THE EPOCH TIMES

Health

Special Edition 2025 | AN EPOCH HEALTH MAGAZINE

HOW TO DO A
3 Week Screen Fast

Gratitude

POWER UP YOUR HEART AND SOUL

10 SURPRISING THINGS HAPPEN AFTER YOU STOP EATING SUGAR

RESENTMENT: THE UNHEALTHY GUEST IN THE HUMAN HEART

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Editor's Note

Gratitude Is a Panacea for the Soul

By Matthew Little, Senior Editor

GRATITUDE HAS THE POWER TO TRANSFORM US in nearly any moment. It has saved me from countless miseries, rescued several of my relationships, and turned so many hardships into adventures and opportunities.

And its potent effects can be improved through practice. Sometimes I will just pause to count the great things in my life: the miracle of all my nieces, nephews, and godchildren; my wife's endless laughter and friendship; my old car that keeps running and costs me so little; and even my slightly worn-out clothes that I never have to worry about wrecking.

Who doesn't want more, though? Hunger is intrinsic to the body. At times, I'll mourn our own lack of children, begrudge my father-in-law for not taking better care of himself, or take a regretful slog down memory lane and the choices I didn't make.

There is a grim gratification in regret and resentment. Regret lets us wallow and pity ourselves or contemplate our poor choices. It somehow alleviates the need to take action today for a better tomorrow. Resentment, meanwhile, offers up a bellyful of moral superiority, a sense of justified victimhood. It leaves us with a sick satisfaction that can destroy our ability to reflect and grow.

One of the great privileges of being an editor for Epoch Health is you spend your day filling your mind with facts and insights collected by journalists on a mission to uplift and strengthen readers in body, mind, and soul. After years of reading about gratitude, resentment, and regret, I've learned some things.

When we focus on what we've been given rather than what we think we're owed, we are compelled to give more. When we know we are giving of ourselves, it assures our own sense of worthiness. Gratitude and generosity offer ever-returning dividends of improved self-regard. And when you can be grateful for your own goodness, you will value it amid life's inevitable challenges and temptations.

There will always be hardships and moments when we can benefit at someone else's expense. We can haggle someone down in a purchase, or mention a mistake someone made while arguing a point. At that moment, these "wins" can feel satisfying, but they are a fouled reward. If, instead, we can take the hardship itself as a gift, it can become a rare and precious chance to exercise grace.

When we can find gratitude amid hardship, we can escape the dirty feeling that comes from complaining, and gain broad-mindedness and immediate dignity.

Gratitude doesn't always come easily, but the effort you make to find it strengthens your very soul. Wishing you all the hardship you can handle with grace and gratitude in 2025.

(Tara Moore/Getty Images)

Health Through Habits

The Simple Morning Ritual That Could Transform Your Health

Explore the profound health benefits of a daily sunrise and sunset ritual.

By Sheramy Tsai

IN OUR FAST-PACED WORLD, with late-night scrolling, demanding work schedules, and parenting stretching into the wee hours, the temptation of the morning snooze button is stronger than ever.

For many, getting up early is unappealing, given the well-documented importance of sleep. However, new research suggests that experiencing the sunrise could be one of the most important things you do for your health each day.

Neuroscientist Andrew Huberman lists morning sunlight as one of six fundamental pillars of health alongside daily exercise or movement, quality nutrition, managing stress, healthy relationships, and restorative sleep.

"Getting sunlight in your eyes first thing in the morning is absolutely vital to mental and physical health," he asserts in a podcast. Morning sunlight triggers a timely release of cortisol, aligning with the body's natural rhythm. He emphasizes this practice as possibly the most critical daily activity for metabolic health, hormonal function, and positive mental health.

The Spectrum of Light at Sunrise

With the popularity of red light therapy and other light-based treatments, there's a growing interest in artificial sources such as LEDs and lasers. While these all

offer effective therapeutic effects, the sun is our primal, potent, and free source of light therapy.

At daybreak, the horizon presents more than a beautiful canvas; it offers a spectrum of light crucial for our well-being. Sunrise combines unique light wavelengths, each impacting the body differently.

Dawn brings softer, diffused sunlight, blending spectrum colors with dominant red and infrared rays. Gentler than midday sunlight, morning red light is known for its calming effects and potential to reduce inflammation and enhance circadian rhythms.

> ***[These cells] are very responsive to the blue, yellow, and orange colors of the sky at sunrise and sunset.***
>
> — Jay Neitz, professor of ophthalmology, University of Washington's School of Medicine

The morning sun's blue light also offers benefits. Unlike harmful blue light from screens, natural morning blue light is essential for waking us up by raising cortisol levels and setting our circadian rhythm for the day.

Infrared light, though invisible to the naked eye, is another component of morning sunlight. While we can't see this light, it penetrates deep into the eyes and tissues. It is thought to have healing properties, aiding in cell repair and regeneration. This light is also crucial for the synchronization of our internal biological clocks, aligning our sleep-wake cycle with the natural day-night rhythm.

Dawn's Early Light Syncs Our Internal Clock

Before clocks, our internal response to light served as a natural timekeeper. The brain houses light-sensitive cells in the eyes that send signals to the suprachiasmatic nucleus (SCN), which acts as the central pacemaker for our internal body clock.

Our body's sensitivity to light peaks during three key times: the first hour after waking, two hours before bedtime, and at night. Utilizing these phases of daylight helps regulate circadian rhythm.

Jay Neitz, a renowned professor of ophthalmology and a color vision researcher at the University of Washington's School of Medicine, reminds us of the profound effect of natural light, especially at sunrise and sunset, on our brains.

Neitz's research has revealed the role of specialized cells in our retinas, known as ipRGCs (intrinsically photosensitive retinal ganglion cells), which are crucial in regulating our internal clocks and influencing our mood and alertness levels.

These cells "do not respond to white light but are very responsive to the blue, yellow, and orange colors of the sky at sunrise and sunset," he told The Epoch Times. This color sensitivity is vital for resetting our internal clock each day. Exposure to the colorful dawn sky activates these ipRGCs, sending signals to our brain's master clock to align it with the new day.

Lacking this natural reset, our rhythm can misalign, causing delayed waking and sleep difficulties.

"When the internal clock is delayed, people have to be up when the internal clock says they should be sleeping in the morning," Neitz noted, underscoring the internal clock's impact on sleep and well-being.

Nearly all life on Earth is deeply connected to the cycle of the sun. A University of Cambridge study reveals an early morning burst of plant activity, linking it to the sunrise. They found that within an hour of dawn, plants see a gene activity surge in light response, stress, and growth hormones. This "dawn burst" aligns plant circadian rhythms with the day-night cycle, affecting flowering and growth.

Morning Sunlight: A Natural Mood Enhancer and Brain Booster

The day's first light significantly enhances mood and cognition. A growing body of research indicates that exposure to morning sunlight can profoundly impact our mental health and brain performance.

"Morning light improves mood by increasing serotonin levels, increasing alertness, and shifting or stabilizing circadian rhythms," Helen Burgess, from the University of Michigan, told The Epoch Times. Studies show morning light therapy can match antidepressants in improving mood.

Mood enhancement from morning light goes beyond happiness, offering health benefits. By elevating serotonin levels, morning light helps reduce pain, she explained in a webinar.

"The circadian photoreceptors in the brain are most responsive to blue wavelengths," which naturally occur at dawn, Burgess explained.

A study in the Journal of Sleep Research demonstrates that exposure to bright light in the morning can notably increase alertness. The research on college students found that just 1.5 hours of bright light early in the day not only improved sleep quality but also significantly reduced morning sleepiness, emphasizing the role of morning light in enhancing daily alertness.

Incorporating morning light into daily routines is like using a natural medicine. Burgess draws parallels between food as medicine and morning light's potential role, positioning morning sunlight as a vital element of health.

How to Harness Morning Sunlight for Better Health

Incorporating morning sunlight into daily routines can boost health, as Huberman notes. Here are practical tips for maximizing morning sunlight benefits:

- Aim for sunlight within the first 30 to 60 minutes after waking, ideally within five minutes of sunrise, ideally before seeing artificial light.
- Adjust duration based on weather: at least five minutes on sunny days, 10 minutes on cloudy days, and 30 minutes on overcast days.
- Being outside is crucial, as windows may block essential wavelengths.
- Direct eye contact with the sun isn't necessary; looking in its direction without directly staring at it is sufficient.
- Use regular contacts or glasses, but not sunglasses or blue-light blockers.
- Strive for morning light exposure on at least 80 percent of days.
- Evening sunset viewing signals the day's end to your body, countering artificial light effects.
- Post-sunset, minimize bright artificial lights, opting for dim, low-level lighting.

While there's no perfect replacement for the natural light of morning, if it isn't readily available where you live, consider creative alternatives such as using a ring light. This practice, crucial for aligning your circadian rhythm, also significantly boosts your mood and focus. Modifying indoor lighting to mimic the natural light cycle can be a beneficial workaround in less-than-ideal conditions.

10 Surprising Things Happen After You Stop Eating Sugar

If you decide to cut sugar out of your diet, with a few reasonable exceptions, you will experience some unexpected changes.

By Flora Zhao

"**YOUR BODY DOESN'T NEED ADDED SUGAR,"** Dr. Jason Fung, a nephrologist specializing in reversing Type 2 diabetes, told The Epoch Times.

Despite that reality, if you're eating the standard American diet, you're likely getting quite a bit of added sugar. If you decide to cut this out of your diet, with a few reasonable exceptions, you will experience some unexpected changes, research finds.

(kungfu01/Shutterstock)

1

Increased and Sustained Energy

"I often call sugars 'The Great Deceiver,'" said Becky Gillaspy, a chiropractic doctor and author of the book "Intermittent Fasting Diet Guide and Cookbook," during an interview with The Epoch Times. She explained that added sugar quickly breaks down into simple sugars, providing a quick burst of energy, "but then it turns around and robs that (energy) from us."

In the first few days of ceasing added sugar intake, we may experience some discomfort. According to Gillaspy, this is because the body has become accustomed to relying on the quick energy sugar provides and, as a result, exhibits cravings for it.

However, the body gradually receives more stable and sustained energy when we shift to obtaining carbohydrates and other nutrients from natural foods and whole grains.

Many people find themselves more energetic after quitting sugar for a while.

The body quickly adapts and can run on whatever fuel is most available. "Our metabolism switches from being a better sugar burner to being a better fat burner," said Gillaspy. This leads to a more sustained energy level, increased metabolic flexibility, and reduced food cravings.

"Your body will reset, becoming a body that doesn't need sugar," Fung said.

2

Improved Insulin Sensitivity

Stable blood sugar is a natural benefit of quitting sugar, and what's even better is that quitting also improves insulin resistance.

High sugar intake raises blood sugar levels, prompting the pancreas to release more insulin to shuttle sugar into cells, including fat cells. If this is happening often, our cells begin to resist insulin's demands to take in this sugar, leaving it in the bloodstream where it poses significant health risks.

According to a review study (pdf) published in Advances in Clinical and Experimental Medicine in 2019, the prevalence of insulin resistance ranges from 10 percent to 30 percent among different populations.

A previous study conducted by the University of Southern California showed that reducing added sugar intake by 40 grams and decreasing calorie intake from added sugar by 5 percent can lead to a 20 percent decrease in insulin secretion. Another study based on the National Health and Nutrition Examination Survey (NHANES) database in the United States revealed that each 8-ounce or 1-cup sugar-sweetened beverage increases insulin resistance by 6 percent.

Fasting insulin is one of the markers used to measure insulin resistance. A study involving 2,500 adults showed that those who did not consume sugar-sweetened beverages had lower fasting insulin levels than those who did.

3

Reduced Inflammation and Pain

"The best part [of quitting sugar] is no pain," a photographer named Pat gratefully told Gillaspy. She used to suffer from severe joint and muscle pain—almost to the point of giving up her photography job, which required standing all day. Now, "the 52-year-old Pat runs literal circles around the 35-year-old former Pat," Gillaspy described.

Excessive sugar consumption triggers the release of pro-inflammatory substances in the body. A study involving nearly 10,000 adults in England showed that individuals who consumed more added sugar from beverages and tea, coffee, and cereal had higher levels of inflammatory markers in their blood.

Research in the field of immunology has indicated an urgent need to understand the impact of excessive sugar intake on the development of human inflammatory diseases. High levels of sugar in the diet can lead to rheumatoid arthritis, multiple sclerosis, psoriasis, inflammatory bowel disease, and low-grade chronic inflammation.

(Yeti studio/Shutterstock)

4

Easier Weight Management

Losing weight becomes easier after quitting sugar.

Jessica Russo, a clinical psychologist in private practice in Philadelphia, mentioned during an interview with The Epoch Times that one of her patients, who had struggled with binge eating and excess weight, lost 10 pounds within a month after cutting out added sugar and other refined carbohydrates.

Another individual who successfully lost 54 pounds told Gillaspy that most of their weight was shed after seriously committing to quitting sugar.

Sugar stimulates insulin secretion, and elevated insulin levels promote fat storage; this is why insulin resistance makes weight loss more challenging. A low-sugar diet leads to lower insulin levels, which, in turn, encourages cells to release fat.

A meta-analysis assessing over 60 studies published in the British Medical Journal indicated that reducing dietary sugar intake led to an average weight loss of 0.80 kilogram (approximately 1.76 pounds). Another prospective cohort study involving over 120,000 individuals found that consuming sugar-sweetened beverages resulted in a continuous weight gain of up to 1 pound over four years, while drinking one less sugar-sweetened beverage a day reduced annual weight gain by approximately 25 percent.

5

Enhanced Mental Well-Being

Russo explained that sugar depletes vitamin B, and vitamin B is crucial for the human brain. A deficiency in vitamin B can lead to reduced cognitive clarity and a decline in thinking abilities, which is also one of the reasons sugar consumption can cause irritability.

According to Russo, depression and anxiety are linked to inflammation. Eliminating sugar and reducing inflammation tends to make individuals feel more relaxed and hopeful. We often notice this difference when we pay a bit more attention. Therefore, when feeling down, we can reflect on whether it is due to excessive sugar consumption.

A study published in the Frontiers in Public Health in 2023 involving about 16,000 obese American adults revealed that individuals with higher total sugar intake in their diets had a higher prevalence of depressive symptoms. Those with the highest total sugar intake had a 50 percent higher risk of developing depression than those with the lowest, a conclusion corroborated by other meta-analyses and cohort studies.

> ***Your body will reset, becoming a body that doesn't need sugar.***
>
> — Dr. Jason Fung, nephrologist

6

Heightened Taste Sensitivity

When people get used to eating fewer sweet foods, they often realize that they do not actually need as much sweetness.

"One of the most common things that shocks people when they give up sugar is that they lose their taste for sugar," said Gillaspy. Russo also noted that many individuals find very sweet foods unpleasant in taste after cutting back on their sugar intake.

This is because when following a high-sugar diet, the brain's chemical responses and taste buds can become dulled to sweetness; however, cutting out sugar can restore sensitivity to these organs, allowing us to find satisfaction with smaller amounts of sugar.

"It (giving up sugar) opens up this whole new flavor world for foods that you would have not enjoyed before," Gillaspy said, using her own story as an example. When she was younger, she had a strong sugar addiction and was overweight, and foods like Brussels sprouts and sauerkraut would never have been found on her plate. However, after quitting added sugar, she acquired a taste for these ingredients and found them incredibly delicious.

7

Improved or Reversed Fatty Liver

Excessive sugar consumption leads to fatty liver, "essentially due to the way fructose is metabolized," explained Fung.

He said that when referring to sugar, we are usually talking about sucrose, which comprises one glucose molecule and one fructose molecule. While every cell in the body can utilize glucose as an energy source, fructose cannot be used by any cells. Instead, it goes directly to the liver, where some of it is converted into fat.

"So fructose, refined sugars, are much worse for you than regular sugar," emphasized Fung. They are far worse than empty calories or even regular starch. That is why quitting sugar is crucial in preventing fatty liver disease progression.

A study published in Gastroenterology involving children and adolescents showed that when total calorie intake remained the same, reducing added fructose intake over nine consecutive days (controlled at 4 percent of total calories) could decrease the median liver fat percentage from 7.2 percent to 3.8 percent. Furthermore, the conversion of fructose to fat in the liver significantly decreased. In another eight-week trial, restricting dietary sugar intake led to a reduction in the conversion of fructose to liver fat from about 35 percent to about 24 percent.

A study published in the British Medical Journal Open in 2017 suggests that reducing added sugar intake by 20 percent could reduce the prevalence of hepatic steatosis, fatty liver disease, cirrhosis, and liver cancer. A 50 percent reduction in intake would have an even more significant proportional effect.

While every cell in the body can utilize glucose as an energy source, fructose cannot be used by any cells.

8

Improved Gut Health and Immunity

Many may not realize that digestive discomfort or frequent colds could be attributed to excessive sugar consumption.

Research suggests that dietary sugar affects immune cells in the gut, leading to the replacement of beneficial bacteria by harmful ones. Furthermore, the body alters the gut microbiota to detoxify the toxins resulting from excessive sugar intake, disrupting the natural balance. This disruption reduces intestinal epithelial integrity and mucosal immunity. Additionally, excessive sugar consumption and high blood sugar levels can increase gut permeability, compromising the gut's protective barrier and enhancing infection susceptibility.

Russo also pointed out that sugar intake can reduce the body's zinc levels, which is crucial for the immune system.

9

Improved Skin Health

Quitting sugar might be the most straightforward and cost-effective approach to appearing younger and eliminating facial and skin blemishes.

Sugar undergoes oxidative reactions with proteins in our bodies, producing advanced glycation end products (AGEs). AGEs are a complex group of substances, and apart from some individual components, they are generally toxic to the body and can accumulate in tissues.

Over time, skin problems may arise, such as browning, yellowing, poor elasticity, and deeper wrinkles.

AGEs can also cause internal changes in the skin. They hinder wound healing, disrupt skin cell function, induce apoptosis, and trigger inflammation.

Quitting sugar not only promotes healthier and more youthful skin but also reduces toxins in the body, thus preventing age-related diseases.

AGEs can contribute to age-related diseases, including neurodegenerative disorders, atherosclerosis, and chronic inflammatory conditions. The accumulation of AGEs is accelerated in conditions like insulin resistance and diabetes, leading to a range of comorbidities.

AGEs can also cause internal changes in the skin.

(NataliaZa/Shutterstock)

10

Reduced Risk of Chronic Metabolic Diseases

After quitting sugar for a period, you will notice improvements in several blood markers; these are mainly associated with reduced fructose intake.

Half of sucrose consists of fructose, whereas high-fructose corn syrup, widely used in processed foods, is 42 percent to 55 percent fructose.

Clinical evidence suggests a high-fructose diet can lead to too many lipids in the blood and related metabolic diseases.

Additionally, liver metabolism of fructose leads to an increase in uric acid, a precursor of gout. A large-scale prospective cohort study confirmed that frequent consumption of sugar-sweetened beverages and high fructose intake are associated with an elevated risk of high levels of uric acid and gout.

Given the detrimental links between dietary sugar intake and various endocrine and metabolic issues, a review study published in the British Medical Journal in 2023 plainly stated, "No reliable evidence shows beneficial associations between dietary sugar consumption and any health outcomes."

(Mariia Korneeva/Shutterstock)

Health Through Habits

You Can Lose Weight Unintentionally, Without Diet Restriction –*Here's How*

Struggling to lose weight is not just because of overeating or lack of exercise. There are often unknown root causes and effective strategies for weight loss.

By Yuhong Dong, M.D., Ph.D.

IN 2021, AS COVID-19 RAMPAGED ACROSS THE GLOBE, I found myself alone in a small, quiet town in Switzerland. Free from the responsibilities of cooking for my family and the noise from busy streets, I enjoyed the peaceful sounds of birds singing.

My daily routine began with breakfast at 8 a.m., typically consisting of 200 milliliters (about 7 ounces) of milk, an egg, and a slice of toast. By 9 a.m., I started work. My main task was to leverage my scientific and medical expertise to help the public cope with the COVID-19 pandemic through a weekly live broadcast on an influential TV channel.

Given the responsibility and urgency of my work, I often became so engrossed that I forgot to eat until hunger struck around 4 p.m. At that point, I usually prepared a Chinese dish: stir-fried cucumbers with eggs and rice.

After two weeks, I noticed a significant change: My weight dropped by 15 pounds, to 108 from 123, and my body mass index (BMI) decreased to 20.4 from 23.2.

Although eating less played a role, the primary factor in my unintentional weight loss was staying focused on my work.

Why does staying focused help with weight loss? Are there other ways to lose weight effortlessly? After researching this topic, I would like to share my findings.

The Growing Issue

Today, one out of every three American adults is overweight. Despite efforts to combat weight issues, the incidence of obesity has significantly increased, tripling to 40 percent in 2018 from 14 percent in the 1960s.

Being overweight increases the risk of chronic diseases, including hypertension, diabetes, fatty liver, and viral infections. Consequently, obesity is regarded as a disease.

Overweight people are often advised to improve their bad eating habits, such as by eating less junk food and exercising more self-control. However, managing weight through diet and exercise is challenging in a society filled with tempting, tasty foods and countless electronic distractions.

Because of these challenges, many people are drawn to weight loss medication.

Since 2012, when the first weight loss drug, Osymia, was approved and later withdrawn because of safety concerns over cancer risks, the U.S. Food and Drug Administration has approved six weight loss drugs, including four for adults and children aged 12 and older.

Half of these drugs work by activating the glucagon-like peptide-1 (GLP-1) pathway. GLP-1 is a hormone that stimulates the pancreas to release insulin. GLP-1 receptor agonists (GLP-1 RAs) mimic the effects of GLP-1 to treat Type 2 diabetes and obesity. These drugs include:

- Liraglutide (Saxenda)
- Semaglutide (Ozempic and Wegovy, which are injectable medications, and Rybelsus, an oral pill)
- Tirzepatide (Mounjaro)

Other drugs work through different metabolic mechanisms to reduce food intake or absorption:

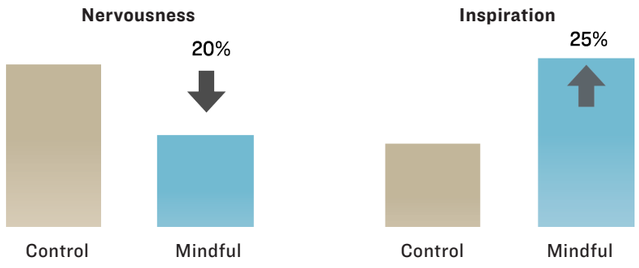
- Orlistat (Xenical, Alli): reduces dietary fat absorption by the gut
- Phentermine-topiramate (Qsymia): reduces appetite and induces a feeling of fullness sooner
- Naltrexone-bupropion (Contrave): Naltrexone is used for alcohol and drug dependence, and bupropion is used for depression and to help people quit smoking. Together, they reduce appetite and food cravings.

There are two main concerns about these weight loss drugs.

First, many may require long-term use for sustained effects, and discontinuation could lead to weight regain. Some drugs might also affect muscle mass and fat loss and could affect

Yuhong Dong is The Epoch Times' senior medical columnist and an award-winning senior medical scientific expert in infectious disease and neuroscience.

Focusing on Dishwashing Reduced Nervousness and Increased Inspiration



Source: Mindfulness

Participants in the mindful dishwashing group reported significant decreased ratings of nervousness, 1.69 versus 1.23, p=0.003, and significantly increased ratings of inspiration, 2.12 versus 2.65, p=0.02.

nutrient absorption, so it's essential to consider these factors when using such medications.

Additionally, ongoing research is examining whether GLP-1 RAs are linked to suicide attempts and possible connections to thyroid cancer.

For many, weight loss drugs make things so much easier. Diet restriction can be onerous, especially in today's tempting and stressful environment. The inability to eat freely can add stress, often resulting in overeating and perpetuating a vicious cycle.

Vicious Cycle

Being overweight is not merely an issue of body shape; there are deeper, underlying reasons.

Obese people often experience chronic low-level inflammation, including inflammation in adipose (fat) tissue. Over time, this can lead to an overflow of fat and a diminished response to insulin. Consequently, fat can accumulate in tissues and organs where it shouldn't, contributing to various health issues.

Additionally, obese people often struggle with suboptimal mental health, including nervousness, anxiety, depression, and stress.

Our body and mind are intricately connected. Negative emotions can exacerbate chronic inflammation in the body through inflammatory markers, such as interleukin-6, tumor necrosis factor-alpha, and c-reactive protein.

This complex, intertwined problem can be addressed only by fundamentally changing both the mind and body.

The Benefits of Focus

Brain biology tells us that our minds can achieve their best state when we are focused.

A study shows that even concentrating on a simple task such as washing dishes can reduce negative emotions and elevate our mood.

In one experiment by E.L. Garland from the University of Utah and A.W. Hanley from Educational Psychology & Learning Systems, 51 college students were asked to wash dishes for two hours.

They were randomly assigned into two groups. Twenty-five participants received descriptive instructions on washing procedures, such as filling the sink with water and cleaning dishes.

The remaining 26 students were taught to focus on the importance of presence and mindfulness while washing dishes, emphasizing that this task was not a waste of time or a boring chore, but a moment of life worth cherishing.

The "mindful" dishwashers experienced a 25 percent increase in the positive emotion of inspiration and a 27 percent decrease in the negative feeling of nervousness.

Besides focusing on work, mindfulness practices, such as sitting meditation, are effective ways to reduce inflammation. Scientists have revealed that hundreds of genes change their expression profiles when we meditate, shifting our bodies from an inflammatory state to a healthier one.

When we focus entirely on a task or activity without feeling bored or hungry, this state is often referred to as a "flow" state.

A Flow State

A flow state, as its name suggests, is like a river flowing naturally toward its destination. People in this state often experience minimal self-referential thinking.

This state is highly relevant for well-being and has been extensively studied.

Researchers followed 83 participants who shared their thoughts daily for four days and found significant positive benefits of flow at work. Those who felt absorbed and enjoyed their work reported feeling more energetic afterward.

Brain scientists explain that the locus coeruleus, a small brainstem nucleus important for attention, arousal, motivation, and cognitive function, is often activated during the flow state. Simultaneously, the dopamine system is also active, helping us feel optimistic, hopeful, and energized.

When we focus on tasks for a few hours during the day, we often stop worrying about weight or food control and forget the stress associated with them. The benefits include:

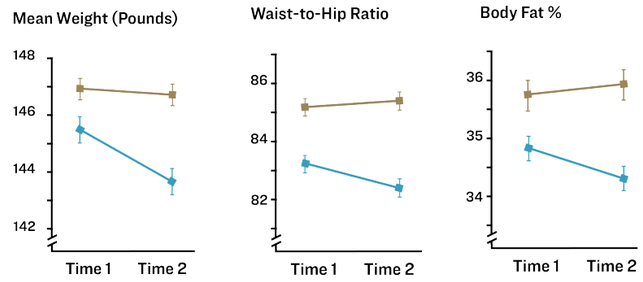
- Reduced stress levels
- Less time spent seeking food and eating
- Increased positivity and better sleep quality

To avoid interruptions and maintain focus, consider these strategies:

- Put your mobile phone in a drawer, set it to airplane mode, mute the sound, and close your office door to reduce external stimuli.
- Inform your friends or colleagues that this is your time to focus. Most people will understand and support you.

The same principle applies when you start relaxing: Focus on spending time with your family and friends, reading a book, or hiking in nature.

Belief in Exercise Benefits Enhanced Weight Loss in Routine work



Source: Psychological Science

When the workload of people in the two groups was identical, the group informed about the health benefits of daily routine work reported significant improvements in body weight, body fat, waist-to-hip ratio, and blood pressure compared to the uniformed control group.

Mindset Matters

Obese people are often advised to exercise more to lose weight. But why does it work for some people and not others?

A Harvard study published in Psychological Science examined how hotel service workers' positive mindsets or beliefs about the benefits of exercise affected weight loss.

The workers were divided into two groups:

- **Informed Group:** This group received a write-up about the benefits of exercise and was informed that their daily housekeeping work satisfied the Centers for Disease Control and Prevention's recommendations for an active lifestyle.
- **Control Group:** This group was not told about the health benefits of their work.

The results were fascinating, even though the actual workload of the two groups did not differ.

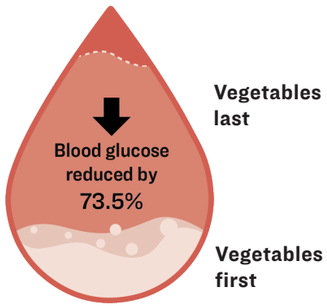
The informed group experienced significant improvements in body fat loss, waist-to-hip ratio, and cardiovascular health compared with the control group. After only four weeks, the workers in the informed group lost an average of 2 pounds and lowered their systolic blood pressure by 10 points.

This study emphasizes that beyond the direct physical benefits of exercise, people's positive mindsets or beliefs about the effects of exercise on their health are highly significant.

Positive thoughts can lead to even greater improvements in our bodies when we believe in the treatment modality, as explained in this article.

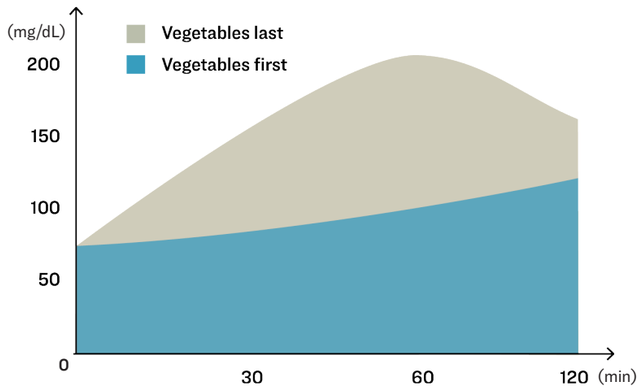
Since we're going to eat, there are a few more practical tips to enhance our dining experience.

Diabetics Significantly Lowered Blood Glucose by Eating Vegetables First



For Type 2 diabetic patients, when vegetables were consumed first, the mean glucose levels were decreased by 28.6 percent, 36.7 percent, and 16.8 percent at 30, 60, and 120 minutes post-meal, respectively, compared to when vegetables were consumed last. Eating vegetables first was estimated to reduce total blood glucose within two hours by 73.5 percent.

Source: Diabetes Care



The Science of Food Order

Evidence suggests that starting with vegetables, followed by proteins and fats, and ending with carbohydrates can better control blood sugar and body weight.

Scientists studied 11 adults with metformin-treated Type 2 diabetes to investigate the effect of food order on glucose levels and insulin sensitivity. On the first visit, participants consumed a meal with the order of carbohydrates first, followed by protein and vegetables. A week later, the food order was reversed, starting with vegetables, then protein, and finishing with carbohydrates.

The results were significant:

• **Glucose Levels:** When vegetables were consumed first, mean glucose levels decreased by 28.6 percent, 36.7 percent, and 16.8 percent at 30, 60, and 120 minutes post-meal, respectively, compared with when vegetables were consumed last. Eating vegetables first was estimated to reduce total blood glucose within two hours by 73.5 percent.

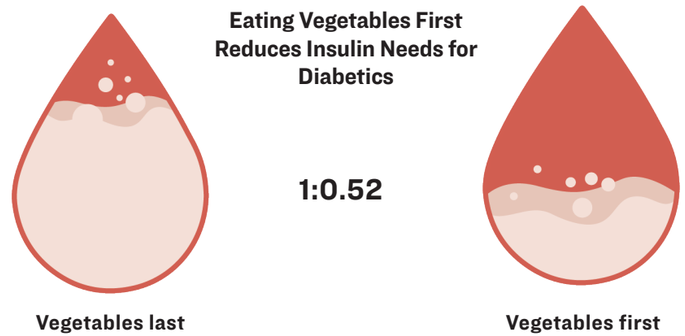
• **Insulin Levels:** Blood insulin levels within two hours after the meal were reduced by approximately 48 percent with the vegetable-first order, suggesting improved insulin sensitivity.

Insulin is like money in a bank. When we eat, we use insulin, similar to making withdrawals. If we withdraw too much, the supply runs out quickly, and we might need to inject insulin, akin to borrowing money.

In this study, the group who ate vegetables first used half the amount of insulin to process the same amount of food. This approach is an intelligent way to use insulin effectively, saving for the future and promoting better long-term health.

In 2023, a study randomized 45 adults who were overweight, were obese, or had prediabetes. The experimental group received standard food counseling plus food order counseling.

Eating Vegetables First Reduces Insulin Needs for Diabetics



For Type 2 diabetes patients, consuming vegetables first and carbohydrates last resulted in a 48 percent decrease in mean blood insulin levels within 120 min post-meal, compared to the reversed order. The insulin reduction with the veggie first order suggests that this pattern may improve insulin sensitivity.

Source: Diabetes Care

Compared with the control group, this group experienced a mean weight loss of 3.6 pounds and reduced HbA1c levels. HbA1c is a measure of the average glucose level in the blood over the past two to three months.

So let's put veggies first on our plates and carbohydrates last. Moving forward, you don't need to worry about only eating celery–you can eat the same foods but in a different order.

We can improve our eating habits by making healthier choices more visible and accessible. For example, placing vegetables and fruits on a large display plate on the kitchen counter makes these options more appealing and readily available. In the refrigerator, storing healthy foods in easily accessible locations while placing less healthy options out of immediate reach can also encourage better choices.

Promoting healthy choices in public spaces can create an environment that supports better eating habits. For instance, Massachusetts General Hospital implemented a color-coding system for food items: red for unhealthy, yellow for moderate, and green for healthy. This approach resulted in decreased sales of unhealthy items and increased sales of healthier options.

If canteens or supermarkets adopt similar methods, society could significantly benefit by encouraging healthier eating habits on a larger scale.

Final Thoughts

Unlike conventional weight loss strategies, which often involve restricting the amount of food and avoiding certain foods, changing your mindset can lead to natural weight loss.

A Chinese proverb says, "One may work hard to plant flowers, but they may not bloom; yet a willow tree grows into shade without any effort." This saying means that sometimes, the best outcomes come from actions done without specific intent.

When I came to New York City, my friends saw me and were wowed: "Look how slim you are now! What did you do to lose weight?"

"Nothing on purpose," I said. "I just focused on my responsibilities to help others and forgot about food."

Similar to the students who experienced health benefits from focusing on washing dishes, the arduous task of weight loss becomes simple when our minds are focused and serene. When inner peace and joy enrich our hearts, we find ourselves in better shape, both physically and mentally.

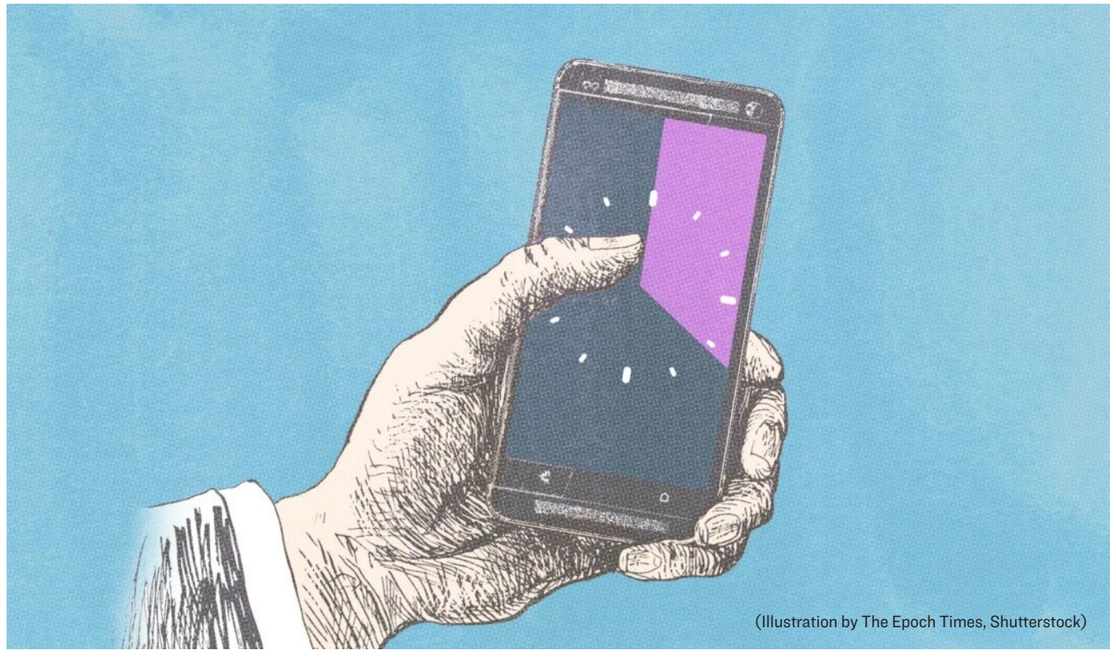
Views expressed in this article are the opinions of the author and do not necessarily reflect the views of The Epoch Times.

Health Through Habits

How a 3-Week Screen Fast Can Improve Brain Health

Overusing screens can impact your hormones and brain chemistry, but taking a break can help you reset.

By Cara Michelle Miller



(Illustration by The Epoch Times, Shutterstock)

JAKE STOOD IN THE DOORWAY TO HIS DORM ROOM, unrecognizable to his mother, who had just arrived on campus. He stared at her with dilated eyes, his face twitching and covered in acne, hair greasy and unkempt.

He had not attended classes for two months; instead, Jake had been gaming for up to 16 hours a day. The university had given him three days to vacate.

"I'd seen signs before he left for university, but he had answers for everything—so I ignored them," Elaine Uskoski, Jake's mother and the author of "Cyber Sober," told The Epoch Times.

Desensitized to Dopamine

Hyper-long periods of screen use can be dangerous. In extreme cases, they can trigger facial tics, panic attacks, and worse.

"Screens act like a stimulant, raising arousal levels and triggering fight-flight-freeze reactions," Dr. Victoria Dunckley, pediatric psychiatrist and author of "Reset Your Child's Brain," told The Epoch Times.

When someone is gaming excessively, streaming videos, or scrolling social media, they risk becoming desensitized to dopamine. For Jake, previously pleasurable activities—even self-care—couldn't compete.

"The gaming was just such a massive dopamine draw," said Uskoski, who now offers video gaming addiction coaching for parents. "It became clear to me that it was an addiction, even as Jake argued that it was a time management issue."

According to Dunckley, when this happens, it is difficult to disengage. A screen fast is needed to disrupt the behavior pattern and heal the brain.

"The ultimate aim of temporarily abstaining from tech is to find a balance between 'high-dopamine activities' (HDAs) and 'low-dopamine activities' (LDAs)," Dr. Clifford Sussman, a psychiatrist specializing in screen addiction, told The Epoch Times.

Putting Down Tech Restores Brain Health

"Whenever screen time is causing issues with mood, focus, sleep, behavior, social interactions, or physical health, it's unhealthy," Dunckley said. "Those effects aren't always evident until you do a clean, sustained screen fast."

During a tech fast, one refrains from using smartphones, televisions, computers, and social media.

It's an opportunity to rediscover the offline world—without constantly checking a device for fear of missing out. In her book, Dunckley explains how removing bright screens helps to resynchronize the body's circadian rhythm, allowing melatonin, the sleep hormone, to be secreted earlier in the evening and in larger amounts.

Melatonin is a powerful antioxidant in the nervous system that works to alleviate chronic stress-related damage. Melatonin is also the precursor to the "feel-good" neurotransmitter serotonin.

Melatonin production increases as daylight fades, but bright light, including screens, can trick the body into thinking it is still daylight, suppressing melatonin production.

"Brain chemistry and hormones enjoy an immediate shift toward normalization once melatonin is no longer suppressed," Dunckley wrote. "Likewise, dopamine is no longer forced into a 'surge and deplete' pattern, which serves to improve mood and attention span."

Time away from screens is the foundation to explore and rediscover more meaningful activities, such as long conversations, getting lost in a great book, or just taking in the sounds of nature while out on a hike—activities Sussman referred to as LDAs because they are characterized by patience and delayed gratification.

How to Do a Screen Fast

Experts agree that treatment for screen addiction requires a period of complete abstinence, but the recommended length of time varies. Taking a break from tech can help anyone looking to lessen his or her attachment to tech for improved mental well-being.

Dunckley's book outlines a four-week plan that includes 21 screen-free days. Sussman's digital detox requires at least three screen-free days to initiate his three-phase process.

For both approaches, the reset is the first step of the journey.

1 Remove Digital Devices

Before beginning the screen break, take a day to do a thorough screen sweep. Devices must be removed from all rooms—especially bedrooms—and kept outside of the home.

Dunckley cautions that if a child wants to use the internet or play a video game, he or she will find a device and figure out a way around password-blocking software. Give the devices to a neighbor or store them in a drawer at work until the fast is over.

For children, use a desktop for homework, if possible, in a common area where you can see what your child is doing. For adults, keep all work-related tasks to work hours.

If you do not switch to a flip phone during this time, remove social media apps, turn off most (if not all) notifications, and use the "do not disturb" mode by default.

If going screen-free at home seems daunting, Sussman recommends planning a week-long, screen-free trip or exploring other options, such as a screen-free wilderness camp.

2 Plan Other Activities

Whether the screen fast is for a child, adult, or whole family, determine whether the fast involves unplugging entirely or breaking only from optional technology, and for how long.

To fill in the gaps of free time, it is essential to prepare several activities. LDAs offer a slower pace and gradual reward, in contrast to the highly stimulating and immediately rewarding nature of HDAs.

It takes one second to turn on a screen. "All digital devices are really shortcut machines; they do 'real life' a lot faster, not necessarily better, but faster," Sussman said.

If you want to play real football, it takes planning and effort. There are a lot of delays between joining a team and playing on a field, so the reward is gradual. In contrast, gaming is an instantly gratifying HDA.

Sussman recommends identifying activities along a continuum from stimulating and enjoyable to requiring some patience. Depending on preferred interests, this could be balancing playing sports or going to concerts with practicing a musical instrument or repairing something that needs to be fixed.

A journal is helpful to create a list of LDAs and HDAs and to track and record results.

"For children, scheduling extra one-on-one time with a parent or family member is important because a kid may feel anxious or out of sorts, and you're competing with screens to rewire the brain," Dunckley said.

3 Reset Your Habits and Health

Not uncommonly, removing tech comes with increased anger and aggression. Parents can sometimes expect hostile confrontations and even threats from their children.

"I didn't experience the volatility with Jake, but he was extremely fragile and depressed," Uskoski said. "So I monitored him as much as possible because I was worried that he might take his life."

However, the fasting period becomes easier to manage once one moves through initial withdrawal symptoms, usually letting up within the first five days. It takes time to normalize brain chemistry and develop healthier interests that balance screen use.

During the fast, melatonin secretion resets to normal, dopamine levels rebalance, and stress hormones are no longer released for backup energy. Fight-or-flight symptoms or reactions may still be present but begin to decrease thanks to deep, restorative sleep.

From the cell to the entire brain, energy is freed up to do other things, and a positive cycle of improvement begins.

"Kids start to become more reasonable, speaking to you and really wanting connection," Uskoski said. "Before the end of the first two weeks, most parenwts say, 'Oh, I have my child that I remember back.'"

4 Reintroduce Technology Slowly

Once the brain is rested and restored, determine which devices, apps, and habits you will let back into your life. Be mindful and bring them back in one at a time.

A careful reintroduction of select screen activities is meant to guard against relapse. For Jake, after 2.5 years of relapse and detox, the best solution was to quit gaming entirely.

Many experts recommend a value-based approach to choosing technology.

Ask yourself whether each piece of technology is something that takes away from in-person time with friends and family or is a distraction from school or work. To allow the technology back into your life after the initial reset, it must:

- Provide a benefit to something you prioritize in life, such as work, school, relationships, creativity, health, or sleep.
- Be used in accordance with a boundary set in place that specifies how and when you will use it.

Sussman also recommends switching between LDAs and HDAs regularly. For example, if video games are reintroduced, after a half hour of gaming, transition to a low-dopamine activity, such as writing a short story, doing a word puzzle, or reorganizing a closet.

Over time, the need for hyper-stimulation eases.

Other helpful recommendations include keeping your smartphone off your body in general and keeping phones turned off in a separate room when at home with family.

Today, it has been six years since Jake last gamed, and he now has a successful career as a software engineer.

When to Consider a Tech Reset

"Taking a break from technology is a reset button," Sussman said.

Prioritizing time for a screen fast doesn't have to be only for kids who have crossed a dangerous threshold. You might consider the benefits of a screen fast if you:

- Experience chronic eye strain, sleep problems, or weight gain related to screen time.
- Impulsively check your phone every few minutes.
- Lose track of time because of being on your smartphone regularly.
- Feel depressed, anxious, or angry after using social media.
- Use a smartphone as a way to release feelings of anger or depression.
- Feel preoccupied and fear missing something if you don't keep checking your phone.
- Avoid real-life activities, events, and responsibilities.
- Put your job or relationships at risk because of compulsive screen use.

"With adults, it's often a parent or spouse who complains about the person being unmotivated, irresponsible, and disconnected," Dunckley said.

Sussman concluded: "There's a lot of healthy uses of technology. But if you find yourself slipping into heavy use, consider a reset.

"It's the first step. It's not permanent abstinence from screens, but a critical phase to begin restoring balance to your brain."

(Illustration by Fei Meng)

Grati tude

Features

An Alternative Medicine for Anger and Depression

By Makai Allbert, Robert Backer Ph.D., Yuhong Dong M.D., Ph.D.

Research shows that a daily gratitude practice can positively affect emotional health and interpersonal relationships.

IN THE STERILE CALM OF THE DOCTOR'S OFFICE, Serena sat restlessly, her mind replaying the scene that had led her there. Earlier that day, during an important project meeting, the new intern, Sarah, had timidly offered a suggestion. To everyone's surprise, the manager had liked this new idea, and said it would be implemented in the next project—at the cost of Serena's original proposal.

During that meeting, something in Serena snapped. She responded not with mere disagreement, but with an eruption of words and anger. Her tirade was merciless, leaving Sarah in tears and the room in silence.

Serena had struggled with anger in the past, but it had never shown itself as it did that day. As she sat in the doctor's office, Serena felt guilt and frustration.

She was expecting, almost hoping, for a straightforward medical solution—a pill to suppress the anger, a quick fix to patch up a problem that she felt powerless against. Instead, Dr. Corson handed her something far more unassuming, almost archaic in its simplicity: a small, blank journal.

"This isn't what you were expecting," the doctor acknowledged, sensing her skepticism. "But I want you to write down three things you're grateful for every day. It's a different kind of medicine."

Serena looked down at the journal, its blank pages mocking her internal chaos. Journaling felt trivial in the face of her overwhelming emotions. Yet driven by a strong desire to change, she reluctantly agreed to give it a try.

Authors' Note: Serena's story and her interactions with Dr. Corson are a fictional composite created from real stories. The reported findings and benefits of gratitude practice are factual and based on contemporary research.

An Antidote to Anger

As Serena began her gratitude practice, doubt lingered. Yet each evening, she dutifully wrote in her journal. Gradually, a shift occurred. Where once there was only frustration and anger, moments of appreciation began to surface.

Previously, she was irritated by her colleagues and often complained about her commute to work. After a week of journaling, she felt a shift. She began to feel grateful for a colleague's help, a peaceful morning, and even the reliability of her old car.

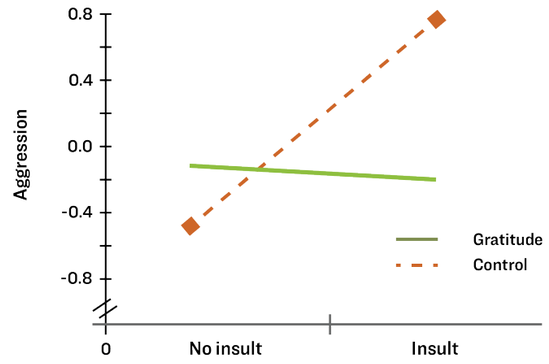
Serena's experience, while deeply personal, is not unusual. Scientific research on gratitude supports her change in temperament.

A study published in Social Psychological and Personality Science in 2012 found that individuals who practiced gratitude experienced lower levels of aggression, even after being insulted. In contrast, those in the control group—who did not practice gratitude—experienced increased aggression after being insulted.

Those practicing gratitude were significantly less likely to retaliate against others. The experience is akin to laughter interrupting physical exertion: Just as it is impossible to continue a strenuous workout while laughing, gratitude elicits a psychological state in which aggression and anger find little foothold.

The effect of gratitude in displacing hostile feelings highlights it as a personal virtue and tool in fostering empathetic social interactions.

Effects of Gratitude on Aggression



Source: Social Psychological and Personality Science

Gratitude isn't just a habit—it's about changing our mindset.

Gratitude Expands Happiness

Back home, Serena sat at her desk, pen in hand, thinking about what she was grateful for that day. After some free journaling, she realized that she was unwittingly writing about Sarah, the intern. Her heart ached with guilt, remembering the tears that she'd caused her.

Serena knew she had to make things right. She wrote Sarah a letter expressing her remorse and gratitude for making her realize that she had to change her ways. The following day, she greeted Sarah in the office, apologized for her previous outburst, handed her the letter, and remarked on her valuable contributions at work. That night, Serena felt a lightness that she hadn't experienced in weeks, even years.

This lightness came from genuine contentment. A study published in 2005 showed that writing thank-you letters increased participants' happiness by 10 percent and reduced

their depressive symptoms by 35 percent. These feelings were sustained up to six months after writing the letter, highlighting the powerful effect of this gesture.

This was evident in Serena's life—the bouts of anger that used to dominate her days were less frequent, almost nonexistent. In their place, moments of genuine happiness began to emerge. She was surprised to find herself smiling more—not only at her achievements, but also at the small joys of everyday life.

Four weeks later, when Serena stepped back into Corson's office, the atmosphere felt different, almost unfamiliar. She was not the same person who had hesitantly accepted a journal instead of a conventional prescription. The change within her was palpable, radiating from a place of newfound peace, positive thinking, and understanding.

Extensive Benefits

Noticing the transformation, Corson greeted Serena with a warm, understanding smile. "It's good to see you," he said. "Did the unconventional prescription help?"

Serena paused. She felt a mix of humility and surprise at her transformation.

"Honestly, doctor, I wouldn't have believed it if I hadn't experienced it myself," she said. "But why? I mean, scientifically, how could such a simple practice have such a profound impact?"

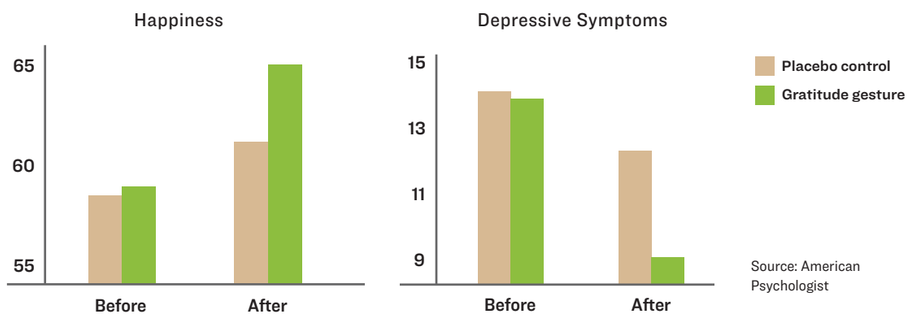
Corson didn't miss a beat. Pulling up a chair to sit closer, he said: "Gratitude isn't just a habit—it's about changing our mindset. In cultivating virtues, such as gratitude, our minds become healthy, and the body follows."

"But since you asked specifically, take a look at this," Corson said, handing Serena a poster describing the benefits of gratitude.

"Remember, these findings are just the tip of the iceberg," he said. "Science is still discovering the scope of gratitude's impact."

Many symptoms, diseases, and disorders plague our modern society. At the forefront is a lack of sleep quantity and quality. Gratitude can alleviate these side effects by improving sleep. Research has found that participants—even those with sleeping disorders—who reflected on what they were thankful for before bed experienced significantly better sleep quality and duration.

Effects of Gratitude on Happiness and Depression



Source: American Psychologist

Gratitude transforms how we interact with the world.

Additionally, research found that those who practice gratitude journaling experienced a nearly 8 percent decrease in pain, and are more inclined to exercise.

Gratitude can significantly lower stress levels. This, in turn, benefits mental and physical health, and strengthens the immune system. By encouraging behaviors that support immune function, gratitude lowers levels of interleukin-6, a leading culprit in chronic inflammation.

The Comparison Trap

"Gratitude transforms how we interact with the world," Corson said. "It shifts our focus from what we lack to what we have. Let me illustrate this with a parable."

He continued: "A man rode his old bicycle through the city, feeling dissatisfied. He noticed a shiny new car driving past and thought, 'If only I had a car like that instead of this bicycle.'

"Inside the car, the driver was stressed about loan payments. Seeing the cyclist, he thought, 'I wish I could be carefree like that cyclist, without these financial burdens.'

"At a nearby bus stop, a person waited. Watching the car and bicycle pass by, he thought, 'I wish I had a bicycle or a car. It would be much more convenient than waiting for this bus.'

"Down the road, a person in a wheelchair observed the cyclist, the car, and the bus stop commuter. She thought, 'How I wish I could stand and walk, even just to wait at a bus stop, ride a bicycle, or drive a car.'

"Finally, in a hospital room overlooking the street, a terminally ill patient lay in bed, gazing out the window. He thought, 'I'd give anything to be out there, even in a wheelchair, just to feel the sun and breathe fresh air again.'

"Each person longed for what another had, forming a chain where the simplest blessings of one were the deepest wishes of another. Thus, we should avoid looking at what we lack and focus on and appreciate what we already have."

Corson said: "This change in mindset also significantly improves social connections. It makes us into people others want to be around, enriching our relationships and fostering a sense of belonging and interpersonal satisfaction."

Serena experienced this firsthand—she knew what Corson meant. After apologizing and delivering the thank-you letter to Sarah, the two women had realized they had much in common, and their interactions became amicable.

"As a doctor, I 'prescribe' gratitude practice as it's completely free and can affect all aspects of your life, not just physical health," Corson said. "You see, in our modern medical practice, there's a single focus on targeting symptoms, often with medication. It's not wrong, but it's not the whole picture either. Many tend to overlook the powerful influence of the mind on the body."

When we practice gratitude, brain regions responsible for positive emotions are stimulated, while regions responsible for negative emotions are inhibited.

The Biological Blueprint of Gratitude

Serena wanted to understand how feelings of gratitude are stimulated in the body. Corson then explained:

"Gratitude activates regions of the brain associated with emotional regulation and pleasure, such as the caudate and frontal gyrus. When we practice gratitude, brain regions responsible for positive emotions are stimulated, while regions responsible for negative emotions are inhibited.

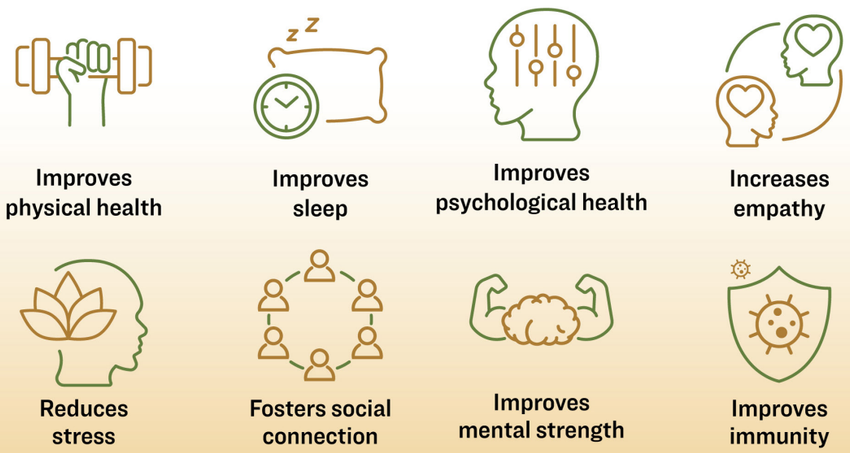
"This brain activity is quickly mediated by electrical signals, which you can think of as text messages—direct and specific. Gratitude also works through hormones, which are slower, like a mailed letter, but more robust.

"When we feel grateful, our brains release dopamine and serotonin—two neurotransmitter hormones responsible for how we feel. Dopamine gives us that 'feel-good' rush when we accomplish something, while serotonin boosts our mood over a more extended period, helping to stabilize it.

"Gratitude leads to a natural, self-sustaining loop of positive reinforcement. The more we practice gratitude, the better we feel—instantly and in the long term. Our brains begin to enjoy the release of feel-good hormones, encouraging us to continue feeling grateful. Over time, this practice can become part of our lives."

As Serena left the office, she felt wiser and confident. She had transformed from a skeptic to a believer, a grump to an appreciative colleague. Armed with scientific insights and practical guidance, she was eager to continue her gratitude practice.

The Benefits of Gratitude



Resentment

THE UNHEALTHY GUEST IN THE HUMAN HEART

Bearing grudges diminishes quality of life.
Learn how to break free.

By Makai Allbert

(Illustration by Lumi Liu)

A FAMOUS PARABLE RECOUNTS THE STORY OF A LITTLE BOY WHO HAD A BAD TEMPER. The father gave the boy a bag of nails and told him to hammer a nail into the backyard fence whenever he felt angry or resentful. The boy eagerly hammered away, and soon, the fence was riddled with nails. Eventually, the father asked him to remove the nails one by one. As the boy pulled them out, he noticed the holes left behind.

"These holes are like the scars left by your resentment," the father said. "The anger and hurt may leave, but the scars remain."

Resentment brands our hearts—not just emotionally but also physically. Fortunately, there is both a cure and a prevention.

The Toll of Resentment on Our Hearts

In a study led by Robert Enright, a pioneering forgiveness researcher and professor of educational psychology at the University of Wisconsin–Madison, 17 male cardiac patients were observed to measure the effect of resentment and forgiveness on their hearts.

Enright asked them to recall past injustices they hadn't forgiven. As they shared their stories, medical monitors revealed that the arteries carrying blood to their hearts began to constrict, reducing blood flow. This physical response mirrors the metaphorical "closing off" that happens when we hold onto grudges.

These findings suggest that reducing resentment can protect the heart, potentially reducing chest pains and even sudden death in cardiac patients, Enright told The Epoch Times.

Even healthy individuals prone to anger and hostility—defining features of resentment—have a 19 percent higher risk of coronary heart disease, according to a meta-analysis in the Journal of the American College of Cardiology. For those with preexisting heart conditions, this risk rises to 24 percent. A recent 2024 study corroborates this, showing that prolonged anger leads to blood vessel dysfunction.

Enright recalled the story of a woman in her 80s whom he met in hospice care. She had carried resentment toward a family member for over 40 years due to an unresolved injustice. "Think about that," Enright said. "That's not going to do much of anything toward the one who started the injustice." Instead, the lingering bitterness drained her hope and diminished her joy in her final years.

The Lingering Effect

Unlike a blaze of anger that flares and fades, resentment acts like a slow poison.

When treated unfairly, we instinctively raise shields of indignation, believing it protects us from further harm. In the short term, it can feel empowering. "It's as though we tell ourselves, 'You can't treat me this way,' " said Enright.

But resentment overstays its welcome, becoming what he calls "an unhealthy guest in the human heart."

The word's origin—from the Old French "resentir," meaning to "feel again" or to re-experience a strong feeling—illustrates one of resentment's distinguishing features: rumination.

People with resentment tend to think about the unfair event repeatedly. Philosopher Amélie Rorty describes resentment as: "[Feeding] itself on the past, chewing over painful memories of humiliations, insults and injuries, regurgitating them until their very bitterness acquires a savoury taste."

Rumination permeates our bodies and triggers a chronic state of heightened stress. This stress leads to elevated cortisol and adrenaline levels that impair the immune system, making us more susceptible to illnesses.

Rumination can also lead to depression, intensified anger, aggressive behavior, and suicidal tendencies.

"Because resentment is [a] stuck emotion, it becomes a magnet for other resentments as it grows and festers," Kerry Howells writes in her book "Untangling You: How Can I Be Grateful When I Feel So Resentful?" "Lying awake at night going over a current resentment often brings other, unrelated ones to mind."

Dr. Ann Corson, an integrative medicine medical doctor who blends physical and emotional healing, explains that people with deep-seated resentment often struggle with dissatisfaction in various aspects of their lives—their jobs, relationships, and even their own bodies, forming a negative feedback loop that affects their health.

Over time, resentment transforms into a worldview. It convinces us to see people as adversaries and the world as fundamentally unjust. Sometimes, our resentment isn't directed at a person but our circumstances. We question why we've been dealt certain hardships and can develop a deep sense of injustice about our lot in life.

It becomes part of who we are, and it's difficult to discern—even for ourselves, said Enright.

It goes beyond an individual; resentment can ripple through families and communities. "Resentment tends to be inherited," Enright said. "It's passed on from generation to generation if the parents express it and model it for their children."

Rumination can also lead to depression, intensified anger, aggressive behavior, and suicidal tendencies.

Breaking Free From Resentment

So how do we evict this unhealthy guest from our hearts?

According to Ryan Blackstock, a professor and clinical psychologist specializing in addiction treatment, to work on resentment, you must first understand it. "Where did it come from? What was the situation?" he told The Epoch Times, "and maybe most importantly, what purpose is it serving now? All resentments serve a purpose."

Enright presents a four-phase forgiveness process to manage resentment: the uncovering phase, the decision phase, the work phase, and the discovery phase.

In the uncovering phase, we aim to understand our feelings, acknowledge the hurt, and develop an awareness of how resentment has permeated our lives.

Enright shared the story of a woman who endured profound hurt from her father. She realized that her long-held resentment affected every aspect of her life—straining relationships, eroding self-esteem, and casting a shadow over her future. By confronting these emotions, she began to see how bitterness held her captive.

In the decision phase, she consciously chose to forgive—not to absolve her father of his actions, but to free herself from the chains of bitterness. She recognized that clinging to anger only prolonged her suffering.

Forgiveness is a "cure" to the disease of resentment, Enright suggests. As the opposite

of resentment, forgiveness is associated with reduced cholesterol ratios–key predictors of coronary artery disease. Further, people who practice forgiveness have lower blood pressure and better cardiac response to stress.

Beyond the decision to forgive, the work phase requires changing one's perspective. The woman started to explore her father's past, uncovering his hardships and traumas. Understanding his struggles didn't justify his actions but softened the edges of her resentment. This newfound empathy allowed compassion to grow in her heart, which allowed her to "chip away at the resentment," said Enright.

> ***Gratitude and resentment live and breathe in the relationships in our lives.***
>
> — Kerry Howells, gratitude researcher

Finally, in the discovery phase, she began to find meaning in her suffering. In an act of grace, she chose to care for her dying father, even feeding him in his final days.

"Once her father passed, she said, 'I'm very grateful that I did this because, after all, he is my father; if I had not forgiven [him], I would have mourning and hatred in my heart. Now it's just mourning,' " shared Enright.

In many cases like these, "forgiving can give you your life back," he said.

According to Corson, when resentment is resolved, the mind, body, and spirit can begin to heal.

Harnessing Gratitude

While forgiveness can heal resentment, gratitude is the long-term prevention. As author Howells, a gratitude researcher, explains, "Gratitude and resentment live and breathe in the relationships in our lives."

We often get stuck believing we need favorable conditions to be grateful, but Howells suggests that gratitude doesn't depend on perfect circumstances.

For the areas in our lives tainted with resentment, Howells suggests taking a step back and changing perspective. "If we loosen the hold of resentment, we are more likely to be able to find gratitude in areas that we haven't been able to access before," she told The Epoch Times.

By developing gratitude in other areas of our lives untouched by resentment, we can cultivate strength and fortitude to address the resentment proactively, said Howells.

"Imagine your emotional and psychological energy as a pie chart," Blackstock said. "There is only so much space in the pie." As the number of resentments grows, there is less space for anything else, he said.

Cultivating gratitude can stop resentment from taking over the positive emotions in the pie.

"Gratitude finds its power as an action," Howells said. She advocates making gratitude a daily habit. "Find just one or two things that we can be grateful for easily and grow these in our hearts by bringing them to our attention often, writing them down, saying thank you, [and] feeling them in our hearts."

Choose a Legacy of Love, Not Resentment

"If you hold grudges, you can never get well," said Corson.

Enright encourages people to consider what legacy they will leave behind.

He explains that there are two choices: You can either pass down your anger, potentially creating a cycle of negativity for future generations, or you can leave behind the gift of love, instilling warmth and kindness in the hearts of your family.

Features

How Awe Boosts Your Immune System

And the most common source of awe may surprise you.

By Makai Allbert


(Illustration by Fei Meng)

"**AWE IS THE FEELING OF BEING IN THE PRESENCE OF SOMETHING VAST** that transcends your current understanding of the world," writes Dacher Keltner in his book "Awe: The New Science of Everyday Wonder and How It Can Transform Your Life."

This feeling is usually associated with observing sublimeness in nature: grand mountains, trees, vast dunes, or the wide ocean horizon.

However, nature is not the only source of awe, nor the most common. Moreover, awe extends far beyond a momentary feeling of wonder or inspiration, influencing our health in at least five ways.

A Surprising Source of Awe

People can be awestruck by philosophical insights, scientific discoveries, music, visual design, spirituality and religion, personal realizations, impressive feats, and epiphanies. Even simply learning about other interesting people stimulates awe. Research suggests that when participants watch videos of inspiring people like Mother Teresa, this can, in turn, trigger awe.

To determine the most common source of

awe, Keltner conducted an experiment asking participants worldwide to write stories that caused them to feel awe.

Out of the 2,600 stories collected, the most common source of awe worldwide is moral beauty: exceptional virtue and character marked by purity and goodness of intention and action. This includes witnessing other people's courage, kindness, strength, or overcoming hardship—for instance, stories of individuals risking their lives to save strangers or acts of kindness during disasters.

Moral beauty also includes how people feel awestruck by the beginning—or end—of life. Many mothers note that giving birth is the most significant source of awe. Keltner documents in his book about a mother from Japan: "[I] was deeply moved by the realization and responsibility of becoming a parent, as well as the preciousness of life. From now on I felt that I would desperately live just to protect this life."

A mother from Russia expressed that she just "wanted to hug the entire world" after childbirth. Fathers also feel awe. A man from Indonesia wrote, "I just couldn't believe what a beautiful and wonderful gift God has bestowed on my wife, and I just couldn't stop smiling and feeling awe and grateful to God for giving us a son."

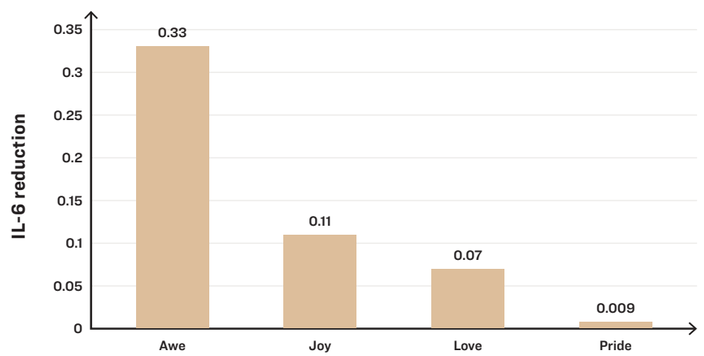
According to Keltner, money and possessions did not contribute to awe. In the study, which is currently under peer review, no one mentioned their laptop, Facebook, or smartphone. Nor did anyone mention their new Nikes, Tesla, or Gucci bag. Keltner writes: "Awe occurs in a realm separate from the mundane world of materialism, money, acquisition, and status signaling—a realm beyond the profane that many call the sacred."

A Language Everyone Speaks

A paper published in Nature found that across 12 diverse world regions, awe stimulates a unique facial response similar to universal expressions such as amusement, contentment, and pain.

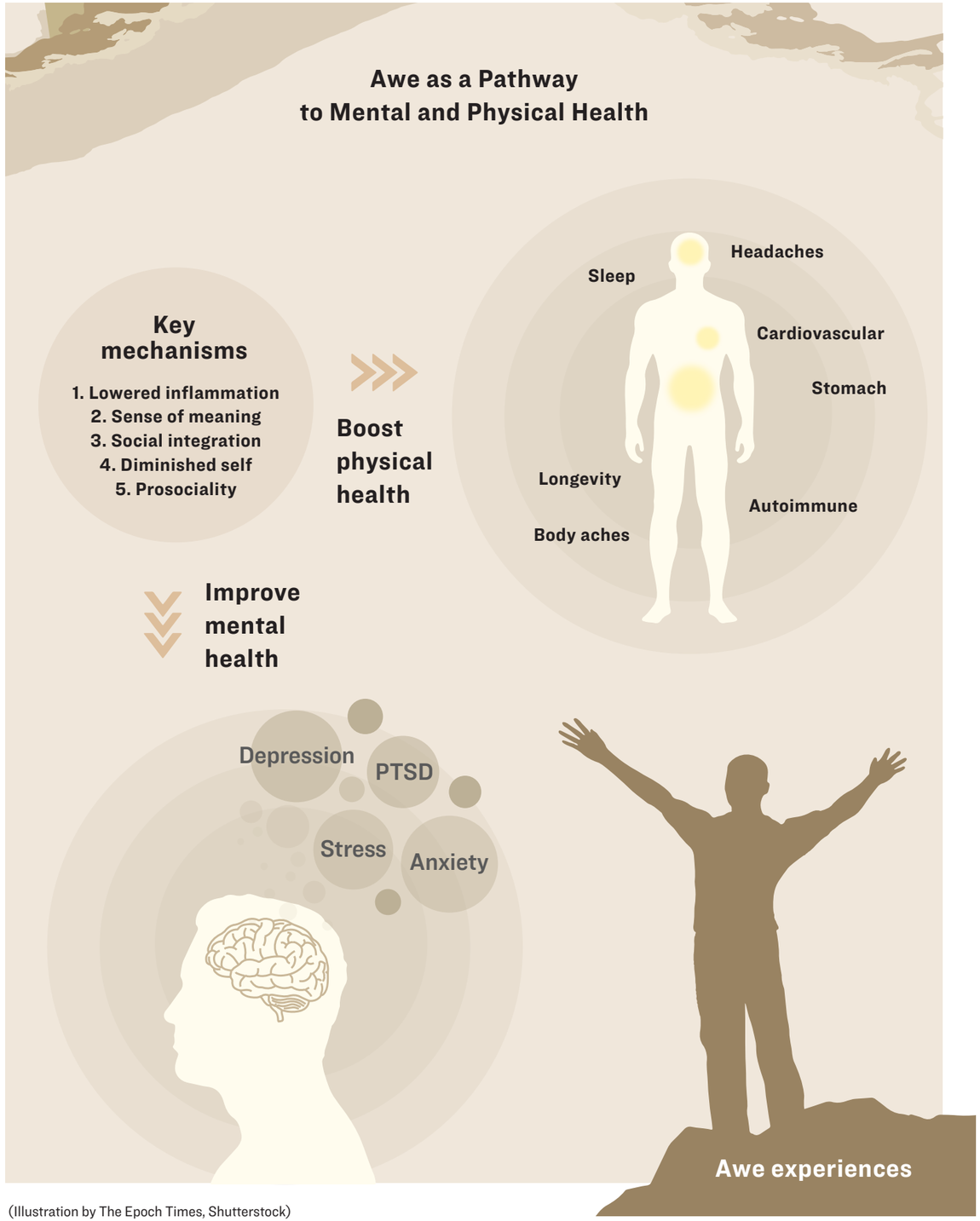
Cross-culturally, when awe washes over someone, such as when viewing fireworks or shooting stars, their face transforms, reacting with the same facial expression—eyebrows arch high, eyes widen as if trying to absorb every detail of the magnificent sight. Their jaw

Positive Emotions Lower IL-6



A 2015 study demonstrated that several positive emotions, such as joy and love, lowered levels of the cytokine interleukin-6 (IL-6), an indicator of inflammation levels.

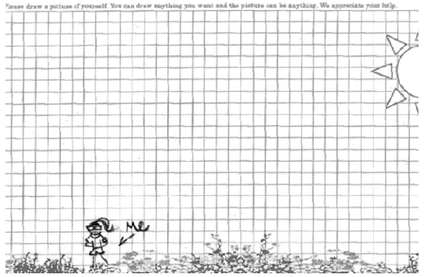
Source: American Psychological Association, Emotion



(Illustration by The Epoch Times, Shutterstock)

Awe Leads to a Smaller Self

Source: Journal of Personality and Social Psychology



Fisherman's Wharf, California

Yosemite National Park, California

slackens, mouth slightly agape, frozen in a moment of speechless wonder. A gentle smile plays at the corners of their lips, and their head tilts back slightly as if pulled by an invisible thread.

A study tested the vocal bursts for 16 emotions, including awe, anger, fear, and sadness, across 10 cultures and even a remote village in Bhutan. Sounds of awe like "whoa" and "wow" were recognized with about 90 percent accuracy, making awe one of the most universally recognized emotions.

How Awe Affects Health

Awe stimulates well-being in five ways. The first is through a shift in the immune system.

Cytokines are chemical messengers that signal the immune system to work harder. They are important for a pro-inflammatory response to kill pathogens and heal wounds. Yet a hyperactive cytokine response is associated with poor health and disorders such as arthritis, Alzheimer's, and clinical depression. Most notably, in recent years, the word "cytokine storm" in COVID-19 has been synonymous with severe disease and poor outcomes.

Participants at Yosemite Valley drew smaller selves and "me" labels compared to those at San Francisco's Fisherman's Wharf—reflecting reduced self-focus, according to researchers. (Courtesy of Dacher Keltner)

Emerging research is starting to acknowledge the role of positive emotions in our physical health. A 2015 study in the journal Emotion demonstrated that several positive emotions, such as joy and love, lowered levels of the cytokine interleukin-6 (IL-6), an indicator of inflammation levels.

However, the greatest predictor of reduced cytokine levels, up to three times more than joy, was the feeling of awe.

A 22-day longitudinal study published in Scientific Reports observed adults and health care professionals during the COVID-19 pandemic and found that the more daily awe people experienced, the less stress they experienced, and the fewer somatic health symptoms they had (e.g., headaches and trouble sleeping).

These studies suggest that awe can benefit individuals with inflammation and during periods of acute and chronic stress, such as the COVID-19 pandemic.

Awe can also affect health through increased social integration, prosociality, a heightened sense of meaning, and a diminished sense of self.

Smaller 'Me'

Professor Yang Bai of the University of California–Berkeley and her team conducted a study in Yosemite National Park. Over a few days, they approached more than 1,100 travelers from 42 countries. While looking at the expansive view of the Yosemite Valley, participants were asked to draw themselves on paper and write "me" next to their drawing.

In the control condition, participants were asked to do the same at Fisherman's Wharf in San Francisco, a popular tourist destination.

Those in Yosemite drew themselves up to 33 percent smaller, and the "me" was also smaller. According to the researchers, the size of the drawn self and how large one writes "me" are pretty good indicators of how self-focused the individual is.

This change in self-perception leads to significant social outcomes. In one experiment, participants who spent a minute looking at tall trees were likelier to help someone who dropped pens than a control group who spent a minute looking at a modern science building.

Those who experienced awe also took less money for participating in the study and reported feeling less entitled and narcissistic, suggesting that awe can increase prosocial behavior, reduce egocentrism, and reduce focus on personal gain.

> ***Everyday awe is a basic human need.***
>
> — Dacher Keltner, author, "Awe: The New Science of Everyday Wonder and How It Can Transform Your Life."

Anousheh Ansari, a space tourist, shared her feelings about experiencing immense awe in outer space: "The actual experience exceeds all expectations and is something that's hard to put to words ... It sort of reduces things to a size that you think everything is manageable ... All these things that may seem big and impossible ... We can do this. Peace on Earth – No problem. It gives people that type of energy ... that type of power, and I have experienced that."

Perhaps, then, it's not surprising that awe primes us to be more spiritual. In a 2013 study, researchers found that participants who had seen something awe-inspiring scored spiritually higher than those who had not.

The researchers concluded that awe-inspiring experiences increase our motivation to make sense of the world, which may trigger belief in the supernatural.

This spiritual stimulation further increases mental and physical health.

"Our bodies respond to healthy doses of awe-inspiring nature like we respond to a delicious and nutritious meal, a good sleep, a quenching drink of water, or an uplifting gathering with friends or family: we feel nourished, strengthened, empowered, and alive," writes Keltner. It also reduces the likelihood of cardiovascular disease, autoimmune disease, diabetes, depression, post-traumatic stress disorder (PTSD), and anxiety, as well as everyday aches and pains.

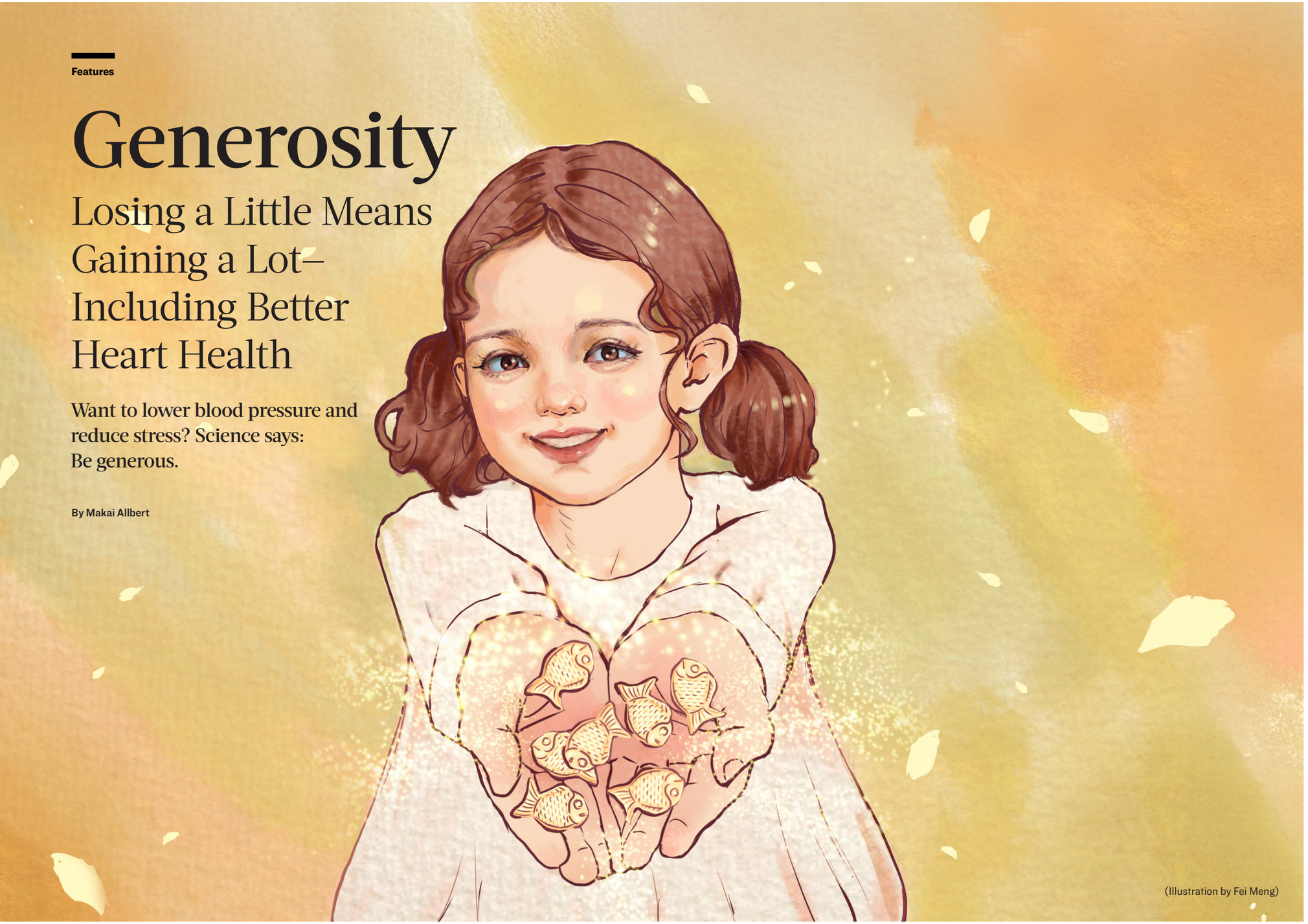
"Everyday awe is a basic human need," Keltner notes. We can reclaim this sense of awe by approaching life inquisitively–seeking the often-missed marvels of nature and the touching displays of human kindness that surround us.

Generosity

Losing a Little Means Gaining a Lot—Including Better Heart Health

Want to lower blood pressure and reduce stress? Science says: Be generous.

By Makai Allbert



(Illustration by Fei Meng)

IN A LAB AT THE UNIVERSITY OF BRITISH COLUMBIA, beneath the glow of fluorescent lights, a toddler—still too young to form a complete sentence—sat before a small bowl of Goldfish crackers and a plush puppet named "Monkey."

When asked to share a cracker, the child did something that might surprise anyone who believes young children are inherently self-centered. Instead of hoarding the treat, she extended her tiny hand and gave Monkey a cracker, eliciting a friendly "YUMMM!" sound.

Each time the toddler gave Monkey one of her crackers, her face lit up with superlative delight. This burst of happiness offers a glimpse into something science has begun documenting with mounting evidence: Giving to others—generosity—can spark profound joy and lead to measurable well-being at any age.

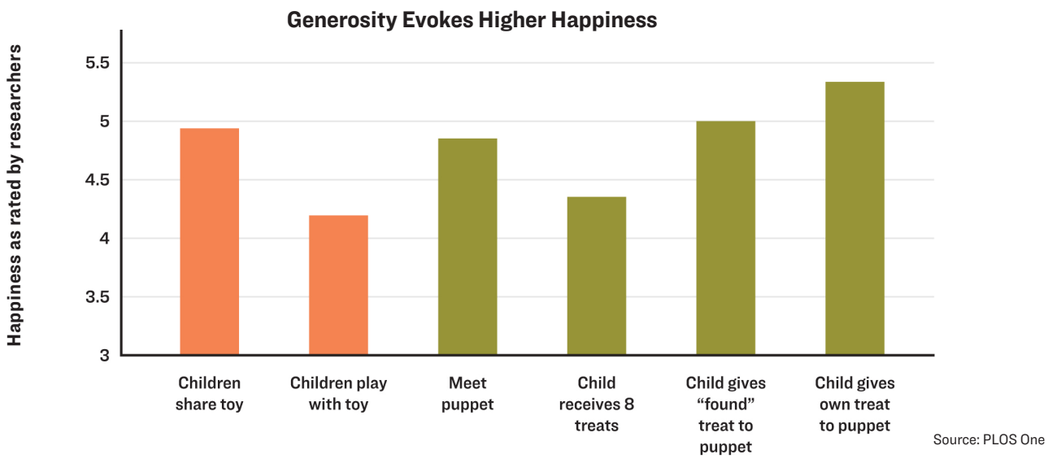
An Unfailing Source of Happiness

The Goldfish cracker experiment pinpointed what kind of giving feels particularly good. To do this, the researchers varied the conditions. Sometimes, children gave up one of their treats; other times, they were offered an extra that the researcher "found." The purpose of this variation was to distinguish the difference, if any, between simply giving and giving by forfeiting something personally valuable.

As expected, the toddlers expressed joy upon first meeting the stuffed animal or when given a toy. Researchers documented the children's happiness through behavioral observation and facial analysis.

Happiness soared, manifesting as a "warm glow," when the toddlers engaged in "costly giving"—sacrificing their own treat and sharing it with the puppet rather than donating the "found" treat provided by the researcher.

Personal observation may doubt these findings, as most toddlers' favorite word is "mine!" Furthermore, the toddlers in this experiment were Canadian, prompting some to claim that cultural conditioning shaped their generosity. Yet this puppet experiment has since been



Source: PLOS One

replicated in a rural village on Vanuatu, a small, isolated island in the South Pacific, as well as in the Netherlands and China, showing that toddlers all over seem to enjoy sharing their personal treats the most.

In a study with 200,000 respondents from 136 countries, ranging from affluent countries such as Canada to less wealthy nations such as Uganda, giving money to someone in need consistently made people happier. This trend is congruent across different circumstances and communities and is not limited to cash.

A Medicine Better Than Pills?

Generosity goes beyond subjective well-being; it turns out it's great for the heart, too.

In a study published in the journal Health Psychology, researchers asked older adults with high blood pressure to spend money on others over three weeks. The results were impressive: Participants' blood pressure dropped by magnitudes comparable to those seen with starting a new medication, exercising regularly, or making major changes to their diet, according to the authors.

Scientists suggest that acts of generosity trigger a cascade of calming, "feel-good" hormones such as oxytocin, which reduces stress and pressure on arteries and veins.

Why does giving lessen the strain on the heart? Scientists suggest that acts of generosity trigger a cascade of calming, "feel-good" hormones such as oxytocin, which reduces stress and pressure on arteries and veins.

One study put this to the test by having participants perform a simple, generous act, such as writing a supportive note to a friend, before facing a stressful task (preparing and delivering a speech within a time limit).

The "generous" group had significantly fewer stress-related markers than the control group. For instance, they had smaller increases in systolic blood pressure, which alleviated the cardiovascular stress response. Additionally, they had lower levels of salivary alpha-amylase, an enzyme linked to the "fight-or-flight" response, indicating less activation of the sympathetic nervous system.

Generosity often stems from altruism—a selfless motivation for the well-being of others—and reflects a deeper human capacity to act for others' benefit without expecting anything in return. Abigail Marsh, a neuroscientist and expert on altruism, highlights that altruistic people are less sensitive to negative emotions and have a "reduced responsiveness to anger, which is helpful because oversensitivity to anger can lead to hostility and aggression," she told The Epoch Times.

An altruist's emotional selectivity may help explain why generosity reduces stress, reflecting their resilience to negative stimuli.

Pain Relief

Giving to others provides another unexpected benefit: relief from physical pain.

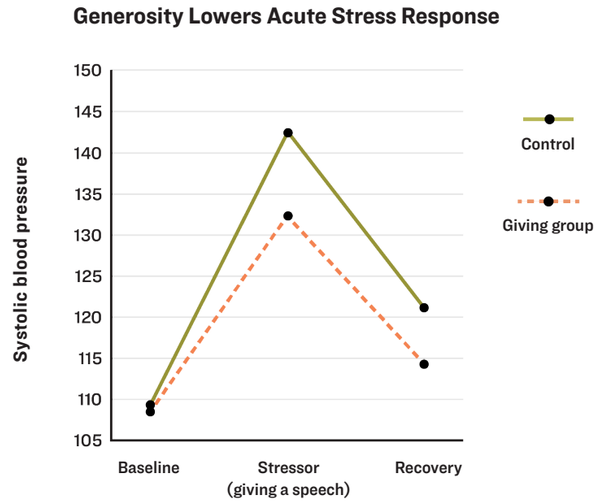
A paper published in PNAS demonstrated that generous behavior reduces pain perception and even improves pain tolerance. In one example, blood donors reported feeling significantly less discomfort during the needle prick than those having blood drawn for personal medical tests.

In another example, researchers verified the pain tolerance effect through the cold pressor test, in which participants submerged their hands in freezing water and saw how long they could tolerate the cold.

Those who had just volunteered to revise a handbook for migrant workers' children without pay reported significantly less pain and endured the cold for much longer than those who either declined to volunteer or completed the task as a mandatory assignment (control group). On average, the group that volunteered to help tolerated the pain nearly twice as long as the control group.

Strikingly, out of all the participants, only 11.6 percent managed to tolerate the icy water for the maximum time of three minutes. Who were these remarkably resilient few? Each one belonged to the generous volunteering group.

The same study applied this natural pain-relieving effect to cancer patients by having them practice helping others for three weeks. This included preparing meals for other patients and cleaning public spaces within the hospital. The result? The cancer patients reported clinically significant reductions in chronic



In a 2015 study, a group of participants performed a simple, generous act, such as writing a supportive note to a friend, before facing a stressful task, and they had significantly fewer stress-related markers than the control group.

Source: Psychophysiology

pain levels, with improvements observed over several weeks.

The authors concluded that these findings show that the act of incurring personal costs to help others may supplement current pain therapies and promote the welfare of those suffering from chronic pain.

Neuroscience of Generosity: It's Not All Tit for Tat

Marsh explained that brain regions such as the ventral striatum and ventral tegmental area are highly active when people engage in generosity. These regions are the same ones that light up during pleasurable experiences such as eating or achieving a goal, suggesting that being generous feels intrinsically rewarding on a neurological level.

Accordingly, the brain processes generosity differently depending on the motivation behind it. According to Marsh, different motivations for generosity—reciprocity, fairness, or pure altruism—are associated with distinct patterns of brain activity.

For example, helping someone because of concerns about fairness (wanting to ensure equality) engages brain regions responsible for rule-based thinking. On the other hand, purely altruistic actions—helping someone out of compassion or empathy—activate networks linked to emotional understanding and connection.

But why do some people go to extraordinary lengths to help others, even strangers, without expecting anything in return?

Marsh's research on anonymous kidney donors challenges the common assumption that people give only out of a selfish impulse.

"There was some data that suggested that when people choose to give to others, it's mostly because they are actively suppressing the desire to be selfish," she said. "But we tested this question in altruistic kidney donors and found no evidence it was true."

These individuals showed more activity in empathy-related structures in the brain. Their brain activity "mirrored" the stranger's brain in a way very similar to when they experienced pain themselves. Marsh found it interesting that these altruistic people had larger amygdalae—a brain region that plays a key role in emotions—which is the opposite of people who are psychopathic or highly uncaring. These donors' decisions reflected their genuine value of the well-being of others.

"In other words, they help others because they intrinsically value their welfare," Marsh said.

William Chopik, an associate professor of personality psychology at Michigan State University, suggests that this generosity binds people together, fostering goodwill and cooperation.

These findings highlight a truth about generosity: It isn't always about getting something back; it's not always tit for tat. For many, it's based on their values, empathy, and the joy they get from helping someone or sharing. And indeed, compared with animals, humans stand out for their capacity to care deeply about a broad range of individuals, including strangers. We seem uniquely wired to find such acts of caring intrinsically rewarding, Marsh added.

On the opposite side of the spectrum, greed—the persistent desire for more, whether it's money, material goods, or recognition—seems to have less favorable effects on health and happiness. Greedy individuals may experience temporary satisfaction from acquiring something new, such as a sense of pride after making a big purchase. However, that feeling fades quickly. Because greedy people experience "never-enough" mentalities, they develop a dysregulated reward system comparable to that of people with an addiction, which can lead to dissatisfaction, more stress, and diminished well-being.

The Boundaries of Generosity

Is all giving equal? Apparently not.

A study published in the journal Collabra: Psychology found that the type of giving, the perceived effect of the giving, and the context significantly determined the benefits of generosity.

For example, gifting an experience such as taking someone out for dinner or treating them to a concert tends to foster closer social bonds. On the other hand, material gifts, while appreciated, are less consistently associated with relationship-strengthening outcomes unless they are deeply personalized or tied to shared experiences.

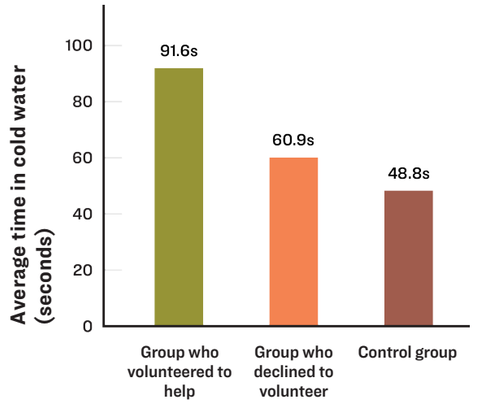
The study suggests that these differences arise because experiences are more likely to create meaningful connections, fond memories, and a sense of shared joy. Contrastingly, material gifts may sometimes feel transactional or less personal.

Further, more is not always better. Generosity is subject to the law of diminishing returns. Just like cake becomes less enjoyable after too many slices, an abundance of gifts—or overly lavish ones—doesn't necessarily yield more happiness. A small, meaningful gesture such as purchasing a cup of coffee for someone can provide the same emotional uplift.

Generosity thrives in authenticity. Genuine, autonomous giving enhances happiness; however, giving for extrinsic reasons, such as pressure or obligation, can diminish or even negate all benefits.

For instance, one participant in a 2022 study described a donation scenario wherein the participant felt pressured by an overly persistent charity solicitor outside a grocery store. Although the charity was for a good cause, the lack of choice made the experience frustrating and emotionally unsatisfying. In contrast, a participant described covering a friend's rent out of care for the person, emphasizing the voluntary nature of the act and yielding higher emotional benefit.

Altruistic Individuals Have a Higher Pain Tolerance



In a PNAS study, people who volunteered to revise a handbook for migrant workers' children endured the cold longer than those who declined to volunteer or those who completed it mandatorily (control group)

Source: PNAS

Generosity thrives in authenticity. Genuine, autonomous giving enhances happiness.

The pressure of obligation can be particularly noticeable during the holidays. Accordingly, the holidays can amplify stressors, manifesting as financial strain or the urge to outdo others, yet also represent a unique time to reflect on the virtue of generosity versus greed.

A 2019 study even found that while you would expect generosity to increase in December, it actually tends to decrease, with people reporting high levels of holiday-related stress giving less than they might at other times of the year.

From toddlers to adults, science shows that generosity reliably correlates with improved health and happiness. Yet giving doesn't have to be overwhelming. We can be generous in our day-to-day lives, Chopik told The Epoch Times: Help a neighbor take out the trash, donate a little to charity, volunteer at a soup kitchen, or simply lend an ear to a friend during a difficult time.

How I Reversed an Autoimmune Disease

True healing can come when the heart is relieved of toxic emotional burdens.

By Sina McCullough, Ph.D.

Sina McCullough.
(Courtesy of Sina McCullough)

TODAY I LIVE A HEALTHY, HAPPY LIFE. I run a business, homeschool my three children, and hike with my dogs on the weekends. You'd never know that six years ago, I nearly died from an advanced stage of an autoimmune disease.

In 2015, while still in my 30s, I was diagnosed with rheumatoid arthritis. It was accompanied by muscle wasting, arsenic poisoning, leaky gut, and deficiencies in 15 nutrients. I took a vitamin and mineral supplement every day, yet the nutrient deficiencies were so severe, I was borderline for pellagra and beriberi. Both of those diseases can lead to death, and both were eradicated in the United States by the mid-1900s.

My illness didn't happen overnight. It had been brewing my entire life, since I was in the womb. But the obvious symptoms began in my early 20s with gastrointestinal issues. Within 20 minutes of eating, I often looked like I was five months pregnant! There seemed to be no rhyme or reason. One day, I could eat pizza from my favorite restaurant and feel fine. The next week, I ordered the same pizza from the same restaurant and I would become bloated and crippled over from the pain.

I initially sought help from a Western medical doctor who diagnosed me with irritable bowel syndrome (IBS) and prescribed Tagamet. I was only 20 years old and wasn't willing to become dependent on a prescription drug, especially since I knew it wouldn't address the root cause; it would only mask the symptoms.

Consequently, I got a second opinion, and a third, and a fourth. Eventually, I saw so many doctors and had so many tests conducted that I lost count. I had three colonoscopies, two sigmoidoscopies, breath tests, urine tests, fecal tests, blood tests, and even exploratory surgery. Nobody had any answers.

Meanwhile, my symptoms continued to increase in both number and severity, to include:

- Nausea
- Brain fog
- Chronic fatigue
- Chronic sinus infections
- Susceptibility to and delayed recovery from colds and influenza
- Kidney stones
- Tumor
- Hair loss
- Multiple food sensitivities
- Five miscarriages

In total, I sought medical advice from Western doctors for 20 years. Nobody knew what was wrong. I knew it was related to diet, but the medical doctors didn't believe me. In fact, the last specialist told me the symptoms were in my head. That's when I knew that if I had any chance of healing, I had to find a different path.

Consequently, my husband and I became co-detectives. After scouring the scientific literature, we theorized I had "leaky gut," which was triggered by gluten and manmade chemicals such as genetically modified organisms (GMOs), pesticides, and herbicides. Consequently, I switched to an all organic, "gluten-free" diet.

Additionally, in an attempt to heal the gastrointestinal damage caused by those chemicals, I tried many dietary protocols, including gut and psychology syndrome (GAPS), paleo, and the candida diet. With each dietary protocol, I initially felt better but, shortly after, I felt worse. In fact, as I continued to grow sicker, my food sensitivities increased. Eventually, the list of foods I could eat dwindled down to a half a sheet of paper. Foods we think of as healthy, like apples and bananas, made me sick.

At this point in my healing journey, I was cooking everything from scratch, eating everything organic, and I never went out to eat. Regardless, a new symptom appeared: low-grade muscle pain. It migrated throughout my body with no obvious rhyme or reason and was accompanied by extreme fatigue. Shortly after, I reached a tipping point. In 2015, my entire family got the flu. They recovered within two days, but I ended up in the emergency room. I quickly spiraled downhill from there.

At my rock bottom, most of my time was spent lying on the floor in pain. I was too weak to walk up the stairs without getting winded and too tired to stand long enough to finish doing the dishes after lunch. Some days my body hurt so badly that I couldn't wrap my hand around a cup to take a drink of water. Soon it became difficult to breathe; with every breath, my ribs felt like they might break. When I chewed food, my teeth hurt as if they might fall out. Additionally, I had begun the process of muscle wasting, like a cancer patient can experience. I lost 15 pounds in one month even though I was eating almost constantly.

For the first time in almost 20 years, I was scared. My husband and I knew that if we didn't do something drastic, I wouldn't be alive to see my kids grow up and graduate from high school or get married. So I surrendered to God, who showed me a different path.

Today, nearly six years later, I'm still disease-free and have no pain. In fact, 11 months ago, at the age of 45, I gave birth to a healthy 9-pound baby girl! So how did I go from lying on the floor in debilitating pain to having more energy than ever before in my life?

I took full responsibility for my health, which created empowerment. I realized that if I got myself sick with my choices, I could also heal myself with my choices.

Consequently, I began studying how to reverse disease. I started with our food supply. Instead of blindly trusting the food in our grocery stores, restaurants, and fast-food chains, I investigated what's really in the food and how it got there. What I learned had such a profound impact on my health that I published a book about findings ("Hands Off My Food!") for the world to see.

I also listened to hundreds of hours of cutting-edge health summits that were pushing the boundaries of our understanding of disease. Eventually, I saw a pattern; the practitioners who were successful in helping their patients achieve "remission" were using many of the same basic steps.

I combined all of those steps in a more doable, practical manner to create my own disease-reversal protocol. Essentially, I created a Healing Road Map that consists of four destinations:

Remove

You must remove the physical triggers that are creating imbalances in your body. There are many possible physical triggers and everyone has their unique set. For instance, I removed the most common food triggers from my diet, including: grains, dairy, and sugar. I was also sensitive to chicken and bay leaf.

In addition, I addressed environmental triggers that were making me sick, such as man-made electromagnetic fields and toxic chemicals lurking in personal care products and cleaning supplies. I also rid my body of excess heavy metals.

Replenish

You must replenish any micronutrient imbalances, as well as imbalances in your microbiome. Building a robust microbiome is essential

My husband and I knew that if we didn't do something drastic, I wouldn't be alive to see my kids grow up and graduate from high school or get married.

Sina McCullough and her two boys. (Courtesy of Sina McCullough)

for complete healing. I built my microbiome using many different strategies, such as not eating sterilized foods (most food in the grocery store is sterilized in some manner), and eating a daily helping of fermented foods, prebiotics, and spices.

I also replenished my mind and body in others, like taking deep breaths throughout the day and spending time in nature.

Repair

You must repair any damage that exists in the gastrointestinal tract and other tissues. Fortunately, repair occurs naturally when you create a healing environment. That means reducing stress, removing physical triggers, and correcting nutrient imbalances.

Restore

You must restore your physicality by incorporating movement into your daily routine that is appropriate for your current level of fitness. In addition, when chronically sick, it's common to lose trust in your body. However, it's critical to restore that relationship so you can begin listening to your body and working with it, as opposed to working against it.

I tested this disease-reversal protocol on myself, and it worked. With help from God, I was able to reverse the disease without the use of medications. In fact, my healing was rapid. I got off the floor in three days. Within three months, nearly all of the pain was gone. And, within one year, there was no pain and no sign of disease in my body. The autoimmune disease had disappeared and Western medical doctors declared me to be in "remission."

But that's not the end of the story.

Beyond Remission

Now I'd like to share how I moved out of remission and into a space where complete healing exists.

This journey begins with perception.

How you think about disease determines whether you fully heal, stay sick, or remain stuck in remission. That may sound odd, especially coming from a doctor such as myself. However, science supports the claim that your perception creates your reality. For example, people have healed from diseases such as cancer, irritable bowel syndrome, and migraines after consuming a sugar pill because they thought they were receiving a remedy and they believed the pill would heal them. But it was their belief that actually did the healing. This is known as the placebo effect.

The corollary to the placebo effect is the nocebo effect, which is a belief that you should be sick or are going to get sick, and so you become sick. A documented example of the nocebo effect is The Framingham Heart Study, which is the most comprehensive and influential investigation into heart disease in history. It established traditional risk factors for heart disease, such as high blood pressure and diabetes, and it analyzed women with similar risk factors. In theory, since they all had similar risk factors, all the women should have developed heart disease in similar numbers. But that's not what happened.

The women who believed they were prone to heart disease were nearly four times more likely to die from heart disease compared with women who didn't believe they were prone to heart disease. This is a powerful, documented example of how negative belief or perception can make you sick.

This power of perception played a critical role in my story. Many people would view my remission from serious autoimmune disease as a good thing. And in fact, remission is usually the goal when you have an autoimmune disease, because it's often believed these diseases can't be cured. But what is "remission?"

According to the National Cancer Institute, complete remission means "all signs and symptoms of cancer have disappeared, although cancer still may be in the body." So does remission mean you're healed? No.

Furthermore, the dictionary defines remission as a "temporary recovery" or "to abate symptoms for a period" of time. That's exactly what I experienced. Once the physical triggers were addressed, such as food sensitivities, nutrient deficiencies, and heavy metal toxicity, I went into remission. I no longer had physical symptoms of the autoimmune disease, but the disease could come back; I would experience a "flare-up."

For example, if I ate too much sugar, even if it was fruit, I felt pain in my right forearm. That was my unique indicator that I was inflamed and needed to make changes or the disease could return.

I decided I didn't want to remain stuck in remission, only keeping the symptoms at bay, waiting for the disease to come back if I ate the wrong food or stressed too much.

Science supports the claim that your perception creates your reality.

Consequently, I changed my perception. Instead of rejoicing that I had achieved remission, I chose to believe that remission doesn't exist. In a sense, remission is the belief that your disease is still with you, waiting.

Remission is a limiting belief that is overwhelmingly embraced by our culture. As a limiting belief, it can prevent you from achieving complete healing, largely by keeping you stuck in a space of fear—afraid that if you don't behave in a specific way, the disease will come back. It sustains the nocebo, you could say.

I wanted to be fully healed and not stuck in fear. So I decided not to settle for remission and continued searching for answers.

I soon realized that in order to fully heal from a disease, you have to address the root cause. But the root cause of disease often doesn't exist on the physical level. For instance, Western medicine acknowledges

Forgiveness, in particular, is essential for reversing disease, as well as maintaining optimal health.

that roughly 90 percent of all disease is either caused by or related to stress. Have you ever heard the phrase "stress kills?"

When you're stressed, physically, mentally, or emotionally, your sympathetic nervous system is activated, which causes a release of adrenaline, cortisol, and other biochemicals that are designed to get you out of a stressful situation: to fight or run away.

This fight-or-flight mechanism is a fantastic tool that can save your life in an acutely stressful situation. However, most of us spend roughly 70 percent of our day in fight-or-flight, which can lead to disease. For instance, chronically elevated levels of cortisol can contribute to obesity, diabetes, and chronic fatigue. In each of these examples, what was it that caused the disease—elevated levels of cortisol, or chronic stress?

Cortisol is not the root cause; it is simply the physical manifestation of the underlying root problem: stress. We instinctively know this to be true. It's why we practice stress management and why we feel better when we "escape" the daily grind while on vacation. Yet most of us continue to look for physical answers to our seemingly physical problems, including chronic and autoimmune diseases. That's why practitioners who only address the physical realm are only able to help their patients achieve remission, as opposed to achieving complete reversal of disease.

In order to fully heal myself, I realized I had to address the root cause, which exists on the emotional or energetic level. Forgiveness, in particular, is essential for reversing disease, as well as maintaining optimal health.

For example, the medical literature contains numerous examples of diseases, including cancer, that have spontaneously reversed after an act of forgiveness. Consequently, I began the process of forgiving everyone, including myself—which was the hardest.

I know from research studies that childhood traumas are the most overlooked risk factor for disease, so I began my journey by recalling every unsettling event from that season of my life.

One by one, I forgave each person.

Some were easy to forgive, and I was able to transmute the associated emotions quickly. However, some were challenging and took more time.

For instance, my stepfather molested me for eight years. That childhood trauma left a deep wound that I had adopted as part of my identity. Forgiving him came in stages. I would forgive and then, days or weeks later, a deeper level of forgiveness presented itself and I worked through the process of forgiving all over again. Eventually I was able to completely forgive him and transmute all of the associated emotions.

The beauty of forgiveness is that you don't have to confront the person, because forgiveness is not about the other person; it's about you deciding not to carry the burden any longer. So I wrote a letter to my stepfather. I never mailed it; I didn't have to.

In the letter, I wrote everything I ever wanted to say to him. I didn't hold back; I used every hateful word that came to mind. I dumped all of the negative, toxic energy into the letter. In doing so, I gave the toxic energy back.

After I finished venting, I said these words out loud: "I refuse to carry your toxic energy any longer. I command every last ounce of toxic energy to leave my body immediately. I release you and I set you free. Right here, right now, I set myself free."

Then, I took a deep breath and exhaled all of the toxins. I visualized the toxins moving out of my body and being released into the air through my mouth as I exhaled. They were no longer a part of my body or my identity.

Remarkably, once I completely forgave my stepfather, I realized that the door to love is opened through forgiveness. It's difficult to love yourself or others when you're trapped in a space of fear or anger. Consequently, holding onto those negative emotions prevents you from complete healing.

But when you release those emotions, it makes room for love, gratitude, and peace, which ultimately brings a deeper level of healing.

Forgiveness has such a profound impact on your biology that it has become part of my daily wellness routine, right alongside eating clean food and drinking clean water.

My healing from the autoimmune disease was complete once I took full responsibility for my health, including changing my diet, lifestyle, and perspective, as well as practicing forgiveness.

The "flare-ups" disappeared, and the autoimmune disease became a distant memory of a person I no longer was. Additionally, my energy level has increased so dramatically that, at times, my children can't keep up with me!

Looking back, I was never surprised that the disease was gone; I always believed that complete healing was possible. But I was surprised at how free I felt. I reached a level of mental, emotional, spiritual, and physical freedom that I never imagined possible.

And, with that freedom came immense joy—the type of joy you hear in a baby's laugh or see on a child's face on Christmas morning.

I owe it all to God; He gave me a second chance at life and happiness. Many people are searching for their second chance, too. They might not know what that path looks like, just like I didn't. But I hope they know the power to heal themselves—physically, mentally, emotionally, and spiritually—is inside of them. And we all deserve a second chance.

Sina McCullough and her family. (Courtesy of Sina McCullough)

Sina McCullough earned a doctoral degree in nutritional biology and a bachelor of science degree in neurobiology, physiology, and behavior from the University of California–Davis, where she also taught biochemistry and bioenergetics.

Views expressed in this article are the opinions of the author and do not necessarily reflect the views of The Epoch Times.

(Shavlovskiy/Shutterstock)

Autism Abates in Twin Girls Through Lifestyle and Environmental Changes: *Case Study*

A growing body of evidence suggests personalized medicine and diet have a significant impact on numerous conditions, including autism spectrum disorder.

By Emma Suttie, D.Ac, AP

FINDINGS FROM A RECENT CASE STUDY show that personalized lifestyle and environmental changes successfully reversed autism symptoms in fraternal twin girls diagnosed with Autism Spectrum Disorder (ASD). The study appeared in the Journal of Personalized Medicine.

The study also reviewed existing literature on the impact of lifestyle and environmental modifications on ASD, supporting the findings with evidence from similar cases and studies.

The Study Details

The case study involved 4-year-old dizygotic twins who were diagnosed with "level 3 severity" autism spectrum disorder, which the study describes as "requiring very substantial support." The twins were diagnosed at approximately 20 months of age.

Dizygotic twins, or fraternal twins, result from two separate eggs (ova) being fertilized by two separate sperm. These twins are genetically similar to typical siblings but can be as different from each other as siblings born at different times. They do not share the exact same genetic material and, therefore, can look different and have different characteristics.

The case study shows that a non-drug, personalized approach by a team of multidisciplinary clinicians successfully reduced the number and severity of ASD symptoms using a variety of methods.

Conception

The twins were conceived through in vitro fertilization using an egg donor and carried by a surrogate. Their father was 51 years old at the time of conception. They were born two months premature and spent several weeks in the neonatal intensive care unit. The twins received routine vaccinations at three and six months, but no further vaccination until 14 months. The girls were given acetaminophen before and after vaccination.

Initial Symptoms

The girls' parents observed some initial symptoms. One twin had sensitivity to changes, eczema, and digestive issues, and the other had problems making eye contact, babbling communication, difficulty breastfeeding, and decreased muscle tone (hypotonia).

Both twins received breast milk (from the surrogate and their biological mother) for 12 months and had no issues with eating or sleeping.

At 12 months, the girls stopped drinking breast milk, and the introduction of cow's milk caused digestive as well as behavior and language problems in both girls.

In March 2021, the girls received the series of vaccines that had been delayed due to the COVID-19 pandemic. After this round of vaccinations, their parents noticed a worsening of some symptoms, including "significant language loss" for one of the girls, who began communicating using only single words.

ASD Diagnosis

Due to the worsening symptoms, the twins were evaluated for ASD, and both subsequently met the criteria for DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) ASD diagnosis.

Lifestyle and Environmental Interventions

After their diagnosis, the twins' parents began a comprehensive, personalized approach to address their daughters' condition. Their approach was holistic and non-pharmacological and considered a variety of potential environmental and biological factors influencing ASD.

The interventions and support for both the twins and their parents began after the twins' diagnosis at approximately 20 months of age and continued over the following two years. The following is a summary of their interventions and support:

- The parents worked with a coach to help understand the twins' diagnosis and gain confidence.
- The parents learned about the "total allostatic load" concept, which links chronic stressors to disease, and used resources such as webinars and forums through Epidemic Answers.
- The parents completed the Child Health Inventory for Resilience and Prevention survey—"a comprehensive assessment of total allostatic load (cumulative effects of chronic stress on mental and physical health) among children."
- Made dietary changes—They followed the Reduced Excitatory Inflammatory Diet, eliminating glutamate, gluten, casein, sugar, artificial colors, and processed foods, and focused on organic, fresh, home-cooked meals from local sources.
- Incorporated dietary supplements—The girls took supplements that included omega-3 fatty acids, vitamins, and homeopathic remedies.
- Differentiated the twins' needs—Genetic variants revealed that each twin had different needs, for example, one twin needed more vitamin D, while the other needed support for neuroinflammation and detoxification.
- The twins received various therapies, including Applied Behavior Analysis, speech therapy, and occupational therapy focused on neuro-sensory motor reflex integration.
- The family addressed toxins in their home, using an environmental consultant to evaluate air quality, moisture levels, and water damage.
- One twin had osteopathic care on the recommendation of a developmental optometrist resulting in notable improvements in communication and overall disposition.

Throughout the study, the children's parents shared insights about their journey. "Conventional statistics have stacked the odds against the ability to recover a child from an ASD diagnosis. Our approach was therefore focused on following a nonconventional, holistic understanding of each daughter's bio-individual needs, exploring root cause and designing customized support," they said.

"We chose practitioners who were aligned in our belief in our daughters' intrinsic ability to heal given the right support."

Results

Due primarily to the implementation of lifestyle and environmental changes over two years, the twins achieved a reversal of their diagnoses of level 3 ASD. Significant improvements were seen in their social interactions, communication skills, and behavioral patterns.

There were also dramatic improvements in scores using the Autism Treatment Evaluation Checklist—a 77-question assessment tool used to evaluate the effectiveness of ASD treatment, with lower scores indicating improvement in symptoms.

Both twins "improved dramatically," with one going from a score of 76 to 36 in seven months, and the other from 43 to 4 over the same period.

The study notes that the improvements were so profound the pediatrician exclaimed that one of the girls had undergone "a kind of miracle."

The combined interventions, along with the commitment of the children's parents, led to a "dramatic improvement and reversal of ASD diagnoses" for the twins.

Both twins "improved dramatically," with one going from a score of 76 to 36 in seven months, and the other from 43 to 4 over the same period.

Beth Lambert is founder and executive director of Epidemic Answers, a website made up of parents, clinicians, researchers, authors, and wellness experts dedicated to helping kids heal from health issues. She is also one of the study authors.

Mrs. Lambert spoke with The Epoch Times and explained that there is hope for children with ASD and other conditions as well as resources for parents to support them through the process.

"We're doing research to try to gather evidence that many of these conditions are reversible. But also we're trying to create a platform where we can give solutions to parents—we're trying to educate them, and we have an online

> ***Modern living is making our children sick, but it's also making all of us sick–and our children are the canaries in the coal mine.***
>
> — Beth Lambert, study author

community [Healing Together] where we're teaching them how to do this work themselves," she said.

Autism Prevalence

According to the study, the prevalence of autism is growing with increasing speed. In the early 1990s, the number of children diagnosed with autism in the United States was 1 in 2000. Throughout the 1990s, the diagnostic criteria for autism were broadened to include a wider range of symptoms and behaviors. This expansion is reflected in updated editions of the Diagnostic and Statistical Manual of Mental Disorders.

For example, in the DSM-5, published in 1994, the diagnostic criteria were expanded and broken into subtypes such as Asperger's disorder, autistic disorder, and pervasive developmental disorder not otherwise specified.

There was a further expansion of the criteria in the DSM-5 released in 2013, which merged the previous subtypes into one unified diagnosis of autism spectrum disorder, or ASD.

These changes contributed to a significant increase in autism diagnoses in the subsequent years–however, some physicians believe that these factors alone are not enough to account for the dramatic rise in ASD diagnoses.

According to Centers for Disease Control and Prevention data, in 2000, 1 in 150 children had a diagnosis of ASD, but their most recent data state that in 2020, 1 in 36 children had a diagnosis of ASD, which represents more than a 300 percent increase in the past two decades.

The study states: "Published projections estimate that even if the future prevalence of ASD remained unchanged over the next decade, there would be approximately 1 million new cases, thereby resulting in an additional $4 trillion of lifelong social costs in the United States. Furthermore, if the current rate of increase in prevalence continues, costs could reach nearly $15 trillion of lifelong costs by 2029."

Mrs. Lambert said, "Modern living is making our children sick, but it's also making all of us sick–and our children are the canaries in the coal mine."

Final Thoughts

The study findings suggest that environmental and lifestyle factors play a significant role in the manifestation of ASD symptoms and that targeted interventions in these areas can lead to substantial and lasting improvements–including a reversal of symptoms.

The study authors note that the engagement of the parents or caregivers is vital to the process.

"The commitment and leadership of well-informed parents or guardians is an essential component of the effective personalization that appears necessary for the feasibility of such improvements."

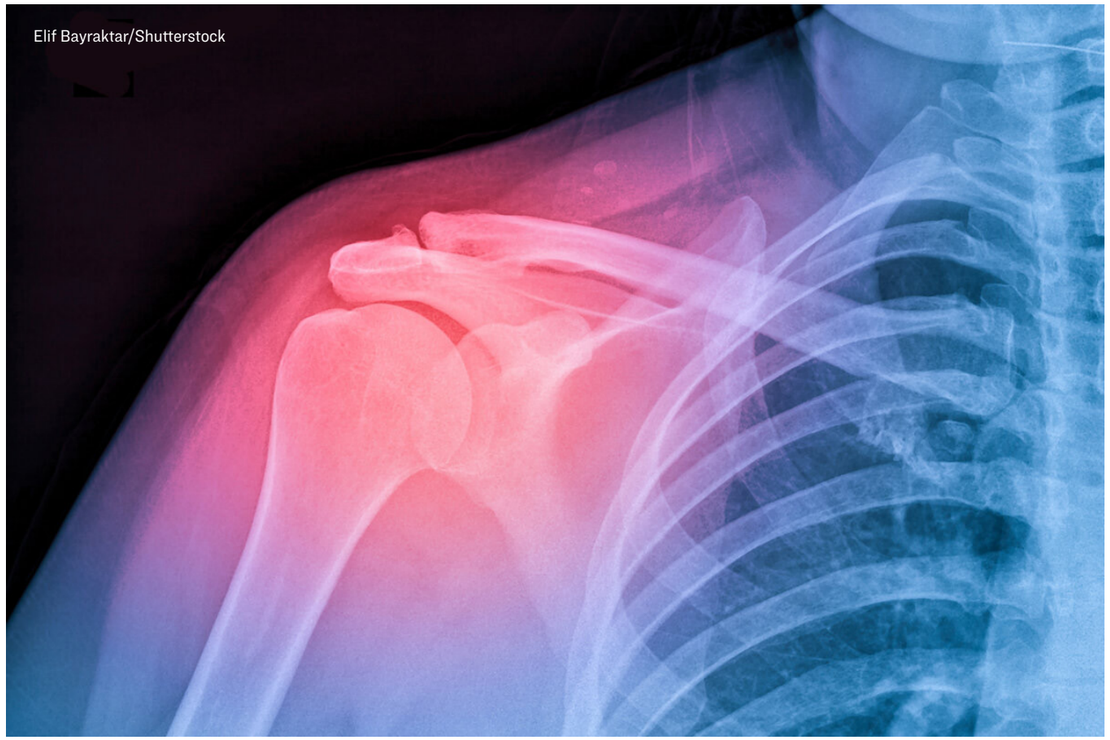
What the study clarifies is that treating ASD requires a personalized, multifaceted approach rather than a one-size-fits-all solution, as ASD diagnoses are as unique and complex as the individuals they affect.

The twins' parents agree, according to a section in the study containing their perspective.

"Having fraternal twin daughters diagnosed with Autism Spectrum Disorder at 20 months has given us a profound appreciation of the highly individual presentation of Autism."

For families dealing with an ASD diagnosis, Mrs. Lambert said, "You are not alone."

"I want people to know that there is support for them. We have a conference [Documenting Hope] so that we can invite parents in so that they can become part of our community. We can do this together, which is working to heal our kids together."


Elif Bayraktar/Shutterstock

Rethinking Disease

Exhaustive Chronic Conditions May Result From Stored Trauma, *Here's How to Release It*

Past trauma may explain some of your otherwise unexplainable symptoms.

By Zena le Roux

JUST AS PAINFUL MEMORIES ARE STORED IN THE BRAIN, other experiences also become trapped in the body, according to experts. When these experiences aretraumatic events that had an overwhelming effect on us, we may not even remember them, but our bodies do.

"If you are experiencing strange symptoms that no one seems to be able to explain, they could be arising from a traumatic reaction to a past event that you may not even remember," Peter Levine wrote in "Waking the Tiger." Mr. Levine is a psychologist with a doctorate in medical and biological physics.

How Does All of This Work?

When faced with a threat, the body activates the fight-or-flight stress response, a survival mechanism that puts the body into a high-energy state to either confront or flee from the danger. Ideally, this surge of energy gets discharged through action. However, Mr. Levine says that if one cannot fight or flee, this energy can become trapped in the body long after the traumatic event. He calls it "frozen residue of energy."

This is more likely to occur if you had no way to protect yourself or escape from the traumatic experience, according to Arielle Schwartz, psychologist and author of "Therapeutic Yoga for Trauma Recovery."

This perspective is only a theory, but it provides a useful framework to understand and deal with a common experience.

The trapped stress can manifest as various physical issues years later, including headaches, digestive problems, chronic pain, hyperarousal, insomnia, mood swings, fatigue, weakened immunity, hormonal imbalances, musculoskeletal issues, severe premenstrual syndrome, and asthma.

"If someone had certain adverse childhood experiences or early traumas—also known as a high ACE (adverse childhood experiences) score—they typically are more likely in adulthood to develop chronic exhaustive illness," Elaine Wilkins, founder of The Trauma-Informed Wellbeing Coach, told The Epoch Times. Ms. Wilkins uses a coaching method that recognizes how past trauma manifests in a client's present experiences.

Ms. Wilkins said it is frustrating that the acute disease model focuses on treating symptoms instead of addressing the root cause of symptoms.

"Years back, when I was in a lot of pain, I was offered antidepressants, sleep medication, and pain medication, but no one asked me what was going on in my life," Ms. Wilkins said.

"Thankfully, the health care model is starting to change, and many practitioners are realizing that they need to start supporting patients biologically, psychologically, and socially."

The Body's Cry for Help

Dr. Gabor Maté, a distinguished physician and author of "When the Body Says No: The Cost of Hidden Stress," explores how unresolved emotions can manifest as physical discomfort, pain, tension, and even debilitating illness.

"When we have been prevented from learning how to say no, our bodies may end up saying it for us," Dr. Maté wrote.

For some people, the stresses of life have a cumulative and debilitating effect that can lead to different diseases and conditions. In other cases, past traumas leave a powerful imprint that can "teach" a person unhealthy behaviors, such as chronic worry or escapism.

Various strategies and tools are available to help people overcome these lingering survival patterns.

> ***When we have been prevented from learning how to say no, our bodies may end up saying it for us.***
>
> — Dr. Gabor Maté, author, "When the Body Says No: The Cost of Hidden Stress"

Somatic Experiencing

One approach gaining traction in both clinical and holistic settings is somatic experiencing.

This body-oriented therapy, developed by Mr. Levine, aims to restore a sense of regulation and safety by releasing trauma from the body.

Trapped energy can be released and discharged through gentle movements such as vibrating, twitching, and slightly trembling muscular tissue, Mr. Levine says.

These methods can help to re-pattern the body, he says, and support healing.

In "Waking the Tiger: Healing Trauma," Mr. Levine explains how wild animals rarely experience trauma. After a life-threatening event, they shake to release adrenaline and cortisol. This process helps their nervous system return to a normal, balanced state. Mr. Levine said he uses this phenomenon to treat human trauma more effectively.

Tension and Trauma Releasing Exercises

A practical way of "shaking out trauma" is through Tension and Trauma Releasing Exercises (TRE), developed by David Berceli, a renowned expert in trauma intervention and conflict resolution. This technique helps release lingering trauma in the body by using gentle vibrating and shaking that calms the nervous system and promotes healing.

A study published in Psychology early this year found that TRE led to "a significant reduction in symptom severity as well as the number of symptoms," among a group of traumatized East African refugees.

"It was concluded that TRE is an effective means of improving the trauma-related symptoms in East African refugees," the study reads.

A pilot study published in the Journal of Traditional and Complementary Medicine in 2021 also tested TRE on patients with multiple sclerosis with promising results.

"Decreases were seen in the mean scores of all nine self-reported day-to-day symptoms as well as stress level, while sleep quality mean score increased," the researchers reported.

TRE and other somatic-based therapies can be done at home or used as therapeutic modalities when working with a therapist.

Somatic Practices and Psychotherapy

Lidalize Grobler, an educational psychologist with more than 10 years of experience, often works with people who present physical symptoms due to stress or trauma. In those cases, she uses different forms of somatic practices, such as eye movement desensitization and reprocessing, TRE, somatic experiencing, and brain-working recursive therapy.

"Patients can experience more functionality, find a sense of equilibrium, and life can become free again" when trauma has been processed in this way, Ms. Grobler told The Epoch Times.

A practical way of "shaking out trauma" is through Tension and Trauma Releasing Exercises (TRE).

(Lucian Coman/ Shutterstock)

Mind-Body Practices

Modalities such as dance therapy, yoga, and tai chi offer opportunities to release stored energy and reconnect with the body through breath awareness, body-mind connection, and mindful movement.

Notably, 10 weeks of yoga practice—in hour-long weekly sessions—seems specifically effective at reducing post-traumatic stress disorder symptoms for patients who failed to respond to any other treatment or medication, according to a paper published in The Journal of Clinical Psychiatry.

Dr. Bessel van der Kolk, a pioneering psychiatrist and the author of "The Body Keeps the Score," highlights the effectiveness of "age-old, nonpharmacological approaches" such as deep breathing, martial arts, drumming, and chanting in helping people shift out of fight-or-flight responses. These practices can be done at home and are easily accessible to most people.

A Solid Support System

Dr. Van der Kolk also stresses the importance of a good support network, which can be an antidote to trauma and a powerful protection mechanism.

Patients tend to recover best in the presence of others, such as therapists, religious communities, loved ones, families, and Alcoholics Anonymous meetings, as these provide emotional and physical safety, free from judgment or shame.

"Trauma cannot be ignored," Mr. Levine wrote in "Waking the Tiger." It is deeply rooted in people's primal biology, which has allowed us to survive. The only path to liberation is renegotiating and transforming our traumatic experiences, he wrote.

> ***10 weeks of yoga practice—in hour-long weekly sessions—seems specifically effective at reducing post-traumatic stress disorder symptoms.***

(Comaniciu Dan/ Shutterstock)

(Elizabethsalleebauer/Getty Images)

Life's Wonders

The Many Health Benefits of Your Pet's Bacteria

A growing body of evidence is finding a microbial advantage to owning pets, especially in childhood, adding to other health benefits of animals.

By Amy Denney

DOGS HARBOR MORE THAN 600 DIFFERENT BACTERIA in their mouths alone, making every lick and slobber a potential human health risk.

Just like humans, pets have a microbiome—communities of bacteria, fungi, and viruses—not only in their mouths, but also on their skin and in their stool. Although only 16.4 percent of dogs' oral bacteria are also found in humans, it's apparent that we swap microbial critters with them just like we do with members of our family.

In Favor of Pets

Nearly 45 percent of U.S. households have a dog, and 25 percent have a cat, according to the American Veterinary Medical Association.

Previous studies have found that pets can reduce stress, prevent heart disease, and lower the risk of high blood pressure, depression, asthma, allergies, and obesity. The microbial connection strengthens the argument that animals can be good for human health.

A 2024 review in Research in Veterinary Science noted that our relationship with pets generally causes homeostasis in both human and animal microbial patterns. Microbial homeostasis indicates that the balance of microorganisms living in one's gut is favorable for preventing an overgrowth of disease-causing bugs.

"As a result of keeping pets, the microbiota of different areas of the human body has changed, which has been associated with a decrease in pathogenic bacteria and an increase in beneficial bacteria," the study authors concluded.

Possible Explanation

Microbial benefits conferred to humans from their furry companions were discovered in a May study published in Clinical Gastroenterology and Hepatology. Researchers were examining possible environmental triggers among 4,289 relatives of patients with Crohn's disease to see what might make them more or less susceptible to developing the disease themselves. Crohn's disease is a type of inflammatory bowel disease that can affect any level of the digestive tract.

What they found was that dog ownership increased the relative abundance and diversity of gut bacteria.

Diverse and abundant microbial communities in the human gut are associated with health benefits, including protection against pathogen-driven illnesses and disease.

"It's critical to know that [this finding] doesn't mean dogs will prevent disease," said William Turpin, co-author of the study that is part of the ongoing genetic and environmental microbial project. "It's not a cure. It's just an association. We need more studies to verify whether this is truly a factor."

Those participants who owned dogs at the time of the study or had dogs early in life also had less inflammation in biomarker testing and tighter intestinal junctions. Loose junctions are associated with altered intestinal permeability and gastrointestinal (GI) illnesses.

Exposure to dogs was found to be protective in all age groups and regardless of how old participants were when they owned the dog. However, the strongest association of reduced exposure was in the 5-to-15 age group.

Having a dog was "the most robust association with the reduction of Crohn's. We tried to be as broad as possible ... and we included many different environmental factors and a lot of different animals," Turpin told The Epoch Times.

The findings could have implications for other GI conditions, Turpin said, such as irritable bowel syndrome and celiac disease. Both have been associated with similar patterns of low microbial diversity and gut permeability.

> ***What we actually found was the opposite. People who had pets were protected.***
>
> — Laurel Redding, associate professor of epidemiology at the University of Pennsylvania School of Veterinary Medicine

"It is possible that this discovery of dogs decreasing those risk factors may be relevant to other GI diseases," he said.

Animals Shedding Microbes

Laurel Redding, associate professor of epidemiology at the University of Pennsylvania School of Veterinary Medicine, noted a growing body of research showing young children exposed to farm animals or house pets tend to have richer and more diverse gut microbiomes.

Disease-causing microbes tend to get a lot of research and media attention, Redding told The Epoch Times. More than 60 percent of known human infectious diseases are capable of being spread from animals, and 75 percent of new or emerging human infectious diseases originated in animals, according to the Centers for Disease Control and Prevention.

"The focus in the past has tended to be on what we share with animals that's bad, and there is a decent amount of microorganisms we share that are bad," Redding said. "More recently now, we're trying to focus on what we share that's good. There's been a lot less research done on this, and that's one of the things I'm hoping to change."

She said that people can have bacteria and other microorganisms transferred from pets in a home by petting the animals or being licked; changing litter boxes or cleaning up animal feces; and inhaling dust from dander or fecal matter.

People can also transfer their microbes to pets, she added. Redding was among a group of researchers who wanted to learn whether this exchange could contribute to the recurrence of Clostridium difficile (C. diff) infections, which cause diarrhea, fever, nausea, dehydration, stomach cramping, and loss of appetite.

Protection Against C. Diff

The most common cause of infectious diarrhea in health care settings, C. diff infections are often associated with recent antibiotic use. Antibiotics often wipe out health-protective bacteria and leave a person's immune system compromised and vulnerable to more infections. The elderly and children, as well as those who were recently hospitalized, are more at risk of C. diff infections.

Redding and a team of researchers originally thought that pets could be a reservoir for C. diff. In other words, they believed it was possible that those struggling with C. diff could pass the infection to their pets, which could shed it back into the environment and make pet owners sick after their initial recovery.

"What we actually found was the opposite. People who had pets were protected, or less likely to have recurrence of C. diff infection," she said.

Although the finding was surprising, Redding said it was validated by a "dose-response effect," meaning the more exposure, the greater the benefit.

"The more contact you had with your pets, so if you let it sleep on your bed and let it lick your hands and face, you were even better protected than someone who didn't. That was a really interesting and unexpected finding," she said.

Redding is continuing to explore the mechanism at work. The results raise the question that pets could be restoring protective microbes to their owners' microbiomes that help them keep C. diff from causing symptoms, she said.

C. diff can be found in healthy subjects.

Redding published another study in 2023 involving C. diff and pets that determined whether pet owners and animals were passing the bacterium back and forth. In 47 households, C. diff was detected in 30 humans, 10 dogs, and zero cats. Of those samples, the same strain was found in only one household, suggesting that C. diff is rarely being transmitted between people and pets.

Nevertheless, animal-to-human transmission of C. diff is possible. A case study published in 2022 in Anaerobe found a 10-month-old baby became ill with the identical C. diff strain as a dog in the home that had chronic diarrhea.

Love Pets With Caution

Redding said those who have weakened immune systems because of certain diseases, such as diabetes or autoimmune conditions, as well as those taking certain medications, should be especially vigilant to avoid the spread of disease from their pets.

A 2024 review on the impacts of dogs' oral microbiota on human health offered these suggestions for protecting yourself from pathogens around your pet:

- **Regularly wash your hands.**
- **Remove and throw away dog feces using gloves or plastic bags.**
- **Stay away from areas that may be contaminated with dog feces.**

Redding added that if you feed raw food to animals, be sure to frequently wash your hands and their feeding bowls.

"There's always going to be a fine line between the risks and the benefits. At this point, we really don't know where that line is," she said.

"Certainly, there's hope that pets can be microbiologically beneficial to us in addition to the psychosocial aspect.

"So yeah, hug your pets, but wash your hands after."

(sarahwolfephotography/Getty Images)

Life's Wonders

Classical Music Alters the Brain *–Here's How*

The main difference between classical and pop music is that classical music has unique rules that the brain likes.

By Flora Zhao

(Illustration by Lumi Liu, Shutterstock)

A **GRAY-HAIRED OLDER WOMAN SAT MOTIONLESS** with her gaze lowered. In the late stages of dementia, she no longer spoke to others or made eye contact.

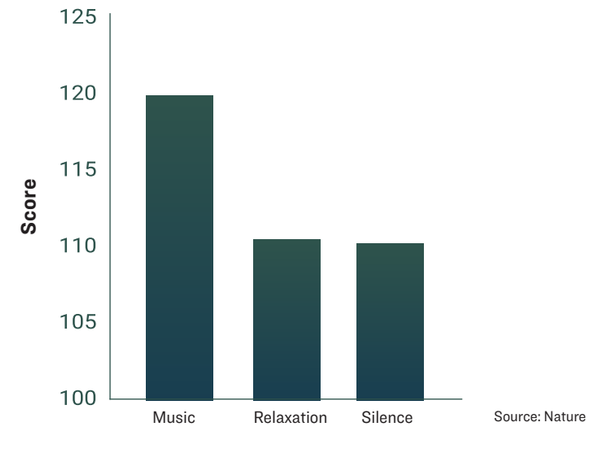
When Ayako Yonetani started playing the violin, the woman slowly lifted her head.

"Her mouth moved, and her eyes brightened as if she heard my music and was trying to follow it," recounted Ms. Yonetani, a concert artist and professor of violin and viola at the University of Central Florida School of Performing Arts.

Those who spent time with the woman were astonished. "They had never seen her react like this before," she said. But this was only one of many times that Ms. Yonetani had seen such a thing.

Clear Evidence

One study published in the 1990s in the journal Nature drew people's attention.



Three groups of participants were instructed to either sit in silence, listen to a relaxation tape, or listen to Mozart's Sonata for Two Pianos in D major (K448). Ten minutes later, the group who listened to Mozart's music showed a significant improvement in spatial IQ score—nearly 10 points higher than the other two groups.

Since then, scientists have used Mozart and other classical music in various experiments on animals and humans, confirming similar results: Listening to classical music or learning to play an instrument leads to higher school grades and stronger spatial reasoning skills, reduces the risk of brain atrophy, and slows cognitive decline.

The "Mozart effect" truly exists, said Kiminobu Sugaya, who has a doctorate in pharmacology and is a professor of medicine at the University of Central Florida College of Medicine and head of neuroscience at the Burnett School of Biomedical Sciences, during an interview with The Epoch Times. In experiments with local community residents, he found that when this type of classical music was played, "we saw a 50 percent increase in brain function."

Certain types of classical music not only enhance cognitive abilities but also are used to treat brain disorders such as epilepsy or Parkinson's disease. "The Mozart effect is clear evidence that you can alter the brain function and abnormalities with music," Dr. Michael Trimble, professor emeritus of neurology and neuropsychiatry at the University College London Institute of Neurology and a Fellow of the Royal College of Physicians, told The Epoch Times. Sometimes, epilepsy is more difficult to control with medication, and using carefully selected and edited classical music to "train" the brains of epilepsy patients can normalize their brain waves and electroencephalographic abnormalities.

A study published in Interdisciplinary Science Reviews in 2022 indicated that "to this date, K448 and K545 have remained the only anti-epileptic music selections that have been verified by repeated experiments." The study also cited data from a 2020 meta-analysis, which found that "approximately 84 percent of participants in the reviewed studies exhibited significant reductions in epileptic brain activity while listening to Mozart's K448."

What the Brain Wants

Regarding the effects on the human brain, the main difference between classical and pop music lies in "the complexity and structure," Clara James, who has a doctorate in neuroscience and is a professor at the University of Applied Sciences and Arts in Geneva, Switzerland, and Privatdozent at the University of Geneva, told The Epoch Times.

Before the age of 32, Ms. James was a professional violinist.

Classical music of the common practice period (1600–1900) adheres to strict structural and harmonic rules. Even nonmusicians will notice a problem with its structure if a performer makes a minor mistake, Ms. James said.

"It places a significant emphasis on proportion, balance, and harmony," Ms. Yonetani added.

In contrast, other forms of music may not strictly adhere to these structural rules.

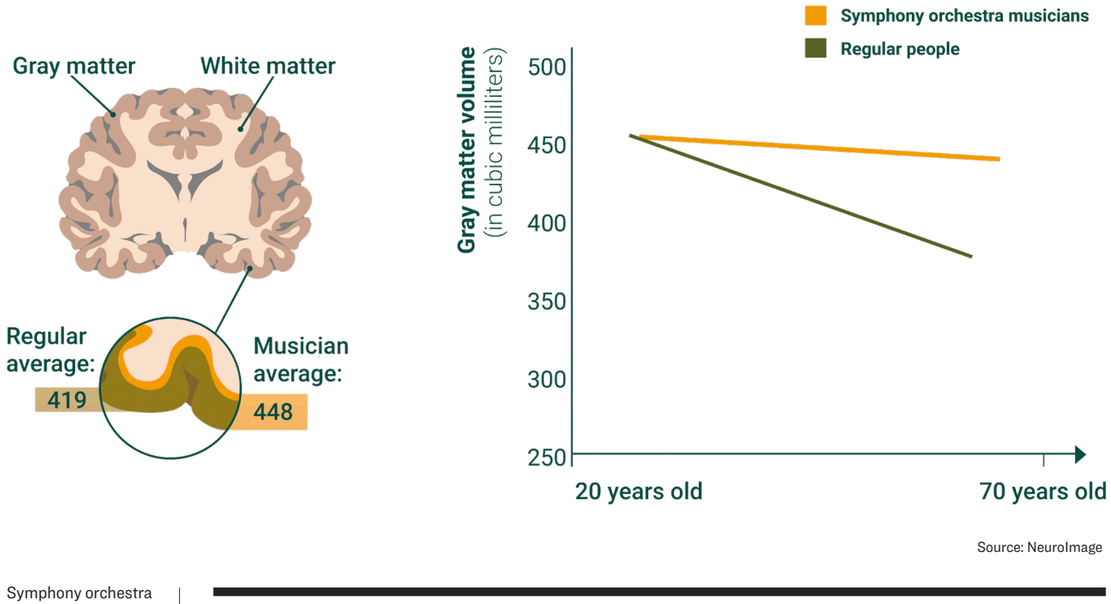
The human brain "likes the rules of music," Dr. Trimble said. "There are certain musical sounds that are deeply embedded within the ability of our nervous system to be moved by music." He emphasized that music contains natural rules and mathematical logic, especially classical music, wherein the connection to mathematics is robust. Therefore, it is universally recognized and accepted by the brain.

Mozart developed a truly different style of music, moving away from the earlier Baroque period, Dr. Trimble noted. Mozart's K448, which was the first piece used to investigate the brain effect and the impact of Mozart's music on the brain in general, "may relate to spectrogrammatic considerations—in particular, the presence of lower harmonic frequencies.

"Classical and pop music differ in so many ways," he continued. Pop music contains continual repetition around the same musical sequences, conveying information that is often vague and banal without the subtle development and variation that occurs in the progression of classical music.

Ms. James pointed out that a typical classical music piece features a wide range of rhythms, with dynamics varying from extremely loud to very soft and extremely slow and fast sections—

> ***The Mozart effect is clear evidence that you can alter the brain function and abnormalities with music.***
>
> — Dr. Michael Trimble, professor emeritus of neurology and neuropsychiatry, University College London



Symphony orchestra musicians have significantly higher gray matter volume than regular people, and their brain volume barely declines with age.

all seamlessly integrated. In comparison, a single pop music track has limited variability and maintains a regular rhythm.

Besides, classical music pieces are relatively long, typically ranging from 20 to 25 minutes; some are even longer, such as Gustav Mahler's works, which can last more than an hour. It carries rich information and allows the brain ample time to process it, much like slowly savoring an apple, as opposed to quickly consuming an apple-flavored gummy candy.

Furthermore, the live sound volume at modern pop music concerts can be deafening, and the singers' and fans' behavior can be quite wild. "You can't hear the music because people are screaming all the time," Dr. Trimble said.

Increased Gray Matter

As people age, their brains gradually shrink, resulting in a gradual loss of neurons. However, one study found that in orchestral musicians, certain parts of their brains do not shrink over time and can even increase in size.

MRI tests conducted under Mr. Sugaya's supervision also had similar findings.

The brain is composed of gray matter and white matter. Gray matter, consisting of neurons, has been observed to increase in volume following musical activities. Ms. James explained that this increase is not due to an increase in neurons but rather "because the connections between the neurons get stronger." On the other hand, white matter

Classical music can improve brain function and reduce stress. It also can evoke a sense of sacredness, inspiring gratitude and reverence. Shen Yun Symphony Orchestra performing at the Boston Symphony Hall on Oct. 13, 2018. (NTD Television)

refers to short or long axons of neurons, which act together as the brain's communication network, similar to how local roads and highways connect different cities. When listening to music, the network gets better built and oriented.

Additionally, the hippocampus–a deep brain structure–"lights up" when people listen to music attentively, Ms. James said. The hippocampus plays a critical role in cognition, memory, and emotion.

Our memory of music seems to last longer than memories of everyday events or experiences from certain stages of life. This phenomenon explains why some older individuals can effortlessly recall and sing songs or melodies they enjoyed in their youth. The hippocampus also helps people understand music. If this part of the brain is not engaged, one will not comprehend what they hear–like listening to a different language.

The Emotional Impact

International surveys found that more than 80 percent of us cry to music, but only 18 percent and 25 percent tear up when viewing sculptures and paintings, respectively. "Music moves us," Dr. Trimble said.

Classical music is closely linked to emotion. Dr. Trimble believes that "the actual

> ***Nothing compares to a live concert ... [for getting] the highest experience, pleasure, and stimulation.***
>
> — Clara James, neuroscientist, former professional violinist

response that we have to music is almost transcendental."

Classical music can be more effective than other music for reducing stress and anxiety, as it typically includes moments of relaxation and calmness. "Every piece contains slow sections that help you relax," Ms. James said. In certain therapeutic settings, such as hospitals, especially in intensive care units, the works of Mozart, Bach, and some Italian classical composers are often preferred for their superior stress-relieving and pain-reducing effects.

Jonathan Liu, a traditional Chinese medicine (TCM) practitioner and acupuncturist in Canada, told The Epoch Times that classical music has played a significant role in healing throughout history. It can also evoke a sense of sacredness, inspiring gratitude and reverence.

Ms. Yonetani was told a story after playing a large concert in a European church. Halfway through her playing, an older woman sitting among the audience had slowly transitioned from sitting to kneeling on the ground, closing her eyes in devout prayer. "Personally, performing masterpieces such as Beethoven's violin concerto or Bach Chaconne evokes a sense of awe," she shared.

Behind the stirring of emotions lies a series of substances produced within the brain.

Music promotes the brain's secretion of endorphins, enkephalins, dopamine, and serotonin. Each has varied biological effects, from inducing pleasure and relaxation to alleviating physical discomfort and promoting sleep.

Mr. Sugaya mentioned that attending a classical music concert is ideal for dates because dopamine released in the brain can make you appear more charming to your partner. Beautiful music can also increase oxytocin, a love hormone.

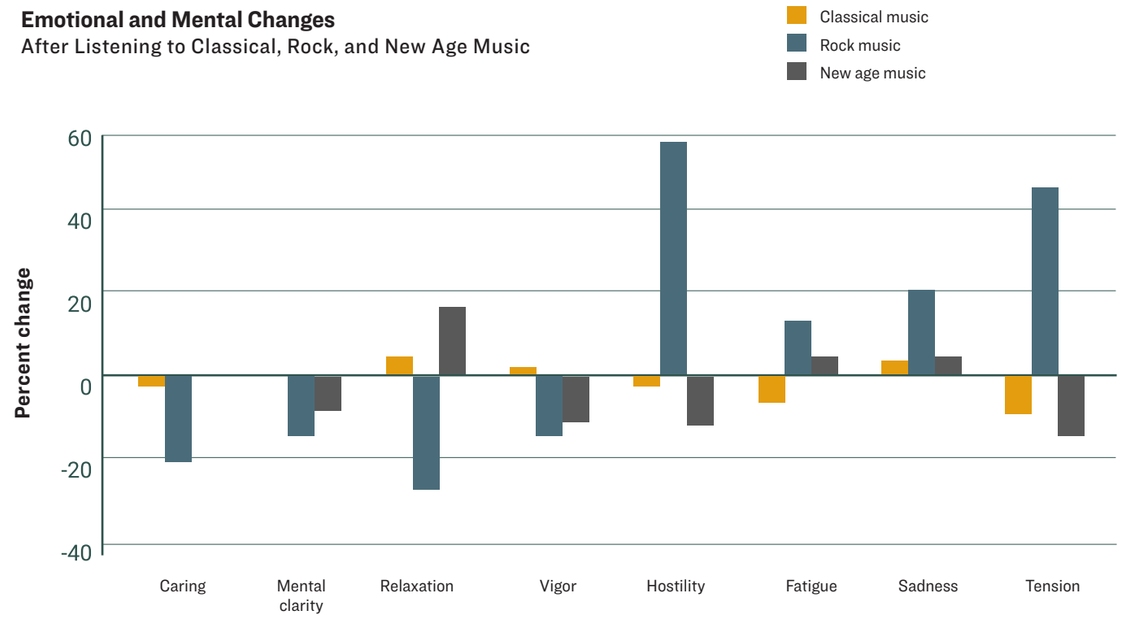
"The brain has a lot of untapped potential that humanity has not fully explored yet," Mr. Liu said.

The release of dopamine induces happiness and ignites sparks in the brain's cognitive and reward systems. Ms. James explained that when people experience chills or shivers down their spine while immersed in classical music, they're experiencing a phenomenon in which the brain's reward system is fully activated and aroused by such a pleasurable experience.

Contrary to classical music's anxiety- and depression-reducing effects, some modern genres of rock music bring about excessive excitement and melancholy. When discussing young people's preference for stimulating music, Dr. Trimble stated, "I do not believe that helps your emotional state." Instead, he believes this music arouses anger and negative emotions.

Certain modern genres of New Age music may also negatively affect emotions.

In an older study, 144 participants of various ages listened to different music categories for 15 minutes, filling out the same questionnaire before and after listening. The results showed that classical music significantly reduced feelings of tension. Contrastingly, New Age music, while reducing feelings of tension and hostility, also lowered people's mental clarity and vigor. Rock music not only significantly increased feelings of hostility, fatigue, sadness, and tension but also reduced people's mental clarity and vigor and their feelings of caring and relaxation.



Source: NeuroImage

A study showed that classical music significantly reduced feelings of tension. New Age music reduced tension and hostility but also lowered mental clarity and vigor. Rock music significantly increased negative feelings and reduced positive ones.

Not Esoteric

Ms. James encourages people to incorporate classical music into their daily lives.

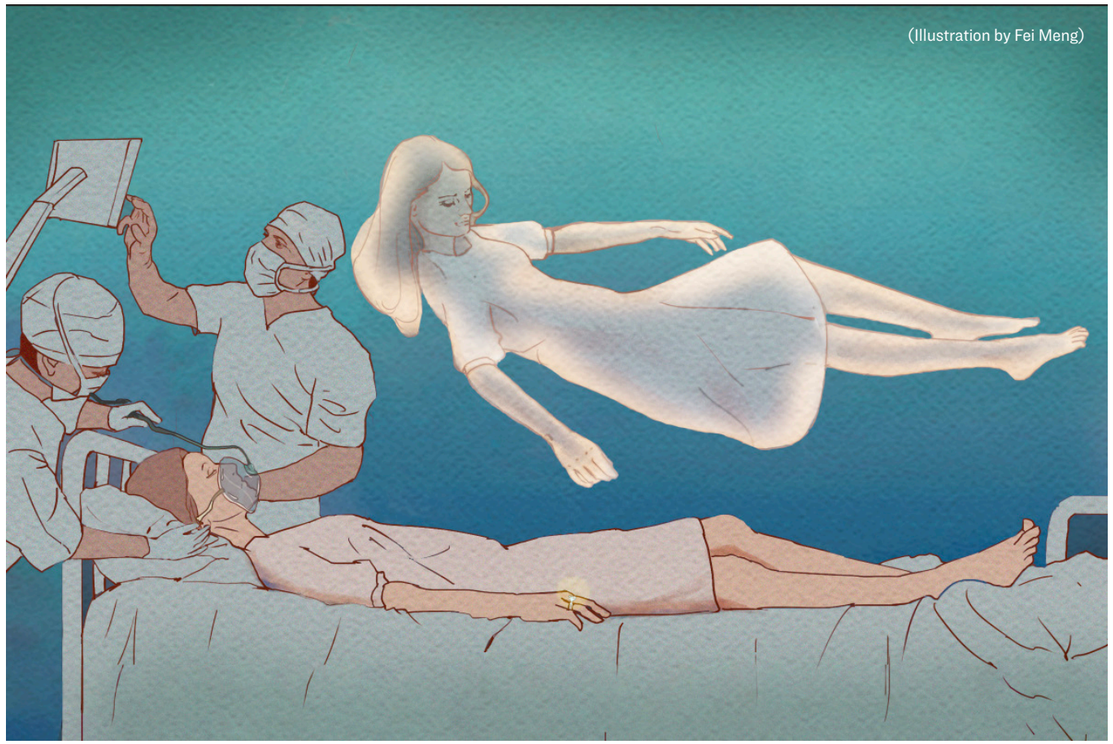
For the average person, classical music is not esoteric or difficult to understand; many classical pieces are actually quite accessible. "Someone who never had music lessons can still appreciate music very much," she said.

Ms. Yonetani also noted that classical music from the Classical era initially served as entertainment for the nobility, rendering works by composers such as Mozart and Joseph Haydn quite approachable and enjoyable. Moreover, classical music of the Baroque era by composers such as Bach and Handel is an excellent introduction to music appreciation despite its slightly more intricate nature. Classical music from the Romantic era, exemplified by composers such as Brahms and Robert Schumann, offers a wealth of beauty and depth.

Ms. Yonetani shared an endearing detail about her daily routine. "My husband and I listen to music while eating breakfast." Additionally, she believes listening to classical music during one's work commute can be a rewarding way to appreciate its beauty and depth.

Notably, both Ms. Yonetani and Ms. James spoke of the tremendous charm of live concerts.

"Nothing compares to a live concert," Ms. James emphasized, stating that the best way to appreciate classical music is at a concert. People can focus without distractions, immersing themselves in the music and the musicians' vivid performance, thereby receiving "the highest experience, pleasure, and stimulation."


(Illustration by Fei Meng)

Life's Wonders | Health Viewpoints

From Blindness to 360-Degree Vision—*What 4,000 Near-Death Cases Bring to Light*

Blind from birth, a 22-year-old woman experienced seeing herself for the first time—while on the operating table.

By Yuhong Dong, M.D., Ph.D.

VICKI UMIPEG WAS BORN PREMATURELY at 22 weeks, weighing only 3 pounds. Her optic nerve was damaged due to high oxygen in the incubator, resulting in complete blindness. She had no visual experiences, no awareness of light whatsoever.

At the age of 22, she was thrown out of a car in Seattle, resulting in severe injuries—skull fractures, concussion, and injuries to her neck, back, and leg. While being rescued in the hospital, she found herself floating to the ceiling.

She had panoramic vision and saw a woman's body lying on a metal operating table, with a male and female medical staff member each working to save her. When she noticed the distinct wedding ring on the prone woman's hand, she realized it was her ring, and the woman lying there was her.

As she had been blind all her life, she had never seen that ring or her body. Only in that near-death experience (NDE) did she see her ring.

Vicki was the research subject of Dr. Jeffrey Long, a practicing radiation oncologist in Kentucky. Long has dedicated over 25 years to studying NDEs. He has researched and reviewed more than 4,000 cases of unique NDEs and published them on his website, the Near-Death Experience Research Foundation.

Long summarized the most common experiences of NDE based on his research, similar to what Dr. Raymond Moody, the "father of NDE," has found. They are as follows:

- Out-of-body experience
- Absence of pain
- Passage through a tunnel toward a bright light
- Encountering deceased loved ones in a heavenly realm
- Undergoing a profound life review
- Feeling overwhelming love and peace

Vicki's case falls under the typical "out-of-body experience." Her experience, especially the panoramic vision, is shared by all those who undergo NDEs.

360-Degree Vision

In a recent conversation with The Epoch Times, Long recalled his conversation with the blind woman.

"She had a 360-degree vision, where she could simultaneously be aware of and process vision during her near-death experience: in front of her, behind her, right, left, up, down.

"In fact, I told Vicki that the rest of us in our earthly lives have these pie-shaped visual fields because of the location of our eyes, in our eye sockets. She literally laughed at me because her entire life experience with vision [during her NDE] was in 360 or spherical vision."

Though initially unfamiliar with math and science, Vicki intuitively grasped calculus and understood how planets are formed after her NDE. She gained answers to questions about science, math, life, planets, and God, experiencing a flood of knowledge and understanding languages she didn't know before.

From Delusion to Reality

In the past, people who reported NDEs were often dismissed by the scientific community as delusional or religiously influenced until a significant shift in perspective over the past few decades.

In 1978, five independent medical doctors and scientists—John Audette, who has a master of science degree; Dr. Bruce Greyson; Dr. Raymond Moody; Ken Ring, who has a doctorate in social psychology; and Dr. Michael Sabom—co-established the International Association for Near-Death Studies, paving the way for exploring these

extraordinary experiences through the scientific lens.

"I first heard about near-death experience decades ago when I was in my residency training," Long said, "and in one of the world's most prestigious medical journals, the Journal of the American Medical Association.

"I was flipping through the journal looking for a cancer-related article, and totally by accident, found the phrase 'near-death experience' in the title of an article. I was puzzled because nothing I'd learned in medical school explained that. You're either alive or dead."

The article was written by Sabom, a cardiologist who studied people who had survived cardiac arrest and coma. Some patients reported that their consciousness came out of their bodies and observed what was happening while they were unconscious, he wrote. What they described seeing was accurate down to the finest details.

Several years later, the wife of one of Long's college friends shared her detailed and remarkable NDE with him.

"During a surgery under general anesthesia, she went into cardiac arrest due to an allergic reaction, meaning her heart stopped," Long said.

"At that point, she had an out-of-body experience, witnessing the chaos in the operating room and hearing the loud alarm from the EKG monitoring her heart. She briefly passed through a tunnel and found herself in a non-earthly realm where she encountered other beings. There, she was given a choice about returning to her life. She asked the beings for guidance, and after some conversation, she decided to return to her body. She was successfully resuscitated."

Long wondered why more people weren't researching this fascinating phenomenon, so he began collecting NDE cases. He built a database of 4,000 of them—"By far the largest publicly accessible collection of near-death experiences in the world," he told The Epoch Times.

In a survey, he asked people directly about the reality of their experience, and nearly 95 percent of respondents said their experience was "definitely real."

The 30 Failed Hypotheses

According to Long, people who are skeptical about NDEs have proposed more than 30 explanations for these experiences.

"The reason that there are so many of these skeptical explanations—over 30 floating around—is very simple," Long told The Epoch Times. "None of the skeptical explanations explain anything during the near-death experience, let alone everything that occurs."

To debunk NDEs, hypotheses of hallucinations induced by hypoxia (decreased oxygen levels) and hypercarbia (increased carbon dioxide) were raised. The reason these fail is simple: "Medically, that results in confusion and diminished consciousness, not increased," Long said.

A study in The Lancet studied hundreds of patients who were successfully resuscitated after cardiac arrest or clinical death. Eighteen percent of those patients reported NDE. If cerebral hypoxia is what causes NDEs—and everyone clinically dead has hypoxia—then most of these patients should have had an NDE, said the researcher. However, this was not the case.

Others have argued that endorphins—the brain's naturally produced narcotic-like substance—might explain NDEs. However, endorphins continue to exert their post-event pain-relieving effect on the brain for over an hour, which is not aligned with NDE, Long said.

"With near-death experiences, the moment they return to their physical body—boom—there's no relief of pain or anything; they're instantly having pain," Long said.

> ***I was puzzled because nothing I'd learned in medical school explained that.***
>
> — Dr. Jeffrey Long, NDE researcher

Others have proposed seizures. But Long said, "Seizures generally cause reduced or substantially altered consciousness, not the lucid, consistent experiences."

Ernst Rodin, the former president of the American Clinical Neurophysiology Society, commented, "In spite of having seen hundreds of patients with temporal lobe seizures during three decades of professional life, I have never come across that symptomatology [NDE] as part of a seizure."

The Lancet study also concluded that patients' medication or fear of death were found not to be associated with NDEs.

'Doubly Impossible'

NDEs have even been documented under general anesthesia.

"Under general anesthesia, you should have no possible lucid, organized, conscious experience," Long said.

While under general anesthesia, some people's hearts stopped. In this case, Long said, it should be "doubly impossible to have any conscious experience." Yet these people still have the same typically hyper-lucid, hyper-alert, hyper-conscious experience typical of all other NDEs, he added.

"That, almost single-handedly, refutes any possibility that NDEs are due to physical brain function."

Beyond Cultures, Religion, and Age

Other hypotheses include the psychological model, which proposes that NDEs are caused by imaginations based on personal, religious, or cultural background. However, individuals often report NDEs inconsistent with their life experiences or beliefs regarding death.

Some say NDEs are culturally determined. However, Long has found that the experiences are "remarkably similar wherever in the world they occur.

"No matter where on Earth they happen, it doesn't make any difference. Whether you're, say, a Muslim in Egypt or a Hindu in India, a Christian in the United States, or even an atheist everywhere in the world that near-death experiences occur—whatever [a person's] prior belief system was or wasn't, what happens during a near-death experience is strikingly similar."

After the 1976 Tangshan earthquake in China, Chinese scientists observed a similar pattern of NDEs in the Western record.

Among the 81 survivors, 65 percent had

heightened clarity of thought, 43 percent felt separation from their physical bodies, and 40 percent felt weightlessness. The experience was similar regardless of age, sex, occupation, or health status before the earthquake.

Long studied a group of children 5 and younger with an average age of 3.5—"practically a culturally blank slate," he said. "The content of these very young children is strikingly similar to the content of near-death experiences of older children and adults."

Meeting God

Moody, who started studying NDEs over half a century ago, has pointed out that many near-death experiencers describe encountering a radiant entity known as the "Being of Light," as Moody describes in his book, "Life After Life: The Investigation of a Phenomenon—Survival of Bodily Death."

This light is often described as a brilliant and indescribable radiance that doesn't harm the eyes. Most individuals perceive this light as an advanced being imbued with love and warmth, or God.

Vicki also reported seeing an extraordinarily radiant figure in her NDE; she recognized this as Jesus.

To investigate the truthfulness of "God" in NDEs further, Long conducted research on God between 2011 and 2014 based on 420 cases of NDEs from people of various professions and walks of life.

Before experiencing a near-death event, 39 percent of people believed in the "absolute existence of God." After their NDE, this belief increased to 72.6 percent. The number of individuals who believed in the absolute existence of God increased by 86 percent, and their faith in God greatly intensified, he wrote in his book, "God and the Afterlife: The Groundbreaking New Evidence for God and Near-Death Experience."

Long carefully examined 277 encounters with God and found a significant consistency in their descriptions: the presence of an all-loving and all-gracious supreme being radiating love and grace.

Other common features of encounters with God described in NDEs include non-judgment, acceptance of who the person is, and a sense of unity or oneness with God. Communication is essentially always non-physical or telepathic in these experiences.

Before experiencing a near-death event, 39 percent of people believed in the "absolute existence of God." After their NDE, this belief increased to 72.6 percent.

Positive Message

Before delving into NDE research, Long was puzzled by questions like "Who are we?" He felt that we are much more than just the physical operation of our brains.

NDEs provide overwhelming evidence for consciousness apart from the body—a more eternal existence, said Long. We are not just constrained, operating machines but lives with numerous possibilities beyond our current recognition.

This is "the most powerfully positive message" for all of humanity, he added.

Views expressed in this article are the opinions of the author and do not necessarily reflect the views of The Epoch Times.

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