound levels over 60 dB. Most of us probably wouldn’t consider 60 dB especially loud; conversational speech or the noise made by an air-conditioning unit both register about 60 dB.

The toilet flushing registers 75 dB, a lawn mower 90 dB, a table saw 105 dB, a jet taking off 120 dB, and a balloon popping 125 dB. Chronic noise pollution, such as from road traffic, railroads, airplanes, and overhead public announcement speakers, may be enough to trigger health problems. Unfortunately, with time we don’t develop a tolerance to noise. In fact, the longer you’re exposed to excessive noise, the harder it is on your heart and sense of well-being.

Protect Yourself from Noise

Admittedly, avoiding the deafening din isn’t always possible these days, but it’s important to seek out respites from noise. If you must sleep or spend time in noisy environments, use hearing protection. Instead of fans, many



Kathleen and Jimmy in the city that never sleeps. Photo by Shaun Hamontree.

people prefer white-noise machines to mask environmental noises at night. These can mimic soothing sounds from nature.

I’ve recently started wearing noise-cancelling headphones on long flights, and I find that they really make jet travel less stressful. Hearing experts warn to not turn the volume on headphones up past the halfway mark.

If you know you are going to be in a loud environment, use earplugs that totally block the ear canal. If you’re using loud tools or are going hunting or attending a noisy sporting event, use earmuffs that fit completely over both ears. Don’t leave your cell phone in your bedroom at night; the noises it makes will likely jar you out of deep sleep and erode the restorative power of your nighttime rest.

Take-home Message

Loud background noise in your day-to-day life and/or in your bedroom is dangerous to your heart. More research on this topic is needed, but consider this new study another reason to avoid exposure to loud noise levels. You will be saving your hearing, and might be protecting your heart.



Scary versus Dangerous

By James H. O'Keefe, M.D.

"When I was a boy and would see scary things in the news, my mother would say to me, 'Look for the helpers. You will always find people who are helping.' To this day, especially in times of disaster, I remember my mother's words and I am always comforted by realizing that there are so many helpers—so many caring people in this world." Fred Rogers

There's a big distinction between scary and dangerous. Many things in life can seem scary, but they're not really dangerous. For example, when you flush a toilet and the water starts coming up rather than going down—now that's scary, but not dangerous. On the other hand, for an unskilled overconfident guy with access to potentially deadly power tools and heavy equipment, a home DIY project may not seem scary to him ... but it's potentially very dangerous.

Jim Koch is considered by many to be the Godfather of the craft beer industry in America. Back in 1984 he left his lucrative job as a business consultant to start a craft beer company at a time when starting a small brewery to compete against the Goliaths of the U.S. beer industry was considered pre-

posterous. Today, his company, which brews Samuel Adams Beer®, is worth more than \$3 billion.

"Leaving my good job as a consultant at Boston Consulting Group with a nice office, flying first class, staying in nice hotels, making a very good income, people think that was really risky, that that must have been really scary. Well, it was scary, but it wasn't dangerous." Koch said that he borrowed very little money so that even if his small business failed, he would not have gone bankrupt.

"What was actually dangerous, but not scary, was staying and continuing to do a job that I wasn't happy doing anymore. It wasn't my passion. Continuing to do that for 30 more years, and getting to the end of my career and going: 'Oh my gosh. I wasted my life,' that's dangerous. But not scary."

In fact, my son Jimmy heard an interview with Jim Koch speaking about his philosophy and it inspired Jimmy to make a similar scary, but not dangerous, move out of a consulting job to take on an entirely new, and somewhat scary job, with social media.

This mindset of "scary versus dangerous" turns out to be an apt per-

spective for looking at many things in life. For example, when I was a young doctor I had an abstract accepted for oral presentation at an international cardiology conference in Vienna, Austria. I was terrified of having to present research findings to this audience of esteemed cardiologists from around the world, but there was really nothing dangerous about the opportunity—worst-case scenario I would make a fool of myself or faint.

Actually, the much more dangerous option would have been to let my fear of public speaking set limits on my future. Eventually, I learned to control my nerves and I got comfortable presenting my ideas in front of an audience.

Many people find going to the doctor to be a scary proposition. But assuming you've found a caring and competent physician, this may be anxiety-provoking, but it's not dangerous. What is dangerous is avoiding doctor visits and neglecting to check your blood pressure, cholesterol, PSA and blood sugar, or skipping mammograms, colonoscopies and eye exams.

An old Ethiopian proverb states, "He who conceals his disease cannot expect to be cured." You need to get

over your phobia of going to the doctor if you want to be sure you're going to stay healthy as the years go by.

For many people, the thought of getting a dog, with all the attendant responsibilities, is a scary obligation. But in fact, not having a dog is actually much more dangerous—especially if you are living alone. People who live alone without a dog have a 33 percent increased risk of early death compared to those living alone with a dog.

Decades ago, I was frightened by the thought of getting married—that lifelong commitment seemed very scary to me. I got over that hurdle as well. It's a good thing too, because I found a lifelong partner who not only "gets me," but we have four great kids. The fact that we complement one another's talents is an added bonus. For me, being single would have been dangerous to my health.

For Theresa, it was scary to think about giving up smoking; having a cigarette was her coping mechanism and helped her to relax. But continuing to smoke was extremely dangerous to her health. She finally conquered her tobacco addiction after suffering a heart attack, and now she is breathing easier. Instead of taking a cigarette break when she's stressed, now she goes outside for a stroll and comes back smiling and relaxed.

Thinking about changing bad habits, such as a sweet tooth, excess alcohol, or too much screen time, can be a scary thought. Change is difficult ... but to not change can be fatal. We all have our demons, and confronting them can be very scary. Even so, we can eliminate most of the lethal dangers lurking in the shadows of our lives by shining a light on them and confronting them. Be brave—you can do it!

True or False Heart Health Quiz

The most important blood pressure is the one in the doctors' office.

FALSE: The most important blood pressure is your average blood pressure throughout the 24 hours of each day. So check your blood pressure at home regularly, at different times during the day—not only when you are feeling relaxed and happy. Sometimes check it also when you are stressed or tired. Keep a log and bring it into your office visit with your health care provider.

Coated aspirin is best if you are taking it for preventing heart trouble.

FALSE: If you are taking a baby aspirin (81 mg) to prevent heart attacks and stroke, coated aspirin is not ideal. The coating does not protect your stomach like we thought it might, but the coating does prevent some of the aspirin from getting absorbed into your blood stream. You're better off with a chewable 81 mg tablet, or even chewing up coated baby aspirin before you swallow it.

A low-fat diet is best for your brain and your heart.

FALSE: Some kinds of dietary fat are great for both your heart and memory. High-fat foods like nuts, avocados, olive oil and salmon can dramatically improve long-term memory and heart health. In contrast, a diet high in saturated fats from butter, cheese and fatty red meats can increase risk of heart attack and dementia.

A blood pressure cuff that wraps around your upper arm is better than a wrist cuff for accuracy.

TRUE: Every household should have a blood pressure cuff. The best home blood pressure monitor is one that goes around the upper arm, inflates automatically and is digital. Our favorite brand is the Omron family of cuffs, including Series 3 for an inexpensive, but accurate monitor, or the new Omron Evolv for a remarkably portable and precise cuff that is a bit more expensive.

A CardioScan to quantify the amount of calcified plaque in your coronary arteries is a better predictor of future risk of heart attack and cardiac death than age, cholesterol, blood pressure, diabetes and family history put together.

TRUE: The CardioScan is a painless, quick and easy noninvasive scan that involves a small amount of radiation, requires no IV, no stress and costs only \$50. It detects and quantifies calcified plaque in the coronary arteries, and has been found to be the most accurate future predictor of serious heart trouble. Once we know the plaque is there, we can nearly always prevent cardiovascular catastrophes with simple lifestyle changes and a few safe medications. It's the mammogram of the heart—most women over 50, and men over 40 and should get one.

Nutritional Psychiatry: This is Your Brain on Food

By Lindsay Nelson, R.D.

The fuel you choose has a profound impact on the structure and function of your brain, as well as your mood and thinking. Like a high-performance car, your brain works best when it runs on premium fuel. When you consume high-quality beverages and foods, your brain is more powerful and throws off less smoke (oxidative stress). So, just as with an expensive automobile, anything other than “premium fuel” can damage your brain. For example, diets high in sugars and other refined carbs are harmful to the brain—causing inflammation, impaired brain function, depression and ultimately even leading to Alzheimer’s dementia.

Mental illnesses are among the most common health conditions in the United States. More than 50 percent of Americans will be diagnosed with a mental illness or disorder in their lifetime. Having poor mental health makes it more difficult to maintain a healthy lifestyle and can lead to disordered eating, in addition to many other issues.

Many of my patients report over-eating and lack of motivation during times of stress, sadness or anxiety. Sugar cravings are a natural physiological reaction to stress and sleep deprivation. Studies have found a correlation between sugar and decreased brain function, including mood disorders like depression. In addition to sleep, exercise, social interaction and stress reduction, nutrition can play a major role in mental health. There is a relatively new and exciting field of

medicine called nutritional psychiatry that connects the role of nutrition and the brain.

The standard American diet (SAD) is lacking in many essential nutrients and has been linked to the onset of poor mental health. Even though most Americans are overfed, they are malnourished because they fill up on processed foods that do not bring the optimal nourishment you will get from eating real, natural foods that come from the earth.

Inflammation in the brain is the root cause of mental illness. When we eat foods that our body does not recognize as fuel, these foods can cause inflammation in the gut, which can cause inflammation in the brain, and subsequently mental illness. Some studies have found a 25 to 35 percent higher risk of depression in people eating a SAD diet compared to people eating a more ancestral diet, like the traditional Mediterranean diet. A diet filled with natural, anti-inflammatory, whole foods can prevent or improve the ravages of mental illness. The main nutrients that promote mental health and decrease risk of depression and anxiety include magnesium, omega-3 fatty acids, probiotics and vitamin D.

Magnesium

Magnesium is known as the calming mineral. Approximately 50 percent or more of Americans are deficient in this stress-reducing mineral. The body burns through magnesium more quickly when under stress. Although magnesium is found in many food sources such as almonds,



Grand stretch! Lindsay performing yoga at the Grand Canyon.

leafy greens, cashews, peanuts, black beans, edamame, avocado, broccoli, squash and unrefined whole grains, the absorption rate through food is low (30 to 40 percent). Magnesium may be better absorbed through the skin by magnesium sprays or Epsom salt baths. I often recommend taking a hot bath right before bed with one to two cups of Epsom salt with lavender essential oil while sipping a calming tea (like chamomile, Ashwagandha or holy basil) and reading. This combination reduces stress and relaxes the mind and body to prepare for a long night’s sleep, which further promotes mental well-being. Magnesium can also help with restless leg syndrome, muscle cramping, blood pressure, healthy bone structure, headaches and constipation. A supplement may be beneficial (120-400 mg per day).

Omega-3 Fatty Acids

Omega-3s are critical for development and function of the central nervous system. A lack of this nutrient has been associated with low mood, depression, cognitive decline and poor comprehension. High intake of EPA and DHA (types of omega-3) is associated with increased gray matter volume in brain regions controlling

cognition and mood. Eating fish with omega-3s has been associated with lower risks of depression and suicide.

The prevalence of depression appears to be lower in countries that have a higher intake of fish. Food sources include trout, salmon, albacore tuna, white fish, sardines, walnuts, chia seeds, flax seeds, and hemp seeds. If the diet is lacking in these foods, a supplement may be beneficial (1,000-2,000 mg EPA + DHA). Some studies suggest that the ratio of EPA and DHA may determine the effectiveness of a supplement on depression. Aim for 50 to 60 percent concentration of EPA.

Probiotics

Serotonin is the “feel good” neurotransmitter that promotes good sleep, mood and appetite. Around 95 percent of serotonin is produced in the gut, making your GI health extremely important to your mental health. Your gastrointestinal tract is lined with neurons that are influenced by the good bacteria, or probiotics, that make up what’s known as your microbiome. When your microbiome is disrupted by stress, inflammatory foods (like sugar and processed foods) and antibiotics, your gut can no longer make the right amount of serotonin needed to regulate mood. To improve your gut health, eat only natural foods that come from the

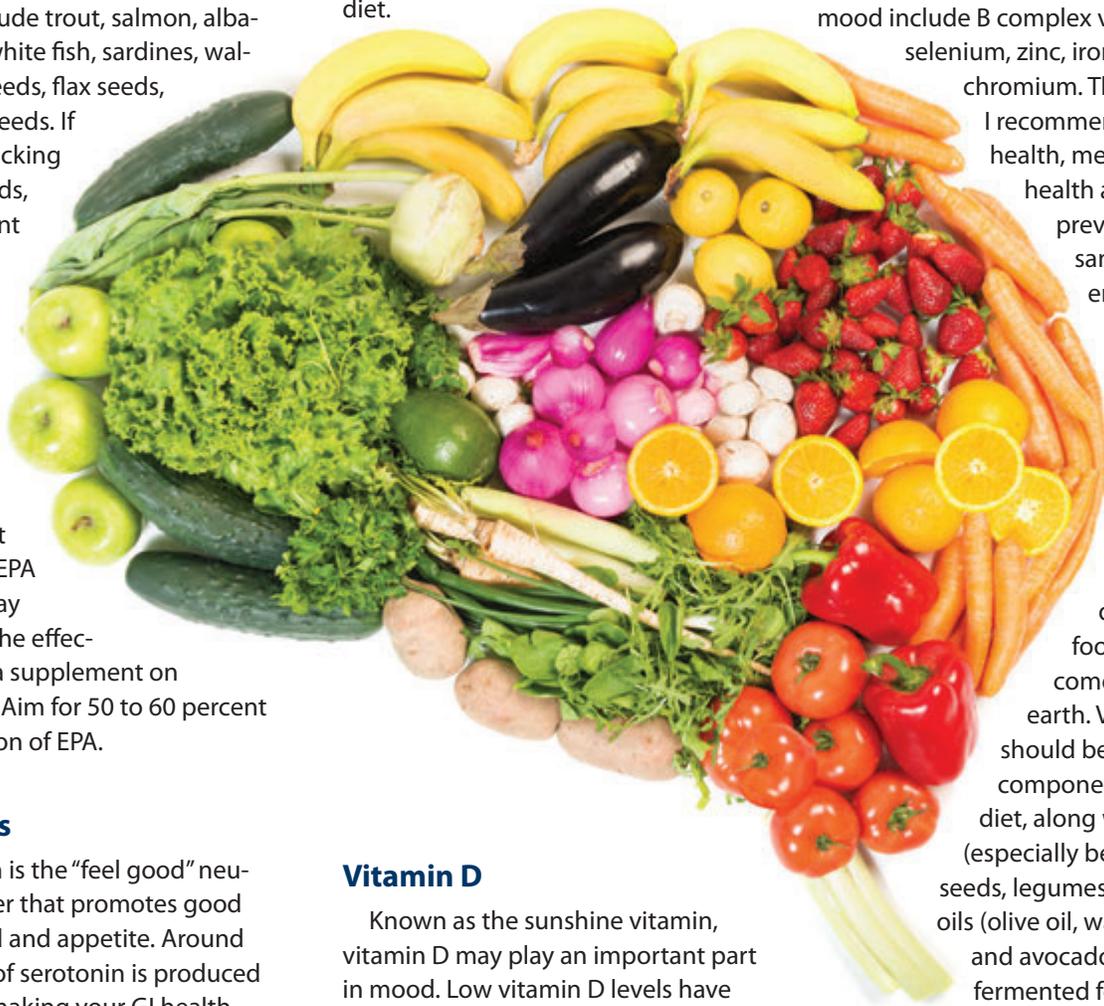
earth and probiotic-rich foods such as raw sauerkraut, kimchi, yogurt, kefir, miso, tempeh, dill pickles, kombucha and other fermented foods. You can also take a probiotic supplement if you cannot fit these foods into your diet.

know what dosage, if any, is needed. Some people may only need a supplement in the winter if they are outside in the months with more sunshine.

Other nutrient deficiencies that may provoke depression and lowered mood include B complex vitamins, selenium, zinc, iron and chromium. The diet that I recommend for heart health, metabolic health and cancer prevention is the same diet that encompasses all of the nutrients important for mental health.

Choose nutrient-dense foods that come from the earth. Vegetables should be the main component of your diet, along with fruits (especially berries), nuts, seeds, legumes, healthy oils (olive oil, walnut oil and avocado oil), fish, fermented foods, modest amounts of

lean, natural animal proteins (meat, dairy, eggs) and small amounts of unrefined grains. Variety in your diet is extremely important to ensure variety in nutrients. When grocery shopping, the majority of your cart should come from produce with a rainbow of color. Try making these dietary changes, along with eight hours of sleep and exercising outdoors, and see what a difference it makes on your mood and mental health.



Vitamin D

Known as the sunshine vitamin, vitamin D may play an important part in mood. Low vitamin D levels have been linked to depression. However, it’s not known if depression depletes vitamin D or if low vitamin D causes depression. The best way to get vitamin D is by being outside and letting the sun penetrate your skin for around 10 minutes a day without sunscreen. It’s found in small amounts in fatty fish, beef liver, cheese, egg yolks and fortified milk. A typical recommended dose of vitamin D in a supplement is 2,000 IUs per day. However, it’s best to get tested to see what your level is to

Heartwarming News: Definitive Studies Prove Omega-3 Benefits Heart Health

By James H. O’Keefe, M.D., and William S. Harris, Ph.D.

Cardiologists prescribe statins for nearly all of our patients with coronary disease, prior stroke, or diabetes because these powerful cholesterol-lowering drugs help to prevent heart attacks and save lives. To be honest, many cardiologists are taking a statin themselves to keep their hearts and arteries healthy. Many people, including the two authors of this article, also take a fish oil supplement daily.

For two decades in the Duboc Cardio Wellness Center, we have consistently used this combination of a statin with high-potency omega-3 for our patients at risk of heart attack and stroke. Omega-3 is by far the best therapy for lowering triglycerides, and a statin is the best therapy for lowering LDL—the bad cholesterol. When omega-3 is paired with a statin, you have a combination that protects your heart and brain. Other drugs for lowering triglycerides, like niacin and fibrates, have failed in big outcome trials to lower risk of heart attack, stroke and death; and sometimes these drugs have serious side effects. On the other hand, this statin-omega-3 one-two punch makes for a very safe and highly effective combo strategy for preventing heart disease.

Now a groundbreaking study has confirmed our longstanding strategy of using omega-3 in combination with a statin. The REDUCE-IT Trial enrolled 8,179 patients with heart disease or diabetes who were already on a statin drug. They also had mild-to-moderately elevated triglycerides (150

to 500 mg/dL; 216 on average). After being enrolled in the study, they were randomly assigned to take either four capsules per day of a highly concen-



trated omega-3 product (icosapent ethyl) or placebo.

This new landmark study showed that high-dose omega-3 caused a 25 percent reduction in major adverse events like heart attack, stroke and cardiovascular death. Remember, this is on top of the 25 percent reduction in cardiovascular risk that the statins were already providing these patients.

Many people who had been taking omega-3 in the past stopped taking it after some negative publicity in recent years suggested no benefit for fish oil. Unfortunately, modern medicine tends to dismiss nutritional therapies as worthless, preferring instead to favor therapies such as prescription drugs, implantable devices, invasive procedures and surgeries. The key reason why this most recent study showed omega-3 to be effective when others have not, relates to dose: in REDUCE-IT, 4 grams per day of omega-3 was given; whereas in the others, less than 1 gram was given. “The dose makes the medicine.”

Another recent omega-3 study deserves comment. The ASCEND Trial was a seven-year, placebo-controlled study of 15,400 diabetic patients that

was recently published in the New England Journal of Medicine. The authors concluded: “There was no significant difference in the risk of serious vascular events between those who were assigned to receive omega-3 supplementation and those who were assigned to receive placebo.” Admittedly, the primary endpoint—risk of heart attack, stroke or vascular death—was just 3 percent lower in the fish oil group, and this did not meet statistical significance.

However, omega-3 did reduce vascular death by 19 percent, which was in fact statistically significant. Strangely, this important benefit, which was conferred by a single 1-gram capsule a day of a high-potency omega-3 that provided about 840 mg of EPA + DHA, was largely dismissed. The authors stated that their findings “do not support the current recommendations for routine dietary supplementation with omega-3 fatty acids to prevent vascular events.” We would take exception to this conclusion, because the omega-3s clearly provided an important benefit.

In May 2018, the American Heart Association (AHA) released a scientific advisory on the benefits of eating fish. The initial AHA advisory on this topic was released 16 years ago (and Dr. Harris, a co-author of this article, was a co-author of that advisory). In the updated statement, the AHA doubled down on its recommendation to increase intake of omega-3, preferably as one to two meals of non-fried fish or shellfish per week.

Past research shows that omega-3

oils from fish and seafood benefit the heart in many ways, by decreasing the risk of abnormal heart rhythms that can lead to sudden death, reducing triglyceride levels and slowing the growth of fatty plaques that clog arteries.

Fish rich in omega-3 include salmon, herring, trout, sardines and albacore tuna. Cod, catfish, tilapia, scallops, lobster, mussels, and shrimp still contain omega-3s, but not in high amounts. Disturbingly, some types of fish, including swordfish, shark, and king mackerel, contain mercury, which can harm the brains of developing babies. Unfortunately, about 90 percent of Americans do not consume the recommended amount of fish and/or omega-3.

Analysts are accurately touting the new evidence from the REDUCE-IT study as game changing, and they predict it will trigger a paradigm shift in how we treat patients. Here in the Duboc Cardio Wellness Center, we consider it irrefutable evidence that proves our long-held beliefs about the power of omega-3.

Tens of thousands of studies over the past three decades have proven that omega-3 supplements not only reduce the risk of cardiovascular death, but they can also be helpful for burning off belly fat, maintaining muscle mass, decreasing muscle pain after exercise, preventing brain shrinkage with age, boosting mood, building strong bones, and reducing inflammation in the brain and body. Bottom line, omega-3 is a very safe, natural and effective way to improve heart health; after all this is essentially a food. It's simply the fat from fish.

Disclosure: Dr. O'Keefe founded CardioTabs and has a major ownership interest in this company that sells omega-3 products. Dr. Harris founded Omega Quant and has a major ownership interest in this company that measures omega-3 levels in red blood cells.

Havertys Fund New Cardio Metabolic Program

The Duboc Cardio Wellness Center at Saint Luke's Cardiovascular Consultants is beginning a new program for patients diagnosed with cardiovascular disease AND diabetes or pre-diabetes. The program is being funded by a \$1 million donation from Michael and Marlys Haverty, and will be called the Michael and Marlys Haverty Cardio Metabolic Program.



Michael and Marlys Haverty with Dr. O'Keefe.

Mikhail Kosiborod, M.D., and James O'Keefe, M.D., are the physicians who will be directing the care for patients in the program, along with Melissa Magwire, R.N., a nationally-recognized expert in treating people with diabetes and heart disease.

"Diabetes or pre-diabetes now affects one in two American adults," Dr. O'Keefe said. "It is treatable, but even when glucose levels are under control, it greatly increases the risk of heart disease and stroke. Thankfully, we have revolutionary new interventions that not only lower glucose, but also may prevent heart disease and diabetes-related kidney complications, and also reduce risk of death for patients with diabetes."

In addition to caring for patients, the new Cardio Metabolic Program will perform research studies to contribute to the advancement of treatment of patients with the dangerous combination of heart disease and diabetes.

The Havertys were inspired to make this contribution by the outstanding care they have received at Saint Luke's, and specifically from Dr. O'Keefe.

"James has been my cardiologist since 1995," Michael said. "I had two four-way bypass surgeries, one at 33 and one at 37, before I became his patient, and I have a long family history of early death from heart disease. I am now 74 and have had 15 stents to keep my arteries open. I believe I am still here because of the excellent care I have received from Dr. O'Keefe and Saint Luke's," he said.

Marlys Haverty has diabetes, and Michael credits Dr. O'Keefe with advising her in how to better manage the condition. "Thanks to James' recommendation, Marlys is no longer on insulin."

Together, the Havertys see the value of supporting this important work so that others may benefit from the same outstanding care they have received.

Look for more information on the Cardio Metabolic Program and the services it will be providing in coming issues.



Great News for Your Heart from Cardiovascular Consultants!

Inside...

- **Change Your Schedule,
Change Your Life**
- **The Power of Fasting**
- **How to Attain the “Good Life”**
- **Scary versus Dangerous**
- **Nutritional Psychiatry**