

THE EPOCH TIMES

MIND & BODY

What the 2020s Have in Store for Aging Boomers

As a demographic shift
sees boomers overwhelm
a young-to-old balance,
problems arise **3**

Never have so many people
lived so long, entering the
furthest reaches of old age
and becoming at risk of illness,
frailty, disability, cognitive
decline, and the need for
personal assistance.

7

Habits for
Better Health

PAGE 4



Honest Journalism Now Comes In Three Formats!

As a print subscriber, enjoy total access to all three at no additional cost!

Taking a few easy steps to set up your account will ensure unlimited availability of all our articles—and with no pesky paywall notices! As a loyal subscriber, you can access the print edition you’re reading now, our digital content at **TheEpochTimes.com** and our new ePaper that provides the entire print edition online in an actual newspaper format.

It just takes a moment to set up your total access account: **DIGITAL ACCESS COMPLIMENTARY** Activate your digital subscription by clicking the link sent in your subscription confirmation email. If you can’t find the link, email us at **subscribe@epochtimes.com** or call **917-905-2080**.

E-PAPER COMPLIMENTARY An issue of our ePaper will arrive every weekday morning via email.

So, whether you prefer to turn a newspaper page, enjoy content online or simply download articles and columns—it’s your choice. You’ve got total access to Truth and Tradition—wherever you go!

THE EPOCH TIMES

TRUTH AND TRADITION

ADVANCED HEARING AID TECHNOLOGY

For Less Than \$300

“I was amazed! Sounds I hadn’t heard in years came back to me!”
— Don, January 2016

How can a hearing aid that costs less than \$300 be every bit as good as one that sells for \$2,000 or more?

The answer: Although tremendous strides have been made in Advanced Hearing Aid Technology, those cost reductions have not been passed on to you. Until now...

The **MDHearingAid PRO®** uses the same kind of Advanced Hearing Aid Technology incorporated into hearing aids that cost thousands more at a small fraction of the price.

Over 75,000 satisfied **PRO** customers agree: High-quality, FDA-registered hearing aids don’t have to cost a fortune. The fact is, you don’t need to spend thousands for a medical-grade hearing aid. **MDHearingAid PRO®** gives you a sophisticated high-performance hearing aid that works right out of the box with no time-consuming “adjustment” appointments. You can contact a hearing specialist conveniently on-line or by phone—even after sale at no cost. No other company provides such extensive support. Now that you know... why paymore?

**TAKE ADVANTAGE OF OUR
45-DAY RISK-FREE TRIAL!**

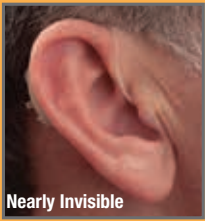

Hearing is believing and we invite you to try this nearly invisible hearing aid with no annoying whistling or background noise for yourself. If you are not completely satisfied, simply return it within that time period for a **100% refund of your purchase price.**

**For the Lowest Price Call
1-855-851-7981**

Use Code **BY62** and get **FREE Batteries for 1 Year** **Plus FREE Shipping**

MDHearingAid®
DOCTOR DESIGNED | AUDIOLOGIST TESTED | FDA REGISTERED

©2017 MDHearingAid, Inc. All Rights Reserved.



Nearly Invisible
**BIG SOUND.
TINY PRICE.**

BATTERIES INCLUDED!
READY TO USE RIGHT OUT OF THE BOX!



FOOD IS MEDICINE

Boosting Mitochondrial Biogenesis With Ginger

Helping build up our cells’ energy source could provide new treatments for common killers

Researchers have discovered that ginger, an ancient herbal remedy used for cooking and medicinal purposes, supports the regeneration of the cell’s powerhouse and may reduce the effects of mitochondrial dysfunction. A study published in the Journal of Food Science found that ginger extract and gingerol, an active compound found in ginger root, both play a similar role in stimulating the AMPK-PCG1α pathway, which regulates the process of mitochondrial biogenesis. While further research is warranted, researchers theorize that ginger could mitigate the effects of aging on mitochondria and significantly reduce or prevent the onset of mitochondrial dysfunction diseases such as diabetes, obesity, cancer, and cardiovascular disorders.

What Is Mitochondrial Biogenesis? Mitochondria, an organelle found in most cells, perform cellular respiration and metabolic procedures by breaking down nutrients and turning them into energy that the cell uses for various functions. Something like the battery pack of cells, mitochondria make it possible to perform daily activities by deriving energy from carbohydrates and fatty acids. Mitochondrial biogenesis is the process used by cells to increase the size of these cellular powerhouses through the growth and division of the existing mitochondria. Impairment of this biogenesis can be linked to the process of aging and multiple diseases such as Type 2 diabetes and Alzheimer’s, so researchers are eager to discover additional methods to regulate biogenesis for prevention and treatment of these diseases.

Mitochondria: The Key to Slowing the Aging Process? A byproduct of mitochondrial energy production is the release of free radicals into the body. Although mitochondria produce these free radicals, they are still susceptible to free radical damage. As your body ages, mitochondria weaken and die, resulting in increased fat storage, decreased skeletal muscle mass, and cognitive decline, as well as the onset of other age-related diseases. Researchers theorize that the proliferation and strengthening of mitochondria (via biogenesis) might be the key to slowing down the aging process and mitigating related illness. Mitochondrial dysfunction disorders include:

- Neurological and muscular degeneration
- Cardiomyopathies
- Cancer
- Aging and related diseases
- Insulin resistance and Type 2 diabetes
- Obesity and obesity-related disorders

It is well known that environmental stressors such as short- and medium-term caloric restriction, fasting, exercise, and low temperatures (such as cold therapy) all positively impact the process of biogenesis. However, researchers are eager to discover additional natural substances that might produce similar results in the proliferation of mitochondria.

Something like the battery pack of cells, mitochondria make it possible to perform daily activities by deriving energy from carbohydrates and fatty acids.

Ginger’s Role in Mitochondrial Biogenesis Researchers studied the impact of ginger extract on several organs and tissues, including skeletal muscles, the heart, and liver and found that ginger extract positively influenced several functions related to mitochondrial biogenesis, including:

- Increased mitochondrial mass
- Increased mitochondrial DNA (mtDNA) copy number in muscle and liver tissue
- Increased adenosine triphosphate (ATP) production (ATP is used by cells as energy for metabolic function)
- Promoted COX4 and OXPHOS protein expression in liver and muscle tissue (a reduction in the enzymatic activity of these genes is linked to Type 2 diabetes and obesity)
- Induced mitochondrial biogenesis

via the AMPK-PGC1α pathway (this pathway induces the process of biogenesis in mitochondria)

Both in vivo and in vitro studies indicated that ginger has the potential to increase mitochondrial biogenesis. Researchers tested the efficacy of both ginger extract and 6-gingerol, a component of ginger root, and found no difference in the results. Thus, they concluded that 6-gingerol may be the active component that stimulates biogenesis.

Other Regenerative Substances In addition to ginger extract, the following substances have been identified as having therapeutic properties that induce the biogenesis of mitochondria:

- Curcumin
- Acai
- Polyphenols
- Epigallocatechin-3-gallate

For more information on these substances, visit GreenMedInfo’s resource page on mitochondrial biogenesis. Additional lifestyle intervention methods for supporting cellular regeneration via mitochondrial biogenesis include:

- Getting quality sleep. Sleep disorders and disturbances are linked to cellular fatigue and poor mitochondrial function.
- Consuming omega-3 fatty acids. Mitochondrial dysfunction is linked to high levels of inflammation in the body. Omega-3 fatty acids are polyunsaturated fats with immunomodulatory activities that help to lower inflammation responses. [xiii] Quality sources of the omega-3 fats (eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)) include fish oil supplements and wild-caught fish such as salmon, sardines, mackerel, and her-ring. ALA (alpha-linolenic acid), another omega-3 fatty acid, is found in plant sources such as nuts and seeds.
- Exercising. Exercise stops mitochondrial aging in its tracks by improving mitochondrial protein quality and increasing mitochondrial content. Studies indicate that high-intensity interval training and activities such as running, walking, swimming, and other endurance exercises, as well as resistance training, are beneficial in improving mitochondrial biogenesis.
- Supporting detoxification pathways. Consistent exposure to environmental toxins such as pollutants or heavy metals, overuse of drugs, and improper nutrition impair mitochondrial function. By eliminating or reducing toxins in your body, cellular toxicity is reduced and mitochondria are better able to perform cellular respiration.
- Practicing cold exposure. Cold therapy has been shown to increase mitochondrial biogenesis by improving PGC1α protein expression, the protein that regulates and induces the process of biogenesis in cells.

Research Conclusions Whole-body metabolic function depends on the capacity of mitochondria. By increasing the number and strength of mitochondria through biogenesis, researchers believe that it is possible to significantly reduce or prevent the onset of multiple age-related diseases linked to mitochondrial dysfunction, including diabetes, muscular degeneration, cancer, cognitive disorders, cardiovascular disease, and obesity. Bioactive compounds such as ginger extract or 6-gingerol present an exciting potential therapeutic treatment in the proliferation of mitochondria by activating the AMPK- PGC1α pathway. While more exploration is needed, researchers are eager to continue studying the possible mechanisms of ginger extract in the treatment of mitochondria dysfunction.

The GMI Research Group is dedicated to investigating the most important health and environmental issues of the day. Special emphasis will be placed on environmental health. Our focused and deep research will explore the many ways in which the present condition of the human body directly reflects the true state of the ambient environment. This work is reproduced and distributed with the permission of GreenMedInfo LLC. Join the free newsletter at www.GreenMedInfo.health

What the 2020s Have in Store for Aging Boomers

JUDITH GRAHAM

Within 10 years, all of the nation’s 74 million baby boomers will be 65 or older. The most senior among them will be on the cusp of 85.

Even sooner, by 2025, the number of seniors (65 million) is expected to surpass that of children age 13 and under (58 million) for the first time, according to Census Bureau projections.

“Boomers have smaller families and are more likely to enter old age single, so families cannot be expected to pick up the slack.”

Karl Pillemer, a professor of human development at Cornell University

“In the history of the human species, there’s never been a time like [this],” said Dr. Richard Hodes, director of the National Institute on Aging, referring to the changing balance between young people and old.

What lies ahead in the 2020s, so society copes with this unprecedented demographic shift?

I asked a dozen experts to identify important trends. Some responses were aspirational, reflecting what they’d like to see happen. Some were sobering, reflecting a harsh reality: Our nation isn’t prepared for this vast demographic shift and its far-reaching consequences.

Here’s what the experts said:

A Crisis of Care Never have so many people lived so long, entering the furthest reaches of old age and becoming at risk of illness, frailty, disability, cognitive decline, and the need for personal assistance. Even if scientific advances prove extraordinary, “we are going to have to deal with the costs, workforce and service delivery arrangements for large numbers of elders living for at least a year or two with serious disabilities,” said Dr. Joanne Lynn, a legislative aide on health and aging policy for Rep. Thomas Suozzi (D-N.Y.). Experts caution that we’re not ready.

“The cost of long-term care [help in the home or care in assisted-living facilities or nursing homes] is unaffordable for most families,” said Jean Accius, senior vice president of thought leadership at AARP. He cited data from the Genworth Cost of Care Study: While the median household income for older adults was just \$43,696 in 2019, the annual median cost for a private room in a nursing home was \$102,204; \$48,612 for assisted living; and \$35,880 for 30 hours of home care a week.

Workforce issues are a pressing concern. The need for health aides at home and in medical settings is soaring, even as low wages and poor working conditions discourage workers from applying for or staying in these jobs. By 2026, 7.8 million workers of this kind will be required and hundreds of thousands of jobs may go unfilled.

“Boomers have smaller families and are more likely to enter old age single, so families cannot be expected to pick up the slack,” said Karl Pillemer, a professor of human development at Cornell University. “We have only a few years to plan different ways of providing care for frail older people to avoid disastrous consequences.”

Living Better, Longer Could extending “healthspan,” the time during which older adults are healthy and able to function independently, ease some of these pressures?

The World Health Organization calls this “healthy life expectancy” and publishes this information by country. Japan was the world’s leader,

with a healthy life expectancy at birth of 74.8 years in 2016, the most recent year for which data is available. In the United States, a healthy life expectancy was 68.5 years out of a total average life expectancy of 78.7 years.

Laura Carstensen, director of Stanford University’s Center on Longevity, sees some cause for optimism. “Americans are beginning to exercise more” and eat more healthful diets, she said. And scientific studies published in recent years have shown that behavior and living environments can alter the trajectory of aging.

“With this recognition, conversations about aging societies and longer lives are shifting to the potential to improve quality of life throughout,” Carstensen said.

Other trends are concerning. Notably, more than one-third of older adults are obese, while 28 percent are physically inactive, putting them at higher risk of physical impairments and chronic medical conditions.

Rather than concentrate on treating disease, “our focus should shift to health promotion and prevention, beginning in early life,” said Dr. Sharon Inouye, a professor at Harvard Medical School and a member of the planning committee for the National Academy of Sciences’ Healthy Longevity Global Grand Challenge.

Altering Social Infrastructure Recognizing the role that social and physical environments play in healthy aging, experts are calling for significant investments in this area over the next decade.

Their wish list: make transportation more readily available, build more affordable housing, modify homes and apartments to help seniors age in place, and create programs to bring young and old people together.

Helping older adults remain connected to other people is a common theme. “There is a growing understanding of the need to design our environments and social infrastructure in a way that designs out loneliness” and social isolation, said Dr. Linda Fried, dean of Columbia University’s Mailman School of Public Health.

On a positive note, a worldwide movement to create “age-friendly communities” is taking hold in America, with 430 communities and six states joining an effort to identify and better respond to the needs of older adults. A companion effort to create “age-friendly health systems” is likely to gain momentum.

Technology will be increasingly important as well, with aging-in-place likely made easier by virtual assistants like Alexa, video chat platforms like Skype or FaceTime, telemedicine, robotic caregivers, and wearable devices that monitor indicators such as falls, according to Deborah Carr, chair of the sociology department at Boston University.

Changing Attitudes Altering negative attitudes about aging—such as a widespread view that this stage of life is all about decline, loss, and irrelevance—needs to be a high priority as these efforts proceed, experts say.

“I believe ageism is perhaps the biggest threat to improving quality of life for [older] people in America today,” Harvard’s Inouye said. She called for a national conversation about “how to make the last act of life productive, meaningful, and fulfilling.”

Although the “OK Boomer” barbs that gained steam last year testify to persistent intergenerational tension, there are signs of progress. The World Health Organization has launched a global campaign to combat ageism. Last year, San Francisco became one of the first U.S. cities to tackle this issue via a public awareness campaign. And a “reframing aging” toolkit developed by the FrameWorks Institute is in use in communities across the country.

“On the bright side, as the younger Baby Boom cohort finally enters old age during this decade, the sheer numbers of older adults may help to shift public attitudes,” said Robyn

Stone, co-director of LeadingAge’s LTSS (long-term services and supports) Center, UMass Boston.

Advancing Science On the scientific front, Dr. Pinchas Cohen, dean of the Leonard Davis School of Gerontology at the University of Southern California, points to a growing recognition that “we can’t just apply one-size-fits-all guidance for healthy aging.”

During the next 10 years, “advances in genetic research and big data analytics will enable more personalized—and effective—prescriptions” for both prevention and medical treatments, he said.

“My prediction is that the biggest impact of this is going to be felt around predicting dementia and Alzheimer’s disease as biomarker tests [that allow the early identification of people at heightened risk] become more available,” Cohen continued.

Although dementia has proved exceptionally difficult to address, “we are now able to identify many more potential targets for treatment than before,” said Hodes, of the National Institute on Aging, and this will result in a “dramatic translation of discovery into a new diversity of promising approaches.”

Another potential development: the search for therapies that might slow aging by targeting underlying molecular, cellular, and biological processes—a field known as “geroscience.” Human trials will occur over the next decade, Hodes said, while noting “this is still far-reaching and very speculative.”

Working Longer While wealthier seniors will be able to access advanced care and services, how will economically vulnerable seniors survive? Many will see no choice but to try to work “past age 65, not necessarily because they prefer to, but because they need to,” Stone said.

Dr. John Rowe, a professor of health policy and aging at Columbia University, observed that “low savings rates, increasing out-of-pocket health expenditures, and continued increases in life expectancy” put 41 percent of Americans at risk of running out of money in retirement.

Will working longer be a realistic alternative for seniors? Trends point in the opposite direction. On the one hand, the U.S. Bureau of Labor Statistics suggests that by 2026, about 30 percent of adults ages 65–74 and 11 percent of those 75 and older will be working.

On the other hand, age discrimination makes it difficult for large numbers of older adults to keep or find jobs. According to a 2018 AARP survey, 61 percent of older workers reported witnessing or experiencing age discrimination.

“I believe ageism is perhaps the biggest threat to improving quality of life for [older] people in America today.”

Dr. Sharon Inouye, a professor at Harvard Medical School

“We must address ageism and ageist attitudes within the workplace,” said Accius, of AARP. “A new understanding of lifelong learning and training, as well as targeted public and private sector investments to help certain groups transition [from old jobs to new ones], will be essential.”

Judith Graham is a contributing columnist for Kaiser Health News, which originally published this article. KHN’s coverage of these topics is supported by The John A. Hartford Foundation, Gordon and Betty Moore Foundation, and The SCAN Foundation.

Habits for Better Health

It takes more than eating well and exercising to live a long healthy life

TATIANA DENNING

Good health can be tough to achieve, and it impacts our lives in so many ways, from finances, to how we perform at work, to our relationships with family and friends.

Most of us know we should eat more fruits and vegetables, stay away from processed foods, drink plenty of water, and exercise. These are core things that any physician will recommend to his or her patients, and are certainly important.

But there are also less-talked-about things we can do that can be just as important. In talking with some of my healthy, older patients, there are some commonalities that I’ve observed, some of which I wouldn’t have related to good health at first glance.



Negative thoughts weaken our immune system and cause increased levels of pain, elevated blood pressure, poor sleep, and more.

time that works for your situation, and then stick to it.

Of course, life will throw us curveballs. Don’t let it throw you off track when you do mess up. The very next chance you get, just do what you should do.

It’s a matter of balance. If we’re too easy on ourselves, we won’t give things our best effort, but if we’re too hard on ourselves, we can become discouraged and give up. So take time to reflect on what you should learn from your mistakes, and then dust yourself off and keep moving forward.

Many people feel that they could never be disciplined, that it’s just not them. But think of self-discipline as a skill you can develop. Entrepreneurs and productivity gurus have written oodles of books and blog posts to help you improve this skill. And when we’re more disciplined, we’re healthier and happier.

One simple idea is keeping a chart of your daily routine, and then checking off what you’ve done. This can help you feel that you’ve accomplished your goals for the day. This provides motivation for staying on track the next day. The mind has a significant role

to play here. Which brings us to the next point ...

Mind Your Thoughts

Our thoughts matter more than we may realize. If we’re not careful, they can lead us down a path to poor health. I watched how this played out with my own husband.

It is easy to go along with our thoughts, even if they’re not good for us. But we shouldn’t believe every thought that comes to mind. If our thoughts don’t align with what we want to do, and who we want to be, we should replace them with positive, beneficial thoughts. There are many things we can do to change our thoughts. Learning to be aware of what we’re thinking is an important place to start.

It is well-known in the medical community that our thoughts impact our health. Negative thoughts weaken our immune system and cause increased levels of pain, elevated blood pressure, poor sleep, and more.

So the next time you notice thoughts that interfere with your desired path, ask yourself if these thoughts are harming or helping you. If they are harmful, make a conscious effort to change them.

Be Kind

Studies show those who are kind and think of others before themselves are both healthier and happier than those with more selfish inclinations.

Random acts of kindness have been shown to increase hormones like oxytocin and serotonin and improve everything from blood pressure to depression to heart health. Few things can make you happier than making someone else feel better.

Kindness is both teachable and contagious. Random acts of kindness, like wheeling out your neighbor’s garbage can, or letting someone in front of you in line at the store, can really brighten someone else’s day, and perhaps even inspire that person to pass it along.

We never know what impact a small act of kindness may have.

Stay Active, in Body and Mind

Staying physically active is important, but we often forget that that includes mental fitness. My healthiest elderly patients are engaged in life

Few things can make you happier than making someone else feel better.

THE ROOT CAUSE

Cannabis—Real Risks Identified During Pregnancy

Drugs, even those sourced directly from plants, can have side effects if misused

ARMEN NIKOGOSIAN

While the medicinal benefits of cannabis and its active ingredient tetrahydrocannabinol (THC) are often praised, we should always remember that it is a potent herbal remedy with side effects. A new study published in Scientific Reports definitively shows that regular exposure to THC during pregnancy had a negative impact on placental and fetal development.

In the past several decades, public opinion on cannabis has softened far beyond the propaganda fueled “Reefer Madness” campaigns of the 1930s. This nearly 180-degree turn in prevailing belief has coincided with varying degrees of legalization in more than half of the United States and dozens of other countries including Canada.

The medicinal value of cannabis is undeniable for a diversity of diseases ranging from chronic pain to seizures to post-traumatic stress

disorder and a whole host of other disorders. It is a potent herb with medicinal qualities, and like all medicine, it possesses side effects. The fallacy of implied safety due to its natural origins is as flawed as thinking opium or hemlock use is without risk. While I certainly would not want a return to the baseless accusations and outright fabrications targeted at cannabis in the 1930s, bringing some balance back to the cannabis conversation in 2020 would be welcome.

In general, THC and cannabis have negative effects on fertility in both men and women. THC is known to affect receptors on the hypothalamus, pituitary, and internal reproductive organs—all of which are intimately involved in human reproduction.

Men who smoked cannabis at least once a week were found to have 29 percent lower sperm counts and women could have their ovulation delayed up to 3.5 days. Both factors could contribute

In general, THC and cannabis have negative effects on fertility in both men and women.

to infertility. Based on our current knowledge about the effects of THC and cannabis, the overall effects on fertility lean more toward risk than benefit.

In the recent study, they used a rat model and human placental cells to show that a mother’s exposure to THC during pregnancy had a notable impact on both the organ development of the fetus and gene expression, which is essential to placental function. They demonstrated that regular exposure to a low-dose of THC, replicating cannabis daily use during pregnancy, led to an 8 percent reduction in birth weight and a more than 20 percent decrease in brain and liver growth.

This is the first study to provide a plausible mechanism for the direct effect of THC inhibiting placental and fetal growth while controlling for the confounding effects of low socioeconomic status. All rats were of equal social class.

The researchers characterized

how THC deprives the developing fetus of oxygen and nutrients by interfering placental crossing. By studying human placental cells, the researchers found that exposure to THC caused a decrease in a glucose transporter called GLUT-1. THC prevented the placental transfer of glucose, a key nutrient, from the mother to the fetus. Reduced blood flow from mother to fetus was also suggested by noting a decrease in the number of placental blood vessels. Both of these factors were likely contributors to the growth restriction noted in the rat pups.

While the Centers for Disease Control and Prevention (CDC) clearly discourages cannabis use for pregnant women in their online guidance, many pregnant women continue to use marijuana and its THC derivatives under a misguided assumption of safety.

The CDC states that 5 percent of American women use marijuana regularly while pregnant and other



With social media now dominating our interactions, the face-to-face relationship is gradually being lost.

and are sometimes busier in retirement than they were when working.

Studies have shown that keeping the brain active can improve health. Brain fitness is really pretty simple. Reading a good book, doing crossword puzzles, or memorizing phone numbers rather than relying on technology can all strengthen our brains. Learning a new instrument or language has been shown to increase neuronal connections in a the brain and improve brain health.

Physical exercise doesn’t have to be done at the gym. Something as simple as taking a brisk walk around the neighborhood, yoga, or doing things around the house can provide the daily activity our bodies need. A project like planting and tending a small garden can not only get us off the sofa but also provide us with some low-cost, nutritious food that we can feel good about. Learning a new skill such as woodworking or tennis can provide both a mental and physical work out.

I’m reminded of my 13-year-old son doing his chores around the house. He may not be very enthused at first, but once he starts doing what needs to be done, I hear him humming from the other room. When we’re active and productive, we naturally feel good about ourselves. Good work is good for the soul.

Cultivate Relationships

My healthiest elderly patients all have one thing in common—they socialize regularly with friends and family. I once wouldn’t have related this to good health. But after years of observation, I understand how important it is.

This older generation has enjoyed regular face-to-face contact since they were young, in the days before screens and endless activity de-

voured human social connection.

The American Psychological Association (APA) notes that quality relationships affect many aspects of physical and mental health, including better immune function, improved cardiovascular health, less depression, and ever lowered incidents of cancer.

The APA states: “It’s not an exaggeration to say that lack of social connections can be deadly. Strong social relationships increase the likelihood of survival by 50 percent regardless of age, sex or health status, according to a meta-analysis of 148 studies on mortality risk by Julianne Holt-Lunstad, Ph.D.”

One study showed that a lack of close, personal relationships is as detrimental to a person’s health as smoking 15 cigarettes a day, and notes that close relationships have a more positive impact on longevity than avoiding air pollution or taking high blood pressure medication.

As important as social relationships are, we’re seeing an alarming trend—fewer and fewer people actually have close, personal friendships. “Over the past two decades there has been a three-fold increase in the number of Americans who say they have no close confidants. There is reason to believe that people are becoming more socially isolated,” the research team wrote.

With social media now dominating our interactions, the face-to-face relationship is gradually being lost.

That gives rise to this next recommendation.

Unplug

Technology. It certainly has its perks. It can keep us connected while putting endless information at our fingertips. But too much tech time may not be a good thing.

We now seem to be in need of constant mental stimulation. We don’t know the long-term health effects of our tech obsession, but many experts have serious concerns, especially with regard to a child’s developing brain. The inordinate amounts of time we spend on screens has spurred technology addiction treatment centers to crop up across the country.

Friends and families now text one another rather than verbally speak, even while in the same room. Today we see folks walking down the street staring at their cellphones, oblivious to the world around them.

Think of self-discipline as a skill you can develop.

Several studies have verified the costs of a sedentary lifestyle and the relationship between too much screen time and health.

The more time spent before a screen, the less time spent doing things that engage the mind and body. You’re more likely to die early the longer you sit in front of a TV or computer, even if you exercise for 30 minutes a day, according to research by physiologist Marc Hamilton, a professor at Pennington Biomedical Research Center in Baton Rouge, Louisiana.

An American Cancer Society study that followed 123,000 adults for 14 years found that women who sat more than six hours a day were 37 percent more likely to die during that time period than those who sat fewer than three hours per day.

While technology has its benefits, it must be used in moderation

and with discretion, lest it come to dominate and control our lives, all while having a negative impact on our health.

Get a Good Night’s Rest

Sleep is vital to our well-being. The Centers for Disease Control and Prevention states that the average adult needs 7–9 hours of sleep per night, noting that 1 in 3 adults doesn’t actually get the amount of sleep they need.

Lack of sleep impacts our health in a variety of ways, leading to things such as depression and irritability, hormonal imbalances, weight gain, impaired immune function, diabetes, and heart disease, to name just a few.

With this in mind, it’s important to develop a good sleep routine. This means doing things like going to bed and waking up at the same time every day, not using technology for at least thirty minutes prior to bed, doing something relaxing like taking a warm bath or having a cup of chamomile tea, and putting your worries aside.

When we rest well, it gives our body and mind a chance to balance and heal. We wake up feeling refreshed, with the mental and physical energy needed to take on the day and give it our best.

I hope these tips provide a little food for thought and perhaps help guide you, in some small way, to better health as we begin this new year.

Tatiana Denning, D.O., is a family medicine physician who focuses on wellness and prevention. She believes in empowering her patients with the knowledge and skills necessary to maintain and improve their own health.

studies have found that number to be as high as 22 percent in urban, poor women between 18 and 24 years old. It is not surprising that this age group had the highest usage given the nearly uninterrupted stream of positive coverage on cannabis they had been exposed to within their lifetimes.

A likely reason for the relatively high prevalence of cannabis use in pregnant women is the high incidence of nausea and vomiting during pregnancy, more com-

monly known as “morning sickness.” This condition is seen in up to 70 percent of pregnant women, many of whom seek treatment for the condition.

Hyperemesis gravidarum is a severe form of nausea and vomiting estimated to affect up to 3 percent of pregnant women and may require hospitalization as well as threaten the well-being of the mother and the unborn child.

The THC found in cannabis is well-known to counter the effects

Cannabis use in pregnant women may lead to significant decreases in birth weight, and liver and brain growth in the newborn child, regardless of socioeconomic status.

of nausea and vomiting, a property used by cancer patients undergoing chemotherapy for many years. In addition to this, it can also stimulate appetite to help both nauseated pregnant women and cancer patients maintain their weight throughout the course of their condition. From that perspective, it is understandable why some would choose this natural therapy as a medical treatment. Unfortunately, with the data presented in this recent study, it is not worth the risk and is contraindicated in pregnant women due to its retarding effects on placental and fetal growth.

An important distinction to make in the review of this recent study is that it didn’t address cannabidiol (CBD) usage in pregnant women. CBD is the second-most common component of the cannabis plant used by people today and has no psychoactive effects on the brain. The majority of CBD used today is derived from industrial hemp crops rather than cannabis derivatives. Industrial hemp has little to no THC content within it but is rich in CBD.

While CBD is currently presumed safe in pregnancy by many experts, the FDA urges caution. I agree with the FDA’s prudent viewpoint until more concrete medical studies have been com-

pleted to verify its safety to our unborn children.

In summary, cannabis use in pregnant women may lead to significant decreases in birth weight, and liver and brain growth in the newborn child, regardless of socioeconomic status. From a broader perspective, this is a poignant reminder that natural medicine, like all medicine, may possess a dark side with unexpected negative side effects. In this era of increasing prevalence in childhood chronic illness and developmental delay, our next generation will need all the odds stacked in their favor. All medicines, be they pharmaceutical or natural, should always be used with respect, responsibility, and a healthy caution.

Armen Nikogosian, M.D., practices functional and integrative medicine at Southwest Functional Medicine in Henderson, Nev. He is board-certified in internal medicine and a member of the Institute for Functional Medicine and the Medical Academy of Pediatric Special Needs. His practice focuses on the treatment of complex medical conditions with a special emphasis on autism spectrum disorder in children, as well as chronic gut issues and autoimmune conditions in adults.

Feeling Connected Makes Us Kind

A study suggests that our social connections inspire altruism

NADINE LUERAS-TRAMMA

We all know that it feels good to feel connected to other people—indeed, research has even linked social connections to happiness, health, and longer life. But one study suggests that our feelings of connection don't just make us feel good; they also make us do good. In the study, researchers tried a few different ways of making people feel connected to others, testing to see whether such feelings of "relatedness" motivated those people to perform kind, helpful or "pro-social" acts. Prior research has suggested that this sense of connection is one of three ingredients people need to really thrive in life; the other two are feeling capable of achieving their goals, known as "competence," and feeling in control of their own actions and deci-

sions, known as "autonomy."

In one experiment, the researchers had participants read words associated with social connection (e.g., community, connected, relationship) and then asked them how much they intended to volunteer for a charity. The results show that people were more willing to volunteer for a charity after reading those words than they were after reading a series of other, neutral words (e.g., book, lamp, shoe). They were also more likely to want to volunteer after reading the social connection words than after reading words that evoked autonomy (e.g., freedom, choice, preference) or competence (e.g., skilled, expert, competent). In a second experiment, the researchers had participants write about a time that they felt a close bond with someone else, bringing to mind that feeling of connection. Then they asked how willing the participants were to perform five pro-social actions over the

Feeling socially connected reduces aggression, whereas feeling excluded increases aggression and reduces pro-social behaviors.



These findings suggest that helping people connect with others benefits their own well-being and could benefit society as a whole.

RAWPIXEL.COM/SHUTTERSTOCK

coming weeks, including giving money to charity and going out of their way to help a stranger in need. Just thinking about their close connection boosted people's altruistic impulses: After writing about their relationship, they showed a stronger desire to help others than they did after writing about feeling competent, autonomous, or just after answering some banal questions (e.g., "I think that the color blue looks great on most people"). And it seems like these feelings of connection do more than encourage good intentions; they also spur positive actions. In a third and final experiment, participants either read words evoking social connection or read neutral words, just like in the first experiment. Afterward, they were given the chance to anonymously donate some of the money they earned for participating in the study to the British Red Cross, which they were told was working with the researchers. Nearly half of the participants who had been reminded of their social connections donated to the Red Cross, whereas fewer than 20 percent of the other participants did. Although previous studies have suggested a link between altruism and feelings of relatedness, this study is the first to find that inducing those feelings can directly cause people to be kinder and more generous. According to the researchers, their findings highlight the basic human need for belonging. In their paper, published in the Personality and Social Psychology Bulletin, they point to other research showing that feeling socially connected reduces aggression, whereas feeling excluded increases aggression and reduces pro-social behaviors. Taken together, they argue, these findings suggest that helping people connect with others benefits their own well-being and could benefit society as a whole. They call for more research to explore precisely how fostering social connections can boost pro-social behavior. "Such research could promote simultaneously individual welfare and the welfare of others," they write, "in a way that would challenge the assumption that there is some kind of conflict between the two."

Nadine Lueras-Tramma is a Greater Good research assistant. This article was originally published on the Greater Good online magazine.

School Gardens Reconnect Kids With Food

Even in rural America, children are growing more disconnected from growing food and eating well

AUSTIN FITZGERALD

Rural school gardens get students back in touch with their food, a new study finds. As technology and supermarkets have made buying food easier and more convenient than ever, researchers believe people are growing more distant from the food they consume. As knowledge about crops, food production, and healthy eating is lost over generations—a process sociologists call "deskilling"—some school districts are looking to reconnect children with their food by educating them in a garden setting. For their new study in Agriculture and Human Values, researchers observed one such "school garden" in a rural Midwestern school district, in which teachers held classes outside in a garden one or two times per month. Not only was the concept successfully integrated into an otherwise normal public school district, but it also fostered an appreciation for fresh, healthy foods. "We have lost touch with a lot of basic skills related to food, which raises concerns for the future of food production and the eating habits of our children," said Mary Hendrickson, an associate professor of rural sociology at the University

of Missouri's College of Agriculture, Food, and Natural Resources. "We wanted to see if allowing children to 'taste' their education in a garden setting could have the potential to reorient them toward environmental and health issues that will only become more important as they grow. This case study showed that the answer is 'yes.' The potential is there." The idea of school gardens is not new, but the vast majority of these programs have occurred in wealthy urban settings. In this case, however, the school garden was in a school district not particularly wealthy, allowing researchers to study the program's impact on a broader socioeconomic range. Beginning as an after-school club led by volunteers, the program eventually transitioned to the control of the school district. The district incorporated it into the school day an average of one or two times per month, when students would attend classes outside surrounded by fruits and vegetables. Each grade level received their own dedicated garden. Through on-site observations and interviews with participating educators and staff, researchers found that school garden education affected the children beyond the classroom, with students expecting healthier options on the school's salad bar and starting their

own gardens at home, as well as generally expressing more interest in food production and preparation. In addition, researchers say the school district's smooth acquisition of the program offers an unusual and encouraging example of its potential for more widespread adoption. "Re-skilling our children isn't just about creating economic opportunities, though as the average age of farmers continues to rise, we do need more young people who are interested in agriculture," said Sarah Cramer, who worked on the study while earning a doctorate. "What we heard from the people involved in this program is that their children are more interested in eating healthier and embracing alternative food systems like organics and farmer's markets. Ultimately, this is about giving children more control over their lives by showing them that they have choices." While rural America plays a pivotal role in the nation's food production, many participants interviewed for the study noted that a disconnect between producer and consumer remains. Putting children in closer touch with agriculture at a young age could close that gap, Cramer said. "I think that people recognize that we are a rural community, but we are not healthy eaters," one participant said. "We do cattle and chickens, but we don't have gardens because when I was growing up ... we didn't talk about healthy food. Nobody really grew food." In allowing children to see, taste, and learn about food, school gardens offer them the chance to change the food culture for themselves and their communities, Cramer said. Anna Ball, formerly at the University of Missouri and now at the University of Illinois, contributed to the research.

This article was originally published by the University of Missouri. Republished via Futurity.org under Creative Commons License 4.0.



RAWPIXEL.COM/SHUTTERSTOCK

We have lost touch with a lot of basic skills related to food, which raises concerns for the future of food production and the eating habits of our children.

Mary Hendrickson, an associate professor of rural sociology at the University of Missouri's College of Agriculture, Food, and Natural Resources

Researchers found that school garden education affected the children beyond the classroom, with students expecting healthier options on the school's salad bar and starting their own gardens at home.



Children will learn from the example we set, good or bad.

Someone's Watching: Why Anyone Can Be a Good Role Model

Harnessing the power of positive influence, no matter how small-scale

CONAN MILNER

We learn by imitation, and we look to role models for guidance. Professional athletes, pop stars, and other celebrities are often promoted as role models, and historical figures like George Washington or Ghandi remain popular exemplars of grace, sacrifice, and leadership. Buddha, Jesus, and other spiritual leaders are important examples to many, and everyday people like parents and teachers are often looked up to. The role model dynamic is simply about demonstrating characteristics others wish to emulate. Advertisers seek celebrity role models due to their success and good looks. But you don't have to be rich, famous, or have less than 10 percent body fat to have an impact on the people around you. According to Dr. John DeGarmo, director of the Foster Care Institute, we're all role models whether we like it or not. "We are all walking, talking role models," DeGarmo said. "Every single one of us is. Somebody is looking up to us in some way. Somebody is watching what we do and listening to what we say." DeGarmo has thought a lot about the power of role modeling, especially with kids. During his tenure as a teacher at a rural high school, he noticed several of his students with a pattern of behavioral problems, academic issues, and poor attendance. "I kept asking, why is this? And then I met a lot of their birth parents and realized it starts in the home," he said. Parenting may be the most important and intensive role modeling gig there is. We don't just pass down our genetic material, but our way of life. Kids try on their parents' habits and routines, see how they fit, and make them their own. But what happens to kids without parents? Where do they get their guidance? These questions led DeGarmo and his wife to open up their home to numerous children. In addition to their own six kids (both biological and adopted), the DeGarmos are currently foster parents to three siblings. Over the past decade, more than 50 foster kids have lived at the DeGarmo house, and he tries to give them all the best impression he can. "When these kids come to my home, some of them have never seen how a husband treats a wife," he said. "They've never seen somebody interact with people at the grocery store or the gas station, in all walks of life or in difficult situations." DeGarmo says that if he doesn't teach his kids how to behave, he knows someone else—or something else—will. "We're living in a society where more and more children are being raised by

cellphones, computers, and tablets—everything except an actual human being to interact with them," he said. "That's why it's even more essential that we try to counter that and be a positive role model to everyone that we meet. It's a big responsibility, but it's an important one."

Becoming a Positive Role Model

The DeGarmos have taken in so many kids because there are so many that need help. Fueled in part by the opioid crisis, several U.S. states are currently experiencing a corresponding foster care crisis, as a growing number of children lack a home or guardians to care for them. "Two of the kids I've adopted are third-generation foster care, which means that their parents and their grandparents have been in foster care as well. The system failed them. They didn't get what they needed from their parents or other members of society. They just followed this vicious cycle they were in," he said. "We broke that with the kids we adopted." DeGarmo wants more people to adopt or become foster parents, but he says there are many ways to counter the negative influences that all children pick up. Other positive role models can include teachers, coaches, and tutors. "For today's kids, if there is no one there to show them that this is how we act, this is how we talk, this is proper behavior, this is positive role modeling, then we're going to have a generation that is in rough shape," he said. Positive role modeling doesn't require a formal title. As long as we realize that our behavior at any moment might manifest in someone else, we become more mind-

ful of our actions. This by itself makes the world a better place. "We need to embrace the possibility that we might be the only positive role model some children might ever see," DeGarmo said.

Mirroring for the Future

It can be daunting to consider that even the little details of your behavior may be copied and scrutinized by the world around you. In a 2017 article in Interview magazine, actress Emma Watson admitted that living under such pressure can be a little paralyzing. "When people call me a role model, it puts the fear of God into me, because I feel like I'm destined to fail," she said. Many young women look up to Watson for her accomplishments, but you don't have to play strong female roles or be a U.N. Women's Goodwill Ambassador to promote a positive influence. Just by being a good, kind person you can help guide the way. According to Dr. Shelly Chandler, a licensed mental health counselor and provost of Beacon College in Leesburg, Florida, our words and actions can help endorse the virtues of a healthy lifestyle, the importance of an education, or other positive qualities. "I grew up on a farm where my father valued hard work," Chandler said in an email. "We were encouraged by receiving his positive attention when working on the farm together. These activities provided us with a shared vision and promoted his values of hard work and integrity within us." But this mirroring feature works the other way, too. Chandler says that when children see a negative behavior that is not followed by a consequence, it can lead to something called "negative vicarious learning." Some examples can be extreme, like the Dallas boy who killed his younger brother while trying to imitate a wrestling move he saw on television. However, commonplace examples can be more insidious, such as celebrities who appear to enjoy success without hard work. "Vicarious learning is a tendency to commit a behavior that someone else gets praise or attention for even when it is negative," Chandler said. "There are always examples of vicarious learning in the media." It's inevitable that kids will be exposed to bad behavior, and this is why they need regular exposure to positive role models to help balance the scales. But DeGarmo said that many kids are growing up in a culture where they see mostly bad examples, with no one to tell them what is right or wrong. "A child wants to do the right thing," he said. "Lots of children just simply don't know how to do that because they've never had somebody spend time with them in a positive fashion."



SABINE VAN STRAATEN/UNSPLASH

Our words and actions can help endorse the virtues of a healthy lifestyle, the importance of education, or other positive qualities.

CONNECT TO LEAD

War Stories and My Magic Silly Band

Learning to open up about the pains of war started with a story about my son

SCOTT MANN

When I was accepted to speak in the red circle for my first TEDx talk back in 2016, it was hard for me to take the stage. The scars from my transition out of the military were still too raw, too uncomfortable. I needed to face them head-on, and I had to do it fast. So I started working with a performance coach named Joe (not his real name).

Joe quickly saw that my biggest challenge was the mindset I had developed against opening up about my emotions in front of other people. Like most veterans, I had been doggedly trained to always put armor over my feelings. To always show the brave face. To never show weakness. It's what we had to do to survive.

One day in rehearsal, he looked down at my wrist and asked about the thin green bracelet I was wearing. "That's my magic silly band," I told him. I shared with him the story of how my youngest son Brayden had given it to me before I deployed to Afghanistan back in 2009 when he was just 5 years old. He told me it would keep me safe while I fought the bad guys. It was our connection to each other while I was half a world away.

I never took it off.

"Scott, that's the kind of emotional access I need you to have with every story you tell. Here is your homework. I want you to write a 5-minute play about that silly band and tell it at our next student performance night."

I was dumbstruck. A play?! In that moment I would have rather deployed back to Afghanistan.

What if I fell apart on stage? There was one thing that I felt sure of and it was that Green Berets did not write plays.

But, I did write it. And I did tell it. And I did lose it.

They said that the whole room stood with thunderous applause when I was done, but all I saw were the tears running down the faces of my wife Monty, and our three sons.

I had found my voice again. And for the first time in a long time, I knew what I had to do next.

After two long years, dozens of revisions, and countless acting classes later, my mid-life crisis was complete. That silly band became the heart of "Last Out: Elegy of a Green Beret," a play that is currently touring across America raising awareness for veterans' and military family issues.

I've learned some powerful lessons about the generosity of scars on this tour that have radically changed my mindset, allowing me to take off the emotional armor for the first time in 23 years and leave it at the door.

Scars are a wound that has healed, but left us marked. They are story we can tell others, to let them know that their wounds will also heal, and that others have felt their pain.

Hundreds of chronically isolated veterans and military family members have shared with me, through tears, the relief of seeing their own pain validated on our stage. One sister of a Green Beret sergeant major stood up after a show and said, "Thank you for showing me in 85 minutes what my brother has been trying to



PEPPERSMINT/SHUTTERSTOCK

One soldier's journey to opening up began with a story about a gift from his son.

Scott Mann is a former Green Beret who specialized in unconventional, high-impact missions and relationship building. He is the founder of Rooftop Leadership and appears frequently on TV and many syndicated radio programs. For more information, visit RooftopLeadership.com

ployment, he was one year older, and one step closer.

Don't get me more wrong here. I couldn't be more proud of his service, but, I'm speaking to you as a dad who has seen a lot of war. After 18 years, it is the longest war in our country's history. Many of our politicians commit a small percentage of our sons and daughters to conflict as casually as a teenager starting another video game of Fortnite.

And most of our people are oblivious to it.

So the scar of my son fighting a war that I couldn't finish is incredibly uncomfortable and something I tried for years to avoid having to face. But, thanks to Joe, I adopted a new mindset, one that let me finally take the armor off and stand on that scar in the service of others and open the eyes of thousands of citizens, media, and even a few of those politicians to the emotional cost of modern war so we can have a more responsible conversation about future conflicts.

How can your scars make a difference to someone in the darkness who needs to hear the lessons you've earned?

THE EPOCH TIMES

TRUTH and TRADITION

A NEWSPAPER
GEORGE WASHINGTON
WOULD READ

The very fabric of America is under attack—our freedoms, our republic, and our constitutional rights have become contested terrain. The Epoch Times, a media committed to truthful and responsible journalism, is a rare bastion of hope and stability in these testing times.

SUBSCRIBE TODAY
ReadEpoch.com

ALL PHOTOS BY SHUTTERSTOCK



“We’re entering an entirely new area of health care fraud.”

John O’Brien, senior counsel with the Department of Health and Human Services’ Office of Inspector General

The software makers allegedly gamed the system, repeatedly.

Electronic Health Records Creating New Era of Health Care Fraud

FRED SCHULTE & ERIKA FRY

Derek Lewis was working as an electronic health records specialist for the nation's largest hospital chain when he heard about software defects that could lead to the death of patients.

The doctors at Midwest (City) Regional Medical Center in Oklahoma worried that the software failed to track some drug prescriptions or dosages properly, posing a "huge safety concern," Lewis said. Lewis cited the alleged safety hazards in a whistleblower lawsuit that he and another former employee of Community Health

Systems (CHS) filed against the Tennessee-based hospital chain in 2018.

The suit alleges that the company, which had \$14 billion in annual revenue in 2018, obtained millions of dollars in federal subsidies fraudulently by covering up dangerous flaws in these systems at the Oklahoma hospital and more than 120 others it owned or operated at the time.

The whistleblowers also allege that Med-host, the Tennessee firm that developed the software, concealed defects during government-mandated reviews that were supposed to ensure safety.


Continued on Page 10

Call today to connect with a

SENIOR LIVING ADVISOR


INDEPENDENT LIVING • ASSISTED LIVING • MEMORY CARE

- UNDERSTAND YOUR OPTIONS** — Learn the different types of senior care available
- LOCAL KNOWLEDGE** — Our Advisors have the local knowledge to help you hand-pick communities in your area
- SIMPLIFY** — Your dedicated Advisor will simplify your search and help schedule tours
- EXPERIENCE** — Our Advisors help thousands of families understand their options every day
- SUPPORT** — Our team is happy to provide additional support from movers to attorneys and much more



There's no cost to you!
(855) 781-3616
! We're paid by our partner communities

A Place for Mom has helped over a million families find **senior living solutions** that meet their **unique needs**. Our Advisors are **trusted, local experts** who can help you understand your options.


aPlaceforMom.

◀ **Joan Lunden** former host of *Good Morning America* and senior living advocate.

ADVANCED HEARING AID TECHNOLOGY

For Less Than \$300


"I was amazed! Sounds I hadn't heard in years came back to me!"
— Don, January 2016

How can a hearing aid that costs less than \$300 be every bit as good as one that sells for \$2,000 or more?

The answer: Although tremendous strides have been made in Advanced Hearing Aid Technology, those cost reductions have not been passed on to you. Until now...

The **MDHearingAid PRO®** uses the same kind of Advanced Hearing Aid Technology incorporated into hearing aids that cost thousands more at a small fraction of the price.

Over 75,000 satisfied **PRO** customers agree: High-quality, FDA-registered hearing aids don't have to cost a fortune. The fact is, you don't need to spend thousands for a medical-grade hearing aid. **MDHearingAid PRO®** gives you a sophisticated high-performance hearing aid that works right out of the box with no time-consuming "adjustment" appointments. You can contact a hearing specialist conveniently on-line or by phone—even after sale at no cost. No other company provides such extensive support. Now that you know... why paymore?



TAKE ADVANTAGE OF OUR 45-DAY RISK-FREE TRIAL!

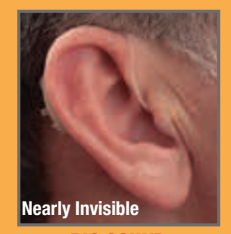
Hearing is believing and we invite you to try this nearly invisible hearing aid with no annoying whistling or background noise for yourself. If you are not completely satisfied, simply return it within that time period for a **100% refund of your purchase price**.

For the Lowest Price Call
1-855-851-7981

Use Code BY62 and get FREE Batteries for 1 Year Plus FREE Shipping

DOCTOR DESIGNED | AUDIOLOGIST TESTED | FDA REGISTERED

©2017 MDHearingAid, Inc. All Rights Reserved.



Nearly Invisible
BIG SOUND, TINY PRICE.

BATTERIES INCLUDED!
READY TO USE RIGHT OUT OF THE BOX!

Electronic Health Records Creating New Era of Health Care Fraud

Billions in tax dollars wasted as regulators fail to hold companies accountable for dangerous products

Continued from Page 9

Both CHS and Medhost have denied the allegations and moved to dismiss the suit; the motions are pending. In November, Department of Justice (DOJ) lawyers wrote in court filings that they were still investigating the matter and hadn't yet decided whether to take over the case.

The lawsuit is one of dozens filed by whistleblowers, doctors, and hospitals alleging that some electronic health records (EHR) software used in hospitals and medical offices has hidden flaws that may pose a danger to patients—and that a substantial chunk of the \$38 billion in federal subsidies went to companies that deceived the government about the quality of their products, an ongoing Fortune-KHN investigation shows.

The subsidies were designed to persuade hospitals and doctors' offices to install software that would track the medical history of every patient and share the information seamlessly with other health care providers.

But the software makers allegedly gamed the system, repeatedly. Three major EHR vendors have made multimillion-dollar settlement deals—totaling \$357 million—over DOJ investigations which include allegations that they rigged or otherwise gamed the government's certification test. At least two other companies are under investigation.

Beyond those cases, federal officials have paid hundreds of millions of dollars in subsidies to doctors and hospitals that couldn't show they were even qualified to receive them, according to federal officials. Nearly 28 percent of doctors and 5 percent of hospitals who attested to meeting government standards later failed audits. Federal officials told Fortune and KHN that they have clawed back \$941 million in improper subsidies.

"We're entering an entirely new area of health care fraud," John O'Brien, senior counsel with the Department of Health and Human Services' (HHS) Office of Inspector General, said in a July 2017 video announcing a \$155 million False Claims Act settlement with eClinicalWorks, one of the nation's leading sellers of EHRs for physicians.

The concern isn't just about wasteful spending of tax dollars. EHRs monitor the medicines people take and their vital signs, so software glitches that prevent doctors from accessing files quickly, that mix up patients, or send vital test results to the wrong file can contribute to serious injuries, or even deaths.

In March, Fortune and KHN revealed that thousands of injuries, deaths, and near misses have been tied to software defects, user errors, and other problems have that have piled up in various government-sponsored and private repositories.

"Ultimately, it's about patients getting the right care," Andrew Vanlandingham, the HHS inspector general's senior counselor for health information technology, said in an interview. He said that investigators are "gearing up" for more scrutiny of the important industry, including closer monitoring to make sure that records software is safe.

Leaping Into the Digital Era
In 2009, Congress committed billions of dollars in economic stimulus funds to bring the era of paper medical records to a close. Officials hoped to cut down on medical errors caused by illegible



Thousands of injuries, deaths, and near misses have been tied to software defects, user errors, and other problems that have piled up in various government-sponsored and private repositories.

Providers had to attest that their EHR software could perform a variety of functions, which the government described as making "meaningful use" of the technology.

Certification was essentially an open-book test in which the government gave vendors the questions in advance—for instance, the names of 16 or so drugs the system would have to prescribe electronically to pass. The Justice Department has alleged that some vendors simply doctored their software to pass the test—for example, programming the required codes for just the specified 16 drugs they would be tested on, rather than all medicines—as officials had expected.

Frank Poggio, who recently retired from a 45-year career in health technology, saw the cases of fraud coming, he said, because the tests "were superficial, and if you wanted to game it, you could game it."

He said there were many weaknesses in the system that allowed a vendor to show a "prototype" as opposed to live software.

Dr. Scott Monteith, a Michigan psychiatrist who served as an early certification juror, said he saw some limitations firsthand. He said one vendor took 30 minutes to produce a list of patients who had diabetes and also smoked, data he figured any computer program should be able to spit out in seconds. The vendor passed.

"That's an example of how poorly thought-out the whole thing was," said Monteith, who noted he was then, and still is, a big booster of EHRs.

Jeffery Daigrepoint, a senior vice president at Coker Group, a firm that advises health providers on business decisions, said the government erred by handing out too much money in the early stages of the program, when many doctors and hospitals hadn't yet done much more than agree to participate.

"It was an upside-down pyramid," he said. "You got the bulk of the money for doing the least amount of effort."

Dr. John Halamka, a physician and Harvard Medical School professor who chaired the HHS Office of the National Coordinator for Health Information Technology (ONC) standards committee, which wrote the certification rules, defended the process.

"The only problem [with certification] is that it presupposed that the product the vendor certified would be the same product they sold," Halamka said. "It presupposes that people will go into the certification process and participate in good faith."

That didn't always happen in the rush to snatch up subsidy dollars, according to the whistleblowers' suits. The DOJ case against eClinicalWorks, which has 130,000 providers, accused the company of rigging tests to win certification, claims that the company has denied. The company didn't respond to numerous requests for comment.

The government accused Greenway Health, a Florida-based EHR developer with 75,000 providers, of doing the same thing. The DOJ's complaint included a number of instant-message exchanges between Greenway employees in which they allegedly discuss their plan for gaming the certification process by "shortcutting some functionality" of the software. In February, Greenway Health settled with the government for just over \$57 million without admitting wrongdoing.

The whistleblower case filed by Lewis and former co-worker Joey Neiman accuses the CHS hospital chain of submitting more than \$385 million in false claims for EHR stimulus payments between 2012 and 2014.

Visiting the Oklahoma hospital as part of a troubleshooting team in June 2015, Lewis heard that physicians worried flaws in the system could result in patients being sent home "with the wrong drugs, doses, or instructions," according to the suit.

Things got so bad that local doctors were threatening to admit patients elsewhere unless the hospital fixed the software problems, according to the suit.

In a statement, CHS said it had "complete confidence" in its records systems. "The allegations made in the lawsuit against our hospitals are completely without merit," the company said.

Medhost denied that its software has flaws, noting in its statement: "Hundreds of facilities have successfully used our software over the years and continue to do so today."

Few in the industry seemed surprised by such allegations. When news of the eClinicalWorks case broke, Farzad Mostashari, who led the ONC from 2011 to 2013, tweeted: "Let me be plain-spoken. eClinicalWorks is not the only

EHR vendor who 'flouted certification/misled' customers. Other vendors better clean up."

The Electronic Health Record Association, a trade group that represents more than 30 vendors, didn't respond to a request for comment. However, vendors have argued that they faced a tangle of regulations that required them to meet constantly shifting standards that government officials often could not explain.

ONC officials declined to answer written questions. But in a statement, ONC said it takes steps to ensure that products "are safe for patients and usable by providers."

“Ultimately, it's about patients getting the right care.

Andrew Vanlandingham, the HHS inspector general's senior counselor for health information technology

System Glitches and Accusations of 'Gaming' the System

While the ONC sets the standards, the federal Centers for Medicare & Medicaid Services (CMS) had the job of paying doctors and hospitals that attested to meeting the "meaningful use" criteria. As of September 2018, CMS had paid out \$38.4 billion of these funds.

In 2012, CMS hired accounting firm Figliozi and Co. of Garden City, New York, which audited almost 50,000 medical professionals. Nearly 28 percent failed, even after they had previously attested to meeting the standards. Hospitals did better, posting a 5 percent failure rate. CMS officials said they have recovered some \$941 million in improper payments. The losses to the Treasury are likely far higher, because only 14 percent of the medical professionals and 40 percent of the hospitals receiving payments were audited.

Michael Arrigo, who has served as an expert witness in health IT-related fraud and medical malpractice cases, said in some cases, EHR vendors misled hospitals about the challenges of replacing paper records with computers.

Others rolled the dice, apparently hoping the program was so large and complicated that they were unlikely to be targeted for audit.

"Sometimes [providers] got away with it until a whistleblower found out," Arrigo said.

Reviewing state and federal court

filings, Fortune and KHN found more than two dozen cases, many filed by hospitals against vendors, which depict chaotic EHR installations and safety concerns as they pursued meaningful-use dollars.

Parrish Medical Center, a 210-bed public hospital on Florida's Space Coast, is one. In December 2010, the Titusville hospital contracted with McKesson's Enterprise Information Solutions. One of America's largest companies, McKesson said its product would be easy for doctors and nurses to learn and help them "deliver high-quality, safe patient care."

But the deal collapsed, prompting a bitter court battle in which the hospital repeatedly assailed McKesson's competence. For instance, the hospital alleged that bugs in the software caused it to create more than one record for the same patient, a flaw dubbed a "major safety issue."

An expert hired by Parrish said he contacted eight other hospitals, including three in Florida, which had dumped McKesson due to what he called "poor or unsatisfactory customer service."

The medical staff at one of those hospitals was "up in arms" because it took 63 mouse clicks to look up a patient's lab results, according to the expert's report. Both Parrish and McKesson declined to comment for this story.

Parrish later signed on with another EHR vendor and the suit has since been settled. McKesson sold its health IT business to Allscripts in October 2017. Earlier this year, Allscripts reported to the Securities and Exchange Commission that government attorneys have requested documents from the company as part of an investigation into McKesson's certification.

In another lawsuit, Weirton Medical Center, a hospital in West Virginia, stated in a court filing that it submitted "inaccurate" meaningful-use data to the government—although it blamed the vendor. The hospital alleged the system failed to identify a patient who was critically ill and in the hospital.

The hospital declined to comment to KHN and Fortune about the case, which has been settled.

Hamstrung by Technology?

ONC officials said they keep no log of complaints they receive.

A study published in JAMA this month found that 40 percent of the software that ONC singled out for post-marketing review had flaws that could lead to patient harm, including inaccurate drug codes, information displaying incorrectly, and decimal points gone missing.

That's "a concerning number, and we have to do something to address that," said

researcher Raj Ratwani, the director of the MedStar Health National Center for Human Factors in Healthcare and a co-author of the study. These systems were used in 786 hospitals and by 37,365 provider organizations, according to Ratwani, who said there's no way to know how many defects have been fixed.

ONC has "decertified" about 100 pieces of once-approved software products. But most were tiny market players that had few or no users and went out of business. PlatinumMD, which had just 48 "meaningful" users, is an example. In a 2014 whistleblower lawsuit, San Diego urologist Dr. Scott Brown alleged that PlatinumMD filed for \$18,000 in subsidies on his behalf even though it had not yet fully installed his EHR. In February 2016, the defunct company's owners settled the case without admitting liability by paying the government \$180,000.

Another 132 government-certified products have been flagged for corrective action due to "non-conformities." As for the technology that the government alleges was fraudulently certified, it's still used in health care settings across the country.

While those vendors faced multimillion-dollar settlements and now must operate under the oversight of a government monitor, their technology wasn't taken off the market. Nor were they dumped by many customers who, for the most part, however, dissatisfied, were stuck with it.

ONC seemed to acknowledge that decertifying a large vendor would cause major disruption, noting in an October 2016 regulation: "Our first and foremost desire would be to work with developers to address any problems."

In the regulations, ONC cited the costs medical providers would face should their EHR vendor shut down as ranging from \$33,000 to as much as \$650 million.

"It is very difficult to switch product," said Steve Waldren, chief medical informatics officer for the American Academy of Family Physicians. "You couldn't just go down the street and pick up another EHR, put it in and move your data over."

He noted that beyond the considerable cost of the technology, providers would have to take time to learn a new system.

"ONC does seem to have a stance that removing some of these players from the market would be very disruptive," said Brad Ulrich, a Tennessee health IT expert. "They are almost too big to fail."

Fred Schulte of KHN and Erika Fry of Fortune are veteran investigative health journalists. KHN's coverage of these topics is supported by The John A. Hartford Foundation, Gordon and Betty Moore Foundation, and The SCAN Foundation. This article was first published by Kaiser Health News.

DRAZEN ZIGIC/SHUTTERSTOCK



WILLIAM KRAUSE/UNSPLASH

Parkinson's Disease:

Risk Factors and Treatments

Researchers are uncovering effective alternative treatments for Parkinson's symptoms

Parkinson's disease has no known cause or cure, though a number of critical risk factors have been identified and advances have been made in alternative treatment options.

For those facing the disease, increasing their quality of life is an attainable goal. Parkinson's disease is a neurodegenerative disease, which means it kills neurons in the brain. This affects multiple systems in the body, an affliction suffered by an estimated 10 million people worldwide and 1 million in the United States. "Predominantly perceived as a motor disease, it... has debilitating non-motor features, which are frequently missed and not treated," researchers wrote in the Journal of Ethnopharmacology.

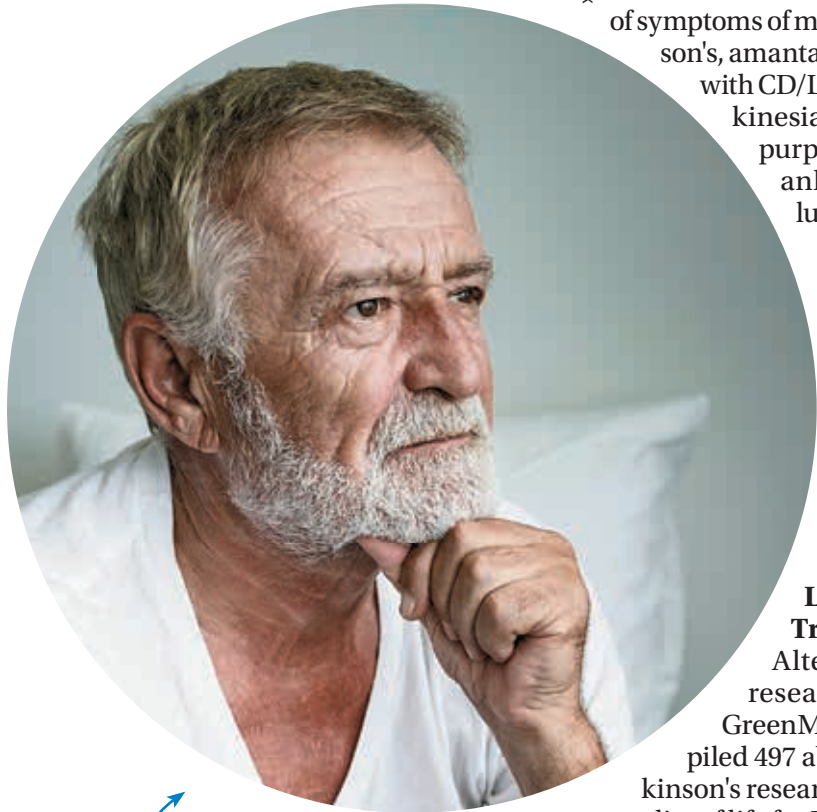
Key characteristics of Parkinson's include progressive loss of dopamine neurons in the middle brain and a dramatic reduction in dopamine levels in the frontal brain. When cells that normally produce dopamine die, common symptoms of Parkinson's occur. These are different for each person.

Symptoms fall into two categories: motor symptoms including tremors, stiffness, rigidity, slow movement, impaired balance and difficulty walking; and non-motor symptoms, including fatigue, soft speech, drooling, constipation, sleep disturbances, anxiety, dementia, and depression.

Critical Risk Factors

While Parkinson's has no known identifiable causes there are several risk factors for the disease, including toxins, gut dysfunction, and problems with neuron signaling.

Environmental toxins: Pesticides and herbicides including insecticides permethrin and beta-hexachlorocyclohexane (beta-HCH), the herbicides paraquat and organophosphorus, organochlorines, phenoxy acetic acids and triazine compounds are associated with Parkinson's risk. Glyphosate, the active ingredient found in Roundup herbicide is also linked to neurodegenerative conditions such as Parkinson's.



Parkinson's disease is a neurodegenerative disease, which means it kills neurons in the brain.

Gut dysfunction: Parkinson's disease may start in the gut and travels to the brain via the vagus nerve. A link between gut bacteria called Helicobacter Pylori and Parkinson's has been uncovered.

Neuron transmission disruption: Toxins hinder a key step in the transmission of neuronal signals—the recycling of waste proteins (empty vesicle lipid membranes surrounding a neuron) essential for higher brain functioning. Parkinson's earliest signs often display as sleep disorders, including a lower duration of sleep

and deep sleep, which decrease recycling and restorative brain processes.

Oxidative stress: Inflammation caused by free-radical damage in the brain is closely associated with several degenerative neurologic disorders, including Parkinson's, Alzheimer's and multiple sclerosis.

Latest Medical Treatments

While there is no known cure for Parkinson's, current conventional treatments include many drugs and a last-resort surgery option to alleviate symptoms:

Carbidopa-levodopa (CD/LD): Levodopa is a chemical that passes into your brain and converts to dopamine. Combined with carbidopa, it lessens one of the biggest side effects of Parkinson's drugs—nausea. Other side effects include lightheadedness and, after prolonged use, patients may develop dyskinesia (involuntary movements) and wearing-off of the drug.

Dopamine agonists: These mimic dopamine effects in your brain, last longer than CD/LD, and are used for falling off periods. They cause many of the same side effects as CD/LD but also may cause hallucinations, sleepiness, and compulsive behaviors.

MAO B inhibitors: These help prevent the breakdown of brain dopamine by inhibiting the brain enzyme monoamine oxidase B (MAO B), which metabolizes brain dopamine. Side effects include nausea, insomnia, and hallucinations if combined with CD/LD.

Catechol O-methyltransferase (COMT) inhibitors: Entacapone (Comtan) mildly prolongs the effect of levodopa therapy by blocking an enzyme that breaks down dopamine. Side effects include dyskinesia and diarrhea.

Anticholinergics: These control Parkinson's tremors but present many side effects including impaired memory, confusion, hallucinations, constipation, dry mouth, and impaired urination.

Amantadine: Used for short-term relief of symptoms of mild, early-stage Parkinson's, amantadine may also be given with CD/LD drugs to control dyskinesia. Side effects include purple mottling of the skin, ankle swelling, and hallucinations.

Deep brain stimulation (DBS): For DBS, surgeons implant electrodes into your brain to decrease Parkinson's symptoms. Risks include infections, stroke, and brain hemorrhage.

Latest Alternative Treatments

Alternative Parkinson's research is growing, and GreenMedInfo.com has compiled 497 abstracts related to Parkinson's research and enhancing the quality of life for Parkinson's patients:

Mucuna pruriens (velvet bean): This is a naturally occurring L-Dopa plant. A powdered preparation of this bean, called HP-200, was examined in Parkinson's diagnosed patients (46 male and 14 female) and significantly reduced symptoms. The group mean dose for optimal control of symptoms was 6 +/- 3 sachets (7.5 grams) in water taken orally.

A blind clinical trial of eight Parkinson's patients showed faster action and longer time without an increase in dyskinesia, highlighting a distinct advantage over conventional CD/LD preparations. Similarly, the bean performed better (i.e., was safer and more effective) in a study of 16 Parkinson's patients when compared to L-dopa treatments.

Black cumin (Nigella sativa L.) seed oil: Biochemical studies of black cum-



The cause of Parkinson's disease remains unknown but researchers are learning more about treatments—pharmaceutical and natural—that can effectively reduce the symptoms and improve quality of life.

in seed oil revealed the potential to control inflammation in the mix glial cells of rats, an important issue in Parkinson's.

Baicalein: This Chinese herbal medicine used for treating central nervous system diseases has been found to have neural protective characteristics beneficial for Parkinson's symptoms by inhibiting nitric oxide's (NO) and free radicals' microglia damage.

Movement and the arts. Exercise lowers neuron degeneration and reduces inflammation in the brain, reducing symptoms in Alzheimer's and Parkinson's. Music therapy, tai chi and qigong, yoga, relaxation, massage, and dancing also help decrease Parkinson's symptoms.

Ginkgo biloba. Ginkgetin, a flavonoid isolated from ginkgo biloba leaves, has many anti-inflammatory, anti-influenza virus and anti-fungal benefit. Research with mice has shown its significant neuroprotective ability.

Coenzyme Q10. In 80 Parkinson's patients, the greatest benefit occurred in those taking 1,200 milligrams of CoQ10. The supplement proved to be both safe and effective in slowing Parkinson's function deterioration.

CoQ10 prevented neurotoxic impact of the pesticide paraquat on rats. Serum CoQ was associated with lower risk for dementia and greater protection for neurons. CoQ10 (ubiquinol 10 version) was very effective in helping with the falling off of CD/LD treatments for Parkinson's in rats.

Curcumin. Curcumin (and its compound metabolite tetrahydrocurcumin—ThC) may help prevent neuron toxicity in Parkinson's-induced mice. Research shows curcumin has antioxidant, anti-inflammatory, and neuroprotective properties that can benefit those facing Parkinson's.

Cannabidiol (CBD). This non-psychoactive phytocannabinoid of the cannabis plant has shown potential to decrease Parkinson's motor and non-motor symptoms.

Although Parkinson's currently has no cure and no agreed-upon cause, research is helping to understand the disease and find alternative treatment options that can increase the quality of life for those with Parkinson's.

The GMI Research Group is dedicated to investigating the most important health and environmental issues of the day. Special emphasis will be placed on environmental health. Our focused and deep research will explore the true ways in which the present condition of the human body directly reflects the true state of the ambient environment. This work is reproduced and distributed with the permission of GreenMedInfo LLC. Sign up for their newsletter at www.GreenMedInfo.health

Key characteristics of Parkinson's include progressive loss of dopamine neurons in the middle brain and a dramatic reduction in dopamine levels in the frontal brain.

Exercise lowers neuron degeneration and reduces inflammation in the brain, reducing symptoms in Alzheimer's and Parkinson's.

Game-Day Snacks

Contributing to Child Obesity

Snacks after youth sports add more calories than kids burn while playing, study finds

JAY MADDOCK & LORI ANDERSEN SPRUANCE

Youth sports leagues are a great way for children to get physical activity, develop teamwork, and create friendships. Research has shown that youth who participate in sports leagues are eight times as likely to be active in their early 20s than those who don't participate.

This is good news for the more than half of the American youth ages 6 to 12 who participated in a team sport in 2017, with baseball, basketball, and soccer being the most popular. But our recent research showed that snacks that have become a ritual for many families after youth sports games contained more calories than the amount kids burned.

Both of us are faculty members in public health who study childhood obesity. Most of Jay Maddock's work is in physical activity and looks at the effect of the environment on health, including parks and city design. Lori Andersen Spruance specializes in the food environment and has examined the effects of school breakfast and salad bar programs on student nutrition.

Snacks and Youth Sports

Our interest in this issue started years ago. When I (Jay) was growing up in the 1980s, I loved playing in youth basketball and baseball leagues. Twenty-five years later, I was excited to enroll my sons in youth sports, including basketball, soccer, and flag football.

However, from the first team meeting, something was different. The coach passed around a sign-up sheet to bring a grab-and-go snack for the team. I was surprised by this. When I was growing up, the only sport that had a snack was soccer, and that was oranges and water at half time. Why did these kids need a snack at 2 in the afternoon?

I signed up later in the season to see what the other parents were bringing as snacks. I was even more surprised when the snack turned out to be a hot dog in a bun, a bag of chips, a cookie, and a sports drink! My son had just eaten lunch a couple of hours before and had only played for 20 minutes.

I thought to myself: They have

Little changes can make a big difference in promoting healthy body weights in our children.

got to be consuming more calories than they expended. A few years later, Lori Spruance and I decided to test this and find out if it was true.

Testing Our Ideas

Lori and her team went out between April and October 2018 and observed 189 youth sports games for children in the third and fourth grades. The games included soccer, baseball, softball, and flag football, and both mixed-gender and single-gender leagues.

To measure calorie expenditure, we used a highly valid and reliable systematic observation tool to assess the duration and intensity of children's physical activity during the game. The researchers also assessed the calorie content of the



When a snack was served, it averaged 213 calories—on average, 43 more calories than the children had expended playing the sport.

Easy Ways to Make Changes
We looked at the findings to try to develop a low-cost intervention

food provided, either through the packaging or by measuring the amount of food served.

We found that on average children got 27 minutes of physical activity per game and burned about 170 calories. We were not surprised to find that children playing soccer were the most active, and softball players were the least active. At four out of five games, or 78 percent, parents served a post-game snack.

When a snack was served, it averaged 213 calories—on average, 43 more calories than the children had expended playing the sport. The most common snacks were baked goods, such as brownies, cookies, and cake, followed by fruit snacks, crackers, and chips. We were even more disturbed that the average amount of sugar provided was 26.4 grams, exceeding the American Heart Association's recommendation of 25 grams of sugar per day.



to help change these effects. Beverages stood out as a major contributor of sugar. In the 145 games where a beverage was served, soda, fruit drinks, and sports drinks were served more than 85 percent of the time. Water (3 percent), milk (1 percent) and 100 percent fruit juice (8 percent) were almost never served. Sugar from drinks (18.3 grams) per serving exceeded sugar from snacks (12.3 grams).

Before the next sports season, we developed a one-page fact sheet on smart snacks for your athlete for teams that choose to provide a snack. It recommended water as the drink of choice and small healthy snacks, including mixed nuts, fresh fruit, string cheese, dried fruit, and granola bars. These fact sheets were emailed to parents and posted on the local parks and recreation website prior to the season, and researchers came back during the season to see if any changes were made.

Our preliminary results show that the information provided made a difference. We found that 16 percent of the snacks in the second season included water instead of a sugary beverage; sugary beverage offerings dropped from almost 90 percent to 80 percent; and fruits and vegetables increased from 3 percent to 15 percent, with an overall drop of 20 calories per game.

These changes appeared to be an easy way for parents to make the smart choice and provide a healthier alternative for their children.

Although 43 calories may not seem like a lot, if a child plays two games a week across 50 weeks this can add up to 4,000 calories or more than a pound of weight per year.

Little changes can make a big difference in promoting healthy body weights in our children. So when your children are playing sports, we recommend making a healthy choice and choosing water, fruits, and vegetables and a healthy protein source, too, like nuts.

Jay Maddock is a professor of public health at Texas A&M University, and Lori Andersen Spruance is an assistant professor of public health at Brigham Young University. This article was first published on The Conversation.

AFRICA STUDIO/SHUTTERSTOCK

Exercise can help you lose weight, but start with small goals if you're not already running marathons.



Successful weight loss is not about elimination, but about building a sustainable new lifestyle.

3 Steps to a Fat Loss Lifestyle

Losing weight is possible if you make small measures a part of daily life

MOHAN GARIKIPARITHI

Fat loss is commonly at the top of the list when it comes to healthy lifestyle factors. Being overweight or obese is closely associated with chronic inflammation, trouble with blood sugar control, Type-2 diabetes, high cholesterol, high blood pressure, and heart disease. It can also contribute to joint pain, fatigue, and mobility issues.

If you'd like to lose some fat to reduce your chances of illness and get on the path to a healthier life in 2020, here are some strategies to implement.

Make small, incremental changes: Shedding weight can seem so hard because most people try to do too much too fast. Waking up one day and deciding you're going to completely change your lifestyle is nearly

impossible, and those who try it often fail. Instead, make small incremental changes. They can be things like drinking one less soda per day, ordering a salad instead of french fries, adding one piece of fruit, or walking for 10 minutes. As these small changes become routine, implement more.

Set realistic short- and long-term goals: Having a plan is also important to continued success. A good long-term goal to stick to is lose 20 pounds in 15–20 weeks, with a short-term goal of roughly one or two pounds per week. Losing a pound or two per week required creating a caloric deficit of about 500–1,000 calories per week. Your daily goal, then, may be to walk for 30 minutes or eat more servings of vegetables.

Allow wiggle room: Sometimes you're going to want some cake or piz-

za. Tasty food is part of enjoying life. Of course, if you're trying to lose weight, you don't want to include this stuff in your regular routine. But if you're doing a good job and reaching your goals, don't be afraid to have a slice of pizza or cake. Successful weight loss is not about elimination, but about building a sustainable new lifestyle.

When you're no longer overweight or obese, your health risks go way down. Finding a long-term, lifestyle-based approach instead of a quick fix will keep you get healthier and instill good habits to take you into the future.

Jay Maddock is a professor of public health at Texas A&M University, and Lori Andersen Spruance is an assistant professor of public health at Brigham Young University. This article was first published on The Conversation.



That midlife feeling of pervasive disappointment or malaise is normal and promises brighter feelings ahead, find researchers.

MINDSET MATTERS

HOW TO SURVIVE YOUR Midlife Blues

Midlife malaise is common, but happiness rebounds as we get older

JILL SUTTIE

I'm in my 50s—a bit past midlife, but not exactly into old age. My kids have grown, I have a good career, my marriage is solid, and I'm still reasonably healthy. So, life satisfaction should be mine for the plucking. But it's not. I'm no happier than most people I know, and in many cases less so. Why am I in a slump when everything seems to be going, well, right?

That question is at the heart of Jonathan Rauch's book, "The Happiness Curve." In his book, Rauch argues that a dip in happiness in midlife is a normal part of human development, and may even be a necessary precursor to later-life satisfaction. He also suggests that if we can find ways to hang in there during this turbulent transition, our happiness will not just rebound, but will likely exceed our expectations.

The Midlife Slump
Though the idea of the "midlife crisis" has been around for decades—and mostly a subject of scorn and derision—Rauch says that "crisis" is really the wrong word for what happens to many of us in midlife. If you look at big patterns in global happiness data, and in longitudinal experiments in which individuals are compared to themselves, a strong pattern emerges: Happiness dips gradually through early adult life until it's at its lowest point, right around our mid 40s to early 50s (though "happier" countries tend to have earlier dips). This happens regardless of life circumstances, like whether or not your income is high, you have kids at home, you're caring for elderly parents, or you have a successful career. That's not to say these things don't matter for happiness—they do. As Carol Graham and other happiness

researchers have found, a stable marriage, good health, enough money, and other factors are all good for happiness. It's just that we appear to have a tendency toward malaise in midlife that can't be explained by these factors alone.

"The happiness curve would not show up in as many data sets and places as it does, including among apes, if it were not to some extent hardwired," writes Rauch.

Though the reasons for this dip in happiness are unclear, Rauch does a valiant job of looking through research to explain it. In one longitudinal study, for example, researchers found that, if you asked younger Germans how they thought their life would be five years down the road, and then compared it to how they actually felt five years later, their predictions were much higher than reality. In other words, they tended to be overly optimistic, and this mismatch seemed to mirror their declining happiness levels.

This makes sense—when expectations are not met, we are bound to feel disappointment. And, argues Rauch, when we don't have any clear external markers in our lives to explain our disappointment, that can create negative feedback loops, where we feel bad and feel guilty for feeling bad.

"The feedback effect can and often does afflict people who do not experience any severe crisis or shock, people who, on the contrary, are doing fine," says Rauch. "Sometimes the people who are, relatively speaking, least affected by objective circumstances will be most trapped in [negative] feedback loops."

The Old-Age Boost
Interestingly, this pattern completely reverses after midlife, so that older people tend to be much happier than they would have predicted five years earlier. This suggests that if we can hold

on, things may just get better on their own as we become pleasantly surprised by our happiness levels, instead.

"Positive feedback replaces negative as disappointments become pleasant surprises, and as growing satisfaction and gratitude reinforce each other," says Rauch.

In fact, there are many potential positives that come with aging, which Rauch recounts in the book. Here are some of the benefits of coming out of our midlife slump.

Stress tends to decline. It seems intuitive—after all, we probably have fewer work or family stressors as we get older and our careers stabilize or our children leave home. But, in fact, researchers have found that even holding other things constant, stress still tends to go down as we age, and this downward curve in stress seems to be tied to our increased happiness.

Emotional regulation improves. Not only do older adults tend to experience less intense emotions than younger adults, they also seem to handle emotions better in general. After listening to taped recordings of people making disparaging remarks about them, older adults responded with less negative feedback toward the critics and more detachment around the situation, suggesting greater emotional regulation.

Older people feel less regret. Stephanie Brassen and her colleagues found that when people made the wrong choice and lost all of their winnings in a game, older participants experienced less regret than younger adults—a finding also reflected in their distinct brain activity patterns.

Older people are less depression-prone. According to research, depression becomes less

common as we get older. This may be because older adults seem to have a greater optimism bias (the feeling that things will work out) and more positivity (a focus on the positive rather than the negative in life) than younger people.

How to Survive Midlife
It's good to know that, as you get older, things get better. But that doesn't mean we can't do anything to help ourselves deal with middle-age malaise. Luckily, Rauch has some ideas for getting through this time with more perspective.

Normalize it. Just understanding that it's a near-universal phenomenon can help us stop blaming ourselves for our feelings and learn to accept them more. It doesn't mean you won't still get disappointed, but at least you might stop berating yourself for how you feel, which otherwise only serves to make things worse.

This pattern completely reverses after midlife, so that older people tend to be much happier than they would have predicted five years earlier.

Interrupt your internal critic. We are basically wired to want more and to be optimistic about our future—at least when we're young—because it's to our long-term advantage. It feeds the kind of ambition that can fuel hard work toward our aspirations. But, as disappointment sinks in when those aspirations don't materialize, we may find ourselves comparing our achievements to others' achievements and deciding we fall short. This is a recipe for suffering.

To counter that, Rauch suggests interrupting our internal critic using cognitive-behavioral therapy approaches to reframe a situation or stop incessant rumination. A short interjection of some internal mantra or reminder—like "I don't have to be better than anyone else" or the shorter "Stop comparing"—may help you catch yourself and keep your mind from spinning out of control.

Stay present. I know it's ubiquitous these days, but mindfulness—or other present-minded disciplines, like tai chi, yoga, or even just physical exercise—can help you to turn off the self-judgment button, feel less anxious, and experience more positive emotions. In my own life, I've used mindfulness meditations, stretching, and taking a walk outside to help me become more present, and they never fail to point my mood in the right direction.

Share your pain with others. Many people find it hard to reach out to others when they are feel-

ing midlife discontent. They fear it implies that something is wrong with them, that they are deficient in some way, or that they'll lose respect from others.

But sharing feelings with a good friend, who can listen with compassion and also support you through the experience, can help make you feel less alone. "In isolation, disappointment and discontent ferment and fester, which adds to shame, which feeds the urge for isolation. Breaking that cycle is job one," writes Rauch.

A good friend may also help prevent you from doing something rash, like telling off your boss or cheating on your spouse—something that may seem like it's going to rid you of your malaise, but will likely backfire.

Older adults seem to have a greater optimism bias and more positivity than younger people.

Take small steps; don't leap. This may be hardest of all to do, but it's so important. When you feel the midlife slump, don't try to radically shake things up by throwing away your life's work or your family and by starting over on some tropical island. Instead, consider making smaller changes that are aligned with your accumulated skills, experience, and connections.

Rauch points to the work of Jonathan Haidt, who has found that making progress toward our goals—rather than achieving our goals—and living a life of purpose are what lead to lasting happiness. So, instead of going for a full-tilt reorganization of your life, think about making incremental changes that will bring smaller boosts of positivity. Maybe you can consider a lateral move at work, re-energizing your marriage by trying new things together, or taking on a new hobby. That way, when your happiness curve goes up—as it likely will—you'll not be left with a shattered life. Which brings us to his last suggestion:

Wait. This seems like strange advice; but because midlife malaise is a developmental issue, it may be best just to wait out the happiness dip and accept that it's likely to change. As long as you don't sink into depression, holding steady is a perfectly sound strategy.

That doesn't mean you should ignore severe problems in your life; it simply means that if your emotions seem out of proportion to what's going on, take heed and be patient with yourself. Of course, this would probably be a lot easier if people didn't dismiss your feelings as some kind of narcissistic crisis. Rauch calls on all of us to stop disparaging people going through midlife difficulties and to show more compassion.

Additionally, his book suggests that stereotyping aging as a time of decline is wrong-headed. He points toward organizations—like Encore.org—that are working to change negative messages around aging and help older people feel supported rather than thwarted in their attempts to remain vital, contributing members of society.

On a personal note, I found his book to be quite uplifting and instructive. It definitely helped me to be more forgiving of myself for feeling midlife malaise and look forward more to getting through it. Perhaps it will help other middle-aged readers realize that, just because you're feeling discontent, it doesn't mean that life is passing you by. Instead, it's probably just getting ready to blossom.

Jill Suttie, Psy.D., is Greater Good's book review editor and a frequent contributor to the magazine. This article was originally published by the Greater Good online magazine.

BECOMING MINIMALIST

Too Much Advertising Is Making You Unhappy

If you are consuming content, you're consuming ads. Make sure it's worth the trade-off

JOSHUA BECKER

According to a recent study, advertising makes us unhappy. This was the conclusion of a recent study that included 900,000 citizens of 27 European countries from 1980–2011. You can read more of the methodology in the Harvard Business Review.

The results don't surprise me—and probably don't surprise you either. Often at the heart of every advertising message is a message that we are not as happy as we could be with their product in our lives. This item will lead to a happier, easier, more convenient, or more luxurious life.

Advertisements often seek to stir up discontent and convince us that we are not as happy as we could be. No doubt then, that there would be some correlation between levels of unhappiness and frequency of advertisements that we see.

Personally, I'm interested in a different conversation. If advertisements contribute to our unhappiness, how can we avoid them? What practical steps can we take in our everyday lives to remove ourselves from their constant barrage?

At one extreme, we could remove ourselves from civilization altogether. We could find a quiet cabin in the woods or on Walden Pond and never interact with anyone else.

That life might appeal to some, but not me. I like people, I like my neighborhood, and I like being involved in society. I enjoy social gatherings, my son's soccer games, and hosting a small group in my home on Sunday nights. I could remove myself from civilization entirely, but that is not how I want to live.

Given the fact that I (along with many of you) will continue to live in the middle of a consumerist society, what steps can we take to limit the number of advertisements that we see—and ultimately increase our happiness because of it.

Here are a few ideas:

1. Do more things that make you forget to check your phone. By this, I mean, engage in more and more activities where you cannot be reached by advertisers. Play more board games with your family, spend more time in nature, read more books, or go play catch with your son in the backyard. When we get more involved with people or adventures, we see fewer advertisements.

2. Watch less television. Television is an entire medium based on the presumption that we can be manipulated into purchasing items advertised on the screen. It is true that streaming services have



When we get more involved with people or adventures, we see fewer advertisements.

changed the industry quite a bit and you may believe that you are not being subjected to advertisements anymore. But I'd argue that's not the case. Streaming services are still selling you something ... whether it's a lifestyle based on over-working and over-spending or just more of their streaming service. Spending less time on social media would have the same effect.

3. Unsubscribe from email newsletters, magazines, and junk mail lists. At the bottom of every email newsletter you receive, you will find a "Click to unsubscribe" link. At first, going through this process may seem like a never-ending battle. But if a newsletter is delivering more ads than meaningful content, just start clicking as each new email arrives. You will be surprised how quickly they slow down and how quickly you're able to get ahead of them. Apply the same standard to magazines and junk mail. If the content doesn't serve you, shut it down.

4. Go shopping less. Shopping is an interesting activity when you think about it. We are marketed to relentlessly outside of stores in order to get us inside. Once inside, we are subjected to even more advertisements and marketing messages. Spend less time at malls and department stores and you'll see fewer advertisements. Equally so and maybe more important these days, spend less time on digital stores like Amazon.

5. Configure your computer to block pop-up ads. There are no fool-proof methods for blocking advertisements on your computer, but there are some reasonable steps you can take to limit the number you see. A search online will reveal ideas for both Mac and Windows users.

6. Don't ignore ads, see through them instead. There is a tendency to think that advertisements don't influence us. We foolishly believe we are unaffected. Or we assume if we aren't paying attention, they are not influencing our thoughts. But the better approach, rather than ignoring ads, is to see through them instead. See-through the false promises that they offer—that their product will help you get the girl, be the life of the party, or become the envy of the neighborhood. The more you recognize how a brand is trying to subtly stir up discontent in your life, the less likely they are to succeed.

It is likely impossible for you to remove every advertisement from your everyday life, but there are certainly positive steps we can take to limit them—and become happier because of it.

Joshua Becker is an author, public speaker and the founder and editor of Becoming Minimalist where he inspires others to live more by owning less. Visit BecomingMinimalist.com



The more you recognize how a brand is trying to subtly stir up discontent in your life, the less likely they are to succeed.

The Dark Side of Supportive Relationships

Loyalty from a loved one that doesn’t include a heavy dose of the objective truth can damage our other relationships

EDWARD LEMAY & MICHELE GELFAND

Imagine that you’ve had a heated argument with a co-worker, and you call up your husband or wife to talk about it.

Your partner may simply listen and give you a chance to vent, or perhaps encourage you to look inside at your own thoughts about the situation. Or they may react in one of these two very common ways.

They may take a side in the dispute and assure you that you were right, your co-worker was wrong, and that you have a right to be upset.

Or your partner may encourage you to look at the conflict objectively and point out reasons why your co-worker may not be so blameworthy after all.

Which of these latter two responses would you prefer? Do you want a partner who unconditionally has your back or one who plays devil’s advocate?

Which is better for you in the long run?

In a recent study, we wanted to explore the contours and repercussions of this common relationship dynamic.

Do We Want Unconditional Support?

If you’re like most people, you probably want a partner who has your back. We all tend to want empathetic partners who understand us, care for our needs, and validate our views.

These qualities—which relationship researchers refer to as interpersonal responsiveness—are viewed as a key ingredient in strong relationships. Research has identified links between having a responsive partner and being happy and well adjusted.

But having an empathetic partner isn’t always a good thing—especially when it comes to your conflicts with others outside the relationship.

When we get into an argument with someone, we tend to minimize our own contribution to the dispute and overstate what our adversary did wrong. This can make the conflict worse.

After being involved in a dispute, we’ll often turn to our partners to vent and seek support.

In our study, we found that empathetic and caring partners were more likely to agree with their loved ones’ negative views of their adversary and blame the adversary for the conflict.

We also found that people whose relationship partners responded this way ended up being far more motivated to avoid their adversaries and tended to view them as bad and immoral, and were less interested in reconciliation. In fact, a full 56 percent of those who had received this type of empathy reported avoiding their adversaries, which can harm conflict resolution and often involves cutting off the relationship.

On the other hand, among the participants who didn’t receive this sort of support from their partners, only 19 percent reported

avoiding their adversaries.

Receiving empathy from partners was also related to conflict escalation: After their partners took their side, 20 percent of participants wanted to see their adversary “hurt and miserable,” compared to only 6 percent of those who did not receive this sort of support. And 41 percent of those who received empathetic responses tried to live as if their adversary didn’t exist, compared to only 15 percent of those who didn’t receive unwavering support.

Soothing and validating responses aren’t always in our best long-term interests.

Long-Term Consequences

These dynamics became entrenched over time. They kept people from resolving their disputes, even as people found their partners’ responses to be emotionally gratifying. For this reason, they continued to vent, which created more opportunities to fan the flames of conflict. People seem to seek partners who end up making their conflicts worse over time.

What’s the lesson here?

We often want partners who make us feel understood, cared for, and validated. And it’s natural to want our loved ones to feel supported.

objectively about their conflicts and acknowledge that, in most conflicts, both parties have some blame for the conflict, and just see the situation from very different perspectives.

The truth can hurt. But sometimes an objective, dispassionate confidant is what we need most.

Edward Lemay is an associate professor of psychology at the University of Maryland, and Michele Gelfand is a distinguished university professor, at the department of psychology at the University of Maryland. This article was originally published on The Conversation.


LIGHTFIELD STUDIOS/SHUTTERSTOCK



“A Life-Changing Experience.”

— Stage Whispers

Cannot Be Seen in Communist China



“A fascinating insight
into what China’s culture used to be and
what I hope one day will be restored to China.”

—Edward McMillan-Scott, former Vice-President of the
European Parliament

“It is breathtaking!
I am walking away deeply
inspired and profoundly moved!”

—Rita Cosby, Emmy Award-winning journalist

“Mesmerizing!
I encourage everyone to see
and all of us to learn from.”

—Donna Karan, creator of DKNY

“A must-see!”
—Broadway World



神韻晚會 2020
SHEN YUN

MAR 5–29 LINCOLN CENTER APR 23–29 NJPAC

BUY TICKETS NOW: ShenYun.com/NY | 888.907.4697