WEEK 43, 2022 THE EPOCH TIMES ALL PHTOS BY SHUTTERS



This succulent weed is one of the most underappreciated genuine superfoods around.

Purslane: **A Superfood** and Potent **Medicine**

This common 'weed' is one of the most nutritious and easily grown foods in the world

EMMA SUTTIE

Purslane is a superfood you may have never heard of. This humble weed is a treasure hiding in plain sight, commonly found growing in the cracks of sidewalks, along the edges of driveways, and in other urban environments.

UNDIAGNOSED

Are Your Chronic and Mysterious Symptoms Really a Mystery?

Understanding Autoimmunity

Millions of people suffer from autoimmunity for years because insurance companies don't approve screening until organ or tissue destruction.



JPM/GETTY IMAGES

4 DOCTORS OVER **A 4 YEAR PERIOD**

before receiving a correct diagnosis for late-stage, clinically obvious autoimmune disease. SOURCE: AMERICAN AUTOIMMUNE RELATED DISEASES ASSOCIATION

It also happens to be one of the most nutritious greens on the planet and a powerful healing herb that has been used in Western herbalism and Chinese medicine for millennia.

"Recent research demonstrates that purslane has better nutritional quality than the major cultivated vegetables, with higher beta-carotene, ascorbic acid, and alpha-linolenic acid. Additionally, purslane has been described as a power food because of its high nutritive and antioxidant properties," Malaysian researchers note in a 2014 review published in Scientific World Journal.

Purslane is in the Portulacaceae family and is also known as pigweed, little hogweed, verdolaga, and red root. It's thought to be native to North Africa, the Mediterranean, and the Indian subcontinent but to have arrived in North America and Europe by the late 16th century. Now grown worldwide in both tropical and temperate climates, purslane grows year-round in warm climates, and from late spring through early fall in colder climates.

Also known as Portulaca oleracea, the herb is a succulent and often grows as a groundcover, reaching about six inches tall and spreading out in a wide mat. It has thick, dark green leaves with smooth stems that are reddish-pink in color.

Purslane prefers full sun and will grow in almost any kind of soil. The plant produces small, yellow flowers that grow in groups of two or three that appear in late summer and like to open in the first few hours of morning sun. It's happiest in warm weather and, although it prefers to be watered regularly, it's quite resistant to drought, making it easy to grow and allowing it to thrive almost anywhere.

Continued on Page 4



DATIS KHARRAZIAN

hile heart disease and cancer dominate the media, millions more people suffer from a barrage of miserable and sometimes debilitating "mystery" symptoms. These symptoms can rob them of their energy, motivation, ability to function, livelihood, relationships, and even their hope.

It takes most patients many years of visiting multiple doctors before they finally find out that an autoimmune disease is causing their symptoms.

Until then, they're told they're "perfectly healthy," accused of making up symptoms that "don't exist," or prescribed antidepres-

sants. Never mind that they can't get out of bed, they hurt all over, their brain barely functions, they have lost motivation to do anything, they can't lose weight but are losing hair, or they have a myriad of other unexplainable health issues.

When these patients find their way to functional medicine, testing shows that many of them suffer from the early stages of autoimmune reactivity, a condition in which an imbalanced immune system mistakenly attacks and destroys a person's own body tissue, usually slowly over many years. Autoimmunity can attack any tissue, enzyme, hormone, or cell in the body, depending on a person's genetic predisposition and their unique inflammatory triggers. Common examples of autoim-

Antibod ies are elevated for years before autoim munity destroys tissue.

mune diseases include Hashimoto's thyroiditis, multiple sclerosis, rheumatoid arthritis, psoriasis, vitiligo, celiac disease, Graves' disease, Type 1 diabetes, lupus, and some inflammatory bowel diseases.

Normally our immune system defends us against bacteria, viruses, and other pathogens. However, immune imbalances and chronic inflammation can cause it to attack the body's tissues, organs, and glands, too. This is called "autoimmunity" or "self-attack immunity." In the early stages of autoimmunity, our immune system makes immune antibodies that erroneously stick to our own tissue instead of attaching to foreign invaders.

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The Dire Connection Between Diet and Obesity, Depression, and Anxiety

A physician researcher is linking hyper-processed foods to highly problematic brain changes

MARTHA ROSENBERG

he link between routine obesity and mental health disorders is more significant than most people realize and one physician researcher has been work-

ing to better understand the reasons. Obesity has become epidemic with the work in the field. average American man now weighing 198 pounds—up from 166 in the 1960s—and the average American woman weighing 170 pounds—up from 140 in the 1960s. Concurrently, mental disorders like depression, anxiety, ADHD, and posttraumatic stress disorder are also becoming epidemic, and Dr. William Wilson, author of the "Brain Drain," believes the phenomena are correlated.

While many researchers have linked several of these conditions to factors related to modern life, everything from sitting too much, to social isolation, to environmental contaminants including endocrine disrupters, Dr. Wilson believes the overarching cause is our food.

UNDIAGNOSED

Or more accurately, his findings focus on how the food we commonly eat triggers a neurological/psycho-emotional disorder he calls "Carbohydrate Associated Brain syndrome" or the CARB syndrome.

Dr. Wilson is the unusual family physician who is also active in the research community, a combination that led to his

According to Dr. Wilson, the long-term consumption of highly processed food made by Big Food, or the "Food Industrial Complex" as he calls it, has had a profound impact on brain function. These ultra-processed foods are packed with high glycemic carbohydrates and sugars that drain the body of crucial neurotransmitters like dopamine, epinephrine, serotonin, and norepinephrine. This loss nudges people toward mental disorders even as it compels the body to store extra fat—regardless of how much the person eats.

"I noticed a strange correlation [in my patients] between certain brain dysfunction symptoms and changes in body composition, and the symptom changes

Are Your Chronic and Mysterious Symptoms Really a Mystery? Understanding Autoimmunity

Continued from Page 1

When these antibodies attach to our own tissue, this signals our immune system to send out destructive immune cells called natural killer cells to destroy the tissue just as it would destroy a pathogen.

Millions of people suffer for years or decades without treatment because insurance companies don't approve screening for autoimmunity until the patient shows significant signs of organ or tissue destruction. At this point, the patient can be prescribed some type of immune-suppressing treatment

However, a patient's ever-worsening symptoms and declining function can go on for years before diagnosis. Until then, doctors continue to tell patients they're perfectly healthy.

This is unfortunate, as early antibody

testing allows patients to make dietary and lifestyle modifications to relieve symptoms and prevent the condition from progressing.

Let me give you an example. Let's say a person starts to develop an autoimmune reaction against their joints. It could have been any tissue—skin, thyroid, brain—but in this case, let's make it simple and say the autoimmune reaction is against their joints. In the early stages, they may suffer from chronic joint pain with varying degrees of recurring pain. At first, their joints look normal; there's no joint fusion, deformity, or arthritic nodules yet, just pain and inflammation. A doctor visit will likely result in nothing more than advice to take an over-the-counter drug for inflammation and pain.

Over the years, the autoimmune reaction progresses, and they develop joint fusion,

AN INCREASING PROBLEN

ALL PHOTOS BY SHUTTERSTOCK

The average American adult weighs 30 pounds more now than in the 1960s. With the added weight comes a slew of negative effects on the body.

That tempting nighly processed food that always seems to be available has profound neurological

always preceded the body composition changes," Dr. Wilson told The Epoch Times. In other words, psychological factors seemed to have a causative role in weight gain.

"To me, this suggested that when it comes to fat storage, the brain calls the shots," he says.

Dr. Wilson made this observation after taking the somewhat unusual step 16 years ago to begin measuring body composition using a Futrex machine. It measures body composition far more accurately than the typical method of using body mass index (BMI), which is a formula based on dividing

weight by height. Unfort BMI takes no account of muscle. Even people with anorexia

can still have excess body fat, says Dr. Wilson Over the years, Dr. Wilson has amassed a database of more than eighteen thousand

cases and he noticed another pattern: when body composition improved, so did several psychological conditions. A 2003 paper by Harvard re-

searchers theorized that 14 common brain disorders may be part of an overall disease called "Affective Spectrum Disorder." The

consequences.

paper got Dr. Wilson thinking. "I realized they were the same symptoms associated with changes in body composition and I eventually identified 22 symptoms

that fit this pattern. The symptoms, which Dr. Wilson says characterize CARB syndrome are:

- 1. Carbohydrate cravings
- 2. Abnormal hunger drives 3. Excessive physical and mental fatigue
- 4. Difficulty concentrating and focusing
- 5. Poor impulse control 6. Feelings of depression
- 7. Excessive anxiety
- 8. Excessive mood swings
- 9. Insomnia
- 10. Lack of proper sensory filtering
- 11. Low self-esteem 12. Low self-image
- 13. Loss of cognitive function
- 14. Lack of empathy
- 15. Chronic pain
- 16. Short-term memory problems 17. Internal restlessness and racing
- thoughts
- 18. Poor listening skills 19. Obsessive-compulsive tendencies
- 20. Intestinal symptoms 21. Increased communication lag time
- (CLT)
- 22. Consciously thinking about food and eating

At the heart of CARB syndrome is a pattern of disordered eating that is linked to shifts in brain chemistry and mental health.

The symptoms of CARB syndrome can overlap with many traditional brain disorders, says Dr. Wilson, which creates confusion in the medical and scientific communities.

"For example, bipolar disorder has been with us since the dawn of human civilization, characterized by mania and psychosis—a complete separation from reality," he says.

"Over the past 50 years, we have been seeing a lot of people with hypomania but no psychosis. The medical profession decided to call this 'bipolar disorder II' which, in my opinion, is wrong. These patients have CARB syndrome which is unrelated to bipolar disorder I. If you treat them with antipsychotics, over time they get worse and gain a lot of weight."

Disordered Eating

People with CARB syndrome do not eat like normal people, Dr. Wilson explains.

"In normal, healthy people without CARB syndrome, mild cravings for sugar and highly refined carbohydrates can occur, especially after consuming processed food, but these cravings tend to be mild and transitory," he says.

In those with CARB syndrome, "these cravings become very in-

tense and persist regardless of food consumed. They push people to consume more of the very food that is frying their brains, triggering a vicious circle of disease and declining quality of life. There are likely multiple reasons for these pathological cravings, including fluctuating

glucose levels."

Published Research Supports Diet and Brain Connections Studies in the scientific literature nets. Research published in the journal Current Nutrition Reports in 2019 observes that, "dopamine receptor agonists show attenuation of obesity and improvement of mental health in rodents and humans. Modulating brain insulin and dopamine signaling in obese patients can potentially improve therapeutic outcomes."

In other words, fixing dopamine issues decreased obesity and improved mental health in the subjects, suggesting one way to treat obese patients.

Research published in 2017 in the journal Birth Defects Research notes that recent studies have highlighted how "palatable high fat and high sugar 'junk' foods" affect brain function, "resulting in cognitive impairments and altered reward processing."

"Diet can lead to alterations in dopaminemediated reward signaling, and inhibitory neurotransmission controlled by gammaaminobutyric acid (GABA), two major neurotransmitter systems that are under construction across adolescence."

The researchers conclude that, "poor dietary choices may derail the normal adolescent maturation process and influence neurodevelopmental trajectories, which can predispose individuals to dysregulated eating and impulsive behaviors."

In short, eating poorly can affect brain development and trigger disordered eating even as it undermines impulse control.

This year, research published in the journal Behavioural Brain Research also studied links between diet and brain function in adolescent rats. The researchers looked at the role of high fructose corn syrup (HFCS), an ingredient found in almost all junk food.

Mental disorders like depression, anxiety, ADHD, and post traumatic stress disorder are also becoming epidemic.

"While HFCS consumption has been linked to an increased likelihood of obesity and other physical health impairments, the link between HFCS and persistent behavioral changes is not yet fully established," wrote the researchers.

"The present study aimed to assess whether adolescent HFCS consumption could lead to alterations in adult behaviors and protein expression, following cessation," and the researchers found it did.

"Taken together, these data suggest that adolescent HFCS consumption leads to protracted dysfunction in affective behaviors and alterations in accumbal proteins which persist following cessation of HFCS scientious eating makes a difference in those consumption," they conclude.

Dr. Wilson co-wrote a 2021 article with Dr. Richard Johnson, a top fructose researcher, in the journal Evolution and Human Behavior which The Epoch Times cited earlier this year. Titled "Fructose and Uric Acid as Drivers of a Hyperactive Foraging Response: A Clue to Behavioral Disorders Associated With Impulsivity or Mania?" the article also buttresses the CARB syndrome concept.

Is There a Link Between CARB

Syndrome and COVID-19? Obesity has been linked, in the scientific literature, to a greater chance of contracting COVID-19 as well as a greater chance of developing COVID-19 complications, links

> of medicine that's nevertheless epidemic. Most patients simply must become their own autoimmune experts to understand their condition and how to manage it. The good news is, we have plenty of research and resources available, though it takes quite a bit more work than going to the doctor and getting a prescription.

> Autoimmune management requires a personalized approach of overhauling your diet so that it's anti-inflammatory, removing other inflammatory triggers from your life (they're different for everyone), getting daily physical activity but not overtraining, getting plenty of good quality sleep every night, and avoiding toxins, including toxic situations and people. I give more advice on my site at DrKNews. com and in my books, videos, and podcasts.

Datis Kharrazian, Ph.D., DHSc, DC, MS, MMSc, FACN, is a Harvard Medical School trained, award-winning clinical research scientist, academic professor, and world-renowned functional medicine health care provider. He develops patient and practitioner education and resources in the areas of autoimmune, neurological, and unidentified chronic diseases using non-pharmaceutical applications.

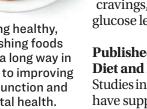
Reducing exposure to toxins and removing them from the body can significantly reduce the prevalence of autoimmune diseases

Yet, both conventional and alternative health care providers aren't up to date with the research. Most medical schools still only teach how to identify late-stage autoimmune

maceutical, or lifestyle applications. A survey conducted by the American Autoimmune Related Diseases Association found that the average patient diagnosed with a serious (late-stage and clinically obvious) autoimmune disease had seen more than four doctors over a four-year period before receiving a correct diagnosis. I know of patients who have seen as many as 20 different

Most patients aren't aware that their symptoms are due to the early stages of autoimmune disease. They've seen numerous practitioners, both conventional and alternative, become a connoisseur of hundreds of supplements, tried multiple diets of every extreme, and taken to the internet to search, vent, and commiserate with the many other people in the same boat.

a shot in the dark. Occasionally, they will stumble onto what seems to be a miracle cure. But for the most part, symptoms of undiagnosed autoimmunity turn into a life of



in almost all junk food. In many recent studies, this additive has been shown to alter neurotransmitters in the brain that increases junk food cravings

which Dr. Wilson also notes.

and impulses.

"I believe that in many cases there is a two-way connection between COVID-19 and CARB syndrome," he says. "Because the brain plays a critical role in maintaining a healthy immune system, I believe that people with CARB syndrome are more prone to developing COVID-19. Once people have the illness, they don't fully recover due to their malfunctioning immune system, and they end up with what is termed 'long COVID-19.' If you peruse the typical symptoms of long COVID-19, they closely overlap with typical CARB syndrome symptoms."

If someone develops COVID-19 and doesn't already have CARB syndrome, they are more likely to develop it down the line, Dr. Wilson adds.

"That's because COVID-19 alters brain function, making individuals more prone to developing other brain disorders like CARB syndrome. Thus COVID-19 and CARB syndrome seem to be connected in a deadly dance into sickness and diminished qual ity of life."

How Can Those With CARB Syndrome-Like Conditions Recover?

Because neurons "dump" neurotransmitters when exposed to high glucose levels and they are excreted in the urine, Dr. Wilson says he gives patients precursors of neurotransmitters such as the amino acids L-tyrosine, DLphenylalanine, and 5-hydroxytryptophan (5-htp) and sees their condition improve.

"I also add L-glutamine, an amino acid that helps to suppress those pesky cravings for sweet and starchy food," he says.

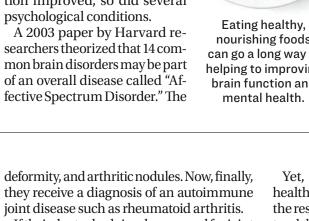
Not surprisingly, more healthful and consuffering from negative diet/brain connec tion says Dr. Wilson, who offers some recipes on his website CarbSyndrome.com.

As a final word, Dr. Wilson says, "CARB syndrome is preventable, reversible, and treatable," and no one should be discouraged.

Martha Rosenberg is a nationally recognized reporter and author whose work has been cited by the Mayo Clinic Proceedings, Public Library of Science Biology, and National Geographic. Rosenberg's FDA expose, "Born with a Junk Food Deficiency," established her as a prominent investigative journalist. She has lectured widely at universities throughout the United States and resides in Chicago.

This is a misunderstood and neglected area





joint disease such as rheumatoid arthritis. If their doctor had simply screened for joint antibodies in the early stages, the condition could have been identified and its progression either significantly slowed or completely halted through dietary and lifestyle applications.

Most patients aren't aware that their symptoms are due to the early stages of autoimmune disease.

Autoimmune antibodies are elevated for years before autoimmunity destroys tissue. Unfortunately, both conventional and alternative medicine models don't routinely test for early markers of autoimmunity, nor do they implement dietary, nutritional, and lifestyle suggestions to affect the expression of the disease.

It's unfortunate that millions of patients spend much of their lives suffering because of this disconnect, especially considering how clear the research is. Studies show autoantibodies appear in the early stages of autoimmunity and can be used as both diagnostic and predictive tools in clinical settings.



have supported Dr. Wilson's te-

disease, not how to identify autoimmunity in its early stages and nor how to affect its progression through dietary, nutritional, phar-

doctors looking for help.

Every supplement and every therapy is endless searching and experimenting.



Purslane: A Superfood and Potent Medicine

Continued from Page 1

Purslane as Medicine Because of purslane's abundant healing properties, it has many applications in medicine, some of which are listed below:

- · Purgative: used for purging or cleansing the body, usually by evacuating the bowels
- Cardiac tonic: improving the efficiency and contraction of the heart, leading to improved blood flow to all parts of the body
- Emollient: softening, soothing, and moisturizing the skin
- Muscle relaxant: relaxing the muscles, helping to ease muscle spasms or contractions
- · Anti-inflammatory: reducing inflammation • Diuretic: helping the body to cleanse
- itself through elimination through the urine

In medicine, almost all parts of the purslane plant are used, including the stem, leaves, flowers, buds, seeds, and juice.

Purslane is mentioned in the writings of Roman naturalist and philosopher Pliny the Elder from the first century. During the Roman empire, purslane was used as a remedy for headaches, inflammation, bladder disorders, dysentery, and hemorrhoids. His writings also suggest that purslane was used in the Roman diet as a main vegetable and an addition to salads.

In Ayurvedic medicine, the traditional medical system of India, purslane is used to treat indigestion, ulcers, edema, eye diseases, and asthma.

It's also used in the Middle East to prevent scurvy, expel worms, reduce fever, and treat skin conditions.

Fights Cancer

A study from the Asian Pacific Journal for Cancer Prevention published in 2014 showed that purslane extract killed 83 percent of human liver cancer cells in vitro.



your daily life. It flourishes in sandy, disturbed soil, which includes around sidewalks driveways, and alongside houses.

Perhaps even more impressive is that after taking the ex-

tracts, the cancer cells died within 24 hours. In other studies, purslane extracts have also been shown to be toxic to breast, lung, colon, and cervical cancers and sarcoma, which are cancerous tumors in the bones and soft tissues.

BMC Complementary and Alternative Medicine published a study in 2019 that set out to examine the effect of purslane on cervical cancer. The study states that cervical cancer is the second-most prevalent cancer worldwide and the most common gynecological malignancy. More than 500,000 new cases are diagnosed every year, mostly in developing countries.

The study found that polysaccharides isolated from purslane, when taken orally, inhibited the growth of cervical carcinoma by enhancing the body's immune response.

Improves Asthma Symptoms

A 2019 study published in the Iranian Journal of Pharmaceutical Research found that purslane improved the diseased lungs of asthmatic rats, raised their total white

In Chinese medicine, purslane is the herb 'ma chi xian" and in ancient Chinese folklore was referred to as "the vegetable for long life."

Purslane has antioxidant, antiinflammatory, cholesterollowering, anti obesity, and anti-diabetic properties.

Purslane is one of the richest plant sources of omega-3 fatty acids, which are usually found in fish and flax seeds. WASANAJAI/SHUTTERSTOCK

blood cell count, and decreased inflammation. The study proposes that purslane extract could be used as a preventative anti-inflammatory treatment against asthma.

that purslane extract killed

83%

of human l

Another study, published in the Avicenna Journal of Phytomedicine in 2017, showed that purslane extract had both anti-inflammatory and immunomodulatory effects on rats with asthma. Immunomodulation is the ability to alter or regulate the immune system by activating or suppressing its function. The extract had an equal or better effect than dexamethasone, a steroid medication used to treat inflammation associated with moderate to severe asthma

In an older study on asthmatic patients. researchers found that oral administration of 5 percent boiled extract or .25 milliliters per kilogram of purslane was as successful at opening airways as the medication theophylline, a drug used to relax and open the airways of the lungs to alleviate the symptoms of asthma, chronic bronchitis, and emphysema. In the study, published in the Journal of Ethnopharmacology in 2004, patients receiving the purslane

As Flu Seasons Starts, Problematic Drug Still Sold

Tamiflu-the go-to treatment for people who have already caught the flu-has a dubious history

MARTHA ROSENBERG

It's been more than 20 years since Tamiflu, the first orally active neuraminidase inhibitor to prevent and treat influenza A and B, was rolled out by drugmaker Roche. Not a flu vaccine, Tamiflu (oseltamivir) blocks the flu virus's neuraminidase protein. The medication is available only by prescription and is often prescribed for people at high risk of flu complications.

As the world navigated bird flu (H5N1) in 2005, followed by swine flu only four years later, fear of pandemics rose rapidly. The World Health Organization (WHO) was even forced to rename swine flu as "H1N1," as the public feared eating pork, and countries began banning imports from the United States, Mexico, and elsewhere.

Swiss-based Roche was already well positioned in the influenza "space," as drug marketers call it. First, the company, whose biotech arm is Genentech, hired the marketing and communications firm Young & Rubicam (now called VMLY&R) for an educational campaign about flu as early as 2000. Then, in 2006, Roche hired the advertising agency GSW Worldwide for a Tamiflu media blitz, despite industry voices cautioning against fearmongering about a "pandemic," which could provoke panic and hoarding of resources, PharmaExec reported.

According to a 2013 article about Tamiflu in The Atlantic, a major danger of flu season is panicky patients rushing to emergency rooms even though they aren't sick enough to need hospitalization.

"When emergency rooms are crowded, death rates among people who really need immediate care go up," the article reads. "Not only are patients with minor flu-like symptoms exposing themselves to a load of other bugs when they rush to the ER, they're potentially standing between some other patient and lifesaving treatment."

Roche's Fear-Based Flu Drug Marketing In fact, Tamiflu marketing did create fear and panic by warning patients that they had "only 48 hours" from the start of flu symptoms to begin treatment with Tamiflu and stating: "Sometimes what we suffer from is bigger than we think. The flu is a big deal, so don't treat it like a little cold. Treat it with Tamiflu."

By 2009, Tamiflu advertising began to include ads on streetcars and trolleys and ads starring penguins from the Warner Bros. movie "Happy Feet." Tamiflu, which the pharmaceutical website FiercePharma terms a blockbuster, made \$3.2 billion for Roche in 2009 alone.

Not all were pleased with the flu drug advertising, however. The Daily Camera, a newspaper located in Boulder, Colorado, wrote in 2009, during the peak of Tamiflu advertising, "Like a lot of drug advertising, the campaign is drawing criticism claiming the company is driving up demand for an expensive drug that has been shown to be only modestly effective."

Tamiflu also was seen to cause the very flu symptoms it was supposed to prevent or mitigate.

The authors of The Atlantic story wrote that the Centers for Disease Control and Prevention (CDC) and public service announcements (which run free on news media) added to this fear-based marketing by running ads "urging people to get Tamiflu at the first sign of a sniffle or sneeze."

As Flu Fears Rose.

Governments Stockpiled Tamiflu Evan Morris, a Genentech lobbyist, reportedly hired consultants to build the frenzy

over flu fears and sell Tamiflu in 2005. "Dozens of U.S. senators wrote to President George W. Bush about their concerns, and the president authorized an emergency stockpile that bought \$1 billion worth of Roche's med," FiercePharma reported.

A whistleblower lawsuit unsealed in 2020 charged that Roche "bilked U.S. federal and state governments out of \$1.5 billion by misrepresenting clinical studies and falsely claiming that its well-known influenza medicine Tamiflu was effective at containing potential pandemics," according to Halunen Law. The UK government reportedly spent \$710 million on stockpiling Tamiflu. Morris took his own life in July 2015 while under investigation for embezzlement.

Tamiflu's Effectiveness and Safety Challenged

Claims of Tamiflu's effectiveness were challenged early in the scientific literature, according to a review study titled "Effectiveness of Oseltamivir in Adults: A Meta-Analysis of Published and Unpublished Clinical Trials," published in the journal Family Practice in 2012.

"Two large unpublished studies in the

MIND & BODY 5

NEW AFRICA/SHUTTER

extract also saw a significant increase in pulmonary (lung) function.

Treats Diabetes

A study on rats published last month in the journal Molecules found that extracts from purslane significantly improved symptoms associated with Type 1 diabetes, including inflammation and reproduction system dysfunction.

Reviewing conditions that increase the risk of heart disease, stroke, and diabetes, a study in the Journal of Ethnopharmacology published last month looked at the effects of purslane extract on metabolic syndrome, and found that purslane extract significantly lowered blood glucose levels and balanced lipid (fat) profiles. It found that purslane had antioxidant, anti-inflammatory, cholesterol-lowering, anti-obesity, and anti-diabetic properties.

A study in the Journal of Research in Medical Sciences published in 2015 studied the effects of purslane seeds on people with Type 2 diabetes. The study concluded that diabetic patients who consumed purslane seeds for five weeks had improved triglyceride levels and blood pressure and showed a significant decrease in weight and body mass index (BMI), a measure of body fat based on a person's height and weight. BMI is used to estimate total body fat and gauge the risk for diseases that can occur due to higher levels of body fat, like heart disease, high blood pressure, and Type 2 diabetes.

Lowers Cholesterol

Purslane contains substantial amounts of omega-3 fatty acids, which significantly reduce LDL or bad cholesterol. Eating a diet rich in omega-3s has also been shown to prevent high cholesterol and high blood pressure, and to decrease the risks of developing cardiovascular disease, because of their ability to fight inflammation.

The consumption of purslane seeds effectively lowered cholesterol levels in women with atherosclerosis, according to a 2016 study published in Scientific Reports. Atherosclerosis is a disease caused by a buildup of cholesterol or fatty deposits in the arteries that restricts blood flow. It's the primary cause of coronary heart disease (CHD), ischemic stroke, and peripheral arterial disease. Atherosclerosis is the leading cause of death in the United States.

A Nutrient-Dense Food Source

As mentioned above, purslane is one of the richest plant sources of omega-3 fatty acids, which are usually found in fish and flax seeds. Most people associate omega-3s with fish oils, which are an excellent source, although they also contain high levels of calories and cholesterol. By contrast, purslane contains no cholesterol and very few calories—only 9 calories per 1 cup serving. It also contains abundant vitamin A and C, as well as potassium, magnesium, calcium, phosphorus, and iron.

It's also loaded with beta-carotene, which is converted to vitamin A in the body. Vitamin A is a powerful antioxidant needed to maintain healthy skin, vision, and neurological function. Antioxidants help to combat free radicals, which can cause inflammation and lead to disease. Purslane is also packed with vitamin



C, another important antioxidant, which boosts the immune system, improves heart health, reduces inflammation, and is important for healthy, beautiful skin. A serving of just over 2 cups of purslane gives you approximately 35 percent of your daily recommended intake.

The entire plant is edible, and it can be eaten raw, steamed, or well-cooked in dishes. Raw purslane has a lemony, salty, and somewhat sour flavor with a slightly crunchy, cucumbery texture. It's a delicious addition to salads and sandwiches (leaves and stems) and perfect in soups, where it also works as a thickener. It's traditionally added to curries and is particularly amenable to pickling, which allows it to be kept through the winter and enjoyed all year round.

Cautions

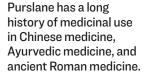
Purslane also contains high amounts of oxalates (similarly to spinach), so it should be consumed with caution by those susceptible to forming kidney stones.

If you are foraging for wild purslane, be careful not to take it from roadsides or other places where it might have been exposed to exhaust, pesticides, and other chemicals. The safest places to get purslane are fields, forests, and other natural environments. Thankfully, purslane transplants very well and will thrive with little effort.

Purslane in Chinese Medicine

In traditional Chinese medicine (TCM), purslane is the herb "ma chi xian," and in ancient Chinese folklore, it was referred to as "the vegetable for long life." In the TCM system, purslane belongs to the category of herbs that clear heat, resolve toxicity, cool the blood, and ease the intestines. It's considered cold and slippery, making it excellent for cooling toxic heat and moving it out of the body, and also sour, meaning it has an astringent quality, drying up ex-

> Including Purslane in Your Diet Purslane has a slightly bitter and salty taste, making it a perfect herb to spice up your meals and reap its health benefits.



HELEN KING/GETTY IMAGE



Purslane contains substantial omega–3 fatty acids, which significantly reduce LDL or bad cholesterol.



oseltamivir in infants less than one year old." Since Tamiflu is only modestly effective in preventing or treating flu, "the possibility of serious adverse effects should be weighed

otinic acetylcholine receptors, which are closely related to hypothermia," they wrote. Other receptors may be "related to respiratory suppression followed by sudden death and psychotic reactions," which have been

Flu-Like Symptoms Caused by Drug

flu symptoms it was supposed to prevent or mitigate. In 2009, of 273 students and 53 staff given Tamiflu at a primary school in Sheffield, United Kingdom, 41 percent of the students and 47 percent of the staff reported adverse effects such as cough, fever, headache, sore throat, and nausea, according to the journal Eurosurveillance. Fourteen percent of the students and 20 percent of the staff discontinued the drug because of the effects.

Parallels Between COVID-19

Like COVID-19, influenza viruses continue to mutate, making vaccines less effective and raising the anxiety of patients, caregivers,

Purslane extract significantly improved symptoms associated with Type 1 and Type 2 diabetes, like glucose levels and excess weight.

cess fluids. This is why purslane is a common remedy for diarrhea and excessive sweating.

In Chinese medicine, purslane treats the following conditions:

• boils sores

• eczema

- postpartum bleeding
- intestinal bleeding · urinary tract infections with blood in
- the urine vaginal discharge
- hot flashes and night sweats

- snake bites
- excessive sweating

Current research has shown that purslane has significant analgesic and anti-inflammatory properties. These findings validate what the Chinese have known for thousands of years: that purslane is powerful medicine for both pain and inflammation. In a time of food insecurity, supply chain

disruptions, soaring food prices, and increasing corruption in our medical system, learning some of the health benefits of plants we can grow ourselves seems prudent. Purslane is delicious, a nutritious food, a versatile and potent medicine, and simple to grow, and it can be foraged easily-almost anywhere-making it a superb addition to your life and garden.

Emma Suttie is an acupuncture physician and founder of Chinese Medicine *Living—a website dedicated to sharing* how to use traditional wisdom to live a healthy lifestyle in the modern world. She is a lover of the natural world, martial arts, and a good cup of tea.



elderly and in adults with chronic disease did not find a significant reduction in the symptom duration," the researchers wrote. "There is no evidence that oseltamivir

reduces the likelihood of hospitalization, pneumonia, or the combined outcome of pneumonia, otitis media [inflammation of the inner ear], and sinusitis in the ITT [intention-to-treat population."

Soon afterward, in a scathing report, the Cochrane Collaboration, a nonprofit group that reviews medical treatments, reported that renal disorders, high blood sugar, psychiatric disorders, and heart rhythm disturbances may be related to Tamiflu use. The BMJ and Cochrane then issued a statement charging that Tamiflu and Relenza (an inhaled form of the same drug) had had their "effectiveness overplayed, and harms underplayed."

The BMJ and Cochrane were unable to obtain the clinical trial data on which Roche's Tamiflu claims were based for a five-year period, Nature reported. In 2017, the WHO downgraded the status of Tamiflu to "complementary."

More Side Effects Surfaced

In addition to the Cochrane review, postmarketing studies documented additional side effects such as allergic and anaphylactic reactions, rashes including the deadly toxic epidermal necrolysis, and aggravation of diabetes.

By 2006, Tamiflu was also linked to neurological and psychiatric side effects and suicide.

"The European Medicines Agency has described two deaths, both attributed to suicide, in adolescents aged 14 and 17 who were taking oseltamivir," the European journal Prescrire International reported.

"According to the U.S. Food and Drug Administration, neuropsychiatric disorders were reported in 32 children (mainly in Japan), and include delirium, behavioral disorders, hallucinations, convulsions, and confusion."

The IndyStar reported that the family of an Indiana teen who took his own life in 2018 blamed Tamiflu, and, also in 2018, a 6-yearold Texan girl tried to jump out a window while on the drug.

The Prescrire authors also cited "disturbing neurological toxicity" in young rats exposed to Tamiflu and noted that American and European agencies "warn against the use of



who most need help with severe flu, like the elderly and people with chronic disease.

against the limited benefit of oseltamivir," the authors concluded. Researchers writing in the journal Acta Neurologica Scandinavica in 2017 added more doubts about the drug's safety. "It is known that oseltamivir inhibits nic-

seen with Tamiflu.

Tamiflu also was seen to cause the very

Pandemic and Tamiflu Marketing

and public health officials.

There's also a worry in some circles that the vaccines themselves could influence virus mutations. The same is true of Tamiflu.

ALL PHOTOS BY SHUTTERSTOC

Notably, the CDC reported that Tamiflu created mutations as H1N1 flu became resistant to the widely used drug.

As the 2022–2023 flu season begins, Tamiflu is still in the news. A September study in the Journal of the American Medical Association, widely circulated by medical news sites, found early administration of Tamiflu to children hospitalized with influenza resulted in better outcomes.

Healthline, a major health site, notes, however, that the drug can cost \$100 without insurance, may be ineffective for some flu strains, and may cause "hallucinations, confusion, convulsions, [and] other neurologic or psychiatric issues."

Yes, Tamiflu is still in the news and in use, but its safety and effectiveness questions are far from resolved.

Martha Rosenberg is a nationally recognized reporter and author whose work has been cited by the Memorial Sloan Kettering Cancer Center, Mayo Clinic Proceedings, Public Library of Science Biology, National Geographic, and Wikipedia. Rosenberg's FDA exposé, "Born with a Junk Food Deficiency," was widely praised and established her as a prominent investigative journalist. She has lectured widely at universities throughout the United States and resides in Chicago.

• dysentery hemorrhoids insect bites • diarrhea

Purslane extract could be used as a preventative anti-inflammatory treatment against asthma WASANAJAI/SHUTTERSTOC

DONALD IAIN SMITH/GETTY IMAGES

The ABZzz's of Getting Kids to Sleep

Children aren't getting enough sleep but parents and caregivers can help

Sleep is **ZRINKA PETERS**

especially essential for children, who require more of it than older adults.

s every parent who has of adults

Happily, as circadian rhythms develop, most little ones will eventually settle into a predictable sleeping pattern. But as many as 50 percent of children will experience sleep problems at some point, leading tired and frustrated parents in search of ways to help their children (and themselves) fall asleep—and stay asleep.

Melatonin supplements have been used for decades by adults hoping for a better night's sleep and, according to the National Institutes of Health, their use more than quintupled between 1999 and 2018. As so many more adults have turned to over-the-counter melatonin supplements in recent years, it's not too surprising that many of them are also giving them to their children. The American Academy of Sleep Medicine (AASM) reports that melatonin supplements are now the second most popular supplement given to children, beaten only by multivitamins.

The widespread use of melatonin as a sleep-aid for kids has raised some serious concerns among pediatricians. There has been a staggering 530 percent increase in reports of pediatric melatonin inges-

tion to National Poison Control Centers between 2012 and 2021, and this increase has unfortunately coincided with an inbrought home a newborn crease in hospitalizations over the same knows, those sweet bundles time period, largely due to overdoses of joy have no regard for the caused by unintentional consumption normal sleep-wake patterns of melatonin by young children.

Melatonin is a hormone that is naturally produced by the brain's pineal gland in response to decreasing light. It helps make you sleepy, and is generally considered safe for adults when consumed in doses of five milligrams or less. But when it comes to children, there

are a lot of unknowns. Unsettled questions exist about appropriate dosages for children, as well as the long-term safety

The Sleepy-Time Hormone

MELATONIN

PINEAL

Melatonin is a naturally occurring hormone

response to decreasing light. It helps us sleep.

produced by the brain's pineal gland in



milligrams

considered a safe

U or less

of melatonin is

dose for adults.

50

of melatonin supplements. There is a lack of long-term research in this area.

Because melatonin is a hormone which influences not only sleep-wake cycles, but is also thought to play a role in other important physiological functions like fertility, digestion, heart function, depression, and immune responses, questions remain about how long-term melatonin supplementation might impact other areas of health. And in growing children in particular, could long-term supplementation with this hormone impact other hormonal developments?

While melatonin is generally considered safe for short-term use and is not considered to be an addictive substance, a Swedish study, published in the European Journal of Pediatric Neurology in May 2022, found that many children and adolescents who were prescribed melatonin were still taking it three years later, often at increased doses.

According to the Centers for Disease Control (CDC), the sharpest increase in melatonin use among children happened in 2019-2020, with the onset of the COVID-19 pandemic. This could be due to a combination of increased sleep disturbances as well as increased accessibility to melatonin supplements because many kids spent more time at home. It may have also been taken as an antioxidant to support immune function in direct response to COVID.

Whatever the reasons are behind the

The Meaning and Satisfaction of Work

Work is often lamented, but it should be among our deepest sources of contentment

JOSHUA BECKER

To me, one of the sad truths about the world today is that most people look upon work as something to escape from. To them, this major part of life is a necessary evil, even an obstacle to the life they dream about. Want proof?

- A 2022 Gallup poll found only 32 percent of American employees are engaged at their work.
- "The 4-Hour Workweek" is one of the top-selling books of the past decade. • People are beginning to define early
- retirement as their dream. • Given the option between "work a long
- time at a fulfilling job" or "retire early," only 34 percent of Americans would choose to work a long time at a fulfilling those who have chosen to work hard on job while 14 percent were unsure.
- According to Gallup, half of the U.S. workforce is "quiet quitting," or doing the bare ing to be busy just to be busy. And I'm minimum to meet job requirements.

I could add, from plenty of personal conversations, that there are some people who choose simplicity as a means to escape work. I don't think that's what the simple life is for.

There's not a doubt in my mind that some of the discontent we feel about work comes from our faulty thinking on the reason for it. In our desire to get out of work, we're missing the point of it.

Dorothy Sayers, in her famous essay "Why

nothing less than "a thoroughgoing revolu-

tion in our whole attitude to work." Sayers believes we should look upon work, "not as a necessary drudgery to hard work and striving for success? be undergone for the purpose of making money, but as a way of life in which the nature of man should find its proper exercise and delight and so fulfill itself." Work, in this regard, isn't something to be avoided; it's something to be pursued and enjoyed.

Your work contributes to the good of society and moves us ahead. We need your talents and abilities. We need you to work hard and do it well. It makes us better as

people and it enriches our lives. I enjoy hard work. I work 50 hours most weeks because I find happiness and joy in it. And I believe that those who feel the most fulfilled at the end of their lives are

the right things. Now, just to be clear, I'm not advocat-

not advocating working hard for wrong, selfish reasons (such as getting rich). I'm advocating for the importance of doing your work (whether paid or unpaid) in a focused and deliberate way and putting your whole self into it.

I'm advocating for doing the best you can, to accomplish the most you can, with the one life you have to live.

Reasons for Work in the Simple Life

where do we find the motivation to learn and the greater the challenges become. how to work hard? If we're content to own less (even prefer it), what's the point of Let me offer a few reasons:

Work forces personal development. Work, by its very nature, presents challenges and growth opportunities. It requires us to improve and develop and become better versions of ourselves. The to the good of society. It serves others, more we grow, the better at work we get—

We learn important life lessons when we give ourselves over to hard work: determination, attentiveness, responsibility, problem-solving, and self-control. These lessons, in turn, serve us in other areas

Our work brings benefit to society. As I mentioned earlier, our work contributes it enriches people's lives, and it moves



Work?" begs us to see work anew. She seeks If one has chosen simplicity as a lifestyle, Every job, no matter how big or small, plays an important role in the functioning of society.

(health, relationships, hobbies, and more).

large increase in melatonin use among children and teens, doctors are now urging a more cautious approach. Research supporting the use of melatonin as a sleep-aid for children is limited, and while it could be helpful for certain kids who are more prone to sleep disorders—like those with autism, for example-experts recommend trying behavioral and lifestyle modifications first. The American Academy of Sleep Medicine emphasizes that "Many sleep problems can be better managed with a change in schedules, habits, or behaviors rather than taking melatonin." Before considering a sleep-aid for your child, have a hard look at the following areas.

Exercise

Most of us can relate to a time we fell into bed exhausted after a day that contained plenty of physical activity. Well, it's no different for kids who are filled with lots of energy. Tired kids sleep better, and physical exercise is the best way to tire kids out.

One study published in the journal Archives of Disease in Childhood in 2009 showed that kids who were physically active during the day fell asleep faster than their more sedentary peers, and the more vigorous the activity, the faster they fell asleep.

On the flip side, for every hour a child was sedentary during the day, it took them three minutes longer to fall asleep. Most parents are already well aware of this. But still, the amount of physical activity many children are getting, especially during their teen years, is in decline and is often well below the onehour-per-day minimum recommended by health experts.

Dr. Emily Wisniewski, a pediatrician at Mercy Medical Center in Baltimore, said it is critically important that exercise is a part of our daily—or at least several times per week.

"If we exercise, we tire ourselves out so when we go to bed, we are sleepy enough to help us to fall asleep. When we sit around all day, we may not have that same 'urge' to go to sleep. This can mess up our ability to create a good sleep time routine which is crucial in kids."

Exercise, noted Wisniewski, also comes with the benefits of maintaining a healthy weight, strong heart, and preventing chronic diseases like diabetes and high blood pressure.

Diet

We may not immediately think of diet when considering sleep quality, aside from the obvious consequences of kids who are too hyped up on sugar to get to said Dr. Alex Spinoso sleep after devouring Halloween candy of Genesis Lifestyle or a late dessert. But the consequences of diet go far beyond the visible effects of ther of triplets. a sugar rush. Multiple studies have demonstrated a strong connection between also directly asso-



Moving electronic devices out of children's bedrooms can help improve their sleep quality.

a poor diet and poor sleep. A study published in January 2016 in the Journal of Clinical Sleep Medicine found that diets that were high in saturated fat and sugar, but low in fiber, were directly linked to poorer sleep patterns that included less restorative sleep and more disruptions. The high-sugar and high-fat diet participants also took significantly longer to actually fall asleep.

Avoiding foods that are high in sugar, caffeine, and saturated fats before bedtime, and making sure kids have a nutritious, balanced diet throughout the day, can help prepare them for a good night's sleep. Instead of a bowl of sugary cereal or dessert for an evening snack, a slice of whole-grain toast or piece of fruit is a better option.

Limit Screen Time -Especially Before Bed

By this point, most parents have heard that screen time for kids should be monitored and limited, but this message often gets lost in the reality of our techsaturated lives. Instead of the two-hour per day screen-time maximum that the American Academy of Pediatrics (AAP) recommends for children, the average American kid often spends double or triple that amount—and teenagers are spending as much as nine hours per day on screens.

Not only that, but a majority of children and teens sleep with an electronic device in their bedrooms, despite mount-

ing evidence that this is a contributing factor for obesity, poor academic performance, and behavioral problems, not to mention poorer sleep. "Screen time can definitely affect children's sleep. The more time they are on the screen, the less time they are exercising," Medicine, and a fa

"Screen time is

66 Screen time is also directly associated with disruptions in melatonin, leading to sleep disorders in children.

Dr. Alex Spinoso, Genesis Lifestyle Medicine

Rather than foods high in sugar or saturated fats, have kids eat foods like fruit as their last treat

before bed.



Foods rich in tryptophan, a precursor to melatonin, can help prepare your kids for a good night's sleep.

> ciated with disruptions in melatonin, leading to sleep disorders in children. Ways to deal with this include limiting your child's screen time and avoiding screen time at least one hour after waking up and one hour before bedtime," Spinoso said.

Wind Down Routine

Kids thrive on predictable routines, and having a consistent bedtime routine along with leaving enough time to carry it out in the evening-plays an important role in helping kids get ready to sleep well

A simple routine could look something like: 1. Have a nutritious snack. 2. Brush teeth and go to the bathroom. 3. Get pajamas on. 4. Cuddle and read a story or two.

Or, as Dr. Wisniewski suggests, "Screens off, take a nice bath, PJs on, and then a little reading before bed. A night time routine is crucial!"

Kids love knowing what comes next, and sticking to a comforting, predictable routine that ends with bedtime-ideally at the same time each night—is a good step in the direction of sound sleep.

Final Thought

According to the CDC, the majority of American kids aren't getting enough sleep, and the numbers get worse with age.

These sleep-deprived kids are at a distinct disadvantage in terms of their physical and mental health, and academic performance, when compared with their well-rested peers.

There may be various reasons for this, but before considering turning to sleep aids for help, have a look at these other areas of life that might use some tweaking. Making positive changes in these areas can have benefits that go far beyond just a good night's sleep.

Zrinka Peters is a freelance writer focussing on health, wellness, and education topics. She has a BA in English Literature from Simon Fraser University in Canada and has been published in a wide variety of print and online publications including Health Digest, Parent.com, Today's Catholic Teacher, and Education.com

4

ethically and honestly with proper balance will always result in more enjoyment than the alternative. Your motivation for work is also a part of your ethic.

These same principles of life hold true to every aspect, including the portion we spend working.

(5)

Stop trying to get rich. While fair compensation is always appropriate, the pursuit of riches and wealth as an end goal is a losing battle. Riches will never fully satisfy. We will always be left searching for more.

People who view their work as a means to get rich often fall into temptation, harmful behavior, and foolish desires.

When we replace the desire to get rich with a more life-fulfilling desire to receive honest compensation, we open our hearts to find peace in our paychecks and greater value in our work.

The Value of Work

Please don't view your work as something only to be endured or avoided. Rethink the value of it—whether you're 18 or 80.

Regain focus and motivation to use your passions and abilities to contribute good to a society in need of them. Utilize your strengths. Develop your talents. Study your craft. And encourage others.

Work hard. Enjoy it. And at the end of the day, we all will be better because of it.

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

everyone forward. Whether we're bagging groceries, delivering mail, analyzing stocks, curing cancer, or managing other workers, we can view our work as an act of love to the people we serve.

Hard work is an example to our kids. When we strive to do our best work each day, our kids take notice. And among the greatest lessons I hope to pass on to my children is the importance of working hard on things that matter.

The hours will pass, so make the most of them. Each new day brings with it an important choice: Either we fill it with our best, or we allow it to slip away. There's no other option—the hours are going to pass anyway. Choosing to work hard makes the most of our time. (Please note: I'm not discounting the importance of rest or balance. I have written about both extensively.)

Work is fulfilling, in and of itself. In my opinion, there are few joys in life more satisfying than lying down at night with tired legs attached to a tired body. To know I gave my full energy to something important is an amazing feeling and fulfilling in itself.

with important matters. Living an unoccupied life is a recipe for disaster. Choosing to fill our time and energy with things that bring value to others helps to keep us from selfish and foolish decisions with idle time.

There's value in hard work—both for ourselves and others.

How to Enjoy Work More

I have known countless people who are happy with their work. They find meaning, significance, and joy in it. Additionally, I have met many people who are unhappy with their work and choose to spend an additional percentage of their life complaining about it.

Changing our attitude toward work isn't always easy, but it's possible. And I would argue it's important. As I've stated above, there's joy and fulfillment to be found in it. Sometimes, learning to love work can come from a simple change in our thinking—rather than the much more drastic change in jobs, which doesn't usually solve the problem anyway.

So let me end with a few thoughts on how to think differently about work and find more fulfillment in it:

You were designed to work. Humans are designed to work. This is an important part of our nature. It explains our drive to grow as individuals and as a society. It explains the internal satisfaction we experience when completing a task. It makes sense of the positive emotions we experience when resting after a hard day of work.

Working hard keeps our lives occupied Work always takes place in an imperfect **world.** Our world is imperfect because we exist in a universe full of people who often fall short. Though we each have an ingrained desire to accomplish good for the sake of others, in reality, we often function with selfish desires

and intentions. These imperfections always lead to less-than-ideal working **Do your work ethically.** Work done conditions.

As a result, work includes overbearing bosses, deadlines, stress, under-resourced projects, tasks we don't enjoy, and often anxiety.

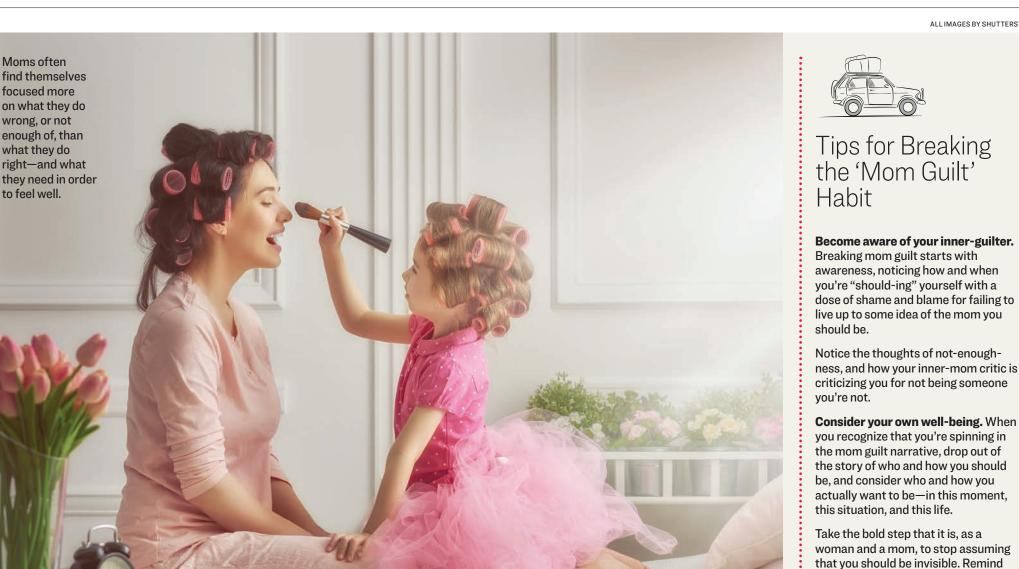
The realization that these imperfections are always going to be present in our workplace allows us to accept them and move forward.

Choosing to fill our time and energy with things that bring value to others helps to keep us from selfish and foolish decisions with idle time.

Your work contributes to the common **good.** If the goal of our work is to contribute good to society in exchange for provision, then our work ought to benefit society. We should spend 40 or more hours per week producing a benefit for others—notice how your specific work accomplishes that.

Whether you grow healthy food, produce quality clothing, intentionally parent children, create beautiful art, build strong shelters, develop new lifeenhancing technology, do taxes, research medicine to prolong life, educate others, govern society honestly, or operate in any other of countless ways, you contribute to the common good of our neighbors and our society.

ALL IMAGES BY SHUTTERSTOCK



MINDSET MATTERS

Letting Go of 'Mom Guilt' Put an end to the never-enough-mom story

NANCY COLIER

"Mom guilt" is the feeling of not being a good enough mother. It can come in many forms: We're not spending enough time with our child; we're not patient, loving, fun, or interested enough in our children; we're not offering our children the life, family, and opportunities that we should; and so on.

The list of ways we moms can fail our children is endless.

Most women, and moms in particular, struggle with the belief that we're not good enough. We feel like we're failing our children and failing to live up to some image of a perfect mom who's selfless, has no needs of her own, and exists only for her children. Some of this remains as a remnant of the role women played in the family in

previous generations. Despite the fact that our culturally conditioned idea of who we should be no longer fits into modern life, in which women work outside the home, our idea of the perfect

mom remains unchanged. And maybe more importantly), despite the fact that our image of perfection is frequently in conflict with our own well-being, we continue to shame and blame ourselves for not being who we imagine we should be. Mom guilt is built on an idea of who we

should be—not who we are. From the time we're little girls, our emotional safety, acceptance, and approval is built on our ability to be selfless and take care of other people's needs. The better we are at taking care of other people, the more we're liked, which makes us feel valuableand makes us like ourselves. Being a mom is the ultimate test of our caretaking abilities; how much can we give ourselves away in service to our children, which then is

Keep your shortcomings in perspective and remind yourself of all the things you do right.



Often moms run around taking care of everything and everyone but

themselves. Make sure to take a step back and do something special for yourself too.

the ultimate test of our worth.

When Sheila was packing her kids into the car for yet another weekend trip this past summer, each of which took enormous effort and cost (and wasn't that much fun), it suddenly dawned on her that she was doing all of this to live up to some idea in her head of what a good mom should be and what she should offer her kids in the summer.

And yet, she also realized that she didn't want to do it, and truth be told, neither did her kids.

The irony was that no one in that car actually wanted to be going away for another "family" weekend; no one wanted to be living this "perfect family life." She was enslaved by some archaic story of what was supposed to happen in the idyllic months of summer, by being perceived as a "perfect mom," the "perfect family," and people liv ing a "perfect life."

In a revolutionary moment, she decided to put the car in reverse, unpack the trunk right then and there, and start living in what was true, rather than some idea of what should be.

She decided to step out of her imaginary story and into reality. At any moment, we can step out of the

story we're telling ourselves, about who we should be, and in that moment, invite and welcome the mom we really are.

Nancy Colier is a psychotherapist, interfaith minister, thought leader, public speaker, and the author of "Can't Stop Thinking: How to Let Go of Anxiety and Free Yourself from Obsessive Rumination," "The Power of Off," and the upcoming "The Emotionally Exhausted Woman: Why You're Depleted and How to Get What You Need" (November 2022.)

in this situation, what serves your well-being. What would happen if you allowed your own well-being to matter, too, not just your children's? Is there a way to take care of both you and your child? Remind yourself to keep coming back

into the story.

to the present moment. When you're lost in mom guilt, you're distracted out of the present moment. You're not with your children, which is ultimately what good mothering is all about.

vourself that your wants and needs matter. Put your authentic self back

Ask yourself what takes care of you

When you catch yourself momguilting, get fierce with your mind. Tell your inner critic to stop telling you what's wrong with you.

Focus on modeling for your kids what it looks like to be on your own side. Focus on what you like about yourself, what makes you a good mom. Let your kids meet who you actually are, as opposed to a tortured version of yourself trying to be someone else.

Practice self-compassion. Remember, being a mom can be an exceptionally difficult role. Some say it's the hardest iob in the world.

We all fail our kids and we've all been failed by our own moms (and dads). Thankfully, humans are resilient; our kids find a way to be OK most of the time. That's reality.

So, keep your shortcomings in perspective and remind yourself of all the things you do right, not just those things you think you do wrong.

Use whatever you don't like about your parenting as an opportunity to grow and be more mindful, rather than an opportunity to judge yourself.

Remind yourself, too, that you're doing the best you can, even when there's room for improvement.

Moms, like all human beings, are works in progress; being the best mom vou can be today, that's the goal—with all the shortcomings and gifts that that includes.

That's enough.

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Seeking the Safe Side of Sun Exposure

This life-giving orb comes with some risks-and a long list of essential benefits

> Sunlight has widespread and essential healthpromoting effects beyond creating vitamin D.

CONAN MILNER

he sun is an indispensable agent for life on earth. It provides the daily heat and light that makes it all possible.

But the sun can also be a bother, such as during drought, sweltering heat, or when it gets in your eyes as you're trying to drive.

Many see only the negative. There's even a proposal to blot out the sun as a way to slow climate change. Harvard University, Bill Gates, and top scientific institutions

The sun emits many types of light and we are still discovering how they affect the body.

have all prompted the U.S. government the only factor in these ailments, and it may o pour \$200 million into solar engineer- in fact only play a very small supporting role ing experiments. The sun dimming plan While ultraviolet (UV) radiation can indiinvolves spraying a chemical into the atmosphere to reflect some sunlight away from the earth.

Similarly, the trend in public health over the past few decades has been tilted toward reducing our sun exposure. The advice aims to keep us protected from the sun's rays so we can avoid all the damage it may cause,

such as sunburns, cataracts, wrinkles, age spots, and, most concerningly, cancer.

Of course, sun exposure isn't *Continued on Page 12*

rectly contribute to skin cancer, cataracts, and other diseases, excessive exposure only accounts for 0.1 percent of the total global burden of disease according to a World Health Organization report on "The Global Burden of Disease Due to Ultraviolet Radiation."

The Other Sun Ray The life-giving influence of the sun is enormous.

How Pesticides and Herbicides Affect Farmers

These cancercausing chemicals are a risk in our food but they're an even greater risk for the people who grow it

JENNIFER MARGULIS & STEPHANIE SENEFF

In the past few decades, thousands of studies have revealed the negative consequences of herbicides and pesticides on human and planetary health. But few people even among those who buy organic—think about who's really most at risk.

According to a report released in June by the Centers for Disease Control and Prevention (CDC), 81.4 percent of Americans older than the age of 6 tested positive for high levels of glyphosate, an herbicide

linked to cancer.

Three months later, another study, conducted by a nonprofit group dedicated to children's health, found detectable levels of glyphosate in 95.3 percent of the public school lunches tested. The highest quantities were in soft tacos and pizza.

Research from Mississippi published in 2014 showed that glyphosate was the predominant new herbicide detected in both the air (86 percent) and rain (77 percent) as early as 2007.

Continued on Page 10



Farmers and field



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THE EPOCH TIMES

How Pesticides and Herbicides **Affect Farmers**

These cancer-causing chemicals are a risk in our food, but they're an even greater risk for the people who grow it

ONSANTO

Monsanto is the

maker of RoundUp,

a glyphosate-based

herbicide.

Continued from Page 9

Cure for a Common (Weed) Killer Glyphosate, the main ingredient in Roundup, is very effective at killing weeds. However, the herbicide also interferes with the symbiotic relationship between beneficial soil bacteria and plant roots. This results in food crops that are deficient in the nutrients that humans need for optimal health.

That's why many health experts, including functional medical doctors and nutritionists, urge their patients to buy organic food. When food is grown without pesticides and herbicides and is glyphosate-free, it's more nutritious.

The good news is that the demand for organic food has increased so much that most supermarkets offer consumers at least one generic, affordable brand. The bad news is that even

though it's easier and more affordable to buy organic food than ever before, most Americans still purchase nonorganic food. While the demand for organic food seems to be rising, the Department of Agriculture still estimates that organic food

7 Reasons to Love Rosemary

This ancient remedy is being studied for a wide range of therapeutic effects

You may not realize it, but you probably have one of nature's most powerful substances in your kitchen right now. Say hello to your new best friend: rosemary.

Rosemary is one of the world's most popular herbs, beloved for its fragrant aroma that intoxicates the senses. A popular shrub, rosemary is found in planters and backyard green spaces the world over, thanks to its pleasing appearance and hardy growth. Culinary and lifestyle enthusiasts favor rosemary for the delicate flavor and fragrance it imparts when cooked or infused in oils.

Besides being a useful addition to your kitchen and bath, this Mediterranean evergreen is a medicinal powerhouse, credited with an impressive list of healthful benefits. Rosemary is rich in phytochemicals, bioactive plant compounds with health-boosting properties Rosemary is an

that are also responsible for rosemary's pleasing aroma. Rosmarinus officinalis L., or rosemary, was used in traditional pharmacopeia to

alleviate ailments such as headache, stomach ache, and rheumatic and menstrual

pain, and to dis-

pel fatigue. The herb

all food sales in the United States. There are many reasons people don't buy organic. According to the Organic Farming Research Foundation, the No. 1 reason is cost. Many people also say they can't find organic food in their area. Food deserts in urban areas make this especially challenging. At the same time, even the most

diehard consumers of organically grown fruits, vegetables, meats,

and packaged products usually buy conventionally grown flowers and decorative plants.

After all, if you aren't eating it, why buy organic? Here's why: Every farm worker exposed to glyphosate is at an increased risk of non-Hodgkin lymphoma, kidney

failure, Parkinson's disease, and dementia, among other health problems. In fact, recent scientific

evidence-from studies done long after glyphosate was approved for use in the growing of food—shows this herbicide is a major factor in several debilitating diseases, including neurological, metabolic, autoimmune, resales account for only about 4 percent of productive, and oncological illnesses.

> vas believed to possess neuroprotective properties and was used to treat spasms and epilepsy, ease nervousness and depression, and boost a failing memory.

> Science has weighed in on rosemary, supporting its usefulness as a traditional medicinal due to significant antioxidant, antimicrobial, and anti-inflammatory properties, among other documented benefits. Its tonifying properties were validated in a comprehensive meta-analysis published in 2020 that deemed rosemary "a worthy source" for curing inflammation, easing pain, boosting memory, and alleviating anxiety.

> Let's unpack the science around rosemary as an aid to disease prevention and review the impressive list of pharmacological actions credited to this highly favored herb.

Anti-Inflammatory

with several uses.

A review published this year in Molecules studied the anti-inflammatory effects of whole rosemary in ground and distilled forms. A daily dose of rosemary powder or extract was provided to mice daily for 21 days to treat inflammatory injuries, including swollen extremities, acute liver injury, and asthma. Both forms of rosemary treatment showed diverse anti-inflammatory activity across multiple biomarkers, during and after the treatment period.

You may not need to ingest rosemary to benefit from these anti-inflammatory properties. Diffused rosemary essential oil was shown to be a potentially useful adjunct to anti-inflammatory

drug treatment in a study using rats. A topical apeffective therapeutic plication of rosemary leaf extract was also found to possess anti-inflammatory

potency similar to the nonsteroidal anti-inflammatory drug indomethacin.

> Antioxidant When you

consume an antioxidant substance, the boost to





Glyphosate Causes Blood Cancer

Non-Hodgkin lymphoma is a blood cancer that develops in the body's white blood cells. Symptoms include exhaustion, night sweats, swollen glands, fever, and unexplained weight loss, and the condition is often fatal.

Scientists have been publishing studies on the link between exposure to pesticides and the risk of non-Hodgkin lymphoma for more than 20 years.

One particularly well-done study, conducted by scientists in Sweden and published in 2008, analyzed pesticide exposure in Swedish individuals between the ages of 18 and 74. This population-based case-control study found a twofold increased risk of lymphoma for glyphosateexposed people compared to controls, and a threefold increased risk for the rare type of non-Hodgkin lymphoma called hairy cell leukemia.

A 2019 meta-analysis, conducted by research scientists from the University of Washington and published in the journal Mutation Research, found that glyphosate exposure increases the risk of non-Hodgkin lymphoma by 41 percent.

The World Health Organization's International Agency for Research on Cancer now states that glyphosate is probably carcinogenic to humans.

When the issue was brought to court, the evidence was convincing. In 2018, after just three days of deliberation by the jury, a California groundskeeper was awarded more than \$289 million from a court that found Monsanto, the maker of Roundup, hadn't done enough to warn consumers of the cancer risk. Although industry lawyers kept the case tangled up in court for more than three years and the amount Monsanto was finally ordered to pay was reduced by other courts, the verdict in Johnson v. Monsanto Co. was upheld in 2020.

In 2019, Monsanto was ordered by a court in California to pay \$86.2 million to a couple who both suffered from non-Hodgkin lymphoma after using Roundup.

Monsanto appealed, but the lower court's decision was upheld by the California Su-



Sugar cane is often sprayed with glyphosate just before harvest to ripen it further and increase the sugar vield.

preme Court in November 2021. Since then, more than 100,000 others have filed lawsuits against Monsanto, according to HerbicideFreeCampus.org.

Any farmer or agricultural worker who is farming soil treated with glyphosate and its adjuvants is at higher risk for non-Hodgkin lymphoma. Buying all organic food, flowers, and plants is a way to keep them safe and protect them from potentially developing cancer.

Protect Agricultural Workers From Kidney Failure

Agricultural workers also need to be protected from glyphosate-induced kidney failure. Alarmingly, sugar cane workers in Central America are experiencing an unusual form of kidney disease not linked to diabetes. Many have been dying from this condition at a young age.

This condition has been called chronic kidney disease of unknown etiology, or CKDu. A similar phenomenon is happening among workers in the rice paddies in Sri Lanka.

In these cases, as explained in a 2019 study (co-authored by Stephanie Seneff), it appears that glyphosate works synergistically with another herbicide, paraquat, to damage the kidneys.

Sugar cane isn't a genetically modified crop, but it's often sprayed just before harvest with glyphosate, which acts as a ripener to increase the sugar yield. The workers who harvest the cane get high exposure to glyphosate, especially during harvest.

The Sri Lankan government actually banned glyphosate in 2015 in response to this clear evidence of harm. Sadly, due to pressure from the agricultural industry, the ban was lifted in November 2021.

Main Factor in Neurological Decline?

Another concern for farmers is the increased risk of neurodegenerative disease due to exposure to pesticides. A 2021 study published in the journal Gerontology found a higher prevalence of dementia among agricultural workers compared to others. While several studies have shown that glyphosate causes neuroexcitotoxicity by exciting glutamate receptors in the brain,

it wasn't until this July that a definitive experimental study published in the Journal of Neuroinflammation pointed directly to a link with Alzheimer's disease. This study, involving mice, showed

that glyphosate infiltrated the brain and increased levels of a well-known inflammatory agent, as well as of the toxic form of amyloid beta, the protein linked to Alzheimer's. It further showed that glyphosate cation Association.

is directly toxic to cells.

Organic food is safer and healthier for your children, your family, the workers who pick your crops, and the planet. If you go to farmers markets, you can find even more organically grown local food and flowers at affordable prices.

If your pockets are feeling pinched, befriend the farmers in your area and find a way to do trades. Growing your own flowers and garden vegetables—or joining a local gardening club or cooperative—will also help you have a steady supply of healthy food and beautiful blooms.

What's more, ongoing research is leading to creative technological solutions to the weed problem that don't depend on toxic chemicals. Organic food has already become more affordable as we learn how to focus on regenerative, renewable agricultural methods that will increase yield without harming the ecosystem.

We must protect farmers from toxicantinduced diseases. If we all stop buying conventionally grown food and garden plants, the demand for these will drop, and organics won't be just a luxury for the rich.

Jennifer Margulis, Ph.D., is an awardwinning science writer and regular contributor to The Epoch Times. Stephanie Seneff, Ph.D., is a senior scientist at the Massachusetts Institute of Technology and the author of "Toxic Legacy: How the

Weedkiller Glyphosate Is Destroying Our Health and the Environment," which was recently released in paperback. Stephanie Seneff is a senior research scientist at the MIT Computer Science and Artificial Intelligence Laboratory. She received

the B.S. degree in Biophysics in 1968, the M.S. and E.E. degrees in Electrical Engineering in 1980, and the Ph.D degree *in Electrical Engineering and Computer* Science in 1985, all from MIT. For over three decades, her research interests have always been at the intersection of biology and computation: developing a computational model for the human auditory system, understanding human language so as to develop algorithms and systems for human computer interactions, as well as applying natural language processing (NLP) techniques to gene predictions. She has published over 170 refereed articles on these subjects, and has been invited to give keynote speeches at several international conferences. She has also supervised numerous master's and Ph.D theses at MIT. In 2012, Dr. Seneff was elected Fellow of the International Speech and Communi-

our body helps to fortify cells against tive phenolic compounds in rosemary that were found to bestow the most antiinflammatory and antioxidant benefits Anxiety Relief to the body. In a 2015 paper published in Basic and Clinical Pharmacology and Toxicology, researchers evaluated the protective effect of rosmarinic acid for systemic inflammation and found that it caused a substantial reduction in inflammation, evidence of potent antioxidant effects.

A rosemary extract containing high concentrations of carnosic acid compounds was tested for anti-proliferative effects against human prostate cancer cells in vitro in a study published in Evidence-Based Complementary and Alternative Medicine in 2019. Results showed that the rosemary extract promoted antioxidant activity and reduced cancer cell viability in a concentration-dependent manner. Researchers deemed rosemary plants useful for conceptualizing new drugs to effectively fight cancer and free radical-mediated diseases.

Analgesic

dependence.

Analgesic substances act to relieve pain, making them indispensable in the modern medicine cabinet. But drug-based analgesics can be toxic to your liver and may carry dangerous risks of dependency. Herbal analgesics are typically nontoxic, nonhabit-forming alternatives that can safely assuage pain; some are even proven to work as well as their clinical counterparts. A 2007 trial published in the Journal of Ethnopharmacology investigated the analgesic properties of rosemary extract using three different experimental pain models. Response curves were calculated to determine the optimal dosage and timing for analgesic effects. Pain relief was observed in all pain models, with effects similar to those produced by tramadol, a Cognition Enhancement narcotic with a high risk for addiction and

A later study published in Planta Medica on rosemary's analgesic properties identified 11 chemical compounds that may

contribute to its painkilling quality. Re oxidative damage. According to re- searchers determined that rosemary's search published in 2020, rosmarinic ability to relieve pain involves the serotoacid and carnosic acid are the phytoac- nergic system—a transmitter system in the brain—including endogenous opioids.

It's estimated that 264 million people worldwide suffer from anxiety. Aromatherapy is a simple and effective way to de-stress, and there may be no herb better suited to boosting your mood than the distilled extract of rosemary leaves.

In a neurological study published in the International Journal of Neuroscience in 1998, researchers tested rosemary and lavender essential oils for their effects on alertness and mood. Forty adults were assessed after three-minute aromatherapy sessions to determine each oil's effects

on brain wave activity, level of alertness, and self-reported mood. True to its traditional reputation, rosemary essential oil was found to be an effective anxiety aid.

In the study, lavender's usefulness as a relaxant was also validated. Participants in the lavender test group showed increased beta brain waves, indicating drowsiness, and reported better mood and feeling more relaxed. The rosemary group demonstrated increased alertness through decreased frontal alpha and beta brain waves and reported lower

anxiety and feeling more relaxed and alert. Adding a few drops of rosemary essential oil to a diffuser can be a simple way to soothe stressed nerves throughout the day, and placing a lavender-scented sachet inside your pillowcase can provide a calming, relaxing effect to ease you into sleep at night.

If you're prone to "senior moments," you aren't alone: In the United States, 1 in 9 adults aged 45 and older have reported symptoms of memory loss. Mild cognitive impairment is an age-related condition

that is increasingly common but may be helped by the support of brain-boosting aging population. supplements such as rosemary.

A 2022 meta-analysis on rosemary's cognition-enhancing effects reviewed 22 animal studies to determine the qualitative and quantitative effects. Overall, rosemary improved cognitive outcomes in both normal and cognitively impaired animals, with robust results across species, type of extract, duration of treatment, and type of memory. Researchers acknowledged that rosemary's reputation as "the herb of remembrance" isn't hearsay.

Neuroprotection

When cognitive decline isn't curtailed, it may give way to dementia, a general diagnosis of the impaired ability to think, remember, and make normal, everyday

decisions. It's projected that as many as 14 million people in the United States could suffer from dementia by the year 2060. Supplementation with rosemary may help to stave off cognitive decline that can lead to this devastating diagnosis.

In a study published in Phytomedicine in 2018, rosemary was tested in a placebo-controlled trial of a combined herbal extract on memory enhancement in healthy older adults. The extract combined three traditional medicinal herbs, rosemary, sage, and lemon balm. The 44 study partici-

pants were blinded and randomized to take the herbal extract or a placebo for a single, two-week term. Immediate and delayed word recall was used to assess memory after taking the active extract or placebo each day.

Results showed that, in as little as two weeks, the herbal extract containing rosemary was significantly more effective than the placebo at enhancing memory in individuals younger than 63, with no adverse effects. Researchers called for further research on this "simple, cost-effective" protocol for its potential as an adjunct treatment for patients with

Antidepressant

Depression is a natural state of mood that everyone experiences at some point in their lives. But what to do when a depressed mood becomes more than a passing phase, and you're averse to potentially addicting, long-term drug therapy? Why not try adding more rosemary to your life?

Massage is a holistic healing modality with known therapeutic benefits. By combining the powerful effects of aromatherapy with a healing touch, you get a two-fold boost that has been clinically proven to improve mood. A study this year on elders living in a nursing care facility found that a 20-minute aromatherapy massage using oil infused with lavender, chamomile, and rosemary extracts significantly reduced anxiety and depression.

Another easy way to boost your mood is as simple as drinking a daily cup of rosemary tea. A 2021 study found that healthy subjects between 20 and 50 years of age who consumed a 5-gram infusion of rosemary tea daily for 10 days showed significantly improved blood plasma biomarkers for anxiety and depression. Research findings highlighted the promise of rosemary as both an anti-anxiety treatment and an antidepressant, with rosemary increasing the most reliable biomarker for depression.

To learn more about the health benefits of rosemary, consult GreenMedInfo.com, the world's most widely referenced, evidence-based natural medical resource.

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Rosemary is a highly versatile herb that can be used in teas, essential oils, and everyday cooking.

Seeking the Safe Side of Sun Exposure

Continued from Page 9

Plants, for example, turn sunlight into energy through a process called photoalso generates oxygen, enriching the air

Just like photosynthesis, the sun also own bodies. Most people know about vitamin D produced in our skin from the sun's ultraviolet rays, but fewer know worth the risks? Often the answer comes that the sun's infrared and near-infrared light also has a profound effect.

In a study published in Metabolic Brain Disease using mice, researchers found that "low-intensity NIR [near-infrared] may attenuate hypoxia/ischemia-induced mitochondrial dysfunction in neurons." In other words, this light can teenager help alleviate damage caused to the mitochondria in neurons, our brain cells. Mitochondria are the powerhouses of matologist encourages it. our cells, creating the energy for all cellular activity.

This same light is also known to have a neuroprotective effect on Parkinson's disease (PD), a finding that has prompted a therapy called "photobiomodulation."

While a study published in Frontiers in Aging Neuroscience in 2020 states that "our understanding of the neuroprotective mechanism of PBM [photobiomod- that too little sun could harm her health ulation] remains far from complete," it in other ways. He shared a story about also states that "PBM represents a po- a patient who, after a skin cancer diagtential novel therapy for PD."

be a widely effective treatment, accord- disease characterized by the weakening to a 2015 study published in Frontiers ing, deterioration, and deformation of in Neuroscience.

"The fact that NIr therapy has been reported to be effective in so many dif- each individual," Dean said. "I go outside ferent models of disease and in a range and enjoy what the universe has provided of neural systems suggests that it is not us. Natural light is one of the best mood a targeted therapy, but instead, acts to boosters, so I refuse to hide away indoors mitigate ubiquitous processes relating to fearing cancer for the rest of my life. For cell damage and death," reads the study, me, the benefits outweigh the risks." which was conducted by an international group of researchers.

While candles and fire do emit infrared, the sun is the major source people have relied on for millennia.

A Healthy Relationship With

Sunlight But even before people understood all the science behind the sun's virtues, they understood that it contained immense power.

Some ancient cultures viewed the sun as the ultimate embodiment of the masculine principle (yang), and others even

Without enough

sun exposure, your serotonin levels can dip, leading to a higher risk of major depression and seasonal patterns of sadness and melancholy during winter months.

worshiped it. Ancient doctors considered the sun to be the premiere healer. For generations, a common prescription for a variety of ailments consisted of expossynthesis. This solar-driven transaction ing patients to ample doses of fresh air and sunshine, and common experience we breathe to support our own survival. and modern science both back these up.

Today, however, we rarely hear about drives many life-giving processes in our the sun's virtues. Instead, we mostly hear about the damage it can do to our health. The question becomes, are the benefits

down to how responsible you are about UV exposure. Samantha Dean is a living example.

Dean is a metastatic melanoma survivor who said she's at high risk of its return. She's fairly certain that her diagnosis is linked to frequent tanning bed use as a

Yet despite Dean's elevated risk, she still enjoys being outdoors, and her der-

"I still participate in daytime races, go swimming, and walk my dogs. I enjoy sipping on my morning coffee poolside. These are things that benefit my mental health," she said. "Of course, I don't want a new melanoma spot to pop up. But I also don't want to hide inside with my blinds closed all day."

Dean said her dermatologist explained nosis, got rickets because she never got Near-infrared (NIr) has been found to any sunshine. Rickets is a degenerative muscles and bones.

"It's about finding the right balance for

When you start turning red and burning, you're out of antioxidants. It's that simple. We just need to replace the antioxidant.

Dr. Elizabeth Plourde, scientist and author, "Sunscreens Biohazard 2: Proof of Toxicity Keeps Piling Up"

Excessive exposure only accounts for 0.1%

of the total global burden of disease according to a World Health Organization report on "The **Global Burden** of Disease Due to Ultraviolet Radiation."

Receiving adequate

sun exposure is

vital for a healthy

body and a happy

mind. However, an

overabundance of sunshine can be

harmful, resulting in

skin damage.

Necessary Sun Exposure

Rickets is rare these days, but in the early 20th century, the disease was rampant among children living in the cities of the northern United States.

Doctors identified a lack of sunshine as the cause because children in the country-who were constantly outside-didn't get the disease. Urban children, in contrast, grew up in factories rather than farms, and even when they got a glimpse of the outdoors, the significant urban pollution of the era dramatically dimmed the available sunshine.

Regular sun exposure has several health benefits, but the most studied is that unusual hormone called vitamin D. The rise in rickets prompted its discovery, but new insights about vitamin D emerge all the time. Sun exposure on our skin is what stimulates our cells to generate vitamin D, which has been found to strengthen our muscles, bones, immune system, mood, and so much more.

Researchers have found that adequate vitamin D levels can protect against autoimmune diseases, such as multiple sclerosis, as well as chronic illnesses, such as bone metabolic disorders, tumors, cardiovascular diseases, and diabetes. Scientists continue to discover new functions for vitamin D. For example, a recent meta-analysis has confirmed that vitamin D defends against COVID-19.

Vitamin D is unique because, unlike most other vitamins, our body produces vitamin D on its own with exposure to UV rays. Similarly, while most other vitamins can be consumed through a variety of food sources, few foods contain significant amounts of vitamin D.

It's hard to dispute our body's need for vitamin D, but some dermatologists urge patients to avoid the harmful effects of sun exposure and instead obtain their vitamin D through oral supplementation, but such advice overlooks the many other benefits of sun exposure.

For modern urban dwellers who still see little sunshine, supplementation is a reliable way to boost vitamin D levels. It's how the scourge of rickets was eradicated, after all. In the 1940s and 1950s, public health experts called to fortify the food supply with a dietary form of vitamin D.

But supplements alone can't replace all the sun's virtues. Elisa Regulksi, a Certified Sleep Science Coach said sun exposure has an important relationship with sleep. She explained that sunlight exposure regulates our sleep-wake cycles via a chemical called mel that makes us feel sleepy.

"When the sun rises in the morning and we are exposed to sunlight, this signals to our bodies that it's time to stop producing melatonin and wake up. So when this cycle of natural light gets disrupted, perhaps by staying inside in a poorly lit room or getting too much light exposure at night from a screen, our sleep is negatively impacted," Regulksi said.

A Sunnier Disposition

Dr. Enrizza P. Factor, a researcher and clinical dermatologist, said sunlight also helps boost a chemical in our brains called serotonin. This neurotransmitter is often associated with alleviating depression and encouraging a brighter mood. Adequate levels of serotonin can give you more energy and help keep you calm, positive, and focused.

Factor said that without enough sun exposure, your serotonin levels can dip, leading to a higher risk of major depression and seasonal patterns of sadness and melancholy during the winter months, when available sunlight is hard to come by.

"Sunlight is essential for human health and well-being," Factor said. "Phototherapy is still used today to treat conditions such as eczema, psoriasis, jaundice, mood and sleep disorders, and some cancers. The healing power of the sun is a powerful reminder that the sun plays an important role in human health and should not be avoided."

According to board-certified dermatolo-

If needing to reduce sun exposure, instead of using potentially harmful sunscreen, use a wide-brimmed straw hat or natural alternatives like coconut or aloe vera. Espinosa, in addition to boostof vitamin D. sun exposure also minimiz-

es the risk of de-

veloping diseases such as metabolic syndrome, Alzheimer's disease, and rheumatoid arthritis.

But Espinosa stresses that, for all the sun's benefits, it's important to understand the extent of its harms.

to sunbathe for long periods to get this benefit. Too much exposure at peak hours at the hottest time of day may cause sunburn or photodamage. The damage on the skin leads to skin aging and skin cancer," Espinosa said. "Limiting the time of exposure can minimize skin damage and dehydration as well, while still producing vitamin D."

Coping With a Harsher Sun

Why did doctors in the past celebrate the sun, while many physicians today urge caution? Perhaps it's because people used to be able to soak up more sun with fewer problems. Chemical pollution over the past several decades has led to a 5 percent reduction in the ozone layer—an atmospheric shield that serves to screen out much of the UV rays that the sun beams down.

Although researchers report that the ozone hole has been shrinking in recent years, according to Dr. Harold Hong, a board-certified psychiatrist and medical director of the New Waters Recovery Center in North Carolina, an hour or two in the sun exposes us to more UV rays than our ancestors experienced.

"That's not to say that the sun can't benefit our health in moderation. Like anything, too much of a good thing can be bad for us. Get enough sun to improve your mood and get some vitamin D, but don't stay out in the sun for too long and put yourself at risk for skin cancer."

According to NASA, the northern latitudes, including North America, have seen about a 5 percent increase in UV levels, so the change isn't dramatic.

Sunscreen Controversies

Liberal use of sunscreen is the prevaiing wisdom in skin care, but the recommen- pigment that was already in your skin. dation isn't without controversy. Some doctors believe that sunscreen causes more harm than good. Not only does sunscreen use prevent our skin from generating nearly as much vitamin D as bare skin, but there's also some evidence that suggests that some common chemicals in sunscreens can disrupt our hormonal levels. Other evidence even suggests that these products do more to promote cancer than to protect us from it.

downsides of sunscreen in a recent Wise of your skin as your cells shed," Bailey Traditions podcast featuring Dr. Eliza- wrote. beth Plourde. a clinical laboratory scientist and the author of "Sunscreens Biohazard 2: Proof of Toxicity Keeps Piling Up." According to Plourde, the body naturally protects itself from sun damage, provided that it has enough antioxidants.

"Our bodies are designed so that the antioxidants come up in the skin. When solar radiation hits the skin, the antioxidants come up and protect the skin from any damage. When you start turning red and burning, you're out of antioxidants. It's that simple. We just need to replace the antioxidant," Plourde said.

According to Plourde, eating a diet rich in antioxidants can help protect us from sun damage. But some skin types naturally have higher levels of antioxidants.

Healthy Sun Exposure

but UV rays are strongest from about 10 benefits of responsible sun exposure.

gist Dr. Patricia Gaile a.m. to 4 p.m. This daytime segment of particularly intense sunlight allows us to soak up the most vitamin D in the shortest ing our levels amount of time.

ALL PHOTOS BY SHUTTERSTOC

About 5 to 15 minutes of midday sun three times a week is all it takes for fairskinned people. People with darker skin will require longer periods of sun exposure, as lighter skin produces about six times more vitamin D than darker skin. Darker skin is also better protected from UV thanks to increased melanin.

Melanin is a pigment that gives skin its color. Dark-skinned people have a lot of melanin and, as a result, can often spend more time in direct sunlight without consequence. But melanin doesn't just make skin dark, this pigment is also a powerful "People do not need antioxidant that's shown to have anticancer properties.

Locale also plays a big role. For example, folks living in Florida have a lot more opportunity to catch some vitamin-D-rich rays than Alaskan residents.

Dr. Brian Kaplan has lived at both extremes of sun exposure. He's currently a medical doctor in notoriously cloudy London, but he was born in exceptionally sunny Africa, where he said malignant melanomas aren't an uncommon diagnosis.

"Yes, sunlight allows us to manufacture our own vitamin D. However, a half hour of your nose in the sun a day will probably be enough," Kaplan said. "Dark-skinned people in cold countries need to take oral vitamin D more than others, but a recent survey showed that about 50 percent of people in England are low in vitamin D."

Kaplan said people with very fair skin are more vulnerable to sun damage. He said they still need to get some sun every day, but they're genetically suited to locales that receive less sunlight.

"So if you are pale, you benefit from a little sun, but too much can hurt you both in the short and long term," Kaplan said. Nobody wants a sunburn, but many

seek a tan—a darkening of the skin due to sun exposure. Some insist that a tan can actually protect you from some of the negative aspects of exposure. The idea is that a tan generates more skin-protecting melanin.

But dermatologist Dr. Cynthia Bailey said not all tans are created equal. In a blog post examining the topic of tanning, Bailey said an "immediate tan"-a skindarkening process that occurs over the course of an afternoon-doesn't generate more melanin. It merely redistributes the

However, a tan that slowly comes on over the course of an entire summer can generate some sun protection. But it comes at a price.

"The tan occurs because your skin actually makes more melanin pigment granules and spreads them out in the living layer of your skin. This means that it does give you a small amount of sun protection, but at the expense of DNA damage. Remember, tans are temporary because You can find a discussion about the these melanin granules grow up and out

> According to Kaplan, the only benefit of a tan is the aesthetic it creates.

> "It's always amazed me that white people in cooler countries want to tan and dark people in hot countries often use skin lighteners. Overexposure to skin and skin-lightening products can be dangerous if overdone," he said.



Sunscreen recommendations often ignore the The sun shines from sunrise to sunset, toxic ingredients in these products and the

> of midday sun three times a week is all it takes for fair-skinned people. People with darker skin will require longer periods of sun exposure, as lighter skin produces about six times more vitamin D than darker skin.



when young is associated with stronger bones that can help prevent injury at the collegiate level.

Some Sports Are Better for Young Athletes' Bones

Young athletes should delay specializing in running or other unidirectional sports so they can build stronger skeletons

KELSEY COOK

Young athletes who participate in multidirectional sports, instead of specializing in a unidirectional sport such as running, can build stronger bones and reduce the risk for bone injuries as adults, according to a new study.

The researchers examined Division I and II female cross-country runners, who often experience bone stress injuries such as stress fractures.

The study found that athletes who had a history of running and participating in sports that require movement in many directions—such as basketball or soccer—had better bone structure and strength than those who had a history of solely running, swimming, or cycling.

The findings, published in August in the journal Medicine and Science in Sports and Exercise, support recommendations that athletes delay specialization in running and that they instead play multidirectional sports when younger to build a more robust skeleton and potentially prevent bone stress injuries.

"Our data show that playing multidirectional sports when younger versus specializing in one sport, such as running, decreased a person's bone injury risk by developing a bigger, stronger skeleton," said study author Stuart Warden, associate dean for research and professor at the Indiana University School of Health and Human Sciences.

"There is a common misperception that kids need to specialize in a single sport to succeed at higher levels. However, recent data indicate that athletes who specialize at a young age are at a greater risk of an overuse injury and are less likely to progress to higher levels of competition."

Historically, Warden said, researchers have examined the bone's mass—how much bone a person has—to determine how healthy their skeleton will be throughout life. But in previous studies, Warden and his colleagues found that as a person ages, both mass and size are equally important.

In the current study, the researchers used high-resolution imaging to assess the shin bone near the ankle and bones in the feet where bone stress injuries frequently occur in runners. They found that the athletes who participated in both running and multidirectional sports when younger had a 10 to 20 percent greater bone strength than athletes who solely ran.

"Our research shows that the runners who played multidirectional sports when younger had stronger bones as collegiate athletes, which puts them at less risk for bone stress injuries including stress fractures," Warden said.

"We want to ensure people have better, stronger bones as they grow, become adolescents, and go through life. Specializing in one sport at too young of an age means they are more likely to get injured and not make it at the collegiate and professional levels."

Anyone who oversees a junior athlete or team—parents, coaches, or trainers—should think twice about pushing them to specialize in one area too early, Warden said. To allow for proper growth and development to occur, he recommends young athletes not specialize until at least their freshman year of high school. For athletes who already play multidirectional sports, he said it's important that they take time off for rest and recovery during the year, which can improve both bone strength and performance.

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MINUTES

How to Live (Peacefully) With an Anger Bully

If you're affected by someone's chronic anger, it's important to not blame yourself but do take steps to manages the situation

NANCY COLIER

illian asked her husband to hang the curtains; she had been asking him for weeks. Each time, he had promised to do it, but it didn't happen. When she asked for the fourth time, he angrily responded, "For Christ's sake, how many times are you going to ask me? I heard you the first 10 times; it's on my list. I'm not your puppet."

Gillian stayed silent, and even though silence felt terrible, she didn't know what else to do. She was paralyzed, stuck in a fightflight-freeze state, frozen. The next day, the curtains were hung; however, her husband's aggression went unaddressed.

While Gillian got her curtains hung (which she couldn't do herself because of a bad shoulder), she felt angry and sad. She was also ashamed for allowing herself to be treated that way. She was disappointed in herself for not having the courage to stand up to her husband's anger.

Olivia needed child care for her 8-year-old. She had reached out to many babysitters, but no one was available. She would normally have watched her son herself, but a friend was in town whom she really wanted to see. When she raised the issue with her husband, he said rather spontaneously that he would "take care of it."

"Not to worry, I'll deal with it; if I have to shift things around, I will," he said. And so she thanked him and didn't worry

about it. When the day arrived, it became clear that nothing had been arranged for child care. Her husband, noticeably angry, then accused her of being selfish, always doing exactly what she wanted to do and expecting him to rearrange his schedule to accommodate her. "Why is the assumption that I will change

everything around and you just get to do whatever you want?" he asked. In Vince's home, when one of the children dropped or spilled something or otherwise made a mess or when they were just being silly or loud or whining, his wife would explode. She would shout at the child and at him for condoning and creating the child's

bad behavior. In his words, "She was a grenade with a loose pin."

Vince tried his best to keep the kids in line and quiet, to keep things under control. The kids also worked hard to "not make mommy mad." But it was a losing battle, and the kids were starting to show signs of emotional damage, which is what brought Vince to my office.

What these three people have in common is that they all live with an anger bully: Someone who uses their anger to control and manipulate and as a weapon that keeps you silent and shut down.

Anger bullies come in all shapes, sizes, colors, and genders, and there are a lot of them. When you're in a relationship with an anger bully—and usually you don't need to Google it to know it-you live in fear, walk on eggshells, and carry an ongoing anxiety that you'll be the target of the anger at any moment. Sometimes it's for reasons you know, and sometimes it's just because of the bully's mood. Often, you also carry a boatload of resentment for serving as the bully's punching bag and swallowing his or her anger with none of it being acknowledged.

The consequences of living with an anger bully are numerous and long-lasting. To begin with, you live in a chronic state of anxiety; sometimes it's at a low level, and

An anger bully is like a bomb with an uncertain fuse. These people leave everyone around them walking on eggshells.

Anger bullies come in all shapes, sizes, colors and genders, and there are a lot of them.

Getting your child out of harm's way is the physical enactment of saying 'no' to the bully's behavior.

> If you live with an anger bully and don't want to leave, it can help to recognize any patterns

that reveal triggers.



other times it's at code red. But it's always there, a pit in your stomach, the knowledge that things could erupt.

You become hyper-vigilant to any small change in expression, tone, or movement that might signal the onset of conflict or anger.

You learn to scan for danger and monitor your environment in order to keep yourself safe. Unfortunately, this doesn't just stop when you're not with the bully; it becomes a way of being in the world that damages your confidence and sense of well-being and creates nervous system burnout.

Simultaneously, living with anger causes you to lose touch with your real self, your truth. You learn to manage, soften, and adjust what you say and do so as to not unleash the bully's dragon; you become a master at how to behave to keep the peace.

As a result, your authenticity is stymied. This too doesn't just disappear when you're out of harm's way but becomes part of who and how you are.

You also often experience shame for not

having the courage or strength to stand up to your bully or just leave.

"I should be willing to confront him or her or leave the relationship. If it keeps happening it's my fault for not stopping it," you may think.

You and the bully are now in agreement; you're the one to blame!

The truth is, for most people, anger is just plain scary and incredibly difficult to confront or address.

Understandably, many people are afraid of conflict and may have come from homes where anger was repressed and didn't happen. Or they may have come from homes where another anger bully controlled the environment, so they learned to be quiet and submissive. Regardless of your particular history with anger, the experience of it is disruptive to your nervous system; it triggers a state of high alert. Anger threatens your security and endangers your most primal need—to feel safe.

There's a background fear too, when in





because someone is an anger bully sometimes doesn't mean that person can't also be a loving and worthy partner.

Just

a relationship with an anger bully, that confronting them about their behavior will lead to a rupture in the relationship, which presents another threat to your security. No matter how you slice it, how "used to it" you may be, anger is painful, disruptive, and hard to navigate.

So what can you do to help yourself with an anger bully if leaving the relationship isn't what you want right now?

First and foremost, you can stop shaming and blaming yourself for not leaving and not knowing how to stop it just yet.

While it's important to address anything in a relationship that feels hurtful, unsafe, or disrespectful and to set boundaries that protect you emotionally and physically, it's also important to recognize that relationships are complicated. None of which is to say that you should excuse bad behavior, because you shouldn't.

But we stay in relationships for many reasons, some of which don't make "sense." Because someone has anger issues doesn't mean that you don't still love and/or need them, that you don't enjoy being with them, or that you haven't built a good life together. If someone is an anger bully, it doesn't mean that they aren't many other wonderful things, too.

We tend to boil things down in our culture, either someone is good or bad; if they're bad, you should get out and if you don't there's something wrong with you: You don't love or respect yourself, you're a masochist, you aren't a powerful woman or man, and so forth. But in real life, human relationships aren't simple. They're messy and contradictory.

People are many different things all at once and different things at different times. Staying in a relationship with a person who has anger issues isn't inherently something to feel shame or blame for. You can start helping yourself by telling your inner critic to get off your back about that.

There are some practical strategies that may help you feel more empowered, in control, and emotionally intact in a situation that can feel like it strips you of your power, control, and well-being.

When the bullying includes your children (which it never should), you can physically remove your child from the line of fire by saying things such as "Come on, let's go do that thing in your room" or "Come with me, I don't want you to be around dad when he's shouting."

Getting your child out of harm's way is the physical enactment of saying "no" to the bully's behavior; it's you modeling for your children that it's not okay for anyone to treat them this way-even a parent.

This removal also gives you back some control in a situation that can feel so out of control. Sometimes it even serves as a wakeup call to the bully himself, reminding him that he's aggressing his children and that his actions have consequences.

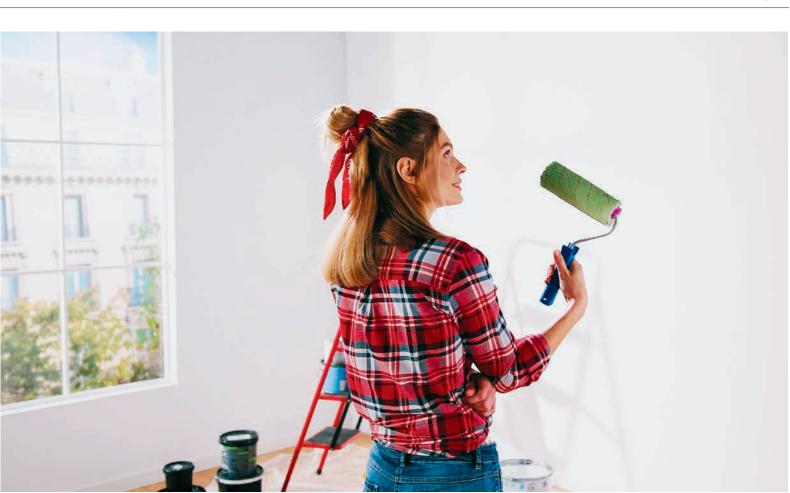
Simultaneously, it's critical to talk to your kids about your partner's anger. If nothing is ever said about the bully's behavior, the children learn to blame themselves and think that it's their fault that your partner is so mad-and seemingly at them.

Children can twist themselves into pretzels to not make mom or dad mad and, in the

process, become anxious and depressed. So too, they come to believe that this kind of anger is normal and an acceptable way of treating people. Sadly, they often end up seeking out or creating that kind of relationship again. This is a cycle that you want to stop now, and you can do that by breaking the alliance with the bully as far as your kids are concerned and denormalizing the anger they're witnessing and absorbing.

Talking about the anger with your children is also a way of getting the anger off of them, making it about daddy and mommy so that they don't internalize it and make it about them. More than anything else, you want to teach your kids that the bully's response is the bully's problem; it belongs to the bully and isn't something they caused, even if the bully says they did.

"You may have spilled the milk, but spills happen. If you can be more careful in the future that might help, but it also sometimes



If your anger bully is triggered by certain situations, figure out if you can resolve those situations without involving them.

giving yourself really want, equanimity, is a way of

just happens. I spill milk all the time and I'm a grown-up. But daddy's reaction to the spilled milk isn't okay; you shouldn't be yelled at like that, and this is daddy's problem that we're working on. You didn't cause it; you can't make it stop, even if you never spill milk again, and it's not your fault."

When it's you being bullied with anger, one simple strategy is to hold your hand up, with the palm facing outward toward the bully, in a gesture that says "stop." This can serve as a visual instruction, without needing any words (which aren't available when you're frozen). You can follow this by leaving the room or otherwise removing yourself. This is a concrete way of saying, "I won't do this anymore; I won't allow this to be done to me." Once again, saying "no" in this direct manner sends a message that's often more effective than defending yourself while remaining in the line of fire.

If your bully is triggered (as many are) when you ask them to do something that they don't want to do, such as hang the curtains, you can also start taking care of those tasks on your own. If you can afford it, you can hire a handyman or ask a friend to help you. While you might wish you had a partner who would happily help without getting angry, you may not have that partner. And so, if there's a way to help yourself without their help, it's often the path of peace, experience, and wisdom.

In doing so, you're effectively choosing the stress of accomplishing the task over the stress of potentially putting yourself in task yourself, as many people frame it. "But self and to respond at all. then I'm giving up on having a partner," as I've heard it put.

To take care of yourself by hiring a handyman is a profound victory in fact. It's stepping out of the fight with reality and resolving the struggle to be helped without potential aggression. To call the handyman is to choose your own well-being, your own peace, equanimity, and happiness, to honor what really helps you in the life you have. To drop the war and get on with the business of giving yourself what you really want-peace and equanimity-is a way of taking care of yourself at the deepest level.

A note of caution here: When you start taking care of yourself in this new way and taking away the opportunity to be bullied, you're breaking the codependency cycle that has governed the relationship thus far. This may anger the bully further, as you remove yourself from their grip and take away their power to control you.

You're effectively addressing the issue of his or her anger while keeping yourself safe.

If you encounter backlash or pushback, you can simply acknowledge that you and your partner have different timelines for getting things done and preferences for how things get done, all of which are valid. So it makes more sense and makes things easier and smoother for you if you take care of things yourself on your timeline with your preferences. It's a hard argument to challenge. On paper, that sounds like it should go smoothly and be easy, but I know that it's not easy, and the response isn't usually just "OK." So do the best you can and be kind to yourself in the process. It's a place to start and an attempt to create change, all of which must be honored.

If it feels possible, you can also initiate a conversation with your partner about the anger, but only start that conversation at a time when the relationship feels close and intact and never when the anger bully is already agitated or looking for a cause for their grievance.

Before you have that conversation, write down some examples of times when you felt bullied and what you experienced as a result of it. If your partner becomes defensive and angry, it's not a time to try and make headway. However, you can tell him or her that what's happening right now between you and him or her is exactly what you're talking about and trying to make better.

At the risk of repeating myself, I will: Anger is frightening and upsetting to be around and most certainly to be the target of. Chronic anger damages your sense of safety, security, self-esteem, spontaneity, authenticity, intimacy, and happiness. Anger triggers neurological changes and alters the chemicals in your brain and body; it dysregulates the nervous system. That said, you're up against some real emotional and physical obstacles when anger is coming at you, obstacles that disrupt harm's way. This isn't a defeat to take on the your ability to respond from your wisest

> Finally, if you're in a relationship with someone who uses anger as a weapon and if you feel shut down and silenced by that anger, it's a good idea to seek professional help from a couples therapist or counselor. It helps to have another person in the room to create a controlled space where the issue can be safely discussed, understood more deeply, and hopefully helped. More often than not, you can't do this alone. You didn't cause the anger bully's anger, and you can't fix it yourself.

> I've only covered a small slice of what's a gigantic topic: how to take care of yourself when you're in a relationship with an anger bully. (I'll be writing more about this in subsequent articles.) As you try these different strategies, be vigilant, most of all, about not adding more anger to the situation by getting angry with yourself. Stay on your own side. You're in a tough situation; don't abandon yourself here.

Nancy Colier is a psychotherapist, interfaith minister, thought leader, public speak*er, and the author of "Can't Stop Thinking:* How to Let Go of Anxiety and Free Yourself from Obsessive Rumination," "The Power of Off," and the upcoming "The Emotionally Exhausted Woman: Why You're Depleted and How to Get What You Need" (November 2022.)

> If it will keep your anger bully from getting angry, you are better off to hire someone to do the work that upsets them.





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The Healthy Effects of Kindness

Researchers have studied which acts of kindness make you happier and healthier

MEENA ANDIAPPAN

How to optimize the pursuit of well-being and happiness is a question that researchers have tried to tackle from a range of angles. The social effects of the pandemic led many people to focus more closely on their mental health and create buffers against threats to their well-being. In short, they tried to pursue happiness.

As a social scientist, I study the intersection of ethical behavior and well-being. Last year, my colleagues and I decided to explore ways that people could increase their sense of well-being and decrease the increasingly common feelings of anxiety and depression that arose during the pandemic.

Given the recent popular movement toward ideals of self-care and focusing inward, we wanted to further investigate the best way to increase one's happiness and mental health.

We compared people who chose to treat themselves by spending money, or time, or some form of resources on their own happiness (anything from painting their nails to watching their favorite movie), versus those who treated others (again, anything from opening the door for someone at the grocery store to donating goods to charity). In both cases, people largely did simple, low- to nocost acts on a daily basis.

Committing to Kindness

What we found was surprising: For people who didn't consistently enact behaviors outside their normal routine, kind acts had no effect on their well-being. However, for those who fully engaged in the study by consistently enacting behaviors outside their normal routine, acts of kindness had bigger boosts to their well-being and mental health compared to those who treated themselves.

Not only that, but for those who fully engaged in their kind acts, those acts were associated with reductions in both anxiety and depression.

Our study joins a long line of research findings that concur. Why does research find these effects? Some have found that spending our energy on other people (particularly those less fortunate) makes our own troubles seem less pressing.

Others have noted that treating others often means spending time with them, building and reinforcing relationships—and we know that strong social relationships are one key to happiness. Relatedly, when other people are present, we tend to smile much more—essentially experiencing positive emotions more frequently.

Research has also suggested that leading a meaningful life is a significant predictor of feeling well. It's likely that spending your limited resources and energy on other people can help boost this sense of meaning, making life more fulfilling and worthwhile. In contrast, spending—whether time, money, or effort—on yourself doesn't seem to have the same benefits.

Predictors of Happiness

We're now conducting a follow-up study, trying to better understand if all of the kind acts that people may engage in are equal predictors of happiness, or whether there are particular characteristics of certain acts that may make them more helpful in increasing positive feelings.

Interestingly, we have found that as long as you don't do the same act over and over (for example, baking cookies for your neighbor every day), you're sure to gain benefit from your kindness.

However, there were three factors that make certain acts particularly beneficial to happiness.

First, doing something outside your normal routine—for example, driving your neighbor to his doctor's appointment—affects your happiness more than routine acts, such as helping your spouse with the dishes.
Second, changing

the kind acts that you do is important. For example, one day



Leading a meaningful life is a significant predictor of feeling well.

> Taking care of another life, even that of a dog or plant, can bring a person joy and

> > meaning.

you might help a co-worker finish their tasks, while another day you might choose to spend time helping your niece learn to play soccer. So, variety is key.

• Third, happiness is boosted when you receive positive feedback about the kind act that you did. Knowing how you have helped someone or receiving gratitude and appreciation for your act amplifies your positive feelings.

Trying to increase your happiness and mental health doesn't have to be hard, time-consuming, or expensive. In fact, it can be done in the span of 60 seconds without much effort or money at all—just consider holding open a door for a stranger or giving your colleague a compliment.

Although engaging in kind acts isn't a universal remedy for emotional needs, these little acts of kindness can all add up to the old adage: In helping others, you really can help yourself.

Meena Andiappan is an assistant professor of management and organizations at the University of Toronto in Canada. This article was originally published on The Conversation.



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