

MIND & BODY

PENYUSHKIN/GETTY IMAGES

The Obesity Factor

Why COVID-19 is so much worse for people who are obese or overweight

Obesity can take a toll on nearly every aspect of your health, from fertility to back pain.



JENNIFER MARGULIS

At first, Angelle Mosley of New Orleans didn't think she had COVID-19. But she texted her mom that she wasn't feeling well on a Thursday and went to the hospital to get tested, just in case, according to WDSU News.

Though initially Mosley was treated and sent home, she spiked a high fever, was having difficulty breathing, and ended up back in the hospital over the weekend. She tragically died on July 25, just three days after her COVID-19 test came back positive. Mosley was just 33 years old and fully vaccinated.

What happened? Why did such a young woman succumb to such a severe case of COVID-19? The owner of a clothing store catering to plus-size women, Brave Boutique, Mosley also was obese. Her untimely death



Approximately 78 percent of people hospitalized for COVID were overweight or obese.

may be explained by new research on the relationship between COVID and obesity.

Obesity Rising Worldwide

According to the World Health Organization, obesity is on the rise worldwide, in both adults and in children. From 1975 to 2016, the global prevalence of obese and overweight young people jumped to 18 percent from 4 percent. The WHO estimates that 1.9 billion adults were overweight in 2016, 650 million of whom would be classified as obese. Nearly 40 percent of American adults are obese.

People who are overweight or obese have an excessive amount of fat accumulation. Some argue that BMI is a simplistic rubric that doesn't take into account individual muscle mass or body size but a person who has a body mass index over 25 is considered overweight, and obese if that index is 30 or

higher. (The National Institutes of Health has an online BMI calculator, as does the Centers for Disease Control and Prevention (CDC), if you're curious about yours.)

According to Harvard School of Public Health, obesity can take a toll on nearly every aspect of your health, from fertility to back pain to proper lung functioning and respiratory health. Being obese increases your risk of arthritis, cardiovascular disease, certain cancers, diabetes, and even mood disorders. Several studies have shown an association between obesity and depression, especially for women. But of the many negative health conditions associated with obesity, an increased risk of succumbing to deadly or debilitating disease is perhaps the most worrisome.

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The Long-Held Hope for an Opioid Vaccine

As overdose deaths climb during the pandemic, vaccine makers seek a treatment

CONAN MILNER

COVID-19 is the public health emergency that dominates the headlines, but it isn't the only one. The opioid epidemic was raging for several years before COVID and is still going strong. Despite numerous years spent addressing the problem, this public health crisis is now worse than ever.

Opioid deaths have risen steadily over the past 20 years. And since the emergence of COVID, abuse and fatalities have only grown faster. Data indicates 93,000 opioid overdose deaths in 2020 compared to 70,000 deaths a year earli-

er—a 30 percent increase.

This widespread and often deadly addiction may also share something else with COVID: a vaccine may soon be used to treat it.

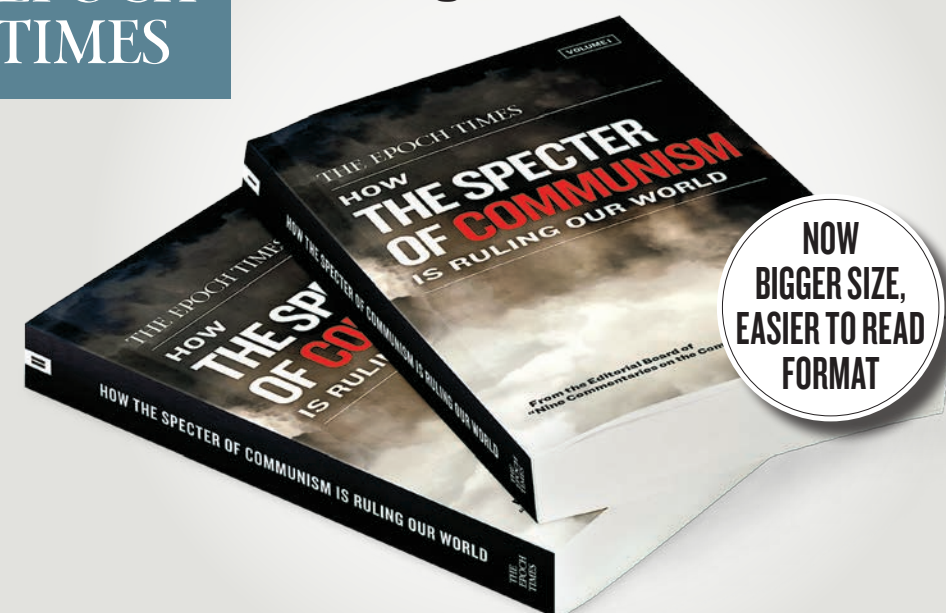
In September 2021, researchers began the first human trials for an opioid vaccine. It works like a traditional vaccine, in that it prompts the body's immune system to make antibodies. However, these antibodies aren't used to block a virus. Instead, they're designed to block opioid molecules from reaching the brain.

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As opioid deaths climb during the pandemic, some hope a new vaccine may help, though key questions remain unanswered.

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A jab is unlikely to
address the pain
and trauma that are
typically found behind
an addiction.



The Long-Held Hope for an Opioid Vaccine

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What makes this trial special is that many failed attempts have preceded it. Hopes for an opioid vaccine have been around since the 1970s, although trials until recently have fallen short. Most never made it out of the discovery phase.

But support for the idea has persisted. A 2019 U.S. Government Accountability Office (GAO) report discussing opioid vaccines notes at least three early-stage clinical trials then in development, including one from the Walter Reed Army Institute of Research testing a heroin vaccine. In August 2020, The National Institute of Allergies and Infectious Diseases began funding these projects.

Hopes remain high that an approved opioid vaccine lies just around the corner. However, one of the limitations involved in this strategy is the specificity built into each shot. The one now in human trials, for example, only blocks oxycodone molecules. It doesn't interfere with other opioids, such as fentanyl or heroin. Proponents of these vaccines say this feature is a benefit, because it leaves the door open for other treatment options in the event a patient might require pain management in the future. However, it also means that multiple vaccines are necessary if patients turn to other opioids when they can no longer get a fix from their favorite.

And there's a wide spectrum of choices when it comes to opioids, which originated from the opium poppy—a plant at the center of two major wars between Great Britain and China in the 1800s. Since then, the humble poppy has spawned many opium derivatives that are stronger and far more addictive, including OxyContin, morphine, and heroin.

Perhaps the most potent opioid drugs are called fentanyls—a family of synthetics said to be 80 to 100 times stronger than morphine.

Fentanyl's potential for abuse and fatality is greater as well. According to an analysis of data from the U.S. Centers for Disease Control, fentanyl fatalities have skyrocketed under COVID. From April 2020 to April 2021, more than 64,000 overdose deaths were attributed to fentanyl poisoning—nearly double the same period in 2019. According to Families Against Fentanyl (FAF), the drug has become the No. 1 cause of death for Americans between the ages of 18 and 45.

Due to fentanyl's capacity to kill, and the enormous quantities that have been smuggled across the U.S. borders in recent years from China and Mexico, some believe it must be taken more seriously. In July, FAF sent a letter to President Joe Biden, urging him to classify fentanyls as weapons of mass destruction.

“The Department of Homeland Security seizes only a fraction of the fentanyls that traffickers attempt to bring into the U.S. Sadly, it is estimated that more than 40,000 Americans died last year from these dangerous chemicals,” the letter states. “The significant presence of illicitly manufactured fentanyls in our cities and neighbor-

hoods places all of us in danger.”

Vaccines for Every Ill

An opioid vaccine may sound strange, because we typically think of vaccines as treatments that provide protection against contagious diseases. But the injection format has expanded to address a range of issues. Vaccines are now in development to fight Alzheimer's, Parkinson's, heart disease, allergies, autoimmune disease, and more.

In fact, two companies currently known for creating vaccines for COVID—BioNTech and Moderna—were originally set up to develop vaccines to fight cancer.

Vaccination has been around for more than 200 years, but today, it's more popular than ever. From the constant messaging urging everyone to get their COVID shot and follow-up boosters, to the slightly less persistent messages to get flu, shingles, and other shots available at your local drug store.

Vaccines are already a major part of modern health care, and their influence is expected to grow even larger. Some see the future treatment of all diseases one day taking the form of a jab. As of April 2020, there were nearly 260 vaccines in development by U.S. drug companies, both to prevent and treat disease.

Opioid vaccines are designed to block opioid molecules from reaching the brain.

But will a shot solve the opioid crisis? It isn't likely. Even the most ardent supporters of the treatment admit it's no magic bullet. If and when an opioid jab does finally make it to market, it's at best expected to fill a few gaps left by the other three medications to treat opioid abuse that are already approved by the U.S. Food and Drug Administration: methadone, buprenorphine, and naltrexone. Ideally, the shot would provide some preventative protection when drugs to address overdoses aren't readily available.

According to the GAO, the protection of a single shot could perhaps last months or even years, and would require little medical supervision.

However, even larger gaps in the strategy to end opioid addiction would still remain. For example, a shot won't stop the shipments of illegal fentanyl that continue to flood the country, nor can one undo the damage caused by drug companies that aggressively promoted opioid drugs in the 1990s and early 2000s, and misrepresented their potential for abuse. A jab also is unlikely to address the pain and trauma that are typically found behind an addiction.

One question about what the regulatory framework will be for any opioid vaccine that does get approved, since vaccine makers currently enjoy unique protection from financial liability for vaccine injury claims. While a drug maker can be sued and subjected to a class action lawsuit for problems associated with their products, in the United States vaccine makers can't, due to the National Childhood Vaccine Injury Act passed in 1986 and more recent legislation approved in response to COVID-19.

MOTORION FILMS/SHUTTERSTOCK

MEDICALLY CORRECT

The History of the Antibiotic

While modern medical researchers get the awards, ancient people were already in the know

PETER WEISS

While many people believe that penicillin was the first antibiotic, they would be wrong by only a few thousand years. Various molds and plant extracts have been used as “antibiotics” throughout history.

Ancient Egyptians would apply moldy bread onto infected wounds, while examinations of skeletal remains from ancient Sudanese Nubia dating as far back as A.D. 350 showed traces of tetracycline. These people must have had foods with tetracycline material in their diets since tetracycline is absorbed into bone when ingested. Beer brewed at the time is thought to be a source. The same was found in examining skeletal remains from the Roman period, however, there was no mention of beer.

Tetracycline is still used today, but avoided in young children since it can permanently damage teeth and can be incorporated into the mineral of bones. Tetracycline was first discovered in 1948 and was produced from actual bacterial cells of streptomycetes and actinobacteria. The historical origins still remain a mystery though.

Honey has long been known to have antimicrobial properties and has a well-documented use in wound care and medicine since ancient times. The antimicrobial properties of honey have to do with the enzymatic production of hydrogen peroxide. There are some kinds of honey that don't produce hydrogen peroxide but still act as antimicrobials due to their high sugar content and low pH, both of which hinder bacterial growth.

Traditional Chinese medicine has used antimicrobials for a millennia. Artemisinin (qinghaosu), a potent antimalarial drug, is derived from the artemisia plants used in Chinese medicine to treat malaria for thousands of years.

Pyocyanase, a mixture of “antibiotics” obtained from *Pseudomonas aeruginosa*, was probably the first “antibiotic” to be used to treat human infections. In the 1890s, Rudolf Emmerich and Oscar Löw discovered that this green discharge isolated from injured patients' bandages inhibited the growth of other microbes. They used this concoction as a paste over infections to limited success.

Until the beginning of the 20th century, infections were the leading cause of death worldwide. Infections such as pneumonia, influenza, and tuberculosis took scores of lives.

In 1904, the treatment of syphilis involved



Antibiotics and other antimicrobials have been used since ancient times but more recent iterations have transformed medicine. Depicted is an illustration by Robert Thom (1957) detailing an ancient Egyptian doctor administering medicine to a patient.

the use of inorganic mercury salts. This treatment had severe side effects, such as skin rashes, mental disturbances, memory loss, and weakness—side effects similar to the symptoms of syphilis itself. This treatment also wasn't very effective.

In 1909, a German physician, Dr. Paul Ehrlich discovered a chemical, arsphenamine, that was used successfully to treat syphilis. He didn't call it an antibiotic but chemotherapy, since a chemical was used as therapy.

Ancient Egyptians would apply moldy bread onto infected wounds.

Ehrlich wanted to find specific treatments for specific infections. He developed a derivative of a highly toxic drug Atoxyl and after the 600th series tested, he found a somewhat effective treatment against syphilis. A more soluble and less toxic form, neosalvarsan, was developed and was the most prescribed drug until the advent of penicillin.

Dr. Selman Waksman is credited with the term antibiotic some 30 years later. He was a Russian emigrant to America who discovered some 15 antibiotics including streptomycin, which was the first effective treatment for tuberculosis. Until then, many lives were lost from the TB epidemic. He was awarded a Nobel Prize in 1952 for his work. Meanwhile, Dr. Alexander Fleming, an Englishman, was given the somewhat mistaken accolades of discovering the first antibiotic.

Fleming, a somewhat disorganized scientist, returned from a Scottish vacation to find his laboratory a complete mess. He had several colonies of staphylococcus Aureus in several Petri dishes throughout his lab. He looked at them under a microscope and found that the penicillium mold had contaminated his staphylococcal Petri dishes, and was amazed to find that there was no evidence of any staphylococcus wherever the penicillium mold was.

He was astute enough to recognize the importance and wrote a letter about that date, Sept. 28, 1928, as the day he discovered what he called the first antibiotic. While he stopped working on penicillin in 1935, his work had been taken up by two others in 1929. It took some 14 years of development by other scientists, Dr. Howard Florey and Dr. Ernst Chaim, to isolate and help mass-produce pure penicillin.

All three would share the Nobel Prize in 1945 for their work. In March 1942, Anne Miller in Connecticut was the first civilian to be successfully treated with penicillin after she developed life-threatening sepsis following a miscarriage.

An interesting note is that while Fleming wasn't the first to discover the benefits of penicillium mold, he helped isolate the more pure penicillin. In 1870, Sir John Scott Burden Sanderson described how culture fluid covered in mold prevented bacteria from growing. It also was known for some time that Arab stable boys would treat saddle sores with mold formed on their saddles.

Penicillin, which was mass-produced during World War II, has been credited with saving many thousands of lives, especially for the Allies, who had plenty of the antibiotic while the Germans didn't.

The Germans had to rely on less effective sulfonamides, which were first recognized as antimicrobial in the 1930s by Gerhard Domagk, who was working at Bayer AG. He eventually used it to save his daughter from an arm amputation due to a serious staphylococcal infection.

He noticed that a sulfonamide dye, prontosil, could effectively kill bacteria by changing into an antibacterial form, sulfanilamide. In 1938, it was used to treat pneumonia, and later bladder infections, for which a more advanced form is still used today. It was a wonder drug until penicillin came along, which was more effective and had fewer side effects.

Back to Anne Miller. She was 33 years old, and her physician had connections with someone spearheading the development of penicillin as a mass-produced drug. He was able to get 5.5 grams of this penicillin from Merck Pharmaceuticals in New Jersey, sent to him in Connecticut. Miller started recovering within 24 hours of receiving the penicillin. She eventually died in 1990 at the age of 90.

So you can see that antibiotics have come a long way, but they also have a very long history.

Fleming said it best: “Nature makes penicillin; I just found it.”

Dr. Peter Weiss has been a frequent guest on local and national TV, newspapers, and radio. He was an assistant clinical professor of OB/GYN at the David Geffen School of Medicine at UCLA for 30 years, stepping down so he could provide his clinical services to those in need when the COVID pandemic hit. He was also a national health care adviser for Sen. John McCain's 2008 presidential campaign.

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AGE WELL

Plant-Based Diet Reduces Risk of Cognitive Decline

A new study found clear associations between eating certain foods and brain health

SARAH COWNLEY

A new study has found that elderly people who consume a plant-based diet have a reduced risk of cognitive decline and dementia. The research was published in the journal Molecular Nutrition and Food Research and was carried out over 12 years with the participation of 842 people from France who were over the age of 65. The study analyzed the relationship be-

tween the metabolism of dietary components, endogenous metabolism, intestinal microbiota, and cognitive impairment. Researchers examined the role of diet in the risk of suffering cognitive impairment. They examined plasma samples, which indicated that some metabolites were related to cognitive impairment and dementia progression while some were protective.

There was a protective association between metabolites derived from cocoa, mushrooms, red wine, and microbial metabolism of polyphenol-rich foods such as apple, green tea, blueberries, and pomegranates. That means these foods reduced the risk of cognitive impairment in the elderly.

Meanwhile, saccharin, a common ingredient in artificial sweeteners, was associated with a greater risk of cognitive decline.

Professor Cristina Andrés-Lacueva concluded, “A higher intake of fruits, vegetables, and plant-based foods provides polyphenols and other bioactive compounds that could help reduce the risk of cognitive decline due to aging.”

Lifestyle Changes

With an aging population and a growing risk of cognitive decline and Alzheimer's disease, it's vital to find ways to reduce the risk. With simple lifestyle changes, demen-



A higher intake of fruits, vegetables, and plant-based foods provides polyphenols and other bioactive compounds that help reduce the risk of cognitive decline due to aging.

and other debilitating mental health issues could be prevented or symptoms reduced.

Many experts believe that following a Mediterranean lifestyle may help treat and prevent cognitive decline.

The Mediterranean diet, known for its emphasis on vegetables, whole grains, fish, and olive oil, was previously associated with an almost 45 to 50 percent reduced risk of cognitive decline.

In short, a healthy diet with plenty of

vegetables is a great way to help keep your brain healthy.

Sarah Cownley earned a diploma in nutritional therapy from Health Sciences Academy in London. She enjoys helping others by teaching healthy lifestyle changes through her personal consultations and with her regular contributions to the Doctors Health Press. This article was originally published on Bel Marra Health.

PUBLIC DOMAIN

The Obesity Factor

Why COVID-19 is so much worse for people who are obese or overweight

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Obesity Makes COVID More Severe

We now know that there are several risk factors that make COVID-19 infections more severe for some people. According to the Mayo Clinic, people at risk for severe COVID include older adults (more than 81 percent of deaths from COVID-19 happen in people over 65), patients with heart and lung conditions, people with weakened immune systems, diabetics, and those who are battling obesity.

Given the negative health outcomes associated with obesity, it's perhaps not surprising that being overweight or obese appears to put people at higher risk of having a severe infection or even dying from COVID-19.

In March 2021, a CDC study discovered that approximately 78 percent of people hospitalized for COVID were overweight or obese. A team of nine scientists examined the health records of 148,494 adults and found that people right at the threshold of a healthy weight had the lowest risk of severe COVID-19, while people with higher BMIs were at increased risk. Of especial concern was the risk of obese people under 65 years of age being hospitalized, put on a ventilator, and dying from COVID.

Additional fat provides a place for the virus to 'hang out,' replicate, and wreak havoc on the immune system.

"These results highlight the need to promote and support a healthy BMI," the CDC scientists wrote, "which might be especially important for populations disproportionately affected by obesity, particularly Hispanic or Latino and non-Hispanic Black adults, and persons from low-income households, which are populations who have a higher prevalence of obesity and are more likely to have worse outcomes from COVID-19 compared with other populations."

According to an article published in the Journal of the American Medical Association in April 2021, based on the CDC and other data, compared to people at a healthy weight, those with the highest body mass

indexes had a 61 percent increased risk of death and a 33 percent increased risk of hospitalization. The more severe the obesity, the worse the COVID outcomes.

Why Does Obesity Make COVID More Severe?

New research from an international team of scientists may provide insight into why obesity is associated with more severe COVID-19 infections. These scientists used fat tissue from bariatric surgeries and tried to infect it with COVID-19. They also examined fat tissue from people who had died of COVID-19. They discovered that SARS-CoV-2 infected fat cells, known as adipocytes, and triggered a heavy-duty immune response in the tissue that sent inflammation skyrocketing.

In addition to infecting adipose tissue, macrophages—which are immune cells housed within the fat tissue—also became infected and provoked an intense inflammatory response.

As Dr. David Kass, a professor of cardiology at Johns Hopkins, explained to a reporter from The New York Times, it appears that the additional fat provides a place for the virus to "hang out," replicate, and wreak havoc on the immune system.

Fat tissue is full of immune cells. In someone who is lean, this tissue secretes anti-inflammatory and protective factors. However, in someone who is obese, fat tissue can become unhealthy and dysfunctional, secreting chemicals signals that promote inflammation. That seems to be what is happening when obese people come down with COVID-19.

While not yet peer-reviewed, these findings, released in October 2021, suggest that the body's fat reserves may become a reservoir for SARS-CoV-2 and actually provoke immune cells into a hyper-inflammatory state.

Reducing Obesity to Prevent Death From COVID-19

If this new research proves to be correct, reducing obesity in the United States and worldwide would be a major step forward in lessening the likelihood of death or severe illness, from SARS-CoV-2 or other infectious agents.

Ironically, however, some of the measures to combat the spread of COVID-19—including closing schools and imposing lockdowns—may actually be contributing to the problem of obesity. In November 2021, the National Child Measurement Programme released data showing that obesity in England has soared among children during COVID-19 stay-at-home orders. The American Psychological Association and



Unlike the people that carry extra weight, the virus that causes COVID-19 thrives when we have a larger waist line. Now scientists understand why.

others have noted increased weight gain in the United States due to disordered eating that spiked during the pandemic. This widely acknowledged weight gain has even received its own moniker based on the "freshman 15"—the "COVID 19."

In order to combat obesity effectively, we need to understand and address the underlying causes. Unhealthy eating, genetics, a past history of sexual abuse, and mental health issues are all associated with obesity. The rise of processed foods, which include highly refined carbohydrates, added sugars, and seed oils also have had a profound impact on our waistlines and overall health.

But some scientists believe a less acknowledged factor is also having a significant effect—environmental toxins. One of these culprits, according to a Massachusetts Institute of Technology senior research scientist, may be the herbicide glyphosate, the main ingredient in Roundup. Stephanie Seneff believes that glyphosate is directly contributing to poor outcomes from COVID-19.

"The relationship between obesity and increased risk to COVID-19 is complex and tied to many metabolic, vascular, and immune impairments associated with obesity," Seneff, the author of "Toxic Legacy: How the Weedkiller Glyphosate is Destroying Our Health and The Planet," explained via email. "But we know that glyphosate

causes obesity, so obesity is a strong indicator of glyphosate poisoning."

Independent research scientist, James Lyons-Weiler also believes that exposure to environmental toxins plays a role in severe COVID.

"All of the factors that push humans into autoimmunity, including repeated exposure to aluminum, an established immunotoxin, likely cause both autoimmunity and metabolic syndrome leading to obesity and severe COVID-19," he said.

Hormone-disrupting chemicals, such as glyphosate and aluminum, are well known to compromise healthy immunity. Both Seneff and Lyons-Weiler suggest that reducing our exposure to environmental toxicants—in our water, food, personal hygiene products, medicines, and vaccines—may be a key strategy to successfully fighting COVID-19 and other infections.

Nicole Johnson contributed report.

Jennifer Margulis, Ph.D., is an investigative health journalist and book author. She has worked on a child survival campaign in Niger, West Africa; championed the rights of Christian children sold into child slavery in Southeast Asia on prime-time TV in Paris; and taught post-colonial literature to non-traditional students in Atlanta. Sign up for her free weekly emails and learn more at JenniferMargulis.net

Dandelions Versus COVID-19 and Other Diseases

The humble plant is attracting research interests for its many medicinal benefits

KRISTEN FISCHER

Dandelion may seem like a troublesome weed, but researchers are studying it as a treatment for a variety of ailments and diseases—and now that includes evaluating its effects on the COVID-19 virus.

A study out this past spring in the journal *Pharmaceuticals* explored how the plant interacted with SARS-CoV-2 virus variants.

In the world of herbal medicine and preventative treatments, dandelion isn't a pesky weed at all.

They didn't test this in humans, though—only in vitro (in a test tube).

But they do believe the positive results should "encourage" more research on the relevance and practicality of dandelion extract as a preventative strategy.

Exploring Dandelion and the COVID-19 Virus

The variants contained numerous muta-

tions in the virus's spike protein's Angiotensin-Converting Enzyme 2 (ACE2) receptor recognition site in comparison to the original virus. The spike protein of the virus is what lets it bind to ACE2, a protein in human cells.

A team looked at whether common dandelion (the scientific name is *Taraxacum officinale*) could block the interaction of the virus's spike protein to the human ACE2 receptor. They found that it did so in various mutations, including the Delta variant. It wasn't tested on the Omicron variant.

Research has shown that disrupting the interaction between the spike S1 subunit and ACE2 could be a target for therapy or prevention. The S1 subunit is one of two types of proteins on the virus—the other is S2.

The Potential of Dandelion

Siyaram Pandey, a biochemistry professor at the University of Windsor who has researched the anti-cancer effects of dandelion root extract, told *The Epoch Times* that there are compounds in dandelion that may have health benefits.

"Dandelion root extracts do have many natural compounds that may have specific anti-viral activities," Pandey said.

In the world of herbal medicine and preventative treatments, dandelion isn't a pesky weed at all. Many people do ingest dande-



Every part of the dandelion is edible and now researchers are discovering it may help treat COVID-19.

lion greens raw, though they can be cooked, too. Several dandelion extract products are on the market. People also consume the plant by preparing it as dandelion tea.

The plant has been used to treat everything from acne to cancer, as well as digestive issues and liver disease. More recently, research has looked at its anti-inflammatory properties. It's been studied with respect to the flu, diabetes, and HIV.

Dandelion contains vitamins A, C, and K, and also includes folate and some B vitamins. It also contains iron, calcium, magnesium, and potassium. The plant is also full of antioxidants beta-carotene and polyphenols.

What's Next for Dandelion?

A lot of the research on dandelion has been done in animals or in laboratory settings, so there's not much data to confirm the benefits to humans.

Pandey noted that he isn't an expert in ACE or the anti-viral effects of the natural extract, and isn't a medical professional, so he couldn't provide suggestions for human intake—or if people should take it as a possible way to prevent getting COVID-19.

"The research is exciting, but more work needs to be done," Pandey said.

Kristen Fischer is a writer living in New Jersey.

The Benefits of an Anti-Inflammatory Diet

Reduce long-term disease risks with a permanent—and delicious—change in how you eat

MICHELE SHERWOOD

It's becoming increasingly clear that chronic inflammation is the root cause of many serious illnesses, including heart disease, many cancers, diabetes, rheumatic disease, and more.

We all know inflammation on the surface of the body as redness, heat, swelling, and pain. In fact, our source Medical Dictionary states that inflammation is a localized protective reaction of tissue to irritation, injury, or infection, characterized by pain, redness, swelling, and sometimes loss of function. Inflammation is the cornerstone of the body's healing response, bringing more nourishment and more immune activity to a site of injury or infection.

But when inflammation persists or serves no purpose, it damages the body and causes illness and the onset of chronic disease. Learning how specific foods influence the inflammatory process is the best strategy for containing it and reducing long-term disease risks.

The best way to obtain all of your daily vitamins, minerals, and micronutrients is by eating a diet high in fresh foods.

The anti-inflammatory diet isn't a "diet" in the popular sense. It isn't intended as a weight-loss program (although people can and do lose weight on it considering weight loss is a side effect of wellness), nor is it an eating plan to stay on for a limited period of time. We adopt an anti-inflammatory nutritional protocol for the rest of our lives. And that's good news!

Along with influencing inflammation, understanding how to eat in this manner will provide steady energy and ample vitamins, minerals, essential fatty acids, dietary fiber, and protective phytonutrients. You can also adapt your existing recipes according to the following anti-inflammatory diet principles, in consultation with your doctor.

General Nutritional Tips

Include as much fresh food as possible. Eat mainly fresh and raw fruits and vegetables, nuts and seeds, and good, clean protein.

Minimize your consumption of processed foods and fast food. Get rid of it if you can.

Eat an abundance of fruits and vegetables. Eat more vegetables than fruit.

Aim to cover your plate with a variety of different-colored vegetables.

Caloric Intake

If you are eating the appropriate number of calories for your level of activity, your weight should be stable and not fluctuate greatly.

The distribution of calories you take in should be as follows: 30 to 40 percent from protein, 25 to 30 percent from fat, and 25 to 30 percent from carbohydrates.

Try to include carbohydrates, fat, and protein at each meal.

Carbohydrates

On a 2,000-calorie-a-day diet, adult women should consume between 50 and 150 grams of carbohydrates a day.

Adult men should consume between 75 and 200 grams of carbohydrates a day.

The majority of this should be in the form of less-refined, less-processed foods with a low glycemic load.

Reduce your consumption of foods made with wheat, flour, and sugar, especially bread and most packaged snack foods (including chips and pretzels).

Eat more beans, winter squashes, and sweet potatoes.

Avoid products made with high-fructose corn syrup, artificial sweeteners, additives, and preservatives.

Fat

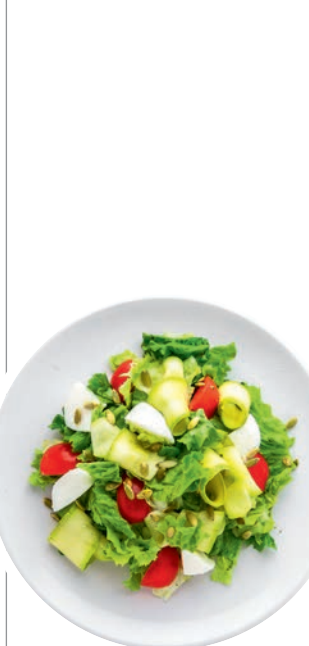
Calories can come from fat. This should be in a ratio of 1:2:1 (saturated: monounsaturated: polyunsaturated). Don't be afraid of eating fat! Fat is essential for healthy cell membranes and cell communication.

Reduce your intake of saturated fat by eating less butter, cream, high-fat cheese, unskinned chicken, fatty meats, and products made with palm kernel oil.

Use extra-virgin olive oil as the main cooking oil. If you want neutral-tasting

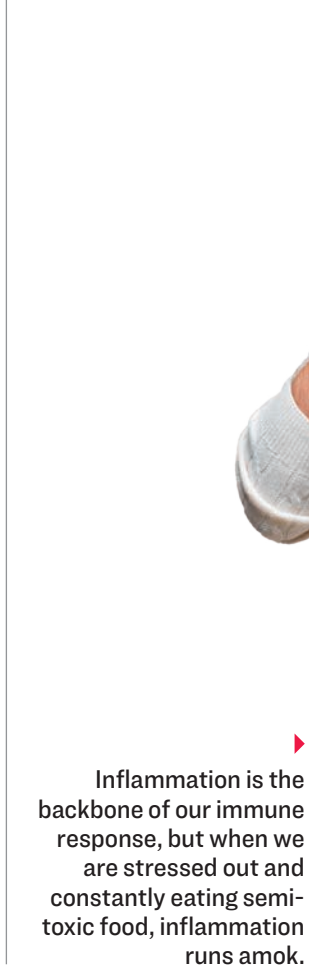


An anti-inflammatory diet provides steady energy, ample nutrition, and protective phytonutrients.



Aim to cover your plate with a variety of different colored vegetables.

Avoid products made with high fructose corn syrup, artificial sweeteners, additives, and preservatives.



Inflammation is the backbone of our immune response, but when we are stressed out and constantly eating semi-toxic food, inflammation runs amok.

oil, use expeller-pressed, organic canola oil. Organic, high-oleic, expeller-pressed versions of sunflower and safflower oil are also acceptable.

Strictly avoid margarine, vegetable shortening, and all products listing them as ingredients. Strictly avoid all products made with partially hydrogenated oils of any kind.

Include in your diet avocados and nuts, especially walnuts, cashews, almonds, and nut butters made from these nuts.

Strictly avoid any trans fats as these are foreign to your body and cause inflammation.

For omega-3 fatty acids, eat salmon (preferably fresh or frozen wild or canned sockeye), sardines packed in water or olive oil, herring, and black cod (sablefish, butterfish); omega-3 fortified eggs; hemp seeds and flaxseeds (preferably freshly ground); or take a fish oil supplement (look for products that provide both EPA and DHA, in a convenient daily dosage of 3 to 4 grams).

Protein

Eat less protein if you have liver or kidney problems, allergies, or autoimmune disease.

Decrease your consumption of animal protein except for fish and high-quality natural cheese and yogurt.

Eat more vegetable protein, especially from beans in general and soybeans in particular. Become familiar with the range of whole-soy foods available and find ones you like.

Fiber

Try to eat 40 grams of fiber per day. You can achieve this by increasing your consumption of fruit (especially berries), vegetables (especially beans), and whole grains.

Ready-made cereals can be good fiber sources, but read labels to make sure they give you at least 4 and preferably 5 grams of bran per one-ounce serving.

Phytonutrients

To get maximum natural protection against age-related diseases (including

cardiovascular disease, cancer, and neurodegenerative disease) as well as against environmental toxicity, eat a variety of fruits, vegetables, and mushrooms (unless allergic).

Choose fruits and vegetables from all parts of the color spectrum (color your plate), especially berries, tomatoes, orange and yellow fruits, and dark leafy greens.

Choose organic produce whenever possible. Learn which conventionally grown crops are most likely to carry pesticide residues and avoid them. Use a vegetable wash that is gentle and effective.

Drink tea instead of coffee, especially good quality white, green, or oolong tea.

Enjoy plain dark chocolate in moderation (with a minimum cocoa content of 70 percent). Watch the addition of cane sugars and other sweeteners.

Vitamins and Minerals

The best way to obtain all of your daily vitamins, minerals, and micronutrients is by eating a diet high in fresh foods with an abundance of fruits and vegetables. In addition, supplement your diet with the following antioxidant cocktail with your largest meal of the day:

- Vitamin C, 200 milligrams a day, vitamin E, 400 IU of natural mixed tocopherols (d-alpha-tocopherol with other tocopherols, or, better, a minimum of 80 milligrams of natural mixed tocopherols and tocotrienols)
- Selenium, 200 micrograms of an organic (yeast-bound) form
- Glutathione powder, 1 gram

The antioxidants can be most conveniently taken as part of a daily multivitamin/multimineral supplement that also provides at least 400 micrograms of folic acid and 2,000 IU of vitamin D3. It should contain no iron (unless you are a female and have regular menstrual periods).

Women should take supplemental calcium, preferably as calcium citrate, 500 to 700 milligrams a day, depending on their dietary intake of this mineral. Men should avoid supplemental calcium.

Other Dietary Supplements

If you aren't eating oily fish at least twice a week, take supplemental fish oil, in capsule or liquid form (3 to 4 grams a day of a product containing both EPA and DHA).

If you aren't regularly eating ginger and turmeric, consider taking these in supplemental form.

If you are prone to metabolic syndrome, take alpha-lipoic acid, 600 milligrams a day, chromium 50 mg a day.

By the way, enjoy healthy foods, and wash those supplements down, with pure water. Your body is 60 to 65 percent water and being even a quart low will increase your fatigue. Rehydrate and resuscitate all the cells in your body, and your body will thank you.

Dr. Michele Sherwood and her husband Dr. Mark Sherwood are the founders of a successful medical practice and help patients from around the world find the health they were created to enjoy, in every area of life. As bestselling authors, podcasters, movie producers, and media personalities, they founded *Hope Dealers International* to reach beyond their clinic. Visit Sherwood.tv.



ALL PHOTOS BY SHUTTERSTOCK

basis, start thinking about your long-term goals. For us, one goal is we hope to be financially independent at some point so that we can increase our giving (a huge source of happiness that we'll write about someday) and have even greater flexibility to pursue a life that aligns with our values. We realize that this goal is still a long way off, so instead of setting our sights on this, we strive to focus on the day to day habits we can control, which will lead us toward meeting this long-term goal one day.

Step 5: Find a support system. Having a friend, spouse, or family member to talk about your habits and life changes with is a powerful way to stay committed. Change is always easier when you have someone to change with you.

Fortunately, Mike and I have entered this minimalist journey together. When one of us has a desire to impulse buy or seek convenience rather than creativity, usually the other one is able to remind us of our goal and the small ways we've committed to live.

I've made several friends on Instagram who focus on minimalism and natural living, where they've begun their accounts primarily for the community of support they need to stay accountable. Find what works for you to maintain these changes.

Step 6: Don't expect perfection. When making small changes, don't expect perfection. Your journey will have dips. Let the benefits from your small changes remind you of why you're on this path. There have been many evenings where the kitchen counter remains cluttered from a busy day at home. Life happens, and I have choices to make.

I can choose to leave the clutter for another day, or I can take an extra few minutes to address the issue, knowing how much less stressful my morning will feel tomorrow if I commit to this simple habit now.

The process of making changes goes through cycles. Some will be too easy not to do, and others you'll find aren't as realistic and helpful as originally thought. Start small and reevaluate frequently to see what changes you want to make next.

Self-improvement and making goals is good, but it's important to remember not to get stuck on the destination if it causes you to lose joy in the journey of getting there.

Be realistic with your goals. Set your expectations appropriately. And remember to enjoy the journey with your daily small changes.

Mollie (and her husband Mike) blog at This Evergreen Home where they share their experience with living simply, intentionally, and relationally in this modern world. You can follow along by subscribing to their twice-weekly newsletter. This article was originally published on This Evergreen Home.



Commit to making small changes on a consistent basis.

Meaningful Life Change

We use this 6-step process to get closer and closer to the life we most desire

MOLLIE DONGHIA

Our journey toward minimalism wasn't caused by one huge eye-opening event that made us evaluate every aspect of our lives. It began when we realized that we'd slowly become too comfortable with the norms of society and how easy it had become to accumulate more stuff, take on more tasks, and spend more money.

We became attached to convenience and easily bored. We would turn to spending money as a way to alleviate that boredom. As a way of entertaining myself, retail therapy became a go-to activity. Hello aimlessly perusing the home decor aisles of Target.

Most of our other "problems" had a "solution" that involved spending money.

We became a bit more stressed and less patient with each other, because the amount of things we tried to do were overwhelming, even if they were inherently good.

We forgot to make time for life's essential, simple pleasures, like enjoying nature and spending quality time with loved ones.

We had come a long way from the very frugal, minimal ways we established during our first year of marriage (10 years ago), where we paid off over \$30,000 of student debt in one year. This society and life's daily circumstances have a way of steadily increasing our desire for more, sometimes without us even noticing.

Realizing that our yearly spending had just about surpassed our annual income level, we knew our habitual consumerism had to change. We wanted to spend less and have more time for the things we enjoyed and valued most. We wanted fewer items to maintain, and less of the stressors that led to a hurried, less peaceful pace of living.

We wanted to be free from the path we were headed down. That meant new habits. But as anyone who has tried to establish healthy new habits knows, making them stick and seeing obvious changes is often difficult. We desired a transformation, but one where the pendulum didn't swing back to frustration when the habits got challenging. We wanted to find the sweet spot between control and chaos.

This is when our minimalism journey began, and below is the process we used to explain in detail for anyone who might also be looking to make a change in their own life.

6 Steps to Meaningful Change

Step 1: Get inspired. What areas of your life are you most wanting to make a meaningful change? This could be the number of items you own, your stress level, how you use your time, your health, or your relationships, for example. The first step here is to become inspired. Read blogs. Talk to people you admire. Set a vision for how you desire change to look.

Step 2: Make a goal. After you've identified the areas of your life that you most want to change, make a goal toward what that will look like. For us, we want to live life intentionally and make more time for the things we value most. Steps to get here involved being more frugal with our spending, minimizing what we own, developing rich relationships with those around us, and the daily practice of our faith.

It's important to set your own goals and not go after someone else's. Each of us have our own lives to live. Seeking after someone else's life will only lead you to comparison and steal your joy.

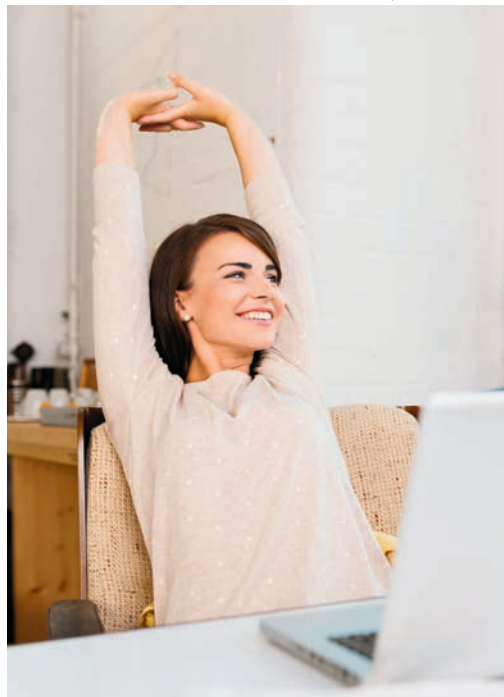
Step 3: Begin with small changes. Commit to making small changes on a consistent basis. Don't try to begin a dozen new habits and think they will magically transform your life from overwhelmed to tranquil. Start small. Focus on one area of change and commit to making that habit too easy not to do. After you've mastered that one change, use the motivation to begin another.

For me, this began with making sure my kitchen sink was free from dirty dishes. The rest of the kitchen could be untidy, but having that one "clutter-free space" was a simple task I could do each day. It was a small change that motivated me toward new habits once it was learned.

Step 4: Plan for larger goals. As you commit to making small changes on a daily

We forgot to make time for life's essential, simple pleasures, like enjoying nature and spending quality time with loved ones.

ESB PROFESSIONAL/SHUTTERSTOCK



Taking a moment between each task can be an important way to take stock of your day so it doesn't slip right by you.

WISE HABITS

Catching the Time Between Tasks

Use the interstitial ritual to find focus and mindfulness throughout your day

LEO BABAUTA

We will often start our days with the best of intentions and then promptly get caught up in a chain of busywork, messages, opening browser tabs, checking on things, answering email, and so on.

Soon the day has gone by and we wonder what we did with it.

There's a simple practice that can shift that in a huge way: the interstitial ritual. Interstitial, for those unfamiliar with the word, means the intervening space or segment. It's the adjective form of interstice, the gap or break in something that is generally continuous.

The interstitial ritual is very simple:

- When you finish with a task (or email, message, reading something) pause. Don't go to the next tab or message right away.
- Take a breath. Notice where you are, how you feel, what's around you.
- Write down what you just finished, if it was a task. For me, I have a today list and a done list and I simply add the last task to my done list, remove it from the today list.
- Celebrate! Reinforce your accomplishment by being grateful.
- Now take another breath. What do you

want to do next? It can be another task on your today list, it can be answering the next email in your inbox, or it might be to take a break, drink some water, go for a walk, stretch.

- Set that intention, and get to it.

It's that simple. A pause, a little mindfulness, write down what you just did, and then consider what you want to do next.

I promise you, this will bring a lot more intention, mindfulness, and focus to your day. You might even get some important stuff done.

The trick is to remember. How will you remember to do this ritual after every task?

And how powerful would it be for you to make this shift?

Leo Babauta is the author of six books and the writer of Zen Habits, a blog with over 2 million subscribers. Visit ZenHabits.net

Why Keeping a Journal Is Good for You

The act of writing your experiences can transform your life even as you live it



IVAN KRUK/SHUTTERSTOCK

LYNN JAFFEE

I'm a big fan of keeping a journal, even though I haven't kept one for most of my life. As a freelance writer, I've done my share of putting words on the page, to be sure. However, journaling wasn't on my radar until I discovered that recording difficult events and emotions during a devastating time in my life actually helped me get through it.

I started writing things down in what would become my journal about five years ago to document a month-long solo road trip. I left Minnesota in late May and headed toward Colorado, New Mexico, and Utah. My first entries were pre-trip lists of the places I wanted to visit, food items to bring, and notes on camping gear I didn't want to forget. Once the car was packed and I was actually on the road, I wrote about long and lonely hours driving, places I hiked, and new birds I spotted along the way to add to my list of birds I've seen.

However, what began as a journal of adventures turned into something quite different about ten days into the trip. My son, who lived in Colorado, became sick with what turned out to be an aggressive and terminal form of cancer. I spent the rest of the month caring for him in Boulder, which turned into the rest of the year and some of the next year, too. I continued to write in my journal, but it became far more than logged milestones from my trip. Instead, it became a silent and receptive witness to the devastation of losing a child to terminal illness.

I wasn't regular with my journal entries, but when I needed to get something out, I wrote it down. Some days I screamed on paper; other days I looked for strength. It helped me get through the shock and sadness of what was happening to me and my family. And while I didn't give it much thought until later, I realize that making those journal entries helped me cope. Here are some of the ways that I've learned firsthand that keeping a journal can be good for you:

The act of writing gives us a space to begin processing our experiences and protects these memories from the distorting influence of thought.

Writing it down can help you prioritize what's important, understand what's happening, and let go of the trivial stuff that's just getting in the way.

It gives you clarity. Writing down your thoughts while they're fresh allows you to place them somewhere (your journal) and then let go of them. This means that you can later return to emotional entries that were written during the heat of a moment and process what was happening at the time with a little bit of distance and a calmer mind. Returning later to emotionally charged journal entries often gives you valuable insights that you didn't have the capacity to see while you were writing.

It reinforces your memory. Scientists have found that you're far more likely to remember something if you write it down. But there's more to it than that. While you may remember an incident from the past, the details tend to fade over time. Going back and reading a journal entry about it reminds you of the emotions and smaller details attached to that event. And writing in your journal encourages you to relate to your surroundings and life events in a deeper way, which actually boosts your memory and prevents cognitive decline as you age.

Journaling can help make sense out of chaos and organize your emotions. On those days when my journal entries were literally meltdowns on paper, I always felt better after having written everything down. During the times that I was completely overwhelmed, the process of logging everything that I felt I couldn't handle actually helped me sift and sort through what was true and what were minor irritants. Journaling helps you make sense of turmoil. Writing it down can help you prioritize what's important, understand what's happening, and let go of the trivial stuff that's just getting in the way.

Your journal can be a great conduit for new ideas. Brainstorming in private in your journal is a way to pull on the threads of new ideas without any criticism from the outside world. It allows you to try out new concepts, write about your dreams, and find inspiration.

And once those thoughts are written down, you can let them sit and marinate or you can continue to develop the ones that speak to your heart.

Journaling seals past events to memory. When you remember an event that occurred in the past, you're really just remembering the last time you thought about it. It's been picked apart and tossed around in your mind until the memory isn't an accurate representation of what actually happened. By contrast, when you write about an event, it safeguards it through time. This means that your written record of what happened prevents the memory of that event from becoming distorted by time. Keeping a journal helps preserve clear mental images of your memories.

It helps process trauma. Writing about traumatic events can be a helpful way of working through powerful negative emotions. It helps make sense of the trauma and frees up your brain from the hard work of processing disturbing emotions. I have personally found this to be true. In writing about all the painful events surrounding my son's illness and death, the grief was profound, but I was able to set aside some of the trauma attached to that time because it was written down and didn't have to live in my mind.

In the end, during the months that my husband and I cared for our son, I noticed that the tone of my journal entries changed. There was still some screaming on paper, but there were also descriptions of small miracles, kind acts from friends and strangers, and astonishing things that happened during that devastating time. My journal became a forum for pep talks, hope, and ways to cope. It helped me endure the unimaginable and preserve precious memories of my son.

Lynn Jaffee is a licensed acupuncturist and the author of "Simple Steps: The Chinese Way to Better Health." This article was originally published on AcupunctureTwinCities.com

Can Your Home Design Contribute to Longevity?

Apply the lessons from the world's longest-living people to your own living space

MAT LECOMPTÉ

Have you ever heard of "blue zones"? If not, they are areas of the world where people live considerably longer than the vast majority of others.

People in these regions, the longest-living people on earth, don't get their longevity from fad diets, workouts, or other short-lived lifestyle changes. Instead, they live in areas that nudge them, perhaps unconsciously, to healthier behavior like eating more plant-based food, socializing, and moving more.

Can you set up your home to mimic this effect? In a way. Although it's not possible to replicate the natural environment of a blue zone in your home, you can use these regions as inspiration to encourage a healthier lifestyle.

Here are some of the things you can do to build a healthier living space that may contribute to your living longer and better.

Eat with others as often as possible. Socializing is a core part of many blue zone lifestyles, and research has shown that it can contribute to better physical and mental health. Aside from these effects, eating with others contributes to slower eating.

Keep your TV far from the kitchen. Not exactly a lesson from the blue zones, but research suggests that people often eat past the point of fullness when they watch television. If you have to walk to another area of your home, or even up or down a flight of stairs, you're less likely to snack mindlessly, while getting a few extra steps in as well.

Grow a vegetable garden. Having a vegetable garden encourages more physical activity and a healthier diet. Further, gardening seems to be consistent in every blue

zone. If you don't have the space for your own, look into a nearby community garden.

Add more plants to your home. Plants and greenery can help improve air quality and relieve stress, two components that can contribute to better health and longevity.

Try to use low furniture and rugs. Some blue zones do this. Falls are a major concern for Americans 65 and over and are one of the leading causes of hospitalization. Lower furniture and carpets may help reduce the risk. People in Okinawa, Japan tend to sit on cushions on the floor, which encourage better balance, muscle strength, flexibility, mobility, and posture. They exercise their legs, back, and core as they get up and sit down over and over throughout the day.

Mat Lecompté is a health and wellness journalist. This article was first published on BelMarraHealth.com

POLINA KHOLODOVA/PEXELS.COM



Beautify your living space.



New Year's resolutions aren't for everyone, but if you want to succeed at them, there are some key steps to take.

Resolution Solutions

Insights on New Year's resolutions from everyday people

DONNA MARTELLI

It's time for New Year's resolutions again! What big plans do you have for 2022? If you're like me, those resolutions that are so important on Jan. 1 are barely hanging on by Feb. 1. How can we keep them? I want this to be my year, too. So I randomly interviewed several people I know to help me with this.

Paul had an interesting thought: "The key is that you have to make up your mind and do it. If you want to get rid of a bad habit, such as smoking or over-eating, you must make a firm commitment to do so. It's coming out of an addiction, not unlike defeating alcoholism. Knowing what motivates you is very important, like why do you want to do this thing? Determination is needed whether you are going to start some good thing or stop



Whether you call it "New Year's resolutions" or something else, plan to better yourself somehow on an ongoing basis, not just on Jan. 1.

some bad thing."

Robin was next. When I asked her what her plan was for keeping her New Year's resolutions, she simply said: "I don't make any. That way, I won't be disappointed when I don't keep them."

In contrast to Paul's proactive advice, Robin's was non-active. I suppose both approaches could work.

Barbara, an 81-year-old "church lady," told me this: "It depends on the motive of your resolutions. You have to act in faith and give them to God. Make sure you believe in something positive like better health or closer relationships and reject negative things like fear and doubt. You must determine your motivation for what you wish to accomplish."

I noticed that the word "motivation" was mentioned again.

Ginger had this wise piece of advice: "Be sure you do not make the resolution so big that it is difficult to maintain. It should be something that you can stick with all year: a permanent change for the better."

Penny thinks ahead. She plans to cut way down on sweets, especially chocolate, which she loves. She knows herself well and admits that these things have been her weakness. Here is her plan: "If I deny myself and say I won't eat any chocolate, I will be obsessed with wanting it. When I do cheat, it will cause a chocolate binge. So, if I have only a little bite of it, my craving will be satisfied, and I will want less and less."

In other words, I can't say I will never have chocolate. I will only have a bite here and there when the craving hits. Also, I have a great support group with my friends and family who are watching me. Being accountable is probably the best thing that helps me stick with my resolutions."

I was surprised at how many people said

they don't make New Year's resolutions.

"Only 10 percent of people make them, probably because they don't want to be defeated when they don't keep them," Dan, whom I heard on Air1 Radio, reported. "Did you know that 47 percent of the people who make them have failed by Feb. 1?"

What's the main reason people give for failing to keep their New Year's resolutions?

According to the website Finder.com: "Of men and women and all generations, the main reason we're not able to see 2021 resolutions to success is because we 'don't have the willpower.' Others blame it on forgetting, being too lazy, or some other reason. The most common reason for 'other' was COVID with 22 percent of respondents writing it in."

Don't beat yourself up when you mess up. Instead, start over and commit to only a day or two.

Thus far, we see a few themes running through these interviews and experts. To help us keep our New Year's resolutions, we need to be determined, motivated, committed, realistic, prepared, and accountable.

Continuing my interviews, Sarah had an idea that might work.

"I think we should not call them 'New Year's resolutions' because that locks us into a whole year," she said. "It is a source of stress that we do not need. Let's call them, 'January Objectives' or make an untitled list of things we would like to change. That would give our plans flexibility, as we need to adapt them."

Larry's comments were straightforward and logical.

"You have to have a plan," he said. "Write them down and keep them in the forefront of your mind. Every morning, I list things I need to do that day. I think New Year's resolutions are too confining. I prefer to live one day at a time."

Cecelia, another one who doesn't make resolutions for the New Year, said: "When I had kids at home, I would make plans for them, although I did not necessarily consider them New Year's resolutions. I would plan to exercise more or lose weight, but those were vague goals that never worked."

John simply said of New Year's resolutions, "Don't make, can't keep."

The people in this last group are non-resolution people who get around the idea of New Year's resolutions this way:

They don't call them "New Year's resolutions," thus locking them in for a year.

They choose to live one day at a time.

They have a plan for any changes they wish to make.

They write down their plan and refer to it often.

They don't make vague, non-measurable goals.

Whether you call it "New Year's resolutions" or something else, plan to better yourself somehow on an ongoing basis, not just on Jan. 1. Don't beat yourself up when you mess up. Instead, start over and commit to only a day or two. That's easy to do, and it will get you back on track and help you stick to your plans. Remember, it's a commitment that requires motivation and determination. Remind yourself why you're doing this and reward yourself for your excellent work.

Formerly a professional dancer with the Harkness Ballet of New York, Donna Martelli has written three books, as well as course manuals, book summaries, blogs, articles, and devotionals. She lives in Indianapolis, Indiana, and is married with five children and 12 grandchildren. She is the author of "When God Says Drop It" and "Why the Dance."



An unwelcome ingredient with unhealthy side effects has entered our food system.

Pervasive Microplastics Are Damaging Your Cells

JOSEPH MERCOLA

Since being developed, plastic has become a part of nearly every facet of daily life. Our food packaging is made of plastic, as is our clothes, our flooring, our upholstery, our face masks, and fuzzy blankets. It's everywhere. A staggering amount of plastic also enters the environment as people dispose of single-use products, such as water bottles, personal care products, or plastic grocery bags.

Researchers have discovered these microplastics damage human cells.

The proliferation of plastic has meant that even newborns are exposed to microplastics.

Clothing made with synthetic plastic fibers designed to stretch and "breathe" releases microfibers into the water supply, and each time a plastic product is damaged, scraped, or abraded, it releases microparticles into the air. In the United States, for example, car tires, brakes, and road surfaces contain plastics. The friction of the tires on the road and brake use causes plastic to be released into the air.

These are just a few of the ways that plastic particles may be ingested or inhaled. While you likely don't experience the direct effect every day, plastics are quite literally choking our ecosystem. Once airborne,

plastics may stay in the atmosphere for up to 6 1/2 days and under the right conditions may travel between continents.

The amount of plastic that enters the environment grows each year as manufacturers continue to produce products in disposable containers and consumers continue to demand a disposable lifestyle. At a time when advocacy groups warn that plastics are falling from the sky and have become a global tragedy, the COVID-19 pandemic has driven the plastics problem to even greater heights.

Continued on Page 12

How a 5-Minute Gratitude Practice Has Changed Me

Reflecting on what I have to be thankful for sets my day on the right course—with the right heart



It's all but impossible to be envious or resentful when we focus on the good things life has brought us. It is, however, much easier to be content.

MOLLIE DONGHIA

I'm often pushed to learn foundational life lessons from the thoughts and actions of my young children. Their youthful musings can allow me to ponder a greater meaning, one that can be discussed with them and contemplated more deeply afterward.

I've been reflecting on what it means to have gratitude lately as I've observed behaviors from my 6-year-old daughter. Gratitude is widely held as one of the keys to happiness. Once, after months of playing joyously with a doll she had received for a previous Christmas, she said, "I think I need a new doll, I'm too used to this one. Maybe we should put

her in the attic."

The reality of her honest, childlike statement struck me.

It's true, once the novelty of something pleasurable wears off, we begin to desire something else. The gratitude we once had for having that item begins to weaken as our hearts and hands reach for something newer, prettier, faster, or better.

Being ungrateful is probably the top reason we continue to desire more, even when we have enough. I believe the desire for more has been a main contributor to why so many people are overwhelmed with clutter, debt, stress, and anxiety.

Continued on Page 16

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Oats and mushrooms are getting some love in health circles, and that puts them on the list of trends to watch for in 2022.

Food and Supplement Trends for 2022

Expect these healthy developments to continue to grow in the new year

LISA ROTH COLLINS

When we look into our crystal ball to get a glimpse of 2022, we're seeing the words "functional," "practical," and "sustainable" a lot. It seems that being in the midst of a pandemic has made a lot of people change how they look at themselves, their health, and their future. These new perspectives have had a big impact on the trends for 2022.

Here are a few of them:

More Immune Support

Concerns about staying off colds and flu were once reserved largely for the beginning of the school year or the arrival of winter. No more. What was once a habit that consumers followed for a few months out of the year has turned into a year-round effort. In 2022, consumers will be looking for, researching, and buying more supplements that support immune health.

Their options will be plentiful if not a bit overwhelming. In addition to buying the standard vitamins and minerals, we can expect to see more herbal remedies, enzymes, probiotics, and other products or services remain popular, including those that emphasize the importance of supporting gut health and the microbiome for people of all ages.

The New Oats

It appears 2022 is the time to take an old classic—really old—and give it a whole new identity. We're talking about oats, like the ones your grandmother used to make for you with milk and sugar. Although oat milk and a few other oat-based food items are already on the shelves, get ready for even more.

Oats are attractive for several reasons, including that they are gluten-free (in their pure, unadulterated form), versatile, high in fiber (beta-glucans), and help lower cholesterol and blood sugar levels. So don't be surprised when you start seeing a host of new oat-based foods such as oat pizza dough, pulled oats, oat-based chocolate, oat milk pudding, and oat-based cheese and butter.

Functional Mushroom Foods

Medicinal mushrooms—as food, therapeutics, and supplements—have been around for a long time, but now there's a growing interest in using mushrooms as a functional ingredient in a whole array of foods ranging from snacks to beverages, desserts, protein powders, and energy bars.

Among the medicinal mushrooms on the market are those with immune-system-boosting properties. These properties are a big reason why food producers are working to get chaga, cordyceps, lion's mane, maitake, and reishi on the ingredients list of their foods and formulas marketed to help with brain health, immune function, and stress.

Alcohol-Free Beverages Get Cooler

When non-alcoholic beverages were first introduced to the market years ago, they were met with some skepticism. Now, these drinks, which were somewhat niche, have moved into the mainstream. A growing number of people are turning to alcohol-free beverages because these savvy consumers are more concerned about their health. The wealth of choices makes it

an increasingly attractive option also. There are now beverages ranging from hop-infused waters to fermented juices and mocktails with ingredients such as cayenne, watermelon juice, jalapenos, and agave syrup. Expect more of these beverages to contain herbal ingredients, vitamins, minerals, or amino acids as health trends continue. Staying sober never tasted so good!

Real Sugar, but Better

Opinions on dietary sugar have been on a wild rollercoaster over the years, especially as processed sugars became a staple ingredient in processed foods and sugar consumption skyrocketed. Eating and drinking too much added sugar has been shown to contribute to heart disease, diabetes, and obesity.

Among the medicinal mushrooms on the market are those with immune system-boosting properties.

Artificial sweeteners were offered up as a solution, but mounting research suggests they cause more problems than they solve. Fraught with health concerns, consumers turned to natural substitutes such as monk fruit and stevia to get a lower-calorie sweet fix. But forecasters say real sugar, although in more modest amounts and from more sustainable and responsible sources, is making a comeback.

In particular, they point to chocolate, where companies that are certified organic and fair trade are marketing dark chocolate high in cacao and very low in sugar (as low as less than 3 grams per serving). However, since sugar is so ubiquitous in our food supply, experts foresee consumers demanding real sugar that is responsibly sourced.

Bottom Line

These are just a few food trends consumers can expect to see in 2022. It's likely we'll also see trends around eating fewer animal foods and more whole foods continue, as well as waste-free cooking and eating for brain health.

Lisa Roth Collins is a registered holistic nutritionist and also the marketing manager at NaturallySavvy.com, which first published this article.



Instead of indulging in alcohol, health-conscious people are turning to hop-infused waters or fermented juices and mocktails with fruit and herbs for something different to drink.

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New Parents Slapped With Surprise Bills for Treating Newborns

Large medical services company attracts string of complaints and controversy over unnecessary, costly tests

JAY HANCOCK

After Christine Malik gave birth to her first daughter three years ago, a clinician affiliated with a company called Pediatrix entered the hospital room and fitted the infant with sensors and wires for a hearing test.

The child failed the screening required by law for all newborns, the tester said, requiring a follow-up exam.

"We were scared as first-time parents," said Malik, who agreed to the second exam. The clinician, Malik said, didn't tell them that infants often fail an initial screening because of fluid from the womb in the ears that soon dissipates. The second screening found no problem with the baby's hearing.

Last year, when her second daughter was born, Malik refused a hearing test after another Pediatrix clinician appeared at her bedside. (Parents are allowed to opt out, but rarely do.)

The infant hearing test—particularly the more advanced technology that Pediatrix uses—is an example of how some common medical procedures have become significantly more profitable for their providers.

Pediatrix and related companies have drawn a string of complaints from dissatisfied customers such as Malik, who said she was surprised by Pediatrix's charges for in-hospital infant care. Such tests were once free or included in a hospital's new-baby fees. Pediatrix earns tens of millions of dollars a year in revenue from them, according to regulatory filings.

Founded in Florida decades ago, Pediatrix and its parent company, Mednax, have grown into a network of physicians and other clinicians delivering hearing screens, pediatric intensive care, pediatric surgery, and obstetric services. They operate in more than 400 affiliated hospitals in some 40 states.

Pediatrix now cares for about one in four babies in neonatal intensive care units, according to the company, and administers its hearing tests to nearly a million babies a year.

"I've been involved with trying to prevent them coming into hospitals," said Lisa Hunter, a professor and pediatric hearing specialist at the University of Cincinnati who objected generally to Pediatrix's high charges for hearing screens and the billing confusion they can cause. "I'm very much empathetic with patients who have concerns."

Pediatrix officials say their doctors and other clinicians deliver top-level maternity and newborn medicine, often to smaller and community hospitals as well as large systems, providing not just hearing tests but surgery and lifesaving care for premature babies.

"Doing what's right for the patient is our highest priority," said Dr. Roger Hinson, president of the Pediatrix and Obstetrix medical group.

Dr. Michelle Barhaghi, an obstetrician herself, said she was shocked by the \$6,538 that a Pediatrix doctor in California charged for the unplanned cesarean

Pediatrix and related companies have drawn a string of complaints from dissatisfied customers.



Pediatrix and its parent company, Mednax, operate in more than 400 affiliated hospitals in some 40 states—but experts warn of problematic practices.

Mednax admitted in court that it destroyed internal emails Aetna had sought as potential evidence of corporate coaching to nudge physicians to engage in "upcoding" to higher-value procedures.

delivery of her baby in April while she was traveling.

"When I saw that, my jaw dropped," she said. "I sent that bill statement to all my OB-GYN friends."

Insurance paid Pediatrix \$2,867, according to benefit statements. That's still nearly three times the rate for the same procedure under Medicare's schedule of physician fees. Pediatrix also billed Barhaghi \$1,311 for charges that insurance didn't cover for a physical and discharge prep for her baby. Pediatrix withdrew that bill after being contacted by KHN for comment, she said.

Three years ago, the insurance giant Aetna sued Mednax and Pediatrix, saying they inflated charges by more than \$50 million, performing unneeded tests and treatments and diagnosing babies as being sicker than they really were.

Mednax denied Aetna's allegations, and the case ended in July when Aetna withdrew it as part of a confidential agreement. Neither Aetna nor Mednax would disclose the terms.

As part of the proceedings, Mednax admitted in court that it destroyed internal emails that Aetna had sought as potential evidence of corporate coaching to nudge physicians to engage in "upcoding" to higher-value procedures.

Pediatrix was a "premier sponsor" of a campaign in the early 2000s for state laws requiring hearing tests for babies, records show. Most states now have such laws, and the American Academy of Pediatrics recommends initial hearing screens for all newborns before they leave the hospital.

The idea is that the rare baby with hearing deficiencies—two or three in every 1,000—needs to be identified quickly to ensure proper treatment and language development even if some false positives worry parents.

A simple screen measures whether the baby's inner ear responds to sound. A more expensive hearing screen, a procedure originally designed to assess patients with serious neurological or auditory disease, measures the brain's electrical response to sound.

Many hospitals reserve that screen for high-risk babies in intensive care or for those who fail an earlier, less expensive screening.

Aetna's claims analysis found that Mednax and affiliates billed three times more often for those kinds of tests than for those given by non-Mednax clinicians.

Pediatrix charges \$150 or more for the test, said audiologists familiar with the company. The company charged \$326 for Malik's first child's screening, billing records show, and insurance paid a discounted price of \$177.

"The cost of doing the screening should be no more than \$50," said Hunter, including the initial test and in-hospital follow-up. "To bill more than that, and to do this on every single baby that's born, to me that sounds like a license to print money."

Hinson said Pediatrix uses the more expensive auditory brainstem screen because it tests the entire hearing path-

way. He said it has a lower false-positive rate on infant screenings than the less expensive alternative.

The Joint Committee on Infant Hearing, a board of experts considered authoritative for screening protocols, says either test may be used initially for babies.

But done in the hospital soon after birth, both varieties produce a substantial number of initial false indications of hearing deficiency, research shows, often because of fluid in the ears from birthing.

This requires a second test either in the hospital or sometimes weeks later in a doctor's office. Meanwhile, families might believe their baby could be deaf. When parents are approached by an infant-hearing screener in the hospital, they should make sure the procedure is covered by insurance, patient advocates say. If the child fails the test, parents should be aware it could be a fleeting result and request a follow-up before leaving the hospital.

Surprise or mishandled bills from Pediatrix and Mednax have drawn complaints to the Better Business Bureau and on various online forums.

When a Mednax or Pediatrix clinician is outside a patient's insurance network, "we bill the balance to the patient," the company says in filings with the Securities and Exchange Commission. At least one hospital, Inova Alexandria Hospital in Northern Virginia, has warned expectant parents that Pediatrix "may not be an approved provider" with their insurer.

From the beginning of 2019 to mid-November, 192 people filed complaints with the Better Business Bureau against Pediatrix and Mednax, according to data provided by the BBB. Most of the complaints are about billing and collections issues, according to the data.

"We have to do things that make things more seamless for our patients and more seamless for our payers," Hinson said. When Pediatrix is out of network, he said the company works with families "to mitigate post-discharge surprise billing."

It took more than a year, two dozen phone calls, and the help of the Better Business Bureau to resolve one incorrect \$1,010 bill. It was charged for a Pediatrix nurse practitioner who stood by while Sarah Tela's twins were delivered by an obstetrician in 2018.

After doing research, Tela, who lives near Seattle, realized that "I wasn't the only one going through this battle with them." She added: "I could have easily paid the bill. But I knew I was right."

The problem turned out to be an incorrect date of service on the bill, which caused the insurer's claims software to reject it, she said.

Mednax, which contacted Barhaghi and Malik after their cases were brought up by a reporter, is "confident that their respective matters are being resolved to their satisfaction," the company said in an email.

Jay Hancock is a senior correspondent for Kaiser Health News, which originally published this article.

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Pervasive Microplastics Are Damaging Your Cells

The ubiquitous nature of plastics in the environment has meant that most people have been exposed to, and ingested or inhaled, microplastic particles.



Lab data show we eat, breathe, and drink microplastics at levels leading to cell damage, cell death. Plastic has become a problem.

Continued from Page 9

Microplastics Trigger Cell Damage and Death

Scientists have been collecting data on how plastics affect the environment, wildlife, and human health. However, a November 2021 paper suggests why past data on human health haven't been consistent. Past research has highlighted the impact that plastic pollution and microplastics have on the environment and on wildlife. Data on the implications on human health have suggested there is emerging evidence that microplastics are toxic, and increase oxidative stress and inflammation. However, many studies haven't drawn an association between microplastic consumption or inhalation and disease, and instead, identify research gaps and recommend further study.

The 2021 lab data published in the Jour-

nal of Hazardous Material was the first to find microplastic damaged human cells at levels relevant to the number of particles humans ingest. The study found that microplastics trigger cell death and allergic reactions.

The study was a meta-regression analysis of the toxicological impact that microplastics have on human cells. The scientists analyzed 17 studies, comparing the level of microplastics that cause cell damage and are consumed through water, seafood, and table salt. Evangelos Danopoulos from Hull York Medical School in the United Kingdom led the study. He commented on the results:

"Harmful effects on cells are in many cases the initiating event for health effects. We should be concerned. Right now, there isn't really a way to protect ourselves. Once the plastic is in the environment, we can't really get it out. It [research on plastics] is exploding and for good reason. We are exposed to these particles every day: we're eating them, we're inhaling them. And we don't really know how they react with our bodies once they are in."

The researchers looked at five biological endpoints, including cytotoxicity, immune response, oxidative stress, barrier attributes, and genotoxicity. In the 17 studies evaluated, only genotoxicity didn't meet the endpoint measurement.

“**Plastics become microplastics become nanoplastics, but they are all plastics, just of increasingly smaller size.**

Researchers with the department of chemistry at the State University of New York-Fredonia

Additionally, the researchers found that it was irregularly shaped microplastics that caused cell damage and not the spherical microplastics that are normally used in laboratory experiments. This suggests that past laboratory research using spherical microplastics may not fully represent the damage microplastics can cause to human health.

Plastics: We Breathe Them, Drink Them, Eat Them

Danopoulos said the team's next step is an animal study to evaluate health damage, as a human study wouldn't be ethical. Microplastics researcher Steve Allen spoke with a reporter from The Guardian in December. He was encouraged by the results, commenting:

"This work helps inform where research should be looking to find real-world effects. It was interesting that shape was so important to toxicity, as it confirms what many plastic pollution researchers believed would be happening—that pristine spheres used in lab experiments may not be showing the real-world effects."

Unfortunately, the ubiquitous nature of plastics in the environment has meant that globally most, if not all, people have been exposed to, and have ingested or inhaled, microplastic particles. A study



Great amounts of plastic in our environment break down into micro and then nano plastics, and are being drunk, ingested, inhaled, and absorbed by people and animals.



More than 8 million tons of plastic waste associated with the pandemic were generated and more than 25,000 tons have entered the oceans.

published in late 2020 found microplastics in the snow and water samples on Mount Everest.

An analysis of the lowest place on the planet—water samples from the Mariana Trench in the Western Pacific Ocean—revealed the highest levels of microplastics found in the open ocean. Every ocean beach that has been tested has contained tiny plastic fibers and researchers have identified microplastics in the sediment from the Amazon River in Brazil.

In 2017, The Guardian published results of an investigation by Orb Media, which revealed 83 percent of the samples of tap water collected from more than one dozen nations contained plastic fibers. The United States had the highest rate of contamination in this study.

Bottled water has a similar rate of microplastic contamination. Researchers with the department of chemistry at the State University of New York-Fredonia purchased 11 brands of bottled water from 19 locations in nine different countries. They found microplastic contamination in 93 percent of them.

The researchers wrote, "Plastics become microplastics become nanoplastics, but they are all plastics, just of increasingly smaller size, allowing them to be more easily ingested and perhaps even cross the gastrointestinal tract to be transported throughout a living organism."

Plastics in Clothing

Are Absorbable Through Your Skin

Sherri Mason, professor of chemistry in the department of geology and environmental sciences at State University New York-Fredonia, has spent years studying microplastics in the water supply. In an article in American Scientist, she explains the relationship between airborne microplastic fibers and water contamination.

"In 2017, we examined 159 samples of tap water collected from 14 different countries. Eighty-eight percent of these samples showed evidence of microplastic contamination, with an average of 5.5 particles per liter. Almost all (98 percent) of these particles were microfibers, which suggests that air is the primary source of contamination."

One study reported in National Geographic found 90 percent of table salt contained microplastics and The Guardian reported that research by Mason found Americans could be ingesting 660 particles of plastic every year if they consume 2,300 milligrams of salt each day.

Takeout food containers are another source of ingesting microplastics. One study published in 2020 found microplastics in different types of takeout containers, with the highest level found in those made of polystyrene.

BPA is a plastic additive used to reinforce products. The Center for Environmental Health (CEH) conducted months of testing that revealed even small clothing items for

babies, children, and adults could contain BPA at levels 31 times higher than the limit placed by California environmental law.

BPA is an endocrine disruptor that mimics human hormones and can be absorbed through the skin. Early life exposure can increase the risk of developing disease. When the CEH tested socks, they found BPA only in those that were made with polyester and spandex. They initiated litigation against Adidas, Champion, GAP, Hanes, New Balance, and Reebok with the intent of forcing the apparel sector to remove the toxic substance from socks.

Plastic Ingestion Starts at Early Age

The proliferation of plastic has meant that even newborns are exposed to microplastics. A market report in 2021 showed the baby bottle market would reach \$3.5 billion by 2026 and plastic bottles would account for \$1.7 billion, or 48.5 percent of the market. A study published in Nature Food in 2020 analyzed the release of microplastics from plastic baby bottles to which infants may be exposed while consuming formula.

The team was led by John Boland from Trinity College Dublin. The analysis showed the bottles leaked a wide range of particles, from an average of 4 million up to 16 million plastic particles per liter. Boland commented on the study:

"We were surprised by the quantity. Based on research that has been done previously looking at the degradation of plastics in the environment, we had a suspicion that the quantities would be substantial, but I don't think anyone expected the very high levels that we found."

The researchers predicted that, globally, infants up to 12 months old may be exposed to 14,600 to 4.55 million microplastic particles a day, depending on region, which is higher than previously recognized due to the widespread usage of polypropylene baby bottles.

Not surprisingly, then, another study in late 2021 showed a disturbing amount of plastic in baby poop. The researchers found polyethylene-terephthalate (PET) in meconium samples, which is a baby's first stool.

The concentration in infant stool was 10 times higher than what was found in adult samples. The plastic particles found in meconium samples suggest that microplastics are passing from mother to baby through the placenta.

COVID-Related Medical Waste Intensifies Problem

Plastic use and pollution are the driving forces behind the growing challenge with microplastics in the environment and our food and water supply. During the pandemic, the problem grew at a far faster rate than in recent years. This is due in part to the waste from discarded masks, gloves, and other personal protective equipment (PPE).

Single-use medical plastic items have intensified the "pressure on an already out of control problem," finds a recent study published in the Proceedings of the National Academy of Sciences PNAS. The result of this analysis showed that more than 8 million tons of plastic waste associated with the pandemic were generated and more than 25,000 tons have entered the oceans. Roughly three-quarters of the waste was produced by hospitals, which poses a long-lasting problem.

The paper calls for better medical waste management to protect the oceans and ul-

timately our food supply. The study categorized the amount of waste for different areas of the world: It found that only 30 percent of all COVID cases were detected in Asia, yet the region was responsible for 72 percent of the plastic waste discharge.

In addition to medical waste and personal protective equipment, the researchers also found larger quantities of packing material in the ocean and waterways, likely from the increase in online shopping during lockdowns. This made up 4.7 percent of the waste that entered the environment since the start of the pandemic.

Researchers predict that 70.5 percent of the waste deposited during the pandemic will end up on beaches by the end of the century. One crowdsourced project is tracking instances and observations of wildlife interacting with plastics and PPE litter, as well as noting cases where animals are trapped, tangled, or ingesting the COVID-19 trash.

DARPA Wants Military Plastic Waste Transformed to Food

Apparently, there isn't enough plastic pollution in the food supply, so the Defense Advanced Research Projects Agency (DARPA) awarded Iowa State University and partners a \$2.7 million grant to create a process that would make food from plastic and paper waste.

The intention is to use the product to feed the military men and women who have dedicated their lives to defending this country. They believe the ability to turn the paper and plastic waste products into a consumable could help with short-term "nourishment" and improve military logistics for extended missions. They estimate total funding could reach \$7.8 million before the project ends.

The system seeks to convert plastic waste into fatty alcohols and fatty acids and paper into sugar that would then be bioprocessed by single-cell organisms into an edible mass that's rich in protein and vitamins. In other words, the hope is that microorganisms can convert the endocrine-disrupting chemicals found in plastic to vitamins and proteins.

DARPA also awarded Michigan Tech researchers \$7.2 million to turn plastic waste into protein powder and lubricants. Battelle, a large research firm, announced in February 2021 that DARPA had awarded an undisclosed amount to create a process that "quickly convert[s] energy-dense waste into a useful substance to support expeditionary operations and stabilization missions."

DARPA wants to turn plastics that leach hazardous chemicals, which researchers have found threaten human health, into foodstuff for the U.S. military. However, in an era where fake meat is valued over regeneratively and biodynamically grown real meat, it doesn't take much to imagine that the next step could be plastic food for all.

Dr. Joseph Mercola is the founder of Mercola.com. An osteopathic physician, best-selling author, and recipient of multiple awards in the field of natural health, his primary vision is to change the modern health paradigm by providing people with a valuable resource to help them take control of their health. This article was originally published on Mercola.com

For a list of studies mentioned in this article, please see the article online at TheEpochTimes.com

FOOD AS MEDICINE

Saffron Protects Against Macular Degeneration

Age-related macular degeneration is on the rise but this ancient spice may save your sight

MARGIE KING

As baby boomers mature en masse, age-related macular degeneration (AMD) is on the rise.

AMD is the leading cause of vision loss among people 50 and older. It affects more than 10 million people in the United States, according to the American Macular Degeneration Foundation. Fortunately, an ancient spice offers some protection.

The macula is the small spot near the center of the retina. The eye needs it for central vision to see objects straight ahead. When the macula becomes damaged, it severely limits your ability to see things in your central line of vision.

As age-related macular degeneration progresses, a blurred area develops near the center of your vision. In addition, objects may not appear as sharp or bright as they used to. Colors seem faded. That loss of central vision can interfere with daily activities such as recognizing faces, reading, driving,

working, cooking, or watching TV.

Besides age, the biggest risk factor for AMD is smoking. Other risk factors include sun exposure, high blood pressure, and obesity. But we also know that people who exercise and eat green leafy vegetables and fish have a lower risk of developing the disease.

Recent studies have found certain nutrients protect against the progression of AMD. Researchers at the National Eye Institute conducted two Age-Related Eye Disease Studies (AREDS and AREDS2).

The first AREDS study showed that a combination of vitamin C, vitamin E, beta-carotene, zinc, and copper reduce the risk of late-stage AMD by 25 percent.

AREDS2 found that a combination of lutein and zeaxanthin with vitamin C, vitamin E, zinc, and copper further reduced the risk of late-stage AMD.

Other studies show that rosemary may protect against macular degeneration.

And a study from Australian and Italian researchers shows that the Mediterranean spice saffron helps slow the progression of AMD and improve vision.

In 2010, researchers conducted a randomized, double-blind, placebo-controlled study of 25 people with early-stage AMD. The participants were randomly assigned into a placebo group of a saffron group. The

“**Other studies indicate saffron may help protect blood vessels, reduce the effects of diabetes, and improve cognitive decline related to aging.**

saffron group was supplemented with 20 mg per day of saffron. The study, published in Investigative Ophthalmology & Visual Science, revealed that after 90 days, the researchers saw noteworthy improvement in the saffron group not seen in the placebo group.

In a longitudinal, open-label follow-up study in 2012, the researchers tested a group of 29 patients aged 55 to 85 with early-stage AMD. The patients received 20 mg per day of saffron as a supplement for about 14 months.

The researchers again observed improvements in the participants' clinical measurements of the disease after saffron supplementation.

In addition, all of the patients reported an improvement in their quality of vision. They experienced improvements in contrast and color perception, reading ability, and vision in low lighting. All of that added up to a substantial improvement in the patients' quality of life.

What's in Saffron That Protects the Eyes?

The researchers noted that saffron from the crocus flower contains chemical compounds called crocin and crocetin. These are antioxidant derivatives of carotenoids. Crocin protects photoreceptors from light-

induced death. Crocetin increases the availability of oxygen to the cells.

Saffron also contains over 150 volatile and aromatic compounds that contribute to a long list of other health benefits affirmed by scientific study.

Saffron Beats Aricept for Alzheimer's Disease

A 22-week randomized, double-blind controlled trial published in Psychopharmacology in 2010 showed that 15 mg of saffron twice a day was as effective as donepezil (Aricept) in the management of mild-to-moderate Alzheimer's disease.

Another 16-week, randomized and placebo-controlled trial showed that 15 mg of saffron twice per day was both safe and effective in treating mild to moderate Alzheimer's diseases.

Saffron as Effective as Prozac for Depression

In a double-blind study published in the journal Progress in Neuropsychopharmacology and Biological Psychiatry, 15 mg twice daily of saffron was just as effective as Prozac in treating depression, and resulted in a 25 percent remission rate. And it's also been shown to improve sexual problems induced by Prozac use.

Another study published in 2004 found treatment with saffron as effective as the depression drug imipramine (Trafanil) in treating mild to moderate depression.

And a meta-analysis published in the Jour-

nal of Integrative Medicine in 2013 found that saffron is effective in treating major depressive disorders.

Other researched-backed health benefits of saffron include:

- Increases satiety to help with weight loss
- Helps relieve menstrual pain better than NSAID drug
- Relieves premenstrual syndrome
- A potential cancer chemopreventive agent

Other studies indicate saffron may help protect blood vessels, reduce the effects of diabetes, and improve cognitive decline related to aging.

How to Use Saffron

Saffron comes from the dried dark red or yellow stigmas at the center of the crocus flower (*Crocus sativus*). Many home cooks shy away from this bright spice because of its cost. In fact, it's said to be the most expensive spice in the world at \$1,500 a pound and up. That's because it takes about 15,000 flowers to make just 3.5 ounces of dry saffron threads. Each flower blooms for just one week a year. And all those threads have to be harvested by hand.

Fortunately, you don't need a lot of saffron to get the benefits of its flavor and color in cooking. Just a pinch—about 20 threads—is all you need for most dishes.

Look for the threads or whole stigmas rather than the powdered form of this spice. The powders may seem like a bargain but they're



Saffron may cost a fortune, but it also delivers a wealth of science-backed health benefits.

often diluted with poor quality or even other less-expensive spices like turmeric. Steep the threads in hot water or broth for 5 to 20 minutes before adding them to your recipe. This releases the saffron's essence and aroma.

Add saffron to risotto or other rice dishes. It also goes well in seafood dishes such as bouillabaisse or paella. Or use it in beef stews or tomato sauces.

Once you've made an investment in saffron, store it in a container away from sunlight. It should last for years.

For more information on the health benefits of this amazing spice, visit Green Med Info's page on saffron.

Margie King is a graduate of the Institute for Integrative Nutrition. A Wharton M.B.A. and corporate attorney for 20 years, she left the world of business to pursue her passion for all things nutritious. King is the author of Nourishing Menopause: The Whole Food Guide to Balancing Your Hormones Naturally. She is also a professional copywriter and natural health, beauty and nutrition writer. To contact her, visit www.IntegrativeMenopause.com. This article was first published on GreenMedInfo.com

For a list of studies mentioned in this article, please see the article online at TheEpochTimes.com

Healthy Goals for the New Year

It's never too late to set yourself on course for healthier habits

DEREK MARKHAM

It's that time again. With the new year comes another New Year's resolution, which is often viewed as something to be stated and then ignored. However, giving up so quickly may be doing yourself a disservice. One of the best ways you can take advantage of the resolution season is by focusing on your health. So, if you're willing to give a resolution a try, here are four health goals for the new year.

Reduce Anxiety

Anxiety may be a helpful motivator in small amounts, but it can cause substantial harm if it flares up too often. Beyond the negative mental ramifications, it may also affect your physical health. You could develop issues such as insomnia and headaches. If anxiety is affecting you, reducing it is an excellent goal for the new year.

There are several ways to go about this, so you'll need to experiment until you find one that works for you. One popular method is meditation, which calms the mind and can create higher self-awareness. If your anxiety stems from your thoughts, you may want to speak with a therapist. Mindfulness and self-reflection are also helpful. Diet and exercise can affect anxiety as well.

Become Fitter

Getting fit, in terms of your overall health, has little to do with body image. In fact, if you start thinking that way, it could be detrimental to your mental state. Instead, fitness involves improving your bodily health in both the short and long term. In the short term, physically active people are more energized and have stronger muscles and bones. In the long term, a fit body can protect you against diabetes, cardiovascular problems, some types of cancer, and even Alzheimer's.

In order to achieve your peak fitness level, you'll need to find a workout routine. Don't settle for the first option that you see online. Since everybody is different, you may benefit more from another type of exercise. Just be sure that you perform it on a regular basis. If this is a particularly hard habit to get into, look for any form of physical activity you enjoy, such as sports, hiking, or landscaping your yard. The key is consistency.

Sleep Better

Not everyone can get a fulfilling amount of sleep each night. Whether it's due to a hectic schedule or insomnia, you may not be able to achieve seven to eight hours of restful slumber each night. This can become debilitating, especially if it happens regularly. Since a lack of sleep reduces your brain function and energy level, it's been linked to higher obesity levels. It can also lead to depression and inflammation.

If you're experiencing sleep deprivation, don't sweep it under the rug. Solving this problem could make your daily life far easier to handle. Crowded schedules can be tough to work around, but your health is more important than anything else. Make time to sleep. If the issue is insomnia, trouble falling asleep, or poor-quality



Meditation is an effective way to help anxious people calm their mind and become more self-aware.

Crowded schedules can be tough to work around, but your health is more important than anything else. Make time to sleep.

sleep, read up on good sleep hygiene, sleep apnea, and how to create good conditions to sleep. You may also want to try aromatherapy, which can encourage relaxation. If problems persist, you should consider seeking medical advice or expert help.

Choose the Right Diet

Knowing what and when to eat can be a struggle. However, discovering the best diet for you can dramatically improve your health. Similar to physical activity, good eating habits can reduce your risk of illness and obesity. This doesn't mean that you should follow the first diet that you find. While many tips should be heeded by everyone, you'll need to personalize your regular eating habits.

First, consider your dietary restrictions. For instance, vegetarians need a diet that allows for nonmeat sources of protein—beans, soy, nuts, and so forth. If you have food sensitivities, those also need to be factored in. Next, be sure that your diet is full of whole foods, vegetables, and has few processed foods. Vegetables are low on calories and high in nutrients.

You may also want to change your eating times. Intermittent fasting, which involves a cycle of fasting and eating, has shown results in healthy weight loss. One of the best forms of intermittent fasting is to limit your eating to a window of eight hours each day, then not eating during the other 16 hours.

Making a change when it comes to your health can be hard. Doing so often requires that you change a significant aspect of your lifestyle. However, if you have unhealthy habits, it's also crucial to undertake healthy changes to avoid sick-

ness. So if you want to get healthier, 2022 might be the year to keep your resolution.

Derek Markham is a freelance writer, available for content creation, editing, and proofreading. He can advise and help implement social media strategy for green and sustainability businesses, and he enjoys the conversational nature of engagement with readers and customers. He is full of ideas and off the wall thinking, and can help you with your business ideas and strategy. This article was originally published on NaturalPapa.com



Finding your best diet can lead to a happier, healthier you.

What's More Important Than Your Family?

We run around with an elevated sense of self importance that can distract us from what really matters



No one can replace the role a mother or father plays in caring for their family.

JOSHUA BECKER

Much of the busyness we face in life is a result of elevated self-importance. Not all, but much.

There is certainly a requirement that we face the trials in front of us, that we provide for our families, that we help others when possible, that we parent well, and that we make the most of our days. But oftentimes, the pursuits we busy ourselves with go beyond those expectations of living life in an intentional way.

We pile expectations and responsibilities onto ourselves not because they are required of us, but because of elevated self-importance. We believe it is essential that we are involved, that our opinion is known, or that our response is heard before things happen.

So the items we add to our "must-do list" continue to increase:

We check our email several times each

day because someone might be trying to reach us.

We attend meetings because the right decision might not be reached without us. We accept work responsibilities because nobody else can do them as well as us.

We log into social media in case there is a conversation that needs our opinion.

We check news sites frequently because it's important that we know world events as soon as they happen.

We keep our phones near our fingertips all day long so we can respond immediately when someone wants to talk or text or message us.

We take on new business ideas or side hustles because we believe our time and talents are worth more money than we currently receive.

We rush from place to place, meeting to meeting, and commitment to commitment because we're needed.

Or so we think.



Whether your clutter takes the form of excess weight, overwhelming worry, or piles of books and papers blocking your hallway, it's always considered a kind of stagnation.

TRADITIONAL CHINESE MEDICINE

The Nature of Clutter in Chinese Medicine

Stagnation inside ourselves is often reflected in stagnation of our physical space

LYNN JAFFEE

Clutter! It's unsightly, messy, and chaotic. It can make you feel unsettled or downright anxious when you walk into an area messy with stuff. It seems that in our unending drive as consumers to acquire more things, clutter has become more of a problem.

It's even become a psychological issue known as hoarding disorder that is captured in a TV show about those who suffer it called "Hoarders."

People over-accumulate things for different reasons. One reason is to hold onto the past. If your basement is full of record albums, campaign buttons, and ticket stubs from past concerts, your reason for amassing stuff is likely a way to remember the good times you've had. A second reason for being a clutter bug is about the future. If your mess consists of old radio knobs, building materials, rusty screws, and half-empty bags of grout, you're hoarding because you think you might need this stuff someday.

Some people belong to both camps. Either way, your accumulation means that on some level, you're forgetting to live in the present.

You may be thinking, "What can clutter possibly have to do with Chinese medicine?" My answer is that it has everything to do with your Spleen and the process of digestion. The capitalization of Chinese organs is to separate these specific concepts from your more familiar biological concepts. Your Spleen has additional roles within the Chinese medical paradigm and is paired with your Stomach to form an organ system for digestion. They take in food, convert it into energy and nutrients, and excrete what's not needed. This is a very physical explanation, but in Chinese medicine, organ systems also have energetic and symbolic components, too.

Daverick Leggett, in his book "Recipes for

Self-Healing," describes the relationship between your Spleen and the process of sifting, sorting, and letting go. He says:

"Digestion begins with a desire to eat, which leads to the intake of food. The food is then sorted into what is usable and sent to where it can be used or stored in the body. What cannot be used is excreted. The thinking process follows a similar path: the desire for knowledge leads to the intake of information which is then sifted and sorted. Whatever can be put to immediate use is applied and the rest is stored for later. Irrelevant or unusable information is rejected and forgotten."

Leggett is referring not only to the digestive process, but the digestion of ideas. A healthy mind is able to use helpful information and let go of what is not helpful. However, when you're unable to do this, something akin to indigestion of the mind occurs—you worry, dwell on the past, become anxious, and harbor anger.

Isn't this the same process by which we accumulate clutter? It begins with a desire to own, which leads to acquiring material things. Ideally, what is useful is put to good use, and what is not is recycled or thrown out over time. However, when the inability to sift, sort, and let go somehow goes awry, you begin to build up clutter. Think of clutter as indigestion of your personal space.

In my practice, I've found that in some patients, clutter takes on another form—body clutter. More often than not, when I am working with patients who struggle with clutter in their personal space, they are also struggling with weight issues. Here's my explanation: When the sifting and sorting function of the Spleen gets bogged down, your body is unable to metabolize food and fluids very well. The result is accumulation, and in the case of

ALL PHOTOS BY SHUTTERSTOCK

a boggy Spleen, the accumulation takes the form of heavy damp tissue, also known as fat.

Whether your clutter takes the form of excess weight, overwhelming worry, or piles of books and papers blocking your hallway, it's always considered a kind of stagnation. In Chinese medicine, stagnation occurs when something is unable to move freely. So your excess weight is a stagnation of damp tissue, your worry is a kind of emotional stagnation, and the mess in your space is physical stagnation.

So where do you start if clutter is weighing you down? One way is to begin by strengthening your Chinese Spleen through good digestion.

However, cleaning up your personal space also would serve you well. It will alleviate the stress of living and working in a mess, and will symbolically begin the process of moving stagnation. Here are some simple tips to get the process rolling:

Start small. Begin with one corner of one room, the kitchen table, or a two-foot perimeter around the couch. Once that area is clean, keep it that way, and move on to the next as time allows.

Incoming! Find a spot for incoming papers. Mail and papers tend to be one of the worst sources of clutter. Set up an inbox or a basket for all your mail and papers until you have the time to go through and pay bills, recycle, etc.

Set aside 10 or 15 minutes each day for cleaning up clutter. You'll be surprised how much you can get done without feeling overwhelmed.

Get some help. If you have a packrat personality, enlist the help of a trusted and gentle friend who can help you go through some of your stuff. Their job is to ask whether you really need to keep that pink boa you wore for Halloween in 1997.

Give it away. Much of the stuff cluttering up your home can be used by someone else. Whether you give books to your friends or take a box of gently used clothing to Goodwill, you'll be giving your stuff a new life and getting it out of your space.

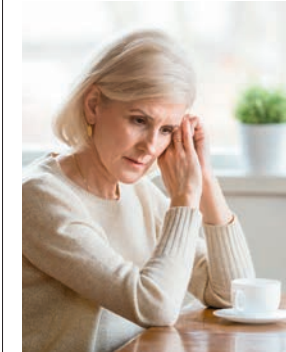
Throw it away. OK, nobody really wants those spangly socks with the holes in each heel or the cute little whisat with the top missing. Not even you. Throw that stuff out. Take a deep breath, let go, take that junk to the trash, and drag the bin to the curb.

Create storage systems. For those things that you really want to keep, find a place where they belong and put them there. This is more than picking something up and shoving it into a drawer. Put similar things in the same place. For example, all your art supplies go into a bin in the basement, all the articles you intend to read go in a basket, and all your office supplies go in an organizer on your desk.

Follow the 2-year rule. Get rid of anything you haven't used in the past two years. If you haven't touched it in two years, you likely don't need it.

With a little time, some creativity, and commitment, you can make the clutter go away. By doing so, you'll be unblocking the stagnation and creating a space for yourself that feels peaceful.

Lynn Jaffee is a licensed acupuncturist and the author of "Simple Steps: The Chinese Way to Better Health." This article was originally published on AcupunctureTwinCities.com



When we are concerned about the future or trying to hold on to the past, we can have a difficult time dealing with our present accumulation of stuff.



Sometimes it might be worth considering whether our overinvolvement at work might be at our family's expense.

self constantly how important your family truly is.

Remind yourself when you are tempted to check email in the evening, work late, or give in to comfort and collapse on the couch.

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.

or cellphone instead.

We begin to believe we are too important for trivial household chores such as taking out the trash, cleaning the kitchen, or reading a bedtime story.

The truth is, the world would get along just fine without our constant involvement in every detail.

Your most important priority, the one place you are needed most, is often the first place to suffer when we believe we are more important than we actually are.

But every year, the holiday season provides us with a new opportunity. During this heightened season of family and awareness, we can slow down and reset. We can choose to embrace more opportunities to be with family and straighten out our priorities.

As we begin the new year, remind your-

The truth is, the world would get along just fine without our constant involvement in every detail.

Email doesn't need to be checked all day. We also don't need to be reachable 24 hours a day. There are other people who can do the work you do, and wise decisions can be reached without your involvement. The humbling truth is that organization can run just fine without your volunteer hours and despite whatever you think your hourly worth is, there are more important things in life than making another dollar.

Even worse, this combination of busyness and elevated self-importance begins to distract us from the most important things in life.

For example, can any of those things come even close to being as important as your family? And yet, most of the time when busyness crowds our schedule, it's our family that pays the first and greatest price.

We skip the ballgame or recital because "I'm too busy at work." We don't help out in the home because "I just need to finish this one project." We don't fully engage with our spouse or children because "I'm just too exhausted." And turn to our television

How a 5-Minute Gratitude Practice Has Changed Me

Continued from Page 9

As a parent, I feel the need to explain to my children what it means to live a life of gratitude and why it's important. I also believe that it's important to model gratitude with my own thoughts and actions.

The simplest way that I've found to live with more gratitude and less anxiety is through a practice that I do each morning: reflecting on what I'm most grateful for.

When I focus more on the strengths and gifts of others, rather than their faults, it helps me to be more patient.

I've seen many benefits from the simple, five-minute habit of reflecting or writing in my gratitude journal. Of course, the goal is to have this practice set a trajectory for the rest of my day and not simply be another item to check off my list, but you have to start somewhere!

My desire is that my children will observe a spirit of gratitude within me and also pursue happiness through being grateful for what they have, rather than succumbing to the constant pull of our consumerist society telling them to desire more.

Changes I've Noticed With My Gratitude Habit

After sticking with this gratitude habit for some time, I can start to see the effects it has had on me.

Each day begins with a positive mindset. The first thoughts that enter my mind are usually indicators of how the rest of my morning will go. When I can sit and reflect on what I'm most grateful for in the stillness of the morning, it encourages me to have a positive, healthy

mindset that focuses on blessings, rather than burdens.

It's motivation to declutter. As I look back upon past entries in my gratitude journal, it's very rare to see an actual item listed. The things that make me most grateful are relationships, feelings, and memories—not stuff. Noticing that physical things don't bring me the most happiness allows me to consider whether I need as many possessions in my life and encourages me to live with less.

I can focus on others' strengths, rather than faults. Relationships, even with those you're closest to, will always suffer from expectations. People will let you down in some way at some point. When I focus more on the strengths and gifts of others, rather than their faults, it helps me to be more patient, to have more grace, and to see the benefits of each relationship.

I don't take things for granted. Often, it isn't until something is gone that we realize how meaningful it actually was. I want to practice gratitude in all circumstances, whether they be small or large, and value what life offers while whatever that may be is still in my life. That way I don't live with regrets once it's gone.

I'm put in a more cheerful mood. It's hard to be grumpy and selfish after reflecting on what I'm most grateful for each day. Even little moments of remembering something funny that my toddler son did yesterday put a smile on my face.

It's a motivation to begin my morning routine. My morning quiet time is an essential part of my day. I love rising while the rest of the house is still asleep, drinking my hot coffee, and having some time to prepare myself for the day. My gratitude practice is the first thing that I do, and it's something that I look forward to each morning.



Gratitude allows us to have more compassion for others, and as we do this, we take less interest in our own selves and find a deeper affection for others.

I've gained more compassion for others. When I look back at the entries in my gratitude journal, I don't see many that highlight my individual achievements or successes. Rather, I see evidence of feeling encouraged when helping a friend, when a prayer was answered, or when I've had a good conversation with someone I love. Gratitude allows us to have more compassion for others, and as we do this,

we take less interest in ourselves and find a deeper affection for others.

Practicing gratitude has been one of the biggest ways that I've sought to improve my health and well-being and to embrace the simplicity and blessings that this life can offer. If you don't already practice gratitude (either through journaling or mentally reflecting), I would encourage you to make it part of your daily routine.

When we stop and take a moment to appreciate our relationships, life's free pleasures, and the gifts that we've been given, we're able to live a more enjoyable, rich life.

Mollie (and her husband, Mike) blog at This Evergreen Home where they share their experience with living simply, intentionally, and relationally in this modern world. You can follow along by subscribing to their twice-weekly newsletter. This article was originally published on This Evergreen Home.

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