



For the Heart

Your Newsletter from Saint Luke's Cardiovascular Consultants

Inside...

p5	MitraClip Treats Severe MR
p6	Count Your Blessings
p10	What Our Dogs Teach Us
p14	Your Rx for Life
p16	Your Faith Has Saved You
p18	Realign Your Hormones

Summer 2015

Iceland: A Land of Fire and Ice

Inhabited by Hardy and Healthy People By James H. O'Keefe, M.D.

My great friend, Allen, and I spent eight days on an Icelandic eco-adventure recently. Iceland is an island made up of waterfalls, glaciers and volcanoes—many of which are active. The weather was cold while we were there, with high temperatures varying from 36 to 42° F, often with blustery winds off the North Atlantic. We hiked during the day, and afterward relaxed in saunas and hot springs.

Iceland is the most sparsely populated country in Europe—if you counted every person who ever lived on this frigid island since the first Viking arrived 1,200 years ago, it would not yet add up to one million people. The most amazing thing about Iceland is the water. When we were hiking, Allen and I would bend down and drink the refreshing water straight from the crystal clear stream flowing down from the glacier-covered mountains. And every day we relaxed in the rejuvenating geothermal mineral water baths.

The Icelanders are one of the healthiest, longest-lived populations in the world. In fact, the men have the single best male longevity of any nation on Earth. When I asked Olav, one of our new Icelandic friends what his regimen was for staying youthful and healthy he said, "I take a shot of fish oil every morning. I usu-



ally finish up work by mid-afternoon, and then go to the spa to relax in the sauna and hot tub before dinner. And I love to go hiking or fishing on the weekends."

Notable Icelandic Sayings:

- God is with those who persevere.
- You will reach your destination even though you travel slowly.
- A wise man changes his mind, a fool never will.
- There seldom is a single wave. Good luck or bad luck is often followed by more of the same.

Getting Exercise-like Cardio Benefits... While Relaxing in a Spa

Fittingly, while we were in Iceland in April 2015, a landmark study about the benefits of sauna was published in the *Journal of the American Medical Association (JAMA)*. The investigators prospectively followed 2,315 middle-aged Finnish men for 21 years. Sauna use reduced risks of sudden cardiovascular death, almost by half. Death from any cause during the study was about 40 percent lower in the men who took a sauna four or more times per week.

Sounds too good to be true—getting the cardiovascular benefits of exercise while lounging in a hot tub!? Heat therapies including sauna, steam baths and hot tubs cause dilation of your blood vessels and increase the heart rate.

The amount of blood pumped per minute through the cardiovascular system more than doubles during a typical sauna. This dramatic increase in blood flow stimulates the vessels to produce more nitric oxide—a critically important compound that dilates arteries and veins and keeps them soft and supple with a Teflon-like coating that prevents

Continued on page 2

Longevity Secrets from the Arctic

continued from page 1

dangerous blood clots. In essence, making a habit of sauna, steam or hot tub therapy, like an exercise routine, tends to make blood vessels healthy and happy, which is good for your whole body, especially the brain, skin and heart.

Why Sauna Therapy Is HOT

While going to college in North Dakota, my buddies and I regularly took saunas after playing basketball; even back then it seemed to relax and de-stress me. I had gotten away from this habit until we moved into our current home 15 years ago. We bought the house from Ike, a charming outspoken character with a twinkle in his eye who looked and acted decades younger than his true age.

This was always a real mystery to me because Ike was not exactly a poster boy for *Men's Health*. He smoked cigars, drank too much alcohol, ate whatever he liked, and although he enjoyed golf, he always rode in a cart (usually stocked with stogies and beer). Still, he seemed to defy his age and lived to be almost 90. Ike's daily routine involved a hot sauna, and he swore that this was what kept him young and healthy. I still frequently use that sauna in our basement, and my intuition tells me that it was indeed Ike's magic bullet.

The markedly increased blood flow to the skin during a sauna nourishes and cleanses it, giving you the healthy glow of youth. Heat therapy like sauna, by stimulating heavy sweating, also acts like a diuretic—chasing excess salt and water from your system and lowering blood pressure. Amazingly, regular sauna therapy, particularly if you take a

cold shower afterward or in the middle of it, has also been shown to improve your autonomic nervous system, allowing you to handle emotional stress better.

Heat therapy like sauna is also a natural way to calm your system down and ensure a sound, restful night's sleep. The skin, our largest organ, typically eliminates about 30 percent of the body's waste. Regular heavy sweating is a uniquely effective mechanism for ridding your body of toxic contaminants and pollutants.

Gradually, a tolerance to the heat develops so that most people can stay in a sauna or hot tub for 15 to 20 minutes. Try to avoid excessively high heat or prolonged episodes of heat therapy. The Icelanders routinely step outside into the chilly air or take a cold shower to cool off their steaming hot bodies, before going back in to the spa for more sauna or hot tub therapy.

Pregnant women should avoid the sauna. If you have a serious heart condition or other significant chronic medical issues, get clearance from your physician before starting sauna therapy. It is very important that you drink lots of water during and after a sauna. These disclaimers notwithstanding, studies suggest that taking a sauna is a great way to enhance overall health.

We recommend adding the sauna to your fitness routine by incorporating 15 to 20-minute sessions anywhere from once weekly to once a day. You will be amazed at the improvements in your health, appearance, mood and sleep. Of course, taking a sauna will not improve muscle strength or aerobic endurance; you will have to sweat



Icelandic lifeguard at a natural hot springs lake.

the old-fashioned way—with a regular regimen of physical exertion to accomplish those goals.

And, it's important to restore the minerals you will lose with sweating, like potassium, magnesium, and calcium—by eating lots of fresh vegetables and fruits, along with unsweetened yogurt and/or a bone meal supplement.

Skyr—Icelandic Yogurt

The Vikings brought skyr with them to Iceland in the 9th century, and although this traditional food disappeared from the rest of Scandinavia, it remains an integral part of



the Icelandic diet even today. Icelandic yogurt, like the Greek version, is a high-protein, tangy yogurt that is teaming with healthy bacteria. It is higher in calcium and slightly less sour than other yogurts. For 1,100 years, Icelandic yogurt has been made with skim milk so it's naturally fat-free and low in sugar, which you would never guess by its rich and creamy taste. In fact, in a recent blind taste test by Huffington Post, skyr was deemed to be the most delicious of all the yogurts. If you can't find skyr, you can substitute unsweetened fat-free Greek yogurt or unsweetened fat-free kefir—just add nuts and berries and you have a perfect breakfast.



The Omega Effect

For breakfast Allen and I would have Icelandic smoked salmon, fresh berries, nuts and yogurt (skyr) with coffee or green tea. Like the locals we were hanging around with, each morning we also gulped down a shot of liquid fish oil, poured from a glass bottle into clear shot-glass. This centuries-old tradition is a folk medicine they use to keep their spirits bright and their immunity strong during the long, dark and cold winter. Studies indicate that their high intake of fish and omega-3 might be a major factor in the Icelandic longevity.

Nature's Ice Cream

Harold is one of my many patients who LOVES ice cream. He has a small bowl after dinner most evenings. Harold is very healthy at age 96, and is normal weight, so I haven't insisted he drop his ice cream habit. But still...ice cream is not a superfood.

Ice cream is unlike any single food that exists out there in nature; it is high in sugar and high in fat. It is no coincidence that ice cream tastes so yummy—that sweet, rich and creamy flavor means it's loaded with calories. And many of our ancient ancestors died of starvation—so our instincts tell us that ice cream tastes like abundance and life.

News Flash! As a 21st century American you are almost certainly not going to die of starvation, and all of those calories in ice cream will likely go to your waistline—exactly where you least need the inches.

My advice is to skip the ice cream and instead substitute a small bowl of nuts and berries, perhaps mixed with some unsweetened yogurt. This combo is like ice cream in that it is high in both fat and sugar, but is also loaded with nutrition that will keep you filled up and make you healthy. The fiber and fat in the nuts slow the absorption of the sugar in the berries. Nuts and berries make a wonderful combination for breakfast, or a snack. I make a point of enjoying this almost every day—you should too.

Icelandic Secrets for Exceptional Longevity



1 A relaxed attitude with an unhurried pace. Icelanders put in a shorter work week (an average of about 37 hours per week) and take about six weeks of vacation each year. They spend much of their free time socializing and relaxing with family and friends.

2 Sauna, steam and hot tub therapy is an integral part of their daily routine.

3 Fish and omega-3 play a central role in their diet.

4 Skyr is their favorite form of dairy (if you can't find it, sub in other fermented dairy such as kefir or Greek yogurt).

5 An active lifestyle whereby walking, hiking and bike riding are incorporated seamlessly into their daily routine.

Unhurried Iceland

By Allen B. Jetmore, M.D.

Since returning from a trip to Reykjavik, Europe's Northernmost capitol, I have been attempting to preserve the most important gift I transported back with me—the treasure of an unhurried way of living. On my way back, I had nothing to declare at U.S. Customs other than a feeling of tranquility that I acquired while in Iceland. For 10 days my cardiologist friend (no 57-year-old should travel without one) and I enjoyed the people of Iceland and their natural willingness to engage in conversations which were not rushed nor truncated by the urge to attend to yet another frenetic detail. Perhaps this was because the mid-April chill was still keeping the tourists away, or maybe it was in part due to our own natural curiosity and the spontaneous and unscripted way we spent our time in Iceland.

Despite the cold weather, they are an active people and are often outside walking and riding bicycles, but I never saw a soul hurrying or rushing. Still, it occurred to me that when your ancestors (the Vikings, Norse and Danish) have inhabited the same island nation for over 1,000 years, with change occurring at a glacial pace (the largest part of the economy is fishing, just as in the time of Erik the Red and Leif Erikson), what's the hurry?

For one thing, there is nowhere to go. Apart from the capitol region itself, the next major city is Akureyri (population 17,915), a port city on the north coast, four hours away by scenic but barren, winding roads through lava fields. There is the oxymoronic Greenland, over 200 iceberg-strewn sea miles distant to the west – but little is there.

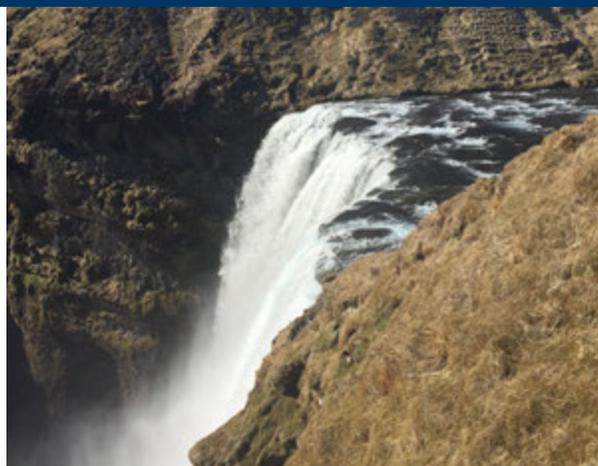
Oslo, the next bastion of civilization, is 1,000 miles distant to the east. So, inescapable, extreme geographic isolation may help explain part of the calm.

Or, possibly the unhurried soul of the place relates to the 21-hour long nights of December, or to the equally long days of June and July. In a land that is cold most all the time and dark all winter, it does seem abundantly fair, however, that the warmest days are the longest and the coldest, the shortest.

A universal pastime in Iceland that best typifies the ability of its people to lay back and enjoy living (and un-chill) is the art of the sauna and the geothermal bath. The people of Iceland have perfected this rejuvenating activity.

Super-heated steam and mineral waters provided from the volcanic core right beneath Iceland's thin crust of land provide an endless supply of spa opportunities. Soaking in the sometimes sulfurous steam of a natural sauna or basking in mineral waters requires time and simply cannot be rushed...and is entirely incompatible with the iPhone, or e-anything. The Icelanders even have a saying to explain this concept: *Að leggja höfuðið í bleyti*, translated as: To lay your head in water. Meaning: To take some time to think about something, maybe to find a solution to a problem or a new way to do things.

And have I mentioned that, as an Icelander, you are swimming within the same, small genetic pool, the tightest and least varied in the world? Another reason not to hurry



or move on – you are living with the same people each day. There is no getting away, a great motivator for civility and kindness in social interactions! A trip to Iceland is like a step back in time of 50 years, when our own towns had a slower pace and greater sense of community.

Why hurry? No matter how long you linger in Iceland, the planet's coldest glacier-melt waters will remain ice cold and the Earth's super-heated geothermal waters will remain steaming hot, with both in ever-available abundance.

Perhaps the unhurried style of living is because Iceland is a stunningly beautiful land of ever-changing light and visual surprises, and one must be unhurried to receive such surprises.

Just as an Ansel Adams photograph captures the tranquil stillness of nature, so the changing vistas in Iceland remind one to slow down and capture each frame of the day. I am trying to preserve that lesson as I jump back into the hectic pace of American medicine, taking time to take a breath, watch a cloud, and nurture this gift of an unhurried approach to life which the Icelanders shared with me.

Editor's note: My bright and clever travel companion, Allen, failed to mention that one day while driving back from a glacier hike to the geothermal spa we got a ticket for speeding. Clearly, we didn't spend long enough in Iceland to fully purge our American compulsion to rush from one activity to the next.

MitraClip: Non-surgical Treatment for Severe Leakage of the Mitral Valve

Larry Heaper hasn't felt like himself these last couple of years. "I would say I was dragging," Heaper, age 71, says. "I just didn't feel like doing anything, and that's not like me."

But over the 2014 holidays, his problem escalated. "We were driving back from a Christmas party at my son's in St. Louis and I felt worse than ever," he explains, "that was when I decided to call my primary care doctor. I saw him at 2 p.m. that day, and by 3 p.m. I was on my way to Saint Luke's Mid America Heart Institute."

At the hospital, Heaper was diagnosed with mitral regurgitation (MR), the most common type of heart valve insufficiency. The condition affects nearly one in 10 people age 75 and older—approximately 4 million people in the United States.

Mitral Regurgitation (MR)

MR can be a progressive and potentially life-threatening cardiac condition that occurs when the leaflets of the mitral valve do not close completely, causing blood to flow backward and leak into the left atrium of the heart during the cardiac cycle. This makes the heart work harder, raises the pressure in the blood vessels in the lungs, and increases the risk of AFib, stroke and heart failure.

Heaper's symptoms included shortness of breath, fatigue and fluid retention. Over the course of his 13-day stay at the Heart Institute, doctors drained 20 pounds of fluid off him. Other symptoms can include heart palpitations, light-headedness, cough and excessive urination.

Though medical therapy can treat the symptoms of mitral regurgitation, it doesn't treat the disease itself. Open-heart surgery to repair or replace the mitral valve is generally recommended, but is not a great option for patients like Heaper. "I have high blood pressure and diabetes, so the doctors didn't feel like I was a good candidate for surgery," he says.

Instead, Adnan Chhatriwalla, M.D., an interventional cardiologist and Medical Director of the Structural Heart Disease Program at Saint Luke's Mid America Heart Institute, discussed a new treatment option with Heaper called the MitraClip.



"Dr. Chhatriwalla explained the MitraClip to me and said he thought it would be a good option for me," Heaper says. "After thinking it over for a couple of days, I had good faith in him and agreed."

On Feb. 10, 2015, Dr. Chhatriwalla repaired Heaper's heart with a transcatheter mitral valve repair. The clip device was delivered to his heart through the femoral vein in his leg. The treatment works by clipping together a portion of the leaflets of the mitral valve in order to reduce the backflow of blood, which allows the heart to pump blood forward more efficiently, relieving symptoms and improving the patient's quality of life.

A Less Invasive Option for Fixing MR

Patients undergoing MitraClip treatment typically experience short recovery times and brief hospital stays. That certainly was the case for Heaper. On Feb. 11 he returned home, and by March 1, he was back at work, driving a school bus for special events. Today, Heaper works out in cardiac rehabilitation three days a week and enjoys spending time in his workshop.

"I can't believe how much better I feel now!" Heaper says. "I can't say enough good things about Dr. Chhatriwalla, Sarah Coffey and the care I received at Saint Luke's. I couldn't have asked for any better."

In the U.S., the MitraClip is approved for patients with severe MR who would be at high risk for complications if they were to undergo mitral valve surgery. The Mid America Heart Institute is the only hospital in the Kansas City, Mo. area using it. Researchers also are studying the MitraClip device for the treatment of patients with mitral regurgitation and advanced heart failure in the randomized COAPT trial.

For more information or to refer a patient to determine whether they may be a candidate for the MitraClip, please contact Saint Luke's Multidisciplinary Valve Program at 816-932-8258.

**Any names of patients used in this newsletter have been changed to protect the privacy of these individuals, except in instances where they preferred that we use their real names. For additional copies of the newsletter, or to have your name added or removed from our mailing list, contact Lori Wilson at 816-751-8480 or e-mail: ljwilson@saint-lukes.org.*

Count Your Blessings Every Day

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

Grace Under Fire

Judy, a kind, beautiful and very talented photographer had been a dear friend to Joan, our kids and me for decades. At age 47, she began to feel a gnawing back pain; routine testing a couple of weeks later revealed several nodules in her lungs and brain, which to everyone's horror, turned out to be metastases from a malignant melanoma that was never even visible on her skin.

Judy bravely endured non-stop courses of harsh radiation and chemotherapy. Through it all she remained irrepressibly upbeat, with a resolve to do whatever it takes to survive. Joan and I visited with her frequently during her ordeal, and even near the end of the siege she confided to me, "I've still got a lot of fight left in me."

Judy spoke about her appreciation for the oncologists who were creatively combining the latest breakthrough high-tech drugs to beat back her cancer. She was also very grateful for her loving and devoted partner, Clay, as well as the care and support she received from her adoring family and friends.

During one visit with her at her home just a few weeks before she passed away, Judy looked at Joan and me and said sincerely, "I am so blessed." Judy radiated a beauty, both physically and emotionally, and her grace and strength during this difficult time were inspirational. Her ability to maintain a sense of gratitude for love and the gift of being alive helped her to defy long odds against a lethal cancer, and not only to survive, but also to enjoy life much longer than any of her doctors thought she could. My mother



Judy Williams

Leatrice and I were discussing this and she observed that, "God often grants people who are fighting cancer a special grace and courage."

The Surprising Power of Gratitude

We try to teach our children to have an "attitude of gratitude," mostly because we think it's the right thing to do for their social well-being. But could there be another reason we should give thanks? Could it be that counting your blessings is more than just age-old tradition? Might being grateful be good for your heart too?

Research recently published by the American Psychological Association found that practicing gratitude was associated with a brighter mood, better sleep and less fatigue in a group of people who had heart failure (weakening and/or stiffening of the heart muscle). The researchers studied 186 men and women who had been diagnosed with heart failure for at least three months. These patients had developed structural

heart disease, but did not yet show symptoms of heart failure, such as shortness of breath, swelling, and/or fatigue.

The early stage of any disease is an important "window of opportunity" to intervene before serious symptoms or complications develop. If progression of disease can be stopped or slowed, these patients usually experience an improved quality of life. If the disease goes unchecked, they are at higher risk of progressing to advanced heart failure and are at higher risk of death.

The researchers found higher gratitude scores were associated with better mood, higher quality sleep, a more positive "can-do" attitude, and less inflammation in their system.

Importantly, the gratitude seemed to be the driving force in improving a sense of well-being. To test their findings further, they instructed some of the patients to on most days of the week for two months to write down three things for which they were thankful. Surprisingly, those who kept gratitude journals showed improvement in health and mood. In other words, it's not that being happy makes people grateful, but rather it's that being grateful makes people happy.

"A grateful heart is a magnet for miracles."

Practicing Gratitude

Though this research dealt specifically with heart failure patients, I think we all could learn a valuable lesson here, a message I see in action everyday with my patients.

Oftentimes, those who count their blessings, and are thankful for every day, those who give back by helping others, even in the smallest of ways, seem to not only survive—but also thrive, often in spite of serious health threats.

So while we can do a great deal to improve your heart health with modern medicine, the one thing we can't do is change your attitude—you'll have to do that for yourself. If you're naturally a person who has a grateful spirit, you're ahead of the game. If you're not, learn from this research.

Write it Down

Keep a gratitude journal: a few times each week write down one to three things for which you are grateful. It will take only a few minutes from your day and help you appreciate the truly important things in your life. And as a perk, gratitude journaling will likely improve your attitude, your health, and quality of life—for you and probably for those who are living with you as well.

Most nights, just after I climb into bed I try to do my favorite gratitude practice: I send prayers of thankfulness out there to at least one person in my life. While I breathe slowly and deeply, in the quiet, cool darkness, I visualize the face and imagine the voice of a person who has inspired or helped me, and I send silent thanks to them.

Sometimes it's my father, mother, or grandparents, sometimes it's my children; often it's Joan who's sleeping soundly right next to me. Other times it's a patient or a friend, or one of my colleagues at work. We are all surrounded by wonderful people in our day-to-day lives, and being mindful about this blessing can be empowering and healing.

Take a Deep Breath... Everything Will be Okay

Sarah came to see me after her Cardioscan showed a coronary calcium score of 120—a moderate amount of calcified plaque in her heart arteries. Her mother died of a heart attack at age 50, which was just one year older than Sarah is now.

During her office visit, she was quite anxious and distraught, so I said, "Let's just relax for one minute. Close your eyes and sit up straight. Breathe in deeply through your nose for the count of 4; feel the cool air flowing in through your nostrils as you fill your lungs to capacity. Now let's hold our breath while we count silently to 7. Now exhale slowly for the count of 8 and notice the warm



air flowing out of your nasal passages as you gradually empty your lungs."

When she opened her eyes, she looked at me and smiled in relief, and the color had returned to her cheeks. It is amazing how just one slow and deep, mindful breath will help to diffuse stress and relax your mind and body. Your heart slows, your vessels dilate, your brain settles down, and your blood pressure falls. And by the way, you just meditated—for 20 seconds.

I often do this one-deep-breath exercise with my patients when they seem stressed. The doctor's office can be an intimidating place, and so it's a perfect time and place to demonstrate the power of mindful breathing for calming one's system.

So Here's Your Assignment:

One cycle is a single 4-7-8 breath as outlined above. So you need to do four or eight cycles at least once or twice a day; or more as needed to calm your mind and settle down your heart. A steady practice of this relaxation breathing has been shown to lower blood pressure as effectively as a prescription drug for hypertension (high blood pressure). Making a habit of this breathing exercise can bring powerful benefits to your health and wellness.

If you do this relaxation exercise before retiring to bed for the night, you probably won't make it past four cycles before you drift off to sleep. It's best to count to the rhythm of your heartbeat (unless you have AFib or some other very irregular heart rhythm). This takes some practice, but if you can feel your heart beating and concentrate on that as your metronome, it helps to keep your mind in neutral instead of the "monkey mind" stream of thoughts that generally pinball around in our brains during waking hours. In fact, the essence of meditation is focusing on breathing. Stay in the moment and try to stop thinking.

Husband and Wife with AFib Opt for WATCHMAN Instead of Warfarin

When Jerry Postman tried to donate blood the day after the 9/11 terrorist attacks in 2001, he was turned away for medical reasons. "They said I had an irregular heartbeat, but I didn't have any symptoms," Jerry says. When he followed up with his doctor, Jerry was diagnosed with atrial fibrillation, or AFib.

Atrial fibrillation is an irregular rhythm originating from the top chambers, the atria, of the heart. Some people with this abnormal heart rhythm are short of breath with minimal exercise. Others have lightheadedness, palpitations, chest pressure, or just feel unusually tired. And some individuals, like Jerry, have no obvious symptoms.

AFib Predisposes to Stroke

During an episode of AFib the top chambers of the heart just quiver rather than beat efficiently. This can cause the blood to stagnate in the atria, predisposing to clot formation, usually in the left atrial appendage (a blind pouch that looks like a wind-sock at an air field). If that clot subsequently dislodges and travels to the brain, it usually causes a stroke—often a large and catastrophic one that is fatal or leaves the person paralyzed and unable to speak.

According to the National Stroke Association, AFib affects 2.2 million people in the United States and accounts for approximately 15 percent of all strokes.

Warfarin: A Mixed Blessing

Many patients with AFib are treated with anti-coagulant medications, commonly referred to as blood thinners, to prevent a possible stroke. Warfarin (Coumadin is its trade name) is the oldest and most commonly prescribed anti-coagulant, and it has been shown to reduce risk of stroke in AFib by about two-thirds.

But this medication requires constant monitoring to ensure that the intensity of clot prevention is in the safe range: in layman's terms, "not too thin and not too thick."

Though Jerry took Coumadin for several years, he was concerned about the risk of bleeding, and was bothered by the need for frequent blood tests and dose adjustments. To his point, the fact that high-dose warfarin can cause fatal bleeding even in a healthy animal explains why this compound remains the most popular and effective rodenticide for killing rats and mice.

"I always worried about bleeding, bruising and stroke when I was on blood thinners," Jerry says. "It was a constant concern." Jerry's concerns were multiplied a few years later when his wife, Ann, also was diagnosed with AFib. "I had been in to see my cardiologist, Tracy Stevens, M.D.," Ann says. "She picked up on the irregular heartbeat and prescribed blood thinners for me, too."

Because of Jerry's experience with warfarin, Ann was familiar with the monitoring process, but found

it even more difficult to comply with than her husband. So when Dr. Stevens told Ann and Jerry about a new device being investigated at the Mid America Heart Institute to treat AFib, they were interested. "Dr. Stevens knew how much we had struggled with the monitoring process," Ann says. "She recommended we talk with her colleague, Ken Huber, M.D., about the trial."



Dr. Tracy Stevens



The WATCHMAN

The WATCHMAN Device

Dr. Huber explained that the Heart Institute was serving as one of the top enrollers in the country for a trial investigating the WATCHMAN, an occluder device designed to seal off the left atrial appendage. Though the WATCHMAN doesn't cure AFib, it does keep harmful blood clots from entering the patient's bloodstream and thereby prevents strokes.

The WATCHMAN is about the size of a quarter, cannot be seen outside the body, and is implanted during an outpatient catheterization procedure. The experimental study, designed to help patients at risk for a blood clot, but who did not want to take blood thinners,



Dr. Ken Huber

Nuts to You!

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

compared the WATCHMAN device to long-term warfarin therapy. Jerry and Ann agreed to participate in the trial.

Jerry had his WATCHMAN implanted first; then Dr. Huber implanted Ann’s device a couple of weeks later. Neither one has had any complications from the WATCHMAN, but both of them have experienced tremendous peace of mind. “We have had our devices since 2010,” Ann says. “This has been a real win-win for us. We no longer have to worry about the potential fatal consequences of AFib, or of being on blood thinners.”

Jerry and Ann even testified before the Food and Drug Administration (FDA) about their experiences with the WATCHMAN. The device is now FDA-approved. Saint Luke’s Mid America Heart Institute became the first hospital in the region to offer the WATCHMAN commercially to patients in April 2015.

AFib: The Growing Epidemic

Atrial fibrillation is an increasingly common problem—today about one person out of every four will have AFib at some point in their life, typically as they get older. Conditions that increase the risk that you will develop AFib include age over 65, sleep apnea, diabetes, obesity, thyroid problems, excess alcohol consumption, abnormalities in one or more of your heart valves, and high blood pressure.

Saint Luke’s Atrial Fibrillation Clinic features a team of electrophysiologists, cardiologists, electrophysiology nurses and nurse practitioners who specialize in treating patients with AFib. For more information about the clinic or the WATCHMAN, call 816-751-8415.

As a child growing up, one of the many things I loved about the holiday months of November and December is that we always had fresh nuts in the house. Ever since, I have been kinda nuts about nuts, and eat them every day, and if you aren’t allergic, you should too. A recent Harvard study of 119,000 people followed for three decades found that eating nuts on a daily basis lowered the risk of death from any cause by about 20 percent.

Impressive studies also show that nut consumption is linked to lower risks for Alzheimer’s disease, heart attack, diabetes and sudden cardiac death. Adding tree nuts to your diet will help to reduce the bad (LDL) cholesterol and raise your good (HDL) cholesterol.

Tree nuts also can reduce your chances of dying from a malignant tumor, and seem to be protective against pancreatic cancer and colon cancer. My father died of pancreatic cancer, which is often a very nasty and painful malignancy that is very difficult to cure. So this is just one more reason that nuts play a starring role in my daily diet.

Nuts are especially good for your heart and brain because they are loaded with healthy fats and lots of great fiber; both of which help to fill you up and keep the hunger pangs away for hours. Tree nuts are also rich in magnesium, selenium, folic acid, vegetable protein, phytosterols, vitamin E, L-arginine and other nutrients. Because tree nuts contain all of these nutrients, they help to keep your blood vessels soft and supple, your bad cholesterol and blood sugar normal, and paradoxically can even help you maintain a sexy waistline.

Sure nuts are high in calories, about 200 to 250 calories per handful, with about 80 percent of the calories coming from fat. Yet surprisingly, studies consistently show that the more often people eat nuts, the leaner they tend to be. A recent dietary trial found people who frequently ate nuts gained less weight than individuals who never ate nuts, and were about 43 percent less likely to become overweight or obese during the 28-month study.

Which is the Best Nut?

The most nutritious types of nuts are tree nuts, such as pecans, almonds, walnuts, black walnuts, macadamias, hazel nuts, Brazil nuts and pistachios. The type of tree nut you eat isn’t a big deal; in fact mixed nuts are great because they provide a larger variety of nutrients. I eat many types of nuts raw, though I prefer my pistachios roasted and lightly salted. Make a point to find and consume the freshest nuts—stale nuts can contain rancid fats, which taste toxic and might even be bad for your health.

Peanuts and cashews are not quite as healthy as the other nuts, but they are still better than most other snack foods. Try to choose nuts instead of junk food snacks like chips or candy. I am not a fan of trail mix, as it almost always contains too much sugar.



What Our Dogs Teach Us About Aging

By David Dudley

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The dog is old. Age snuck up on him. Maybe this will happen to me, too, if I'm lucky. Maybe it already has. But what human has the genes and the luck and the sheer savoir faire to disguise the years as well as this amazing specimen of canine charisma does? His teeth are bright. His muzzle, black; his coat, feathery. He can bounce a soccer ball off his nose. On the street, everyone loves him. "Your dog is so pretty! How old is he?" they often ask. They're astonished to hear the number. He's 10. He's 12. He's 14. On it goes, year upon year. He's ageless; he's immortal.

But look closer. When he runs, his gait is stiff. In the depths of his irises, clouds are gathering — cataracts, says an eye doctor pal. "He's old," I tell everyone who asks. "He's an old man." I pat his head. "Aren't you? Who's an old man?" The dog gazes up. "Me?"

"Dog years" are fluid things; smaller breeds live longer than big ones, and none seem to really get older and wiser, like we are supposed to do. Emotionally, a domestic dog exists in a kind of perpetual adolescence, a long summer twilight of play and napping and happy routine in the company of parents who never get old, and never let you grow up.

The scientific term for this Peter Pan state is "neoteny" — when adults retain juvenile traits — and it's one of many characteristics of older canines to invite inquiry from longevity researchers.



Foghat, Dave Dudley's furry child for 18 years.

Researchers are exploring an audacious idea: Dogs are in many ways our mirror species. "Unlike most [animal] models used to study aging, dogs aren't in a lab — they share the same environment we do," Daniel Promislow says. Domestic dogs exhibit huge genetic variability, eat processed food, sleep in our homes (hell, right on our beds) and enjoy access to humanlike health care. Increasingly, they also get sick and die like us: They acquire arthritis and heart disease and many of the same cancers; they grow frail and forgetful. Often their lives are extended by expensive medical interventions.

Sleep Better and Weigh Less

Humans and canids fell in with each other tens of thousands of years ago, beginning a process of mutual domestication that conferred survival advantages to both parties. The more sociable wolves

got leftovers and outcompeted their less-friendly kin; the early humans who tolerated such creatures discovered they were good hunting buddies and alarm systems, and thus the humans prospered. We are all descended from dog lovers.

And this evolution is ongoing, a process scientists call convergence: Human and canine genes, shaped by the environment we share, are evolving in lockstep.

Today, along with home security and leftover disposal, dogs confer a host of wellness benefits, especially to kids and older people. People with dogs sleep better, weigh less and get more exercise than dog-free peers. And there are the less tangible perks—a dog is foremost an instrument of personal growth: It exists to ease your existential anxieties, impart lessons about love and friendship, and teach you how to be a better person.

At this, Foghat excelled. His initial role, as with many of his species, was to be a kind of fur-baby, a more rugged prototype of the real thing. His needs — food, walks, the occasional pill and swab of flea goo and dose of doggy Prozac (really!) in case of a thunderstorm. In a photo of me taken moments after returning home from the hospital, I'm sitting on the couch wearing a dazed look of muted new-dad terror and holding a tiny infant in one arm; the other arm rests atop the dog's proffered belly. He's sprawling luxuriously beside me on the couch, eyes half closed, projecting, "Everything will be OK" vibes. This, he seemed to understand, was to be his job from now on.

Doggy Dementia

Neuroscientist Elizabeth Head, who studies senior citizen beagles at the University of Kentucky, understands the minds of aging dogs. By middle age, dogs become resistant to change. They take longer to learn new things and start lagging in memory tests. At age 6 or 7, even healthy beagles in Head's studies show signs of the microscopic beta-amyloid plaques that are the hallmarks of Alzheimer's disease; about a third of them will ultimately succumb to canine cognitive dysfunction syndrome, aka "doggy dementia." That's a close parallel to the percentage of Americans 85 or older who will get Alzheimer's.

And the dogs' plaques look a lot like those in humans — more so than the ones found in our fellow primates. Head is not sure why. "It could be that living in our environment — our food, our water, our homes — has made dogs more vulnerable," she says. Age-related dementia, in other words, might be "a feature of the domestication process," she says, a kind of unintended side effect of civilization.

And Head thinks dogs can help defeat it. In past studies, she demonstrated that an antioxidant-rich diet and "behavioral enrichment" — a course of memory drills and new-skills training — can significantly delay or diminish plaque development and memory impairments.

Whatever age-proofing formula Foghat stumbled upon — maybe it was his expensive premium dog food, the behavioral enrichment he received from evading toddlers, or the lifelong regimen of heavy napping — he entered his dotage in roaring good health. Around his 18th birthday, I Googled "oldest dog in the world," because I started to won-

der if he was closing in on a record. He was what gerontologists would call a successful ager.

And then, seemingly overnight, he wasn't. If you have to go — and you do — a swift slide into decrepitude is the preferred way. The phrase is "compression of morbidity," when the infirmities of age are delayed until the bitter end. Still, it's no picnic. The joints went first. He started limping after a vigorous bouncing-a-soccer-ball-off-his-nose session. Then he needed help climbing into the car or crawling under the bed, his favorite sleeping spot. Our epic rambles through the woods became short hikes, then brief spins around the block. Sometimes he'd stop midwalk, frozen like a Parkinson's sufferer. The stairs grew perilous. He became a wandering insomniac, barking at ghosts, claws clacking aimlessly through the darkened house. He'd vanished into the shadowlands of canine cognitive dysfunction, and he would not be coming out.



Each morning, when I came downstairs, I stopped to inspect the prone body on the landing, wondering, with a mix of hope and dread, if he'd passed quietly in his sleep, the way we all say we want to do. Eighteen years! Longer than childhood, longer than marriage (so far). Seeing this ancient animal was like stumbling upon a living fossil, an artifact of a vanished age.

At the same time, it was also a glimpse into the future. Foghat's senescence appeared as both a comfort and a warning of what awaits: Some fears and eccentricities will lift with the years; others will only deepen. One by one, the things you love to do become too difficult and slip out of your life. But despite it all, you will still be you, and people will still cherish your wobbly presence. Even a diminished life is worth living on its own terms.

Until ... when? Sometimes in those last months I'd rest my forehead on his brow and look searchingly into his great brown eyes, trying to divine his advance-care plan across the species barrier. I'd stare; he'd stare back. Are you still in there? Are you ready to go?

Like Losing a Child

Getting a puppy, the comic Louis C.K. observed, is a "countdown to sorrow." Incribed in the act of welcoming this adorable fur ball into your home is the moment of its death a decade or so hence. Grief over a pet can equal or exceed that of a human family member, studies show. This is canine neoteny's cruel flip side: Yes, your dog gets to be an emotional adolescent into ripe old age. But when he dies, it will feel like losing a child.

Continued on page 12

What Our Dogs Teach Us About Aging

continued from page 11

Foggy's 18-year countdown finally ended one winter morning. Despite my best efforts to give him the good death he deserved, it was just as terrible as I'd feared. My wife held him in the backseat as I drove to the vet. He'd always loved car rides, but this time he writhed weakly and whined, intuiting correctly that something bad was up. As I carried him in, he let out a single unearthly howl, a sound he'd never made before. Then he relaxed, went still and struggled no more.

Soon we were standing around a metal table, clutching the dog just as we once did when a thunderstorm passed, trying and failing to project "Everything will be OK" vibrations. When the drugs hit his heart, I blurted out, "Sorry, buddy," and crumpled into unseemly bawling.

The gerontologist Kenneth Doka has called the death of a pet "disenfranchised grief." It's a loss whose significance others don't recognize. You're not supposed to sit shivah for your schnauzer. You post a sad Facebook update and go back to work, as I did. When I came home in the evening and opened the front door, I was struck by the strange new stillness — the foreign silence of a household without a dog. It was as if a machine that had been humming in the background for a long time had suddenly been switched off.

In this absence, I have enough life lessons for a thousand dogoers. I learned that it's impossible to determine precisely

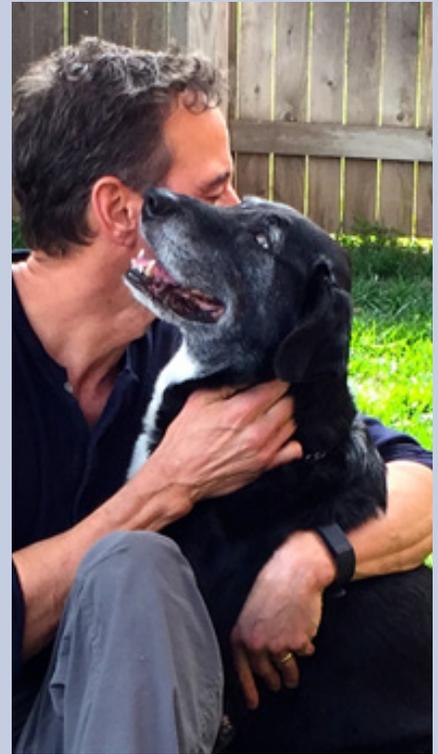


Saying Goodbye to a Best Friend

This great story by David Dudley was timely and poignant for my family and me—we recently lost our beloved dog Brandon. He was about 12 years old when he died of cancer, and we miss him dearly.

Brandon wasn't super smart (Joan described him as not college material), but he was very loving and lovable. He would sit next to one of us and look up with adoring eyes like he thought we were the most amazing creatures on Earth.

This picture was taken the day we had to put him down. What I really love about cats and dogs is that they are ALWAYS there when we need them. When I am feeling down or nervous or sad, if sit down and talk to our dogs, they wag their tails and lick me; when I pick up one of the cats and pet them they purr affectionately. Interacting with them warms my heart and makes me smile and relax.



Dr. O'Keefe saying goodbye to his running companion and beloved dog, Brandon.

when another being's life is too compromised to go on, and that a long and enviable health span can't save a good dog from a bad death. Maybe even a good death is pretty bad. Life is worth it; its absence is unfathomable. Sorry, buddy.

And now that I'm no longer young, and he's dead, I'll do my best to follow the path Foghat blazed into my life's last half. This

is sound medical advice, as neuroscientist Head says: "Everything you do for a dog to help them age well, you should do with them."

So eat the best food you can afford. Go for a walk, even if it's raining. Take a lot of naps. Keep your teeth clean and your breath fresh, so that the people you lick will not flinch. And when someone you love walks in through the door, even if it happens five times a day, go totally insane with joy.

Kale: It's What's for Dinner

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

Around our household we make it a point to eat cruciferous vegetables such as kale, cabbage (purple is our fave), broccoli, Brussels sprouts, and cauliflower virtually every day, often even during multiple meals in a single day. Among this class of nutritional stars, kale stands out as the brightest superstar. I grow some of my own kale, though the bunnies in the neighborhood often consider my garden to be their own private salad bar. Even if I can outsmart the rabbits, our household consumption of kale far outstrips my ability to keep us supplied with homegrown kale.

Joan's signature salad starts with kale. We cut the leaves off the large stems and discard the latter, then mix the leafy greens with shredded purple cabbage, cilantro, and green onion, then dress it with extra-virgin olive oil and red wine vinegar. This salad will hold up for several days in the fridge, even with dressing on it.

Kale and other cruciferous vegetables confer unique and potent protection against the type of DNA damage that can cause cancer. Kale in particular is loaded with natural plant-based phytochemicals that can protect us against cancer, heart disease, infections and premature aging.

Sulforaphane, one of the antioxidants in cruciferous veggies, helps to detoxify your body by eliminating dangerous compounds from your system. Kale

also contains anti-bacterial and anti-inflammatory compounds, in addition to stimulating the production of proteins called immunoglobulins, which are crucial for identifying and neutralizing foreign invaders such as bacteria, viruses and cancer cells.

A recent study from Italy found that people who consumed cruciferous vegetables such as kale at least once weekly slashed their risk of getting cancer by up to a third, with lower rates of malignancies of the mouth and throat, esophagus, pancreas, colon, kidney and breast. In particular, sulforaphane has been shown to selectively target and eliminate precancerous and cancerous cells.

Cardiovascular Support

A study that appeared recently in the *American Journal of Clinical Nutrition* reported that cruciferous vegetable intake reduced the risk of cardiovascular death by almost 25 percent. Kale is especially rich in lutein and zeaxanthin, two colorful carotenoids that seem to protect against atherosclerosis by inhibiting oxidation of the LDL (bad) cholesterol. These carotenoids will also help to keep your eyesight sharp by preventing against cataracts and macular degeneration.

K is For Kale

Vitamin K is a critically important nutrient for ensuring that the calcium you consume ends up in your bones and not in your arteries. Kale is one of the best sources of vitamin K, and the olive oil you drizzle over your salad will help you to absorb the vitamin K better. Kale is also abundant in soluble fiber, which helps reduce blood levels of sugar, CRP (a marker of inflammation), and cholesterol.

Also, kale is virtually calorie-free and is very low in sugar, with high levels of vegetable protein, all of which help to keep you feeling full longer. Kale is also an excellent source of vitamin C, calcium, manganese, copper and potassium.

Kale: Your New Friend with Benefits

Kale is quite possibly the single best superfood on Earth. It looks like it helps to lower your risks of coming down with cancer, heart disease and Alzheimer's disease. And, no one has ever gotten fat eating too much kale! Develop a taste for kale and make it a habit.

Recent studies show that olive oil and vinegar improve overall health and lower risks of dementia and premature death. So use this as your salad dressing.



Your Rx: Feet, Forks, Fingers, Sleep, Stress and Love

The Life You Save May be Your Own!

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

Your health care provider can keep you alive with an ever-longer list of powerful medicines and painful procedures. Meanwhile, you spend your life going from the bed—to the chair—to the refrigerator—to the doctor’s office in a grim, never-ending downward spiral. Sound good to you? Your call—but we choose to do everything in our power to avoid getting sucked into that black hole!

A doctor might someday save your life—maybe one already has; but if you want to thrive rather than just exist, you are gonna have to roll up your own sleeves and get busy. Without question, the growing 21st century armamentarium of drugs, devices and procedures has driven much of the phenomenal doubling of life expectancy for Americans in just the last 100 years.

Pills and pacemakers, radiation and chemotherapy, stents and bypass surgeries, when used correctly, might heal your heart or cure your cancer, but these strategies will do nothing to nurture robust health.

If your goal is to build a strong, happy and vigorous constitution from the inside out, an optimal lifestyle/diet is a much more effective strategy than any prescription a health care provider can give you.

As Yale University’s David Katz, M.D., says, “The path to vitality does not begin and may not even run through the CCU, ICU, OR and ER where ‘health care’ is rendered. True vitality is pretty good at avoiding just such places.”

Health care would be more honestly called disease care. Even

prevention from a medical viewpoint typically involves procedures like Cardioscans and cancer screenings. And as important as these medical tools are, they don’t prevent heart disease or malignancies, they only detect disease earlier. Still, discovering hidden tumors and silent coronary artery blockages sooner rather than later may prove to be the difference between life and death. So be sure to get your recommended screening Cardioscans, mammography, colonoscopy, treadmills and blood tests. Yet, avoiding cancer and heart disease altogether (or making sure they are gone for good) is even better than finding disease early.

The Father of Medicine, Hippocrates, said 2,500 years ago, “Let food be thy medicine.” Lifestyle is medicine too, and these are therapies that you must take charge of. The control of your vitality and longevity is in your hands, not your doctors’. Your trusted health care professional can help by pointing you in the right direction, but it’s up to you to walk the walk. Nobody but you can take responsibility for your health—you can’t pay someone to do it for you, or buy some new tech gadget to carry you there. But if you invest the time and energy, you will add exhilarating life to your years, rather than just dull years to your life. Are you willing to harness that power?



The Power to Shine is in Your Own Hands

Diet/lifestyle therapy bestows superpowers that will make you shine in a style that is beyond the reach of conventional medicine. Lifestyle medicine only truly flourishes in settings outside of traditional health care venues. Your day-in-day-out routine: the patterns you develop using your mouth and fingers, hands and feet, mind and spirit, will influence your life far more than anything any doctor can do for you with a stethoscope, syringe or scalpel.

Quality time, not money, is the true currency of life. Not many of us want to spend our precious time in an institution strapped into a wheelchair, wearing a diaper, while some stranger feeds us mashed potatoes and pureed green beans.

What we are seeking is what the French refer to as “joie de vivre,” or joy of life; with an energetic, yet relaxed system, a fully capable body, a sharp mind and a spontaneous, relaxed, playful and loving attitude that leaves us excited to greet each new day. “Yeah, that’s more like it. How do I get that?”

Feet, Forks, Fingers, Sleep, Stress, Love

Dr. Katz says, “feet, forks, fingers, sleep, stress and love,” is the recipe to take control of your own destiny. A few simple lifestyle habits can slash risks of dementia (including Alzheimer’s disease) significantly, and also diabetes by 90 percent, and cancer by about 30 to 60 percent. The first three of these master habits are especially critical: exercise (feet), healthy food choices (forks), and avoiding tobacco (fingers).

Cultivate the habit of sleeping seven or eight hours each night and you will markedly improve your brain, mood, heart and immunity. Avoiding stress is not easily done, but we can develop healthy coping mechanisms to largely eliminate the toxic effects of emotional turmoil, worry and depression.

Love is the last key to health and happiness that you are not going to get with a prescription. Humans are highly social creatures who thrive best when woven into a tapestry of supporting and loving relationships. Traditional science used to consider love a quaint, warm and fuzzy notion without hard facts to back up its importance to health. But a burgeoning body of literature shows that even a few meaningful relationships can make you far less vulnerable to chronic disease and death.

A slightly different “Super 6” list was tested on over 88,000 women followed for two full decades of life. Following six lifestyle factors conferred a remarkable 92 percent decrease in coronary heart disease. The “Super 6,” according to the Harvard study were: not smoking, staying near your ideal weight, regular exercise, a healthy diet, watching not more than one hour of TV per day, and consuming not

more than one alcoholic drink daily. This lifestyle/diet is neither complicated nor expensive; though sticking to it is not easy at first, while you are changing your old habits.

Genes May Load the Gun, but Lifestyle Pulls the Trigger

Follow these simple but powerful practices, and the rejuvenating power will even rewire your genetic makeup, changing the behavior of genes so that you will become much less likely to come down with

cancer, heart disease or Alzheimer’s dementia.

Still, when it comes to health and life there is never a 100 percent guarantee. Dr. Katz says, “Lifestyle practices are the ship and sails, but there is still the wind and waves. The former we can control to increase the probability of a safe crossing; the latter, we cannot — and thus even a well-captained ship may founder.” Admittedly, health catastrophes can and do sometimes happen to people trying their best to take care of themselves. However, if you can master the “Super 6” habits, you will stack the deck heavily in your favor, assuring a long and vigorous life.

Questionnaire Predicts Risk for Death Within Five Years

If you are planning to slow down in later life, you may want to think again after a landmark study recently found that walking pace was one of the best predictors of risk of dying soon. They analyzed how accurately each of 655 measurements predicted death using sophisticated statistics.

This study was published in the *Lancet* on June 4, 2015 and found that answers to a short questionnaire strongly predicted risk of dying over the next five years in a study of about a half million British people ages of 40 to 70 years old. The variables that were the most accurate for predicting death were not the physical measures, such as blood tests, weight, pulse, blood pressure, cholesterol, etc., but their answers on the questionnaires.

Surprisingly, simply asking people to rate their overall health and also to describe their typical walking pace were two of the strongest predictors for dying over the next five years. People who rated their health poor and their walking pace slow were at much higher risk of dying. For example, men who rated their walking pace as slow had about a four-fold higher risk of death within five years compared to those who said they walked at a “steady average pace.”

Actively smoking tobacco was another very important predictor of dying in the next five years.

Take-home messages: when you are out strolling be like Harry Truman, who each day went out for a walk at a brisk pace, “As though I had someplace important to be.”

For crying out loud, don’t smoke! And if someone asks how you are doing, smile and say, “Never better.” Sometimes a positive attitude goes a long way.

Your Faith Has Saved You

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

My wife, Joan, and my mother, Leatrice, both have the gift of faith; as did my grandmothers. They are naturally spiritual, and feel God's presence in their day-to-day lives. Joan says she keeps her antenna up so she can hear God talking to her every day.

I was not endowed with the gift of faith; it's science not spirituality that comes naturally to me. I do NOT take things on faith... I want scientific proof. In fact it's one of the many reasons I love being around Joan—my reception for divine inspiration is much better when I am snuggled up right next to her and her antenna.

Until this last century, there were no drugs to effectively lower blood pressure, or relieve pain, or reduce anxiety, or cure infections. Our ancestors had to rely upon natural strategies passed down through cultural traditions to help them cope with stress and stay healthy. These practices were often prescribed by religions for spiritual reasons, but also were highly effective for improving one's health, well-being and longevity.

Although people may have followed these commandments out of fear of burning forever in hellfire, pious behavior bestowed real-world, if underappreciated, earthly blessings on the devout souls. The time-tested wisdom of these holy rules probably emerged and endured in part because adhering to many of these maxims helped the faithful followers survive and flourish, often under difficult conditions.

As the modern world becomes more secular and is less strongly influenced by traditional religion,

many of these practices are fading away. For instance, I can tell you that young Americans don't spend much time praying, or fasting. Clearly, natural and harmless approaches for maintaining optimal health are generally better than prescribing addictive and/or potentially dangerous drugs for every little complaint. So, even if some of these principles have not been tested in large randomized trials, they have stood the test of time and tend to improve well-being, both mental and physical, with little or no downside risk.

Spiritual Commandments for Healing and Longevity

There is truly only one religion, though there are hundreds of variations of it. Many common religious decrees are at the heart of virtually all of the great spiritual disciplines around the globe including Buddhism, Christianity, Hinduism, Islam and Judaism. Whether or not you belong to a specific religion, consider the advantages of following some of these Health Commandments:

Believe and You Will be Healed

It has been said that faith is seeing light with your heart, when all your eyes can see is darkness. Religions traditionally propagate a strong belief in a higher power. Without getting into theological debates, we can say with certainty that having a positive and hopeful attitude is helpful to the person who is fighting an illness.

If nothing else, believing in a higher power enables the believer to feel more confident and optimis-



tic about their future.

The power of placebo is the strong tendency for a therapy to improve symptoms even if it is an inactive "fake" pill or sham treatment. In general, the stronger a person believes that the therapy in question works, the more effective it will be. We physicians have been taking advantage of the power of placebo since the dawn of medicine. Don't be naive and let charlatans take advantage of you, but also understand that when you feel confident that you have a competent healer who truly cares about your well-being, you will indeed be more likely to get better.

In another realm, if you believe you have a supernatural protector who is looking over you like a benevolent parent protecting their child, it can instill a sense of security and strength, which will help reduce stress and may promote healing and recovery. Find a physician you trust, because that is important for your future well-being. Also, it might be good to cultivate spirituality within yourself to help you feel that you are a child of the universe, and there is a power that you can tap into that is far greater than any of us.

Fast on a Regular Basis

Fasting is a tradition dating back millennia. Recent studies show that fasting for even 12 hours most nights, or an occasional 16 to

24-hour fast can improve health in many ways. Just quit eating after dinner and don't eat any calories until breakfast at least 12 hours later. The Mediterranean diet is popular now for its perceived health benefits; and without question consuming vegetables, nuts, fish, olive oil and a modest amount of red wine on regular basis is good for you.

Yet many of the Mediterranean cultures also included religious fasts on a weekly or monthly basis. During Ramadan, fasting is performed from sunrise to sunset each day for about one month of every year. The Mormon religion fasts about one day per month. Judaism and Catholicism also have traditions that include regular fasts. A growing body of evidence indicates that fasting can improve cardiovascular risk factors and long-term health.

Follow the Golden Rule

We are to treat other people as we would wish to be treated ourselves. Nearly all religions have a version of this rule. When we extend empathy and kindness to the people in our lives, it promotes harmony, and reduces stress for both you and your community.

"You can easily judge the character of a man by how he treats those who can do nothing for him."

—Malcolm S. Forbes

Often we follow the Golden Rule better with strangers than those closest to us. If the situation demanded it, we would sacrifice our own life to save a loved one, yet in our daily lives we often take our family for granted. I know this personally because it almost ruined my marriage. Several years ago Joan and I weren't getting along

very well, and a counselor told us to make our relationship the top priority in our lives.

He said love is a verb, not a noun; so you need to act more loving toward each other. We discovered that love truly is in the little things. I have gotten in the habit of doing the dishes and other household chores.

As the bumper sticker says, "When Momma ain't happy, ain't nobody happy." I compliment her more often on her cooking, and how beautiful she is, and how well she runs the family. We spend more time together, and try to treat each other with love and respect. As Joan says, it goes a long way to say, "please" and "thank you" with sincere kindness rather than that irritated edge.

A Day of Rest

A long-term study of 1.1 million women from Britain showed that regular exercise was associated with dramatically lower risks for coronary heart disease, stroke and dangerous blood clots. However, the women who were not taking at least one day each week off from strenuous exercise lost most of the cardiovascular benefits of exercise. In other words, exercising vigorously and/or doing hard physical labor seven days a week may take a toll on your health and shorten your longevity. Your body needs to rest and recover, so make it a priority to get your day of rest. Still, don't be lazy and rest all week; that is probably worse than never taking a day off!

Pray

I remember my great-grandmother Rose as always having a beaded necklace looped around one of her wrists. She used it to pray the Rosary about twice a day.

My siblings and I jokingly referred her routine as "taking a lap on the beads." Rose took no medications except one aspirin daily, and was healthy and living at home with her family until she died peacefully in her sleep one night at age 94.

Spiritual practices usually include ritual prayers such as Hebrew blessings, Hindu mantras, Islamic supplications, or Buddhist chants. A person who is chanting prayers generally recites the lines by heart, which induces a slowing and deepening of the breathing pattern. Studies show that chanting prayers, or even deep breathing during yoga or meditation, will activate the vagal nerve, which can lower blood pressure, reduce stress, improve sleep and even strengthen your immune system. To get the benefits, science finds that one should do these prayers or breathing exercises at least a few minutes once or twice a day. If praying is not something you are likely to do, consider doing the deep-breathing exercise on page 7, especially if and when you are feeling stressed.

Gather Together

The sense of community and social support provided by regularly attending a religious ceremony can confer strong health benefits.

Admittedly, you don't need to go to church to find a sense of belonging, but it is important to feel like you are part of a group, whether it's among family, or neighbors, or friends, or a group at work. There is something powerfully healing and strengthening about feeling as though you belong to a group. Participating regularly in a group that meets even once a month has been shown to increase a person's self-reported happiness level by about as much as doubling one's income.

Realign Your Hormones for a Whole New You

By Becky Captain, *Doctorate Nurse Practitioner*, Shirley Verbenec, *Nurse Practitioner*, and James H. O'Keefe, *M.D.*

When we are young and healthy, our bodies are brimming with naturally produced hormones. They affect how we look, how we think and feel, how our body and brain work, and even how our genes are expressed. In other words, hormones are essential for making you—you. If and



Becky Captain, D.N.P.

when your hormones stray out of the normal ranges, the implications for heart, brain and overall health functions are immense. Hormonal disturbances are often the underlying causes of belly fat, high blood pressure, sleep problems, hot flashes, brain fog, sugar cravings, fatigue, depression, moodiness, weak bones and muscles, loss of libido and/or the ability to have sex, just to name a few common hormonal issues.

Realigning your hormones into their youthful and normal ranges may be helpful for warding off premature aging, dementia, heart disease, diabetes, obesity, osteoporosis and some cancers. If we want to maintain vibrant health, it's important we pay attention to our hormonal levels and do what we can to keep them in the optimal ranges. This requires an ideal diet, getting adequate amounts of sleep, coping with stress in a healthy way, and getting the right kinds and amounts of exercise. In many

cases it may also involve hormone replacement therapy.

Melatonin

Melatonin is a hormone produced in the pineal gland, located in the middle of the brain, which helps control our sleep and wake cycles. The increase in melatonin levels that occurs when the sun



Shirley Verbenec, N.P.

goes down helps to promote sleep. The melatonin levels drop when the sun comes back up, which helps to wake us up again. This is how our bodies naturally respond to the sleep-wake cycle. Thus, keeping a regular sleep schedule is important as it will establish a strong melatonin cycle, whereby this important hormone rises as your bedtime approaches and falls when it's time for you to energetically greet the new day each morning.

So make it a priority to get seven to nine hours of sleep each night, and sleep in a dark, quiet and cool environment. You may find it useful to use 2 to 3 mg of melatonin before bedtime when traveling across time zones or when you are having trouble falling or staying asleep. It is available over-the-counter, and is non-habit forming.

Cortisol

Cortisol is called the stress hormone. It helps our body respond to stress—both physical and

emotional. Cortisol levels naturally taper down in the evening hours prior to going to bed (which is good as cortisol heightens alertness) and increase in the morning hours.

If a person is suffering with a chronically high level of stress, cortisol levels rise and remain elevated. This cycle of chronic stress and elevated cortisol is like a siege that ultimately destroys your system, essentially "burning the furniture to heat the house." Stress-induced high cortisol levels lead to poor sleep, elevated blood pressure, diabetes, increased belly fat but decreased muscle mass, a weakened immune system, osteoporosis (weak bones), fatigue and depression.

Excessive cardio exercise can also raise cortisol levels. In contrast, high intensity interval training (HIIT) can lower cortisol levels, while at the same time increasing the human growth hormone (HGH) and testosterone levels.

Sprint interval training involves exercising about as hard as you can go for about 20 to 40 seconds, and then resting for a minute or two; an HIIT workout usually involves about five to eight cycles of sprint-rest. Another example would be getting on a spinning bike and cycling hard and fast for 20 seconds, then going easy for 20 to 30 seconds and repeating the pattern for about eight intervals, which takes only about 10 minutes total. HIIT is also great for burning belly fat and cranking up your metabolism.

Insulin

Insulin is a hormone manufactured by the pancreas to regulate our blood sugars. Insulin has pro-

found effects on aging and obesity. Many of the patients we see have high insulin levels, which can be due to physical inactivity, smoking, stress, overeating, sleep deprivation or consuming a diet high in refined carbohydrates and sugars.

High insulin levels can lead to high blood pressure, accelerated biological aging, acne, ankle swelling, constipation, depression, fatigue, decreased memory, irritability, sugar cravings and increased belly fat. In addition, high insulin levels can reduce the production of estrogen in women. To lower insulin, see the table at the right.

Estrogen

Women have high levels of estrogen which helps support the health of their brain, liver, bones and skin, as well as the uterus, breasts and blood vessels. Today's modern American women often live as many decades after menopause as before their ovaries stopped making estrogen and their periods stopped. So going without estrogen for four or five decades will predictably cause problems with bones, skin, sexual function, as well as cardiovascular and brain health. Chronic estrogen deficiency can cause women to suffer from weight gain, bloating, hot flashes, depression, osteoporosis, high cholesterol, fatigue, heart palpitations and loss of sex drive.

Issues surrounding hormone therapy for women are complex and need to be considered on a case-by-case basis. However, if you are considering post-menopausal estrogen replacement, we would recommend: 1) use a low dose, 2) ask about a patch applied to skin, 3) consider bio-identical estrogen therapy. Evis-ta, also called raloxefene, is a selective estrogen that is good for bones and prevents breast cancer. This medication is going generic this year and is another really great option for

Natural Steps to Improve Your Hormone Levels	
Meditate, or do relaxation breathing (see page 7).	Do high-intensity (sprint) interval training once or twice a week.
Exercise in the morning before you consume any calories.	Go for a walk outside.
Stay sexually active, ideally with a steady partner.	Drizzle extra virgin olive oil and vinegar on your salad every day.
Increase magnesium intake (leafy greens, nuts, seeds, seafood, and dark chocolate).	Drink mineral water and other water (64 oz. a day).
Drink green tea and black coffee.	Lose excess weight, especially belly fat.
Lift weights and do yoga.	Give and/or get eight hugs per day (hugging your dog or cat counts too).
Get adequate high-quality sleep (seven to nine hours each night).	Eat colorful and bitter plants (berries, Brussels sprouts, broccoli, kale, etc.).
Fast at least 12 hours each night. Consider fasting 18 to 24 hours once a month.	Get some vitamin K-2 through food or supplements.
Avoid foods with made with added sugar or wheat, especially white flour.	

post-menopausal women. Be cautious when using hormone therapy if you have a personal or family history of breast cancer, blood clots in the legs, stroke or heart attack.

Many women probably don't realize that their ovaries produce testosterone and progesterone along with estrogen, but factors including aging, stress and childbirth can accelerate the decline of these important hormones. Sure, it's natural for these hormones to drop off with age, but it doesn't mean that modern women have to accept this and suffer the unpleasant side effects.

Progesterone is another important hormone for women; it's the balancing hormone and helps promote calmness, and improves quality of sleep. Some women as they age suffer from insomnia; and for them it is especially important to get their progesterone level checked.

Testosterone

Healthy men have high levels of testosterone and low levels of estrogen. Testosterone levels peak during sleep. Those who have a poor sleep quality often have lower testosterone levels. Many men in middle age develop low levels of testosterone, which can cause depression, dimin-

ished sex drive and erectile dysfunction, loss of muscle mass, irritability and low energy.

Testosterone supplementation can be done with gels, patches or injections. Testosterone should not be taken orally. Supplementing low testosterone levels should be done only under the care of an expert health care provider. It is important not to take the testosterone levels to levels above the normal range, as this might increase risk of prostate cancer and heart attack.

Human Growth Hormone

Effects of HGH are profound and include stronger muscles and bones, a leaner body and brighter mood. A long, restful night's sleep will boost HGH levels naturally, as will an active sex life and HIIT.

As we age, our hormone levels naturally decrease to some degree, but most of these important hormones can be kept in the normal ranges with ideal exercise, diet and lifestyle steps. Sometimes you may need help from your health care providers; we are here for you at our Cardio Wellness Center. Additionally, we can refer you to experts in hormone replacement if needed.



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Funds generously donated to Saint Luke's Foundation by grateful patients enable us to publish *For the Heart* and send it to more than 200,000 homes and offices. All materials are created by our physicians solely for the education of our patients and referring physicians.

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Quotes from the Heart

"Families are like dark-chocolate fudge—mostly sweet with a few nuts."
 ~Author Unknown

"Always remember that you are absolutely unique. Just like everyone else."
 ~Margaret Mead

"Who am I to judge?" ~Pope Francis

"I may not be all there, but at least I'm still here."
 ~Leatrice O'Keefe (85 years young)

"Anyone can make you happy by doing something special. But only someone

special can make you happy without doing anything." ~Author Unknown

"Never give up on a dream just because of the time it will take to accomplish it. The time will pass anyway."
 ~Earl Nightingale

"If you think you are too small to make a difference, you haven't spent a night with a mosquito." ~African Proverb

"You've officially hit middle age when you think an 'all-nighter' means not having to get up to use the bathroom."
 ~ Author Unknown

"Just because I give you advice doesn't mean I know more than you; it just means I've made a lot more stupid mistakes in my life so far."
 ~ Author Unknown

"Never laugh at your wife's choices—you are one of them."
 ~Author Unknown

"If it's important you will find a way. If it's not, you will find an excuse."
 ~ Author Unknown

"Time heals almost everything. Give time some time to work."
 ~Author Unknown

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