

# MIND & BODY

## The Benefits of Seeking Awe in Your Everyday life

### Red and Near-Infrared Light Therapy

Our body creates an essential hormone from sunlight—and we don't get enough

**JOSEPH MERCOLA**

In this interview, Ari Whitten, author of "The Ultimate Guide to Red Light Therapy," reviews the mechanics and basic benefits of red light and infrared light. Whitten, who has a degree in kinesiology, exercise science, and movement science, has studied natural health, fitness, and nutrition for more than 20 years.

MICHAL LUDWIGZAK/SHUTTERSTOCK



Effective therapeutic infrared lights can be hard to find while underpowered pretenders are common.

#### Light as Nutrition

Red and near-infrared light are, of course, a subset of natural sunlight, which actually acts and has value as a nutrient. Red light and near-infrared light therapies are ways to get some of those benefits. It may be particularly valuable and beneficial for people who aren't getting enough natural sunlight exposure, and that's a majority of people. As noted by Whitten:

"There's a mountain of literature showing that regular sun exposure is one of the most powerful and important things you can do for your health and to prevent disease. Simultaneously, we have a general public that is afraid of sunlight.

"Even the subject of melanoma is rife with misunderstanding because there is research showing, mechanistically, that if you expose cells in a Petri dish to lots of UV light, you can absolutely induce DNA damage and induce cancer formation.

"You can take rats and expose them to tons of isolated UV light and induce cancer. You can even find an association between sun burns and increased melanoma risk.

"Despite all of those things, it is also the case that when you compare people with regular sun exposure to people with much less sun exposure, they do not have higher rates of melanoma.

Continued on Page 4

Awe connects us to the world's impossible beauty.

A new book explains how feeling awestruck can make you happier, healthier, and more connected

**TEJA PATTABHIRAMAN**

**W**hat is awe? We have all experienced it, even if we didn't know what to call it. Whether we're overlooking a beautiful view after a challenging hike or watching a new leaf grow on the plant we've been nurturing in lockdown, the feeling we get in that moment—amazed, inspired, transported—is what researchers call awe.

In his new book, "Awestruck," psychologist Jonah Paquette explains the process underlying the experience of awe and uncov-

**Awe helps improve our relationships, decreases our stress, and makes us happier.**

ers both its complexity and its value to our well-being. Walking readers through various scientific findings, he shows that awe helps improve our relationships, decrease our stress, and make us happier. By illustrating awe's many benefits, Paquette gives us a reason to seek more awe experiences in our lives—and then shows us how to do it.

#### How We Experience Awe

An awe experience, as Paquette defines it, involves two primary components:

Continued on Page 6



## Behind the Subscription

Your subscription will not only provide you with accurate news and features, but also contribute to the revival of American journalism and help safeguard our freedoms for future generations.

We aim to tell you what we see, not how to think; we strive to deliver you a factual picture of reality that lets you form your own opinions.

We believe that we live in truly epochal times, where the faithful representation of our current events won't just be important for the people of today, but also for the generations to come. The records we keep now will directly inform the foundations of the history they'll learn and the values they'll cherish—and this knowledge is what drives us.

Learn more at

[EpochSubscription.com](https://EpochSubscription.com)

THE EPOCH TIMES  
TRUTH AND TRADITION

## We Can Ease Up on the Disinfectant

The risk of catching COVID-19 from surfaces isn't high enough to justify overcleaning

HASSAN VALLY

A lot has happened over the past year, so you can be forgiven for not having a clear memory of what some of the major concerns were at the beginning of the pandemic.

One of the major concerns was the role that surfaces played in the transmission of the virus.

As an epidemiologist, I remember spending countless hours responding to media requests answering questions along the lines of whether we should be washing the outside of food cans or disinfecting our mail.

I also remember seeing teams of people walking the streets at all hours wiping down poles and cleaning public benches.

But what does the evidence actually say about surface transmission more than 12 months into this pandemic?

Before addressing this, we need to define the question we're asking. The key question isn't whether surface transmission is possible, or whether it can occur in the real world—it almost certainly can.

The real question is: What is the extent of the role of surface contact in the transmission of the virus? That is, what is the likelihood of catching COVID-19 via a surface, as opposed to other methods of transmission?

### The Evidence Is Minimal

There's little evidence that surface transmission is a common way in which this coronavirus is spread. The main way it's spread is by the air, either by larger droplets via close contact, or by smaller droplets called aerosols. As a side note, the relative role these two routes play in transmission is probably a much more interesting and important question to clarify from a public health perspective.

One of the best commentaries on COVID-19 surface transmission was published in the journal *Lancet Infectious Diseases* in July 2020 by Emanuel Goldman, a professor of microbiology from the United States.

As he described, one of the drivers for the exaggerated perception of the risk of surface transmission was the publication of a number of studies showing SARS-CoV-2 viral particles could be detected for long periods of time on various surfaces.

You probably saw these studies because they received enormous publicity worldwide, and I remember doing numerous interviews in which I had to explain what these findings actually meant.

As I explained at the time, these studies couldn't be generalized to the real world, and in some instances, the media releases accompanying them tended toward overstating the significance of these findings.

The key issue is that, as a general principle, the time required for a population of microorganisms to die is directly proportional to the size of that population. This means the greater the amount of virus deposited on a surface, the longer you will find viable viral particles on that surface.

So in terms of designing experiments that are relevant to public health, one of the more important variables in these studies is the amount of virus deposited on a surface—and the extent to which this approximates what would happen in the real world.

If you understand this, it becomes apparent that a number of these virus survival studies stacked the odds of detecting viable virus by depositing large amounts of virus on surfaces far in excess of what would be reasonably expected to be found in the real world. What's more, some of these studies customised conditions that would extend the life of viral particles, such as adjusting humidity and excluding natural light.

Although there was nothing wrong with the science here, it was the real-world relevance and the interpretation that was amiss at times. It's notable that other studies that more closely replicated real-world scenarios found less impressive survival times for three other human coronaviruses (including SARS).

It's important to note we're relying on indirect evidence in assessing the role of surface transmission for COVID-19. That is, you can't actually do an ethical scientific experiment that confirms the role surface transmission plays because you'd have to deliberately infect people. Despite being such a seemingly straightforward question, it's surprisingly difficult to determine the relative importance of the various transmission pathways for this virus.

What we have to do instead is look at all of the evidence we do have and see what it's telling us, including case studies describing transmission events. And if we do this, there isn't a lot out there to support surface transmission being of major importance in the spread of COVID-19.

### We Could Save a Lot of Time and Money

We need to put the risks of exposure to SARS-CoV-2 via the various modes of transmission into perspective, so we focus our limited energy and resources on the right things.

This isn't to say surface transmission isn't possible and that it doesn't pose a risk in certain situations, or that we should disregard it completely. But we should acknowledge that the threat surface transmission poses is relatively small.

We can therefore mitigate this relatively small risk by continuing to focus on hand hygiene and ensuring cleaning protocols are more in keeping with the risk of surface transmission.

In doing this, we can potentially save millions of dollars being spent on obsessive cleaning practices. These are probably providing little or no benefit and being done solely because they're easy to do and provide the reassurance of doing something, thereby relieving some of our anxieties.

*Hassan Vally is an associate professor at La Trobe University in Australia. This article was first published on The Conversation.*



While hospitals may have reason to pursue a near sterile environment, that level of cleanliness is unnecessary in our homes.



## Tests to Assess Your Risk for Heart Disease

You may want to ask your doctor to run these labs to see if you are at risk

ALLISON WILLIAMS

So you've recently been diagnosed with a heart condition or have a family history of heart disease. Perhaps you're wondering what you can do about it, and how to track improvements and manage risk. And if you weren't, hopefully you are now. Cardiovascular illness is the leading cause of death in the United States, with an estimated 1 death every 36 seconds, according to the CDC.

There are three lab tests I commonly order on patients with a personal or family history of cardiovascular disease. My mindset is prevention, individualized plans, and focused treatment so that we can improve quality of life and maintain good cardiovascular health.

You've heard of inflammation from doctors and medical advertisements. But what does it mean? Well, "good inflammation" is when you cut your finger and see the areas around it become pink and slightly swollen. Your immune system triggers an inflammatory response due to the cut. Dilation of the blood vessels causes the area to pink up with blood and call out different immune messengers that go into action to clear away debris and fend off bacteria that were outside the skin. Other immune cells lay down new collagen to mend your skin. All of it in a symphonic effort to heal your cut.

Good inflammation is short and efficient. The immune messengers rightfully inflame the area for a short time and then expire. This is an example of very localized inflammation in a controlled area. Body-wide and long-term inflammation are a much graver cause for concern.

This type of inflammation indicates that the entire body is under duress. It may be battling stress, overprocessed foods, drugs, or environmental contaminants. That prolonged and widespread battle wears the body out—fatally.

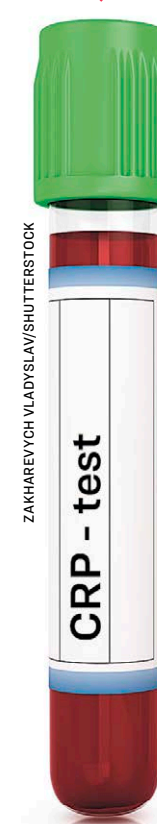
When researchers or doctors want to know if the body is undergoing this kind of chronic inflammation, they test the person's blood for C-reactive protein (CRP).

CRP is one of the body's many immune mediators. When cells are damaged, whether by infection or injury, they release these immune mediators, special biochemical agents that have diverse roles to help deal with the damage. Different tissues have different kinds of immune mediators. Those specific mediators trigger different responses based on factors such as the kind of pathogen, or nature of the wound.

It just so happens, CRP's job can give us a wider picture of how the immune system's inflammatory response is working.

**High-Sensitivity C-Reactive Protein (hs-CRP)**  
CRP is a special protein inflammation brings in to help heal and protect against

CRP is a protein used in a healthy inflammation response. If it lingers in our blood, it is a sign of chronic inflammation.



ZANHEVICH VA/AP/SHUTTERSTOCK

Chronic inflammation of the cardiovascular system can result in stress on the vessels.

infection. This protein works like a smoke signal that attaches itself to dead or dying cells so other biochemical agents can clean up the casualties. The bigger the CRP smoke signal, the more severe the inflammation could be.

Traditionally, physicians would use a test that measures CRP within the range of 10 to 1,000 mg/L. Now it has become more common to use a high-sensitivity CRP (hs-CRP) test that can measure for much smaller amounts, from 0.5 to 10 mg/L.

Because the hs-CRP test is able to detect very small amounts of CRP in the body, it can be helpful in predicting cardiovascular disease such as heart attack, peripheral artery disease, and stroke, which have known associations with chronic inflammation.

Chronic inflammation of the cardiovascular system can result in stress on the vessels, damage to the endothelial cells which line them, decreased blood flow, and even increased risk for clots. This is why monitoring hs-CRP can be helpful.

The hs-CRP test isn't the gold standard for determining cardiovascular risk but research is growing.

But what do you do if your hs-CRP is elevated? One of the best ways to improve your health is maintaining a healthy weight and muscle mass. Weight loss has been shown to effectively decrease hs-CRP levels. Excess body fat has been shown to elevate inflammatory markers and trigger increased immune reactivity. In other words, your body seems to treat excess fat tissue as if it were an injury to resolve, and it attempts to respond with an inflammation response that appears to make matters worse.

### Homocysteine

We have different types of amino acids all throughout the body. Amino acids are the building blocks of proteins, and proteins are the body's workforce. Amino acids also create enzymes to carry out biological processes and regulate gene expression, a fundamental aspect of human health.

Homocysteine is a type of amino acid commonly found in the body. Vitamins B6, B12, and folic acid are used to convert homocysteine into other metabolites, the substances used or created in the process of the body's endless biochemical reactions, collectively known as its metabolism. Oftentimes, supplementation of these vitamins can lower homocysteine levels, however, it's prudent to look for other nutrient deficiencies as a whole.

According to Alan Gaby's book "Nutritional Medicine," high levels of homocysteine have been linked to increased incidence of atherosclerosis (plaque buildup on arterial walls), blood clots, stroke, osteoporosis, recurrent miscarriages, other pregnancy complications, and cognitive decline.

Additionally, genetic mutations in the MTHFR (methyltetrahydrofolate reductase) gene can impair how the body metabolizes homocysteine and other amino acids in this metabolic pathway. A recent study in Sweden, showed that high homocysteine and low methionine levels were associated with faster comorbidity development in patients who already had cardiovascular disease.

I always remind my patients, however, that homocysteine is merely a piece of the puzzle and shouldn't be used as an isolated evaluation tool. One study by Park et al. suggested that asymptomatic individuals aren't at increased risk for subclinical coronary artery disease.

You can be mindful of optimizing your own body's methylation pathway by getting lab work evaluating B vitamin status, homocysteine, and discuss MTHFR genetic testing with your family physician.

### Vitamin D 25-OH

A third biologic marker important in assessing cardiovascular health is vitamin D. Low levels of vitamin D have been linked with increased risk of hypertension and heart failure. Vitamin D is a hormone that can be produced from exposing our skin to the sun, as well as, through ingestion of foods high in vitamin D such as salmon, sardines, egg yolks, and beef liver.

Studies on hypertensive patients have shown a correlation between low vitamin D levels and increased hormones associated with increased blood pressure, such as renin and angiotensinogen.

The normal range for vitamin D 25-OH is 30 to 100 ng/mL, with levels between 20 and 29 ng/mL being suboptimal and less than 20 ng/mL being deficient. Vitamin D is also integral in bone health, mental health, immune function, and skin integrity. About 50 percent of the patients I test have suboptimal levels that require regular supplementation to optimize. If you haven't had your levels tested in the last 6 to 12 months, it's likely time to get tested again as part of your regular screening.

I encourage all of the people I work with to be proactive about their health. Tracking progress through bloodwork and specific biomarkers such as hs-CRP, homocysteine, and vitamin D 25-OH are ways you can track positive change in your cardiovascular health and overall risk. Today more than ever, we have tools to look at health and improve it on so many levels.

*Dr. Allison Williams is a naturopathic doctor and professor. She has a passion for helping people improve their health and well-being so that they can live life to the fullest. She works with patients in Arizona, as well as, offers consultations out-of-state and internationally. For more information, visit DrAllisonWilliams.com*

SHEN YUN SHOP  
I LOVE SHEN YUN

Feb 11-Mar 14  
**HAPPY CHINESE NEW YEAR**  
May the beauty of Shen Yun bring you hope and inspiration

Enjoy **15%** off all scarves

ShenYunShop.com | TEL: 1.800.208.2384



Infrared saunas are one way to rejuvenate our cells when sunlight is not available.

# The Benefits of Red and Near-Infrared Light Therapy

Continued from Page 1

"In fact, there's a bunch of studies comparing outdoor workers to indoor workers, showing that outdoor workers have lower rates of melanoma despite three to nine times more sun exposure."

## The absence of that exposure to sunlight creates abnormal cell function.

One of the reasons for this is because indoor workers are exposed to fluorescent lighting, which is loaded with dirty electricity or high-voltage transients that have a biophysical and psychological effect on people.

In the span of a few generations, people have lost the essential nourishment of the sun and have had their environments saturated with microwave-emitting wireless devices.

So, not only do people not get sunlight exposure, but they also get harmful EMF exposure.

A side effect of this change is that people have lost their normal biochemical reaction to the sun. Intermittent exposure—occasional exposure to sunlight followed by many days or weeks of little to no expo-

CLAUDIA K/SHUTTERSTOCK

sure—tends to be more problematic than regular, frequent sun exposure, as you're more likely to burn and cause DNA damage in your skin.

Regular exposure, on the other hand, ameliorates this risk, as it engages innate adaptive systems in your skin, your melanin in particular, that are explicitly designed to prevent DNA damage from UV light exposure.

"So, we have this system built into our bodies that's designed to allow us to get all these benefits of sunlight without the DNA damage and the increased skin cancer risk," Whitten says. "Framing light as a nutrient is the best way of understanding this."

"Just as we require adequate nutrients from the food we eat, just as our bodies require physical movement to express normal cell function, we also require adequate light exposure to express normal cell function. The absence of that exposure to sunlight creates abnormal cell function. And there are myriad mechanisms through which this occurs."

"Vitamin D is obviously the most well-known one that regulates over 2,000 genes related to immune health, musculoskeletal health and many other things. But there are many other mechanisms [as well]."

### Bioactive Wavelengths

As explained by Whitten, there are specific bioactive wavelengths, and they work through different mechanisms. One mechanism is through your eyes, which is why you're typically better off not wearing sunglasses on a sunny day, without sunglasses, blue and green wavelengths enter your eyeballs and feed through nerves into the circadian clock in your brain.

Your circadian clock, in turn, regulates a variety of bodily systems, from neurotransmitters involved in mood regulation to hormones involved in immune function. A dysregulated circadian rhythm has been linked to dozens of diseases, including cancer, cardiovascular disease, and neurological diseases.

"I consider disrupted circadian rhythm and poor sleep to be probably the single most common cause of low energy levels and fatigue," Whitten says. Fatigue is the key focus of his Energy Blueprint brand, and in the interview, he reviews some of the other root causes for poor energy and fatigue, aside from light exposure.

In summary, your body's resili-

ence, i.e., your ability to tolerate environmental stressors, is directly dependent on the robustness, both in terms of quantity and quality, of your mitochondria. When your resilience threshold is exceeded, disease processes are activated, and fatigue can be viewed as the initial universal symptom prior to overt disease. For more information about this side topic, be sure to listen to the interview or read through the transcript.

### Red Light Therapy

Modern-day red light and near-infrared light therapy is an extension of the original heliotherapy or sun-based therapy, which has a long and rich history of use for a number of diseases, including tuberculosis.

Over the past few decades, more than 5,000 studies have been published about red and near-infrared light therapy, aka photobiomodulation, for a wide range of ailments, from combating wrinkles and cellulite to hair regrowth, sports performance, accelerated injury recovery, increased strength, and much more.

"You get improvements in strength adaptations, improvements in muscle protein synthesis and the amount of muscle that's gained, amplified fat loss, increased insulin sensitivity—all when combined with exercise, compared with exercise alone," Whitten says.

"There's also research on people with Hashimoto's hypothyroidism showing profound reductions in thyroid antibodies, as well as thyroid hormone levels. There are also hundreds of studies on random niche things like helping people with diabetic ulcers ... combating arthritis pain and chronic pain, joint health, tissue and bone healing ..."

"There are at least dozens, if not hundreds, of studies on using red light therapy in the context of people undergoing chemotherapy to combat oral mucositis, which is inflammation of the oral mucosa that happens as a side effect of some chemotherapy drugs. One of the most, if not the most, effective treatment for that is red light therapy."

### More Is Not Necessarily Better

A common fallacy is that if something is beneficial, then the more the better. But this can be a hazardous assumption. As explained by Whitten, there is a biphasic dose response to red and near-infrared light therapy. Basically, you need to do enough of it to experience its effects, but if you overdo it, you can cause negative effects. So, it's all about finding the sweet spot.

That said, as a general rule, your risk of exceeding the beneficial dose with light



Underpowered devices may help ease some discomfort but they won't have the same therapeutic effect.

ANA-MARIA TEGEZES/SHUTTERSTOCK

therapy is lower than it is with something like exercise. Meaning, it's much easier to overdo exercise and end up with tissue damage from that than it is to overdo red and near-infrared light therapy.

That said, Whitten warns that there are some people who have a unique reaction. "What I've seen in my group of about 10,000 people that have gone through my program, many people with severe chronic fatigue or debilitating chronic fatigue syndrome, is there seems to be a small subset of people, I'm guessing somewhere between 1 percent and 5 percent of people, that have a really negative reaction to it, even at really, really small doses, let's say two minutes of red light therapy ..."

"So, there seems to be this small subset of people that is really hypersensitive and prone to negative effects. Generally, in my experience, those people are usually in very poor health overall."

One potential reason for this is because, like exercise and fasting, light therapy is a type of hormetic stress, which works in part by transiently increasing free radicals or reactive oxygen species.

People with extremely poor mitochondrial health will have a very low resilience threshold, so their capacity to tolerate that burst of reactive oxygen species will be low. At that point, they're simply creating damage, and their bodies don't have the resilience to effectively recover from it.

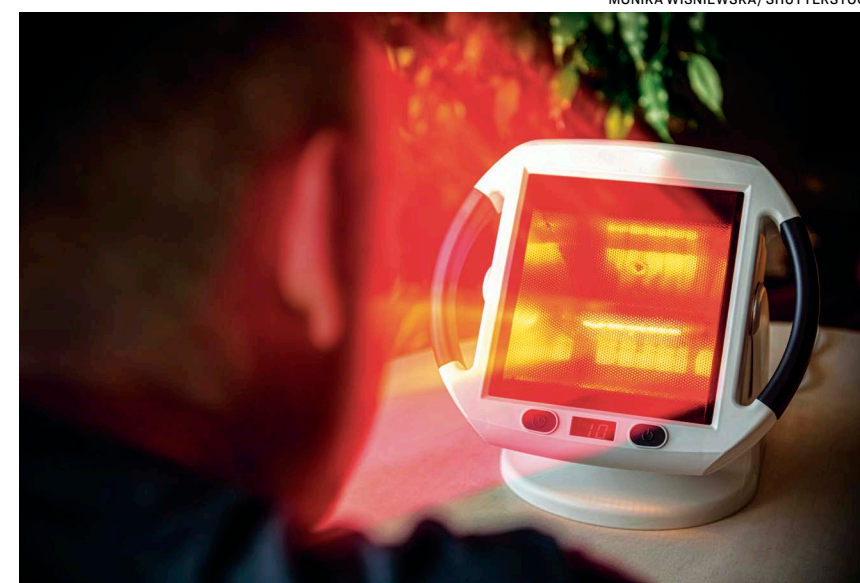
### Mechanisms of Action

As noted by Whitten, there are several accepted mechanisms of action, and then there are more speculative mechanisms. One of the most well-known mechanisms is cytochrome c oxidase, a photoreceptor on your mitochondria that literally captures photons of red and near-infrared light.

The most effective wavelengths that activate this system are in the 600 to 700 nanometer range, and the 800 to 1,000 nanometers range. In response to those light photons, your mitochondria will produce energy more efficiently. "In general, cells—whether it's skin cells, your thyroid gland, your muscle cells—they work better if mitochondria are producing more energy," Whitten explains.

This is one general principle of how light therapy can help heal such a diverse range of tissues and conditions. Another mechanism is related to the benefits of hormesis and the transient spike in reactive oxygen species. That burst of reactive oxygen species creates a cascade of signaling effects that stimulate the NRF2 pathway and heat shock proteins, for example.

As a result, your intracellular antioxidant response system is strengthened and your mitochondria are stimulated to grow bigger



Infrared lamps can help us recharge during the dark and often cloudy days of winter.

and stronger. It also stimulates mitochondrial biogenesis, the creation of new mitochondria. Ultimately, all of this increases your resistance to a broad range of environmental stressors.

"If hormesis is dosed properly, it should not create lasting harm. It should stress the system temporarily and stimulate adaptive mechanisms that ultimately make the whole system more resistant to any kind of harm," Whitten says. "But you shouldn't be doing hormesis at a dose that is actually creating damage."

### Light Therapy Modulates Gene Expression

A third mechanism of action involves retrograde signaling and the modulation of gene expression. Your mitochondria play a key role here as well. As explained by Whitten: "Mitochondria are not just mindless energy generators, but they are also environmental sensors that pick up on what's going on in the environment. Are there toxins present, is there a pathogen present? Is there increased inflammatory cells present?"

"They're picking up on these signals. They're also picking up on light signals ... and reactive oxygen species from hormetic stress. And they're relaying these signals back to the mitochondria in a way that modulates gene expression."

There's a specific set of genes that are expressed in response to red and near-infrared light therapy. In summary, it activates genes involved in cell repair, cell regeneration, and cellular growth, depending on the tissue.

For example, in your brain, it activates brain-derived neurotrophic factor (BDNF), in your skin, it increases expression of fibroblasts that synthesize collagen, in your muscles, it locally increases expression of IGF1 and factors involved in muscle protein synthesis.

"So, you're getting these local effects in

those specific tissues that upregulates genes involved in cell healing, growth and repair," Whitten says.

Exposure to UVA, red light, and near-infrared light also increases the release of nitric oxide (NO) which, while being a free radical, also has many metabolic benefits in optimal concentrations. Many of the benefits of sun exposure can't be explained solely through the production of vitamin D, and the influence of NO may be part of the answer.

There's also a speculative line of research suggesting that red and near-infrared light interact with chlorophyll metabolites in a way that helps recycle ubiquinol from ubiquinone (the reduced version of CoQ10).

Those specific wavelengths of light may help recycle reduced CoQ10, which also enhances energy production. "So, there may be this really interesting synergy between your diet and red and near-infrared light therapy were consuming more chlorophyll-rich compounds may enhance this effect," Whitten says.

### More Information

To learn more, be sure to pick up a copy of Whitten's book, "The Ultimate Guide to Red Light Therapy." On his website, TheEnergyBlueprint.com, you can also access his Energy Blueprint podcast, articles, programs, and testimonials.

In his book, Whitten provides specific recommendations for red and near-infrared therapeutic devices, which can save you a lot of research time if you're considering this kind of therapy. As noted by Whitten:

"There are a few good brands. It really matters what device you get. I want to put this caution out there because there are a lot of junk devices. There are a lot of devices that are one-fiftieth the power output of the devices that I recommend, and somebody who isn't savvy to that, isn't knowledgeable about why the power output of these devices matters, might just go on Amazon and buy some \$30 device.

"If you get an underpowered device, you're not doing the same red light therapy, or near-infrared light therapy as [when you're using] a real high-powered device. So, it is very important to do this the right way, to get the right quality device and to dose it the right way."

*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.*

The wavelength of infrared light affects how it penetrates into our cells.

## TRADITIONAL CHINESE MEDICINE

# Weather Report: Cloudy With a Chance of Pain

You can learn about the nature of your illness by noticing how it changes with the seasons

LYNN JAFFEE

Winter in Minnesota is beautiful, but it can also be a challenge. Cold. And not just cold, numbing. Even the dog won't go outside and I have to bundle up just to grab the mail.

Winter can be tough on your body. If you've noticed that you're a little achy or stiff getting out of bed on cold mornings, you're not alone. The cold weather can slow you down, sap your energy, and put your immune system to the test. That said, other seasons, and seasonal transitions are also stressful on your body. For example, the transition from the light and warmth of summer into the dark days of fall and winter can be one of the most difficult. We are all affected by the weather and seasonal changes to some degree.

## We are all affected by the weather and seasonal changes to some degree.

In Chinese medicine, if you have symptoms that fluctuate with the weather, it's considered to be an external issue, which simply means that what's bothering you is coming from the outside or is affecting your body at a superficial level. Colds, flu, and allergies are categorized as external conditions, but so is arthritic knee pain or a headache that's triggered by a change in barometric pressure. In contrast, internal conditions are those issues that are triggered by imbalances deep within your body. Auto-immune illnesses, hormonal issues, and digestive problems tend to be internal issues.

Chinese medicine is beautiful and organic, in that the nature of your symptoms is a little bit like bad weather affecting your body. It gives practitioners key information about how best to help you. For example, if your arthritic knees blow up during the hot and humid weather, it's likely that your diagnosis is related to heat and dampness. However, if you're achier when the weather gets cold, your symptoms would be classified as cold (and most likely damp, too). Pathogens that can affect your symptoms include:

**Heat.** If you feel hot overall, or your symptoms are worse in the heat, or your joints feel warm to the touch, or your headache comes with a fever or a hot head, you're experiencing heat. It's common for migraines, arthritis flare-ups, and inflammation to fall into this category.

**Cold.** If your symptoms, especially painful joints, are worse in the cold weather, or if you have an intolerance to the cold, chances are good that there is an element of cold to your diagnosis. Cold contracts and feels stiff and achy. Muscle spasms and joint pain are often related to the cold.

**Dampness.** This is your body's inability to metabolize water well, so it sits around and bogs you down. Dampness can manifest as swelling, heaviness, edema, and fungal infections. A great deal of joint pain is associated with dampness, in which symptoms are worse when the weather is rainy, humid, or damp. In addition, you can mix and match; you can have damp plus cold, in which the cold rainy weather aggravates your symptoms, or damp plus heat, in which



MR. NOTELR/SHUTTERSTOCK

the hot and humid weather lights things up.

**Wind.** External wind is the pathogen behind most colds, flu, and seasonal allergies. It is illness that blows through a community. The nature of wind is that it comes and goes, moves around, and can be itchy. In addition to colds and flu, wind is also responsible for hives and rashes that are itchy. Wind stirs things up.

You can mix and match these pathogens. You can have damp plus cold, in which the cold rainy weather aggravates your symptoms, or damp plus heat, in which the hot and humid weather lights things up. You can also have wind plus heat, which is a cold or flu in which you run a high temperature and have a very sore throat; or wind plus cold with chills, a mild fever, and aches and pains.

Treating weather-related external conditions involves understanding the underlying cause and dealing directly with the pathogens associated with your symptoms—clearing heat, drying dampness, warming cold, or settling wind. This is done through a combination of acupuncture, herbs, diet, and even lifestyle tweaks.

If you struggle with external pathogens,

one of the simplest things you can do is to give your pathogen what it wants. If you're intolerant to cold, warm yourself up with a heating pad and warming foods and drinks (ginger and cinnamon are a good place to start). If heat is the problem, use an ice pack, turn on the A/C, eat cooling foods (melon, yogurt), or drink some cooling mint tea. Dealing with dampness often involves reducing sugar and rich foods in your diet and avoiding damp or humid environments. Wind is a little trickier, but it often involves fortifying your body after you've become run down.

While the weather outdoors can affect your body more deeply than you may have realized, the nature of your symptoms also reflects a kind of weather system inside your body. Understanding the relationship between the weather and your health is an important first step in providing effective treatment.

*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*

Sunlight soothes us, especially when our body is starving for the compounds sunlight helps us generate.

# The Benefits of Seeking Awe in Your Everyday Life

A new book explains how feeling awestruck can make you happier, healthier, and more connected

Continued from Page 1

encountering “vastness” and experiencing transcendence. Vastness happens when we come across a view (like a spectacular sunset) or concept (such as the existence of black holes) that is too incredible to fit into our current worldview, forcing us to expand our understanding of what is possible. Transcendence happens when we take in this new, awe-striking idea or image in front of us and try to make sense of it.

Not only is awe a pleasant feeling akin to wonder, it also helps us to experience a different relationship with the world around us, says Paquette. When we are overcome with awe, he explains, we often experience a “small self”—the sense of our ego becoming smaller, and our needs, hopes, and purpose more integrated with the people and environment surrounding us.

“Awe blurs the line between the self and the world around us, diminishes the ego, and links us to the greater forces that surround us in the world and the larger universe,” he writes. In that way, awe can serve a dual purpose, improving our well-being while bringing us together.

## The Benefits of Awe

Like many positive emotions, awe can make us feel good. But awe goes beyond that, helping us to connect with others. Here are some of the main benefits of awe, as recounted by Paquette.

**Awe decreases stress levels.** Awe has been shown to reduce stress levels in both the short term and the long term. In one study described in the book, researchers examined the impact of an awe experience on stress levels among both urban high

**Tune in deeply to your awareness of color, texture, scent, and sound. What do you hear? What do you see?**



Experiencing awe often requires we take full advantage of our bodies and move about outside.

HELLOJAN/SHUTTERSTOCK



GINGER, POLINA, BUBLIK/SHUTTERSTOCK

school students and war veterans. Participants taken on a one-day river rafting trip had reduced levels of stress and symptoms of PTSD that were maintained weeks later. Critically, it wasn't just spending time outdoors that seemed to lead to reduced symptoms, but nature's specific ability to induce a sense of awe.

The evidence supporting the link between spending time outdoors, experiencing awe, and lower stress levels “has become so persuasive that many physicians have begun to ‘prescribe’ time spent in nature or in green spaces, the way one might typically prescribe a new medication,” says Paquette.

**Awe increases generosity and kindness.** In a study conducted at the University of California–Berkeley, researchers had students spend a minute either gazing up in the middle of the campus's eucalyptus grove or staring at a drab science building. When a “stranger” (actually, someone working for the researchers) walked by and “accidentally” dropped a box of pens, participants who experienced awe by gazing

up at the trees were more likely to help the stranger collect the pens. Later, the same participants also scored lower on entitlement and demonstrated a higher degree of ethical decision-making.

Other studies have also found a link between awe and generosity and kindness. Feeling awe makes us more willing to help those in need, and in turn increases our sense of connection to others.

“By enabling us to feel connected to each other, form alliances, act generously, and explore new possibilities, it stands to reason that the story of humans would not be possible without awe,” he writes.

**Awe makes us happier and more satisfied with life.** Paquette points readers toward numerous studies that demonstrate how awe can impact our mood. In one study conducted a few years ago, participants were shown a slideshow of either commonplace nature scenes (like an oak tree) or awe-inspiring nature scenes (like the Grand Canyon) and were asked questions regarding their mood both before and

after the slideshow. Both groups showed improvements in mood, but those who watched the awe-inspiring slideshow reported a far greater improvement.

While awe can make us happy in the short term, research has shown that this benefit lasts, too. In a study from UC Berkeley, researchers had participants track their mood and awe experiences over several weeks. They found that people experienced awe two times per week, on average, and that having awe experiences led them to have greater well-being and life satisfaction even weeks later.

These are only a few among multiple studies that, according to Paquette, confirm our intuition: Awe makes us feel good. By reducing stress, increasing generosity, and improving our life satisfaction, awe really is good for us.

## How to Experience Awe in Everyday Life

Given that awe has these benefits, says Paquette, we should try to experience it more in our everyday lives. Though many of us may only associate awe with special vaca-

Awe shows us the grandeur of creation, and delights us even as it diminishes our ego.

**Feeling awe makes us more willing to help those in need, and in turn increases our sense of connection to others.**

tions or occasions—like graduation ceremonies or visits to the Grand Canyon—he describes numerous ways we can incorporate awe into daily routines (and help intensify the experience, too).

**Linger.** When you catch yourself in awe, Paquette recommends sitting with that feeling for as long as possible. Though you may be tempted to move quickly onto the next thing, such as taking a photo or responding to a notification, try pausing first to soak in the surroundings for a bit longer.

**Appreciate your senses.** Tune in deeply to your awareness of color, texture, scent, and sound. What do you hear? What do you see? While on a walk, stretching, or taking deep breaths, Paquette recommends we allow ourselves to sink into the senses that connect us to the world, and be in awe of what we find.

**Slow down.** Create space for awe to emerge in the mundane. While you water your plants, tenderly check for new leaves and

buds. While eating, consider the time and energy that went into the food in front of you. By slowing down and appreciating the patience and effort involved in habitual processes, Paquette assures us, we will find ourselves awe-inspired.

**Unplug.** While many of us are dependent on technology for work or for communicating with others, it's good to intentionally step away from the screen and give ourselves the opportunity to connect with ourselves. Somewhat counterintuitively, technology can make us feel more isolated and lonely by pulling us away from the present moment, Paquette explains. He suggests ditching the phone and taking a walk, visiting a park, or making a meal, all without taking a photo or sharing it on social media.

**Awe walks.** Numerous studies have shown that spending time in nature lowers stress and improves our physical and mental health by decreasing blood pressure, enhancing focus, and strengthening our immune system. Experiencing awe is actually one of the main factors that make nature so powerful. Try taking an awe walk, intentionally seeking to be awed by your surroundings.

**Awe journaling.** Paquette urges us to think back to our most awe-inspiring vacations, events, and moments, and take the time to document them. Where were you? Who was there? How did you feel? This simple practice may decrease your sense of time pressure, and make you more generous, as well.

## Why We Need Awe More Than Ever

Paquette wrote this book before the pandemic started, but it seems more relevant than ever. As we approach the one-year mark of pandemic restrictions and the emotional strain they have come with, the tried-and-true ways to take care of our mental well-being, such as calling a friend, exercising, and meditating, can sometimes feel stale.

Seeking awe is a unique way to reduce stress while simultaneously finding happiness and connection during this period. As Paquette helps us see, it doesn't take much to experience awe. Just taking a walk in our neighborhood and observing our surroundings with intention can leave us awestruck and in a better state of mind.

And, given how hard this time has been, we could all use a bit more of that.

*Teja Pattabhiraman is a senior at the University of California–Berkeley, where she studies public health and neurobiology. She is a research and editorial assistant for Greater Good magazine, does research at the Center for Environmental Research and Children's Health, and is a program associate at the California Initiative for Health Equity and Action. This article was originally published on the Greater Good online magazine.*

# Simple Ways to Spend More Time Outside as a Family

Making outdoor adventure a part of life can bring profound changes in our children

JAY HARRINGTON

We have a child who, to put it mildly, can be difficult at times. She's intense, opinionated, stubborn, and argumentative. I love her for it. Her spunk will serve her well in life, but it can be a challenge. Fortunately, she's not always this way. She has an alter ego when she's in the great outdoors.

When she's outside, she's light and carefree—still determined and competitive but playful. When I say outside, I don't mean in the backyard or at the local playground. She's at her best in forests, on sand dunes, and in other wide-open spaces.

It's like she's breathing in contentment, and breathing out frustration, as she navigates trails, races down the ski hill, or ambles along the beach hunting rocks at the edge of the surf. This brings Heather and me great pleasure. It's exactly the sort of transformation we sought when we made the decision to uproot everything in search of a slower, meaningful, purpose-



Nature can give children experiences of joy and beauty that may change who they are.

EVEGENY ATAMENKO/SHUTTERSTOCK

ful, and intentional life.

More than five years ago, our family moved from the suburbs to a small town. It was a difficult decision to make, as we had to move not just our family but our business as well. It was a voluntary move made on a bit of a whim. Despite some growing pains along the way, we've never looked back.

Our new hometown of Traverse City is a small town (although a growing “Zoom boom town”) in northern Michigan on the shores of Lake Michigan. People who live here ski in the winter and hit the beach in the summer. They hike and bike, swim and SUP. Regardless of their activity of choice, and no matter the season or the weather, they spend as much time outside as possible. In other words, it's a great place to live an outdoor lifestyle.

That lifestyle is what drew us here. We wanted to provide a different type of upbringing for our three young girls: one that focused on adventurous time spent in nature. So for the past five years, we've been committed to finding fun and imaginative ways to spend as much time as possible out in nature. Over time, we've grown from a family that considered a trip to a local park an adventure, to one that hikes and camps, fishes and skis.

We've grown closer as a family as we've grown to embrace our new lifestyle. And our strong-willed daughter? We still have our moments but almost never outside.

At first, we didn't know exactly why we wanted to raise outdoor-loving kids—it just instinctively seemed like a good idea. If we did have a specific motivation, it was the hope that by starting them early, our girls would grow up physically strong and healthy, with a lifelong love for outdoor activity. Over time, we've come to learn

that the emotional benefits of more time in nature outweigh the physical ones.

## Emotional Benefits of Time in Nature

**It builds confidence.** When we first started taking our girls out on hikes, it was a struggle. We'd have to cajole them along, and they often wanted to be picked up and carried. It wasn't long before we could hardly keep up with them. They've gained confidence in their own abilities and increased their stamina, which has led them to want to embark on longer and more challenging adventures. Sure, there are some bumps and bruises along the way, but in the process, they've learned what it takes to adapt and operate in different environments, and that they're capable of more than they (or us, frankly) thought was possible.

**It promotes creativity and imagination.** Nature play is unstructured and adventurous. It requires kids to be in tune with their senses and aware of their surroundings. Whether we're on a trail or a beach, exposure to the stillness and starkness of nature promotes a unique sense of wonder for kids that no other environment offers.

**It fosters connection.** Many of the distractions, from screens to toys, that are everywhere inside, are removed from the environment outside. Time spent outside is for testing boundaries, creating shared memories, and drawing closer to one another so that when tough times (such as those we're now experiencing) come along, children know they can count on their family for support. Nature gives us time together, and that's the biggest reward of all.

Spending more time outside as a family is great, but it's not always easy. With all of the alternatives available to them, kids often resist the idea of a “boring” afternoon exploring with their parents and siblings. And it's not always easy for parents to find the motivation or energy to pull things together for a family outing on the weekend.

## Getting Outside

Here are five ideas to help you spend more adventurous time outside as a family.

**Prepare in advance.** Time is precious, and feeling the pressure of trying to plan something fun and adventurous while time slips away on a Saturday morning is not a good way to start the weekend. Just as you plan your shopping list, spend 30 minutes during the week mapping out your outdoor family activities. That way you can have a set agenda, the supplies you need, and driving directions set in advance. That way you and your family can get out the door and off to your adventure free of stress and full of anticipation.

**Embrace all weather.** Humor columnist Dave Barry once wrote, “The problem with winter sports is that—follow me closely here—they generally take place in winter.” I think we can all identify with that sentiment to some extent. Sure, it's easy to curl up on the couch and binge on Netflix for hours on end when it's cold outside. Now that we're living in northern Michigan, however, we've come to learn that a big part of beating the winter blues as a family is getting outside and being active regardless of the weather.

As the old Scandinavian saying goes, “There's no such thing as bad weather, only bad clothes.”

**Create something together.** Some of the most rewarding time outside is spent building things with kids. For example, our girls look forward to planting a vegetable garden every spring, which pays outdoor dividends all summer (assuming we can keep the pesky deer at bay), as they feel responsible to tend to the garden as well. We're also constantly building fairy houses in the wooded trails near our house. Creating something doesn't require a table saw, ladder, and carpentry skills (of which I have none), it just means working with your kids care about and, consequently, will tend to.

**Schedule your own time.** If you're motivated to raise kids who love the outdoors, you probably love the outdoors yourself. It's important, therefore, to schedule your own time for outdoor recreation. It's obviously more difficult to find that time once you have kids, but it's necessary in order to stay motivated while nurturing your family's love of nature. Plus, it's good for kids to see their parents hurtling down the trail on a mountain bike, or cruising across the bay on a paddleboard. It gives them something to be excited about as they become older and ready themselves to take on new adventures.

**Let go.** As the parents of three young girls, we obviously want to keep them safe, but we try not to hover too close when we're out exploring. We want them to be creative, imaginative, and adventurous, and to step outside of their comfort zones when they're out on the trail. That's what being a kid is all about.

Kids need the freedom to roam, gradually, in order to develop their own relation-



YUGANOV KONSTANTIN/SHUTTERSTOCK

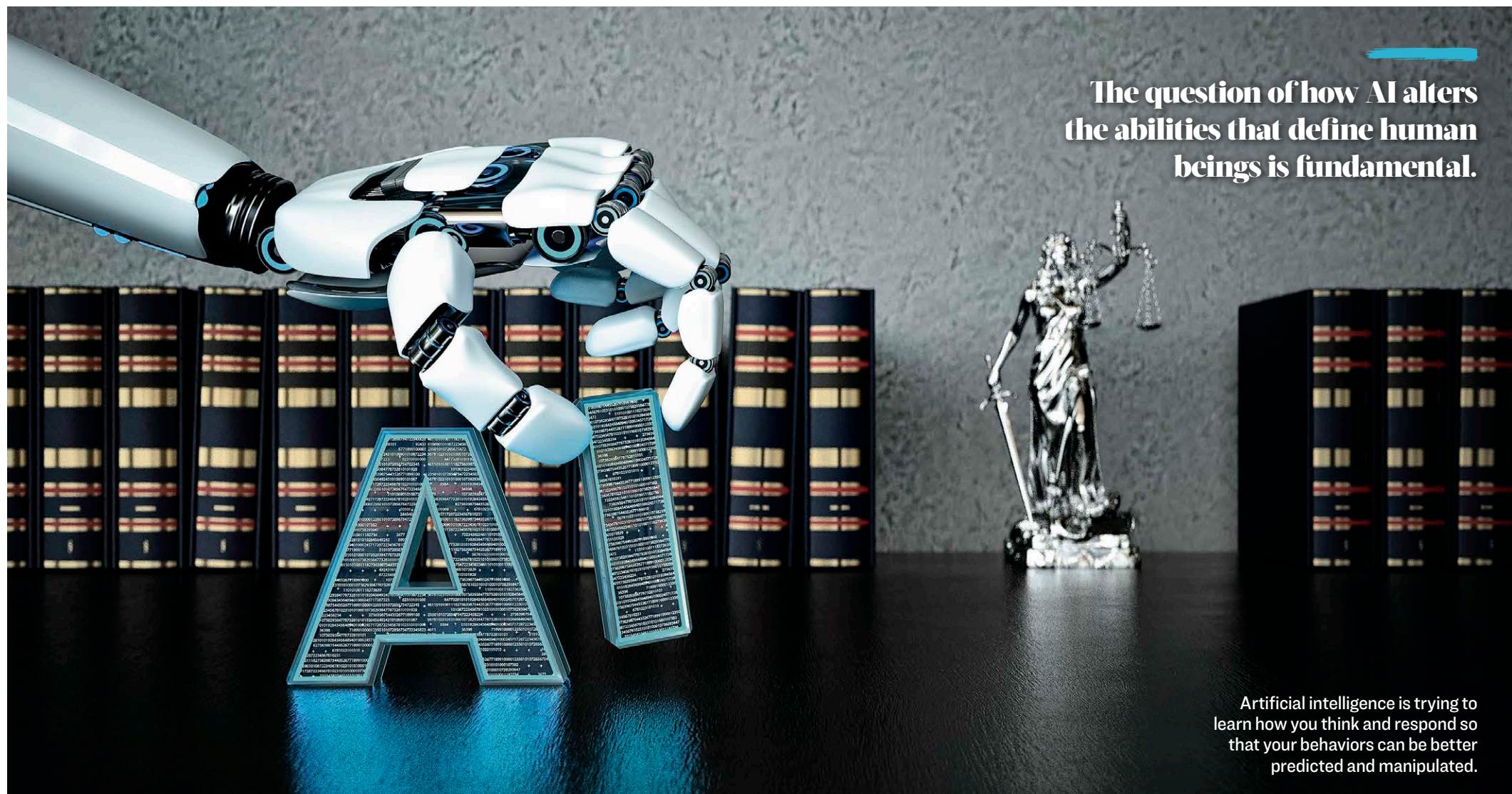
Prepare for any nature excursions the night before so your day can begin with gusto.

**Over time, we've come to learn that the emotional benefits of more time in nature outweigh the physical ones.**

ship with nature. For kids, the fun is off the trail, not within its groomed contours. Unfortunately, off the trail is where scrapes, bruises, and dirty fingernails happen. But we know that if we don't allow our kids the freedom to explore and test their own boundaries, then they won't become the outdoor-loving kids that we're hoping to raise. It's tough to let go, but absolutely necessary. After all, that's how our little ones grow up to be strong, confident, courageous adults.

*Jay Harrington is an author and lawyer-turned-entrepreneur who runs a northern-Michigan-inspired lifestyle brand called Life and Whim. He lives with his wife and three young girls in a small town and writes about living a purposeful, outdoor-oriented life.*

ALL PHOTOS BY SHUTTERSTOCK



The question of how AI alters the abilities that define human beings is fundamental.

Artificial intelligence is trying to learn how you think and respond so that your behaviors can be better predicted and manipulated.

## AI Aims to Preempt Choice and Chance

What does it mean to be human if your behavior is predicted and accounted for?

NIR EISIKOVITS & DAN FELDMAN

The history of humans' use of technology has always been a history of coevolution. Philosophers from Rousseau to Heidegger to Carl Schmitt have argued that technology is never a neutral tool for achieving human ends.

Technological innovations—from the most rudimentary to the most sophisticated—reshape people as they use these innovations to control their environment. Artificial intelligence is a new and powerful tool, and it, too, is altering humanity.

Writing and, later, the printing press made it possible to carefully record history and easily disseminate knowledge, but it eliminated centuries-old traditions of oral storytelling. Ubiquitous digital and phone cameras have changed how people experience and perceive events. Widely available GPS systems have meant that drivers rarely get lost, but a reliance on them has also atrophied their native capacity to orient themselves.

AI is no different. While the term AI conjures up anxieties about killer robots, unemployment, or a massive surveillance state, there are other, deeper implications. As AI increasingly shapes the human experience, how does this change

what it means to be human? Central to the problem is a person's capacity to make choices, particularly judgments that have moral implications.

### Taking Over Our Lives?

AI is being used for wide and rapidly expanding purposes. It is being used to predict which television shows or movies individuals will want to watch based on past preferences and to make decisions about who can borrow money based on past performance and other proxies for the likelihood of repayment. It's being used to detect fraudulent commercial transactions and identify malignant tumors. It's being used for hiring and firing decisions in large chain stores and public school districts. And it's being used in law enforcement—from assessing the chances of recidivism, to police force allocation, to the facial identification of criminal suspects.

Many of these applications present relatively obvious risks. If the algorithms used for loan approval, facial recognition, and hiring are trained on biased data, thereby building biased models, they tend to perpetuate existing prejudices and inequalities. But researchers believe that cleaned-up data and more rigorous modeling would reduce and potentially eliminate algorithmic bias. It's even possible that AI could make predictions that are fairer and less biased than those made by humans.

Where algorithmic bias is a technical issue that can be solved, at least in theory, the question of how AI alters the abilities that define human beings is more fundamental. We have been studying this question for the past few years as part of the Artificial Intelligence and Experience project at UMass Boston's Applied Ethics Center.

### Losing the Ability to Choose

Aristotle argued that the capacity for making practical judgments depends on regularly making them—on habit and practice. We see the emergence of machines as substitute judges in a variety of workaday contexts as a potential threat to people learning how to effectively exercise judgment themselves.

In the workplace, managers routinely make decisions about whom to hire or fire, which loan to approve, and where to send police officers, to name a few. These are areas where algorithmic prescription is replacing human judgment, and so people who might have had the chance to develop practical judgment in these areas no longer will.

Recommendation engines, which are increasingly prevalent intermediaries in people's consumption of culture, may serve to constrain choice and minimize serendipity. By presenting consumers with algorithmically curated choices of what to watch, read, stream, and visit next, companies are replacing human taste with machine taste. In one sense, this is helpful. After all, the machines can survey a wider range of choices than any individual is likely to have the time or energy to do on her own.

At the same time, though, this curation is optimizing for what people are likely to prefer based on what they've preferred in the past. We think there is some risk that people's options will be constrained by their pasts in a new and unanticipated way—a generalization of the "echo chamber" people are already seeing in social media.

The advent of potent predictive technologies seems likely to affect basic political institutions, too. The idea of human rights,

for example, is grounded in the insight that human beings are majestic, unpredictable, self-governing agents whose freedoms must be guaranteed by the state. If humanity—or at least its decision-making—becomes more predictable, will political institutions continue to protect human rights in the same way?

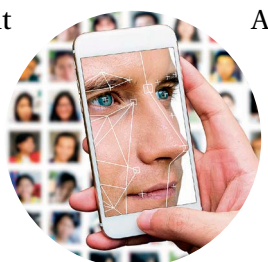
### Utterly Predictable

As machine learning algorithms, a common form of "narrow" or "weak" AI, improve, and as they train on more extensive data sets, larger parts of everyday life are likely to become utterly predictable. The predictions are going to get better and better, and they will ultimately make common experiences more efficient and more pleasant.

Algorithms could soon—if they don't already—have a better idea about which show you'd like to watch next and which job candidate you should hire than you do. One day, humans may even find a way machines can make these decisions without some of the biases that humans typically display.

But to the extent that unpredictability is part of how people understand themselves and part of what people like about themselves, humanity is in the process of losing something significant. As they become more and more predictable, the creatures inhabiting the increasingly AI-mediated world will become less and less like us.

*Nir Eisikovits is an associate professor of philosophy and director of the applied ethics center at the University of Massachusetts-Boston, and Dan Feldman is a senior research fellow at the applied ethics center at the University of Massachusetts-Boston. This article was first published on The Conversation.*



Our phones turn our faces, and emotions, into data points for AI analysis.



We have turned our private lives into a rich source of machine learning.

AFRICA STUDIO/SHUTTERSTOCK



## Do You Know the Signs of Vitamin D Deficiency?

A lack of the sunshine vitamin is linked to fatigue, aching muscles, and a dozen other symptoms

JOSEPH MERCOLA

Vitamin D regulates the expression of hundreds of genes and is integral to biological functions that affect every bodily system. Vitamin D insufficiency or deficiency can trigger several generalized symptoms that you may have associated with other health conditions.

It's also called the sunshine vitamin since your skin makes vitamin D when exposed to ultraviolet light from the sun. Vitamin D performs many functions within the body, including maintaining adequate levels of calcium and phosphate, essential for normal bone mineralization.

It helps reduce inflammation, which is necessary for the modulation of cell growth and immune function. Vitamin D also affects genes that help regulate cell differentiation and apoptosis (routine cell death).

### Vitamin D affects genes that help regulate cell differentiation.

The main indicator of your vitamin D level is 25-hydroxyvitamin D (25OHD). Data collected from the National Health and Nutrition Examination Survey in 2005-2006 showed a deficiency prevalence of 41.6 percent in the U.S. population. However, as I discuss later in this article, as many as 80 percent of people may be deficient in vitamin D.

It's important to note that how the measurement of insufficiency and deficiency is defined depends on the serum concentrations used.

Continued on Page 10

THE EPOCH TIMES

TRUTH and TRADITION

HELP IS JUST A **CLICK AWAY!**

UPDATED

[TheEpochTimes.com/help](https://TheEpochTimes.com/help)



It's quick and easy! You will never have to wait again.

FROM THIS PAGE YOU CAN:

**FIND ANSWERS FROM A COMPREHENSIVE FAQ SECTION**

- Troubleshoot common problems
- Learn our terms and conditions

**USE OUR CUSTOMER SERVICE LIVE CHAT**

- Tell us your subscription inquiries or concerns

**SUBMIT REQUESTS ONLINE\***

- Report delivery and other subscription issues
- Provide editorial and other feedback

**ACCESS THE CUSTOMER PORTAL**

- Manage your subscription account

\*Cancellations are processed on the hotline only.



SHEN YUN SHOP  
LOVE SHEN YUN

Waltz Among the Blossoms of Spring  
with Shen Yun-Inspired Beauty

Limited Time Only  
Free Domestic Shipping

ShenYunShop.com | TEL: 1.800.208.2384

# Do You Know the Signs of Vitamin D Deficiency?

A lack of the sunshine vitamin is linked to fatigue, aching muscles, and a dozen other symptoms

Continued from Page 9

Some researchers use a level of 20 nanograms per milliliter (ng/mL) or 50 nanomoles per liter (nmol/L); the ng/mL is used most frequently in the United States and nmol/L is the standard in Europe.

However, GrassrootsHealth Nutrient Research Institute recommends vitamin D serum concentration levels from 40 ng/mL to 60 ng/mL or 100 nmol/L to 150 nmol/L. At this level, the number of people who are likely deficient in vitamin D would be significantly higher.

## 14 Signs You Might Have a Vitamin D Deficiency

During cold and flu season, and the COVID-19 pandemic, it is essential to maintain healthy levels of vitamin D to help reduce your risk of viral and bacterial illness. A blood test is the best way to determine your vitamin D levels, but here are some symptoms that may indicate your levels are low.

### 1. Aching Muscles

Nearly half of all adults are affected by muscle pain. Researchers believe most of those adults are deficient in vitamin D. Some studies have suggested that nerves have vitamin D receptors that affect the perception of pain. In one animal model, research demonstrated a vitamin D-deficient diet can induce deep muscle hypersensitivity that wasn't connected to low levels of calcium.

### 2. Painful Bones

Vitamin D regulates the level of calcium in your body necessary to protect bone health. Vitamin D deficiency can cause your bones to soften a condition called osteomalacia. This may be a precursor to osteoporosis.

### 3. Fatigue

This is a common symptom of a variety of different health conditions, including sleep deprivation. Researchers have

found that supplementing vitamin D can improve the symptoms of fatigue suffered by cancer patients.

In one study using 174 adults with fatigue and stable medical conditions, the researchers found 77.2 percent were deficient in vitamin D. After normalizing their level, the fatigue symptoms improved significantly.

### 4. Reduced Muscle Performance

Vitamin D deficiency is as common in athletes as in non-athletes. Vitamin D is crucial for muscle development, strength, and performance. Older adults taking a vitamin D supplement have a reduced risk of falls and improved muscle performance.

Correction through oral supplementation or sensible sun exposure may reduce symptoms of stress fractures, musculoskeletal pain, and frequent illness. Vitamin D also has a direct effect on muscle performance. In one paper from the Journal of the American Academy of Orthopaedic Surgeons, the author wrote:

"Higher serum levels of vitamin D are associated with reduced injury rates and improved sports performance. In a subset of the population, vitamin D appears to play a role in muscle strength, injury prevention, and sports performance."

### 5. Brain Health

Vitamin D is also essential for your brain health. Symptoms of deficiency can include dementia caused by an increase of soluble and insoluble beta-amyloid, a factor in Alzheimer's disease. Research has also found an association with depression that may be linked to the function of vitamin D buffering higher levels of calcium in the brain.

Vitamin D deficiency in pregnant women can increase the risk of autism and schizophrenic-like disorders in the baby. One study of people with fibromyalgia found a vitamin D deficiency was more common in those who had anxiety and depression. Another looked at vitamin D deficiency in obese subjects and

found a relationship between low levels of vitamin D and depression.

### 6. Poor Sleep

The mechanism linking vitamin D and poor sleep quality hasn't been identified. But research has found people with low levels of vitamin D have poor quality sleep and a higher risk of sleep disorders.

### 7. Sweaty Head

Excessive sweating, especially on your head, or a change in your pattern of sweating, can indicate a vitamin D deficiency.

### 8. Hair Loss

Vitamin D is crucial to the proliferation of keratinocytes and plays an important role in your hair cycle. The vitamin D receptor appears to play a role in the anagen phase of hair growth, leading researchers to conclude, "Treatments that upregulate the vitamin D receptor may be successful in treating hair disorders and are a potential area of further study," they wrote in a study published in Dermatology Online Journal in 2010.

### 9. Slow-Healing Wounds

Chronic wounds are a major public health challenge. In the United States, 2 percent of the population is affected by chronic wounds and it is estimated to account for 5.5 percent of the cost of health care in the United Kingdom's National Health Service (NHS). Vitamin D promotes wound healing and the creation of cathelicidin, a peptide that fights wound infections.

## Researchers found 82.2 percent of COVID-19 patients were vitamin D deficient and had a greater prevalence of cardiovascular disease and high blood pressure.

### 10. Dizziness

Evidence from animal models suggests that vitamin D is critical in the development of the inner ear, which affects balance and coordination. Analysis of people with vestibular neuritis, characterized by vertigo, showed lower serum vitamin D levels than in people without vestibular neuritis.

### 11. Heart Problems

Clinical studies have shown that vitamin D3 improves circulation and can help improve high blood pressure. In one study, researchers discovered that vitamin D3 also has a significant effect

on the endothelial cells that line your cardiovascular system. They found that it helped balance concentrations of nitric oxide and peroxynitrite, which improved endothelial function.

### 12. Excess Weight

How vitamin D affects obesity hasn't been identified. However, data do show there is a high probability of deficiency in people who are obese.

### 13. Recurring Infections

There have been multiple epidemiological studies that show vitamin D deficiency can increase the risk of infection and raise the severity, particularly in respiratory tract infections. Multiple studies have demonstrated that vitamin D deficiency increases the potential risk for severe disease and mortality, especially in those who are critically ill.

### 14. Reduced Cognitive Function

Data shows that vitamin D deficiency increases your risk of dementia twofold and raises your risk of impaired cognitive function.

**COVID-19 and Vitamin D Deficiency**  
Around 80 percent of people with COVID-19 are deficient in vitamin D.

Vitamin D plays an important role in the development and severity of many diseases. This is why, from the very beginning of the COVID-19 pandemic, I suspected that optimizing vitamin D levels would significantly lower the incidence of infection and death in the general population.

Since then, mounting evidence has revealed this is indeed the case as researchers have repeatedly found that higher levels of vitamin D reduce the rate of positive tests, hospitalizations, and mortality related to this infection.

One study, released in late 2020, assessed the serum 25OHD levels of patients hospitalized with COVID-19 to evaluate the influence it might have on the severity of the disease. The researchers found 82.2 percent of those with COVID-19 were vitamin D deficient (levels lower than 20 ng/mL).

Interestingly, they also found those who were deficient had a greater prevalence of cardiovascular disease, high blood pressure, high iron levels, and longer hospital stays. A second study found similar results for people who only tested positive for COVID-19.

It is worth noting, these patients were tested for the illness using the PCR test, which gives notoriously high false-positive results. They didn't necessarily have symptoms of the illness.

Recently, data showed people who received supplemental vitamin D3 while hospitalized with COVID-19 had reduced admissions to the ICU by 82 percent and reduced mortality by 64 percent.

Editor's note: This preprint study has since been pulled due to "concerns about the description of the research in this paper," but an archived version is still available.



People suffering fatigue frequently have insufficient levels of vitamin D.

You can read more about the study, from information published before being pulled, at "Vitamin D Supplementation Reduces COVID-19 Deaths by 64%" on Mercola.com.

Before the paper was removed, this information triggered British MP David Davis to call for a reevaluation of the official recommendations for vitamin D. He tweeted, "The findings of this large and well-conducted study should result in this therapy being administered to every COVID patient in every hospital in the temperate latitudes."

He added that the demonstration of the "clear relationship between vitamin D and COVID mortality is causal," and his government should raise the availability of free vitamin D supplements to vulnerable populations. Other experts also called for official vitamin D recommendations.

It's important to remember the data showing people who are deficient in vitamin D have a higher risk of severe disease has been available long before the COVID-19 pandemic. Yet, information that may suggest the other side of the same coin—namely supplementing with vitamin D—may have a positive effect on disease severity, can come under attack.

### Magnesium and Vitamin K2 Optimize Your Vitamin D3 Supplement

Vitamin K2 MK-7 and magnesium both

play an important role in your overall health and in the bioavailability and application of vitamin D in your body. If you're not using magnesium and vitamin K2, you could need nearly 2.5 times more vitamin D, which GrassrootsHealth discovered in its D<sup>3</sup> action project.

More than 10,000 individuals provided information about supplement use and overall health status to GrassrootsHealth since they began conducting large-scale population-based nutrient research in 2007.

That information has led to the recommendation that vitamin D blood levels between 40 ng/ml and 60 ng/ml (100 nmol/L to 150 nmol/L) are safe, effective, and lower overall disease incidence and health care costs. As reported by GrassrootsHealth from their data:

In practical terms, this means when you take vitamin K2 and magnesium with vitamin D, you need far less vitamin D to achieve a healthy level.

*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*

## What People Are Saying



I read The Epoch Times daily. I still like hard papers [...] and I still like to grab that paper in my hand, but I get more printed versions of stories than ever before. You guys have done an amazing job, and really—I think there's such a void in media, especially newspapers. They slant so solidly one way that **there are very few papers that I can really feel that I can rely on, and The Epoch Times is one.**

SEAN HANNITY  
Talk show host



**The Epoch Times is a great place where you can understand traditional values** in a way and in a tone and through content that is accessible. It's smart.

CARRIE SHEFFIELD  
Columnist and broadcaster



**I congratulate you and The Epoch Times for the work you are doing, especially with regard to keeping the menace of the communist threat in front of us.**

DR. SEBASTIAN GORKA  
Military and intelligence analyst and former deputy assistant to the president



**I rely on The Epoch Times newspaper for factual and unbiased news coverage.**

LARRY ELDER  
Best-selling author, attorney, and talk show host



**It's our favorite paper. It's the first one we read. Thank you so much for your reporting of the news.**

PAUL GOSAR  
U.S. representative for Arizona

## A Lifestyle to Lower Blood Pressure—Without Medication

You can take immediate steps to remove the cause of your hypertension

### SARAH COWNLEY

If you have been diagnosed with high blood pressure, you may not know that you can make some easy lifestyle changes to help reduce your risk of heart disease. Before turning to medication, you should manage high blood pressure—which is also known as hypertension—through diet and exercise. By successfully following a healthy lifestyle, you may avoid, delay, or reduce the need for medications. Studies have shown that 10 lifestyle changes can help improve blood pressure. They are:



#### Weight Control

As weight increases, blood pressure often goes up. Taking control of your weight is one of the most effective lifestyle changes you can make to lower blood pressure. In general, it is possible to reduce blood pressure by about 1 millimeter of mercury (mm Hg) with each kilogram (about 2.2 pounds) of lost weight. Besides just shedding pounds, take notice of your waistline. Carrying too

much weight around the middle can put you at greater risk for high blood pressure.



#### Regular Exercise

Studies show that regular physical activity can lower blood pressure by about 5 to 8 mm Hg. 150 minutes a week or about 30 minutes a day is recommended. It's also essential to be consistent to keep blood pressure low.



#### Healthy Diet

By following a healthy diet rich in whole grains, fruit, vegetables, and low-fat dairy products, you can lower your blood pressure by up to 11 mm Hg. It isn't easy to change eating habits, but by starting slowly and keeping a food diary, it can become second nature.



#### Reduce Sodium

The effect of sodium intake on blood pressure can vary among groups of people, but in general, most people benefit from cutting it

from their diet. Even a small reduction of sodium can result in a reduction in high blood pressure.



#### Limit Alcohol

Alcohol is a tricky subject because it has been found to reduce and increase blood pressure. Moderation is key, so one drink a day for women and two for men can potentially lower blood pressure by about 4 mm Hg. That said, even moderate alcohol consumption can have undesired effects on cognition and brain health.



#### Quit Smoking

Quitting smoking can improve all aspects of health. But for blood pressure, it can help it return to normal levels, reducing your risk of heart disease.



#### Cut Caffeine

This is a highly debated subject among health professionals, but one fact is certain. For those who rarely consume it, caffeine can

raise blood pressure up to 10 mm Hg. So, if you enjoy a cup of coffee from time to time, better opt for decaf.



#### Reduce Stress

Chronic stress has been found to contribute to high blood pressure. Take steps to reduce stress and remember that often, people react to stress by eating unhealthy foods, smoking, or drinking alcohol.



#### Monitor Blood Pressure

By investing in a home blood pressure monitoring device, you will keep tabs on your blood pressure to make certain your lifestyle changes are working.



#### Get Support

Family and friends' support can go a long way to help keep you on track to lower your blood pressure. If you need support, consider joining a group that can put you in touch with people who can offer an emotional or morale boost.

A home blood pressure monitoring device can help you keep tabs on your blood pressure.



ALL IMAGES BY SHUTTERSTOCK

# Why Do Kids Have Milder COVID?

New study provides insight into immune differences that help many children shrug off a COVID infection

JOANNA GROOM

A new Australian study, published in *Nature Communications*, provides insight into how kids' immune systems respond to infection with SARS-CoV-2, the virus that causes COVID-19.

It's the first study, to my knowledge, that directly compares children and adults with mild COVID-19.

Children are less likely to become infected, and when they are, they are more likely to be asymptomatic. This is in contrast to other viral and respiratory infections that are more prevalent among young people.

This new research helps explain how kids' immune systems work when confronted with this coronavirus—and gives us clues as to why they generally seem to fare better than adults.

**The Kids (Immune Systems) Are Alright**  
The researchers studied 48 kids, mostly in primary school, across 28 households during Melbourne's second wave. All children were exposed to COVID-19 in their households by infected parents.

This study focused on the "innate" immune response in children, which forms the early part of the immune system's attack on a virus (or bacteria, or other pathogens). The innate immune system plays an important role in viral protection before the body raises antibodies.

The study found there were dynamic changes in kids' early immune responses, compared with infected adults.

One type of key innate immune cell that was elevated in children exposed to the virus were the white blood cells called "neutrophils." These cells patrol the body for infections. When they discover a pathogen, they have a unique ability to respond by trapping and killing the invading pathogen (in this case, the coronavirus).

This role may ensure the virus isn't able to infect more cells. This potentially decreases the "viral load," basically the amount of virus in your body.

For some of the kids in the study, the early immune responses kept the viral load so low that they never returned a positive test, despite being



ALL PHOTOS BY SHUTTERSTOCK

The qualities of a child's developing immune system may offer them unique protection from COVID-19.

White blood cells called "neutrophils" were elevated in children exposed to COVID-19.



tested throughout the study and having been exposed to COVID-19.

One strength of this study is that it was "longitudinal," meaning it studied families over time, rather than simply at one point in time. The researchers looked at immune responses of the families just after their exposure to the virus, and returned more than 30 days later to see what had changed. This allowed them to identify the key changes induced because of the exposure to the virus.

## Kids versus Adults

A key question arising from this research is: Why did the kids show such strong immune responses, resulting in few or no symptoms, while their parents were very ill?

It's a difficult question to answer, but so far. But the key differences in responses are likely to lie in the early responses of the immune system.

There is some previous research that might give some clues.

One theory surrounds the fact that children have fewer of the receptors called "ACE2" in their respiratory tract. These receptors are the pathway of entry for the virus into our cells. In theory, fewer ACE2 receptors mean less chance for the virus to break in and infect our cells. Viruses don't survive for very long outside a cell. With fewer ACE2 receptors, it may give more time for the innate immune cells to control the virus as much as they can while waiting for other immune cells to come along and help.

Another possibility relates to "interferons," which are alert signals released by cells to tell the body there's a virus around. Researchers think higher levels of interferons during the early phase of infection are very important for controlling COVID-19. Potentially, interferons may help promote the increased neutrophils that were seen in children, compared with lower numbers observed in adults.

The wide range of symptoms in COVID-19 is intriguing and frustrating at the same time. Conventional wisdom was that kids are more prone to getting sick with respiratory illnesses than adults—just ask any parent. But with COVID-19, it seems to be the opposite.

Often when we think we've nailed down a specific mechanism as to how this new virus works and how our bodies respond to it, it turns out such a mechanism is different across different people. We can see this in the huge range of symptoms that different people display—some get a runny nose, others get a cough, and others suffer extreme exhaustion and respiratory distress or develop "long COVID," in which symptoms drag on for months.

COVID-19 is still keeping immunologists on their toes. Studies like this one help solve some of the puzzle in understanding who's most at risk of severe disease and why.

*Joanna Groom is a laboratory head at the Walter and Eliza Hall Institute in Australia. This article was first published on The Conversation.*

# Microscopic Fungi Living Inside Us May Affect Weight Gain: Study

New research in mice finds the fungal microbiome affects weight gain on the standard American diet

KENT WILLIS & JUSTIN D. STEWART

Mice with certain communities of fungi living in their gut gained more weight when eating processed food than mice whose gut microbiomes hosted different communities of fungi, according to our study published March 5 in the journal *Communications Biology*.

Microbiomes are communities of microorganisms. In this study, we explored whether the fungal members of the gut microbiome—called the mycobiome—changed their host's metabolic reaction to processed food. To do this, we obtained genetically identical mice from four different companies—each with different fungal microbiomes—and then fed the mice either standard mouse food or processed food resembling the typical American diet. After six weeks, we measured their body fat as well as genes and hormones involved in metabolism.

We specifically looked at the relationship between the fungal microbiome and processed foods—foods that contain refined sugars, monounsaturated fats, and white flour, for example—because these foods are linked to unhealthy weight gain in humans. Eating processed food made most mice fatter, but how much weight and how their metabolism changed varied between mice with different microbiomes. After measuring the microbiomes of each mouse, we used machine learning to figure out which fungi had the strongest influence on metabolism.

We found that mice whose gut microbiomes contained more of the fungi *Thermo-*

*myces*—which manufacturers use to break down fat in commercial processes—and less *Saccharomyces*—yeasts used in baking and brewing—gained about 15 percent more weight than the mice with different microbiomes. We found similar but smaller differences in mice on a normal diet.

## Why It Matters

The gut microbiome can influence metabolism. Most people assume the microbiome is entirely bacteria. However, fungi—though usually less common than bacteria—are often critical members of these microbial communities. Microbiomes vary among individuals, so the species of fungi living in your gut might be different from your neighbor's. This was also true for mice in our study.

Researchers only recently discovered the fungal microbiome and have limited knowledge of how it affects human health. Our study is one of the first to identify how gut fungi can influence metabolism.

If gut fungi influence metabolism in people similar to the way they do in mice, researchers might be able to develop diets tailored for specific microbiomes. It might also be possible to adjust a person's fungal microbiome to control weight in specific situations—such as after weight-loss surgery.

## What Still Isn't Known

Scientists are still learning which species



AMANDA LUTHE/SHUTTERSTOCK

Our microbiome plays a big role in how we digest food. New research finds the microscopic fungi that live in our stomach may play a big role in whether we gain weight from eating processed foods.

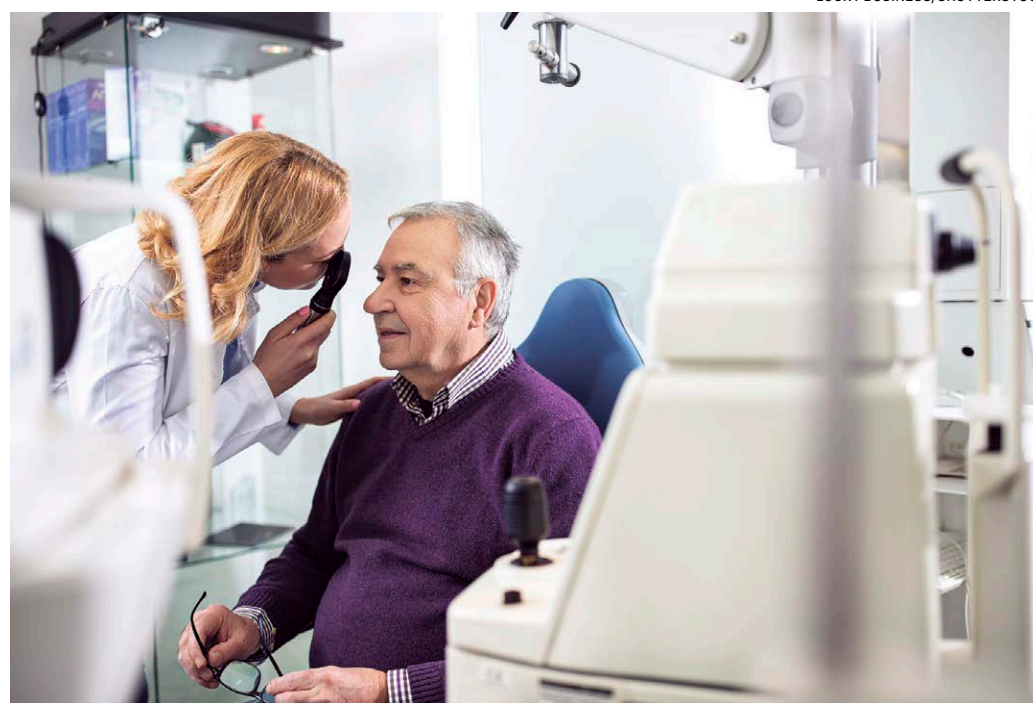
of fungi make their home in the gut versus fungi that might just be passing through. While many of the interactions between humans and their gut fungi are likely beneficial, this may not always be the case. For example, fungi may play a role in irritable bowel syndrome and increase the risk of developing pancreatic cancer.

Not only could the presence or absence of certain fungi have direct effects on health, fungal interaction with bacteria is also likely very important. Our work has made some key first steps in understanding the complex relationship between bacterial and fungal communities when they cooperate to digest processed food.

## What's Next

We are planning to perform studies looking at how the fungal microbiome influences metabolism in humans and mice on high-fat diets and after weight-loss surgery. And to learn more about how different fungi affect metabolism, we'd like to create mice with artificial microbiomes that we either assemble ourselves or transplant from a human donor.

*Kent Willis is an assistant professor of neonatology at the University of Alabama—Birmingham, and Justin D. Stewart is a doctoral candidate in evolutionary biology at the Vrije Universiteit Amsterdam. This article was first published on The Conversation.*



LUCKY BUSINESS/SHUTTERSTOCK

Eye care professionals warn that those facing degenerative eye conditions risk vision loss if they don't take care of their eye health during the pandemic.

# Why You Shouldn't Neglect Eye Care During the Pandemic

Patients with chronic, sight-threatening eye conditions skip their appointments at the risk of vision loss

ALISON NG & MIKE YANG

Lockdowns and concerns about COVID-19 exposure have caused people of all ages to cancel and delay routine eye appointments, raising red flags among eye care professionals. As the pandemic continues into its second year, can ocular health be neglected any longer?

Our team of optometrists and clinical scientists at the Centre for Ocular Research & Education (CORE) hear the confusion and concerns about people's eyes during COVID-19. Addressing the most common questions—many of which we keep up to date at [COVIDeyefacts.org](http://COVIDeyefacts.org)—can help you and your family maintain the best vision while staying safe.

## Can I Set Aside My Eye Health?

A survey commissioned by Fight for Sight, a charity in the United Kingdom devoted to eye research, reveals that 1 in 5 adults in the UK is less likely to visit an eye doctor during the pandemic. This is despite finding that one-third of adults have reported deteriorating eyesight since the pandemic began. Thousands of patients who previously sought regular treatment for chronic, sight-threatening eye conditions are missing vital appointments that help to preserve their vision.

Ophthalmologists report that patients with retinal conditions such as macular degeneration and diabetic retinopathy are skipping hospital appointments for sight-preserving injections, which often leads to devastating consequences such as disease progression and gives rise to significant vision loss.

## What Eye Conditions Cannot Wait?

Putting aside COVID-19 concerns, there are seven reasons to urgently call your eye doctor, no matter the age of the patient:

- Eye injury
- Eye pain
- If you notice new floaters or flashes of light
- Red eye
- A sudden change in vision
- Blank or wavy spots
- Refills for prescription drops

Delaying care in these situations may result in poor outcomes, including vision loss. Some clinics offer telephone consultations to triage care and discuss options. When in doubt, call.

## Have Eye Exams Changed?

As with every aspect of our lives, significant modifications have been made to the way eye care professionals and clinics are operating, putting safety first. You will see spaced appointments and physical distancing, staff and doctors using protective equipment, modifications to some tests, accommodations for ventilation, and more—with the same commitment to patient health.

## Do I Really Need to Have an Exam?

When your eye doctor is shining those

bright lights into your eyes, they are checking for signs that might point to painless and progressive diseases that may not be apparent.

For example, glaucoma affects the optic nerve, causing gradual irreversible vision loss. It's the leading cause of irreversible blindness globally and more than 80 percent of those affected experience silent vision loss. Often, patients with glaucoma fail to notice any symptoms until 40 percent of nerve damage has occurred. Early detection and timely treatment limit further damage.

## Can I Trust Online Sources for Care Information?

Let's say you wake up with red eyes. Dr. Google will likely tell you that you have conjunctivitis, or pink eye—a simple eye infection that disappears without consequences. However, increased eye redness isn't only caused by pink eye. This is referred to as a "differential diagnosis" or "what else could this be?"

For example, inflammation of the iris also presents as a red eye. Without timely treatment involving prescription eye drops, this condition progresses to worsening pain, light sensitivity, and blurred vision, and can lead to cataracts, glaucoma, or permanent vision loss. The only way to confirm the cause of an eye problem and get appropriate treatment is to see an eye care professional.

## What About Children?

With estimates that half of the world's population will be myopic (nearsighted) by 2050 and the time that kids spend on screens skyrocketing, the impact on their vision might be around long after this pandemic is over.

A CORE study found almost one-third of Canadian school children aged 11 to 13 were myopic, and 35 percent of myopic children didn't have glasses or contact lenses to help them see better. Some children simply don't know they have an eye problem because they assume that everyone sees the same. The combination of rising rates among children, and fewer people seeing eye care professionals means that children may be one of the larger underserved demographics in terms of eye care.

## Is It Safe to Get an Eye Exam?

Every effort is being made to ensure that staff, doctors, and patients are kept safe. Clinic personnel are expected to stay home and isolate if they have symptoms of COVID-19 in the same way that patients are.

In a time of continued uncertainty, one thing remains clear: Your vision is important and you can take steps to keep it that way, even during a pandemic.

*Alison Ng is a clinical scientist at the University of Waterloo's Centre for Ocular Research & Education in Canada; Mike Yang is a clinical scientist at Centre for Ocular Research & Education. This article was first published on The Conversation.*

# The 7 Most Super 'Superfoods'

Add these nutrient-dense, calorie-light foods to your diet for extra energy and disease protection

JILL ETTINGER

Despite their delineation as "super," not all superfoods are created equal. What makes a food "super" in the first place? While not a regulated or certifiable nutritional claim (yet), food experts define superfoods as having a nutrient density that outweighs caloric intake. Think of a zero-calorie cup of green tea that's loaded with catechins and other potent antioxidants.

Mealtime is a perfect opportunity to indulge in superfoods, be they fruits, veggies, nuts, seeds, beans, or grains. Need a little help? Check out our top superfoods picks.

## Kale

It tops quite a few lists for good reason. This dark, leafy green vegetable is an excellent choice for any meal. It's a great source of fiber, vitamins, minerals, protein, amino acids, and antioxidants. Plus, it's very affordable and versatile.



Kale is versatile, nutrient-dense, and can be eaten raw or cooked in several ways.

## Hemp

The hemp seed has risen to popularity in the last several years as a super source of vegan protein and omega fatty acids as well as fiber, vitamins, minerals, amino acids, and potent antioxidants. Use it in a number of ways: atop cereals (hot or cold), salads, soups, or desserts, or straight out of the bag.

## Coconut Oil

After debunking myths that coconut's saturated fats were unhealthy, the creamy spread has become a superfood darling. It provides healthy omega-6 fatty acids including the rare lauric acid. Its versatility and ability to withstand high heat make it an excellent choice for any healthy food meal preparation. Choose fair trade options and you're supporting a changing global economy focused on empowerment and environmental balance in undeveloped parts of the planet.

## Flax or Chia Seeds

Like hemp seeds, flax and chia are both great sources of fiber and omega fatty acids. Chia is higher in protein and can absorb a large amount of liquid, making them extra hydrating. They both can be used in a number of ways: by themselves, as egg replacers, in baked goods, and more.

## Maca

This Peruvian superfood was prized as a "warrior" food with a history of providing energy for soldiers before battle. Not only is maca energizing, but it's also balancing, too. This is especially helpful for individuals with hormonal issues. It's rich in protein, minerals, and vitamins, making it an excellent supplement or addition to smoothies and shakes.

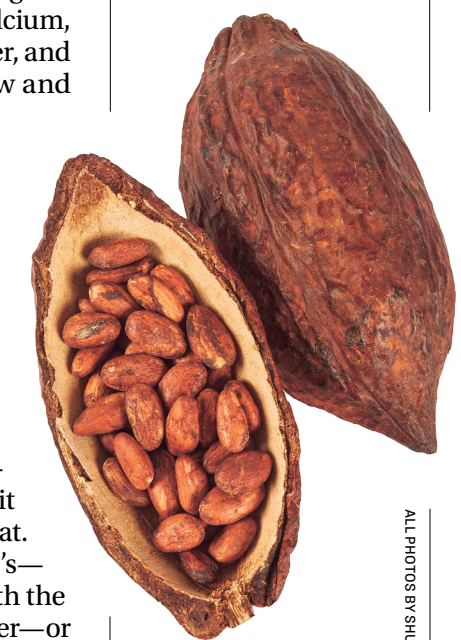
## Almonds

As Dr. Joseph Mercola writes, almonds are rich in phytochemicals, which promote heart and vascular health. They're a great source of nutrients like vitamin E, calcium, magnesium, iron, phosphorus, fiber, and protein. Just make sure they're raw and organic.

## Chocolate

Yeah, I thought you'd like this one. But it's not on this list for a smile; it's here for good reason. Pure, dark chocolate is loaded with vital nutrients including the important mineral magnesium. Raw cacao contains more than 1,200 unique compounds, many of which are powerful free-radical fighting, immune-boosting antioxidants. Of course, it matters what type of chocolate you eat. Don't try to justify that bag of M&M's—those barely count as food. Stick with the really dark stuff—70 percent or higher—or try including raw cacao beans in your diet. Mix them into cereal, baked goods, and trail mixes, or add them to smoothies or shakes. They're even delicious straight out of the bag!

*Jill Ettinger is a freelance journalist and marketing specialist primarily focused on the organic and natural industries. This article was first published on Naturally-Savvy.com*



Raw cacao contains more than 1,200 unique compounds, many of which are powerful free-radical fighting, immune-boosting antioxidants.

Food experts define superfoods as having a nutrient density that outweighs caloric intake.

# Rules for Navigating the Internet Effectively

The internet can devour hours of your life, or open you to new worlds of possibility

JOSHUA BECKER

Is the internet a net positive or a net negative for society?

This was our topic of conversation at a recent dinner party.

As somebody who has made their living on the internet for the past eight years, and has seen its power to reach so many people with the life-giving benefits of owning less, there was little debate in my mind to the question above. But there were some who disagreed and a fascinating conversation ensued.

In the end, we decided it comes down to how an individual chooses to use the internet—and what the future of the internet might turn out to be.

**Just because you can find that piece of information anytime you want, doesn't mean you need to (or even should).**

But the conversation got me thinking that it might be helpful to share some of the lessons I have learned over the past 12 years of writing for the internet on how to use it in a helpful way.

## 12 Rules for Navigating the Internet Effectively

### 1. Social media is a stream. Use it accordingly.

There's a reason we call it a social media stream—the information never stops. To use social media effectively and to keep it from becoming a distraction, think of it as a river. You don't jump in a river and try to experience all the water that has already passed. You'd never catch up with all of it. Instead, jump in, partake in the conversation, and then jump out.

### 2. Choose creation over consumption.

The internet can be used as a powerful tool for good. It can also be a terrible waste of time. The biggest difference between those two outcomes is whether you are using the internet to create or consume. Notice the difference and choose the former.

Watching endless cat videos or pranks on YouTube is consuming. While writing a blog, creating a video, sharing your opinion on Facebook, or encouraging a friend on Instagram are all examples of using the internet to create a better world.

### 3. Realize that everybody is writing fiction about themselves.

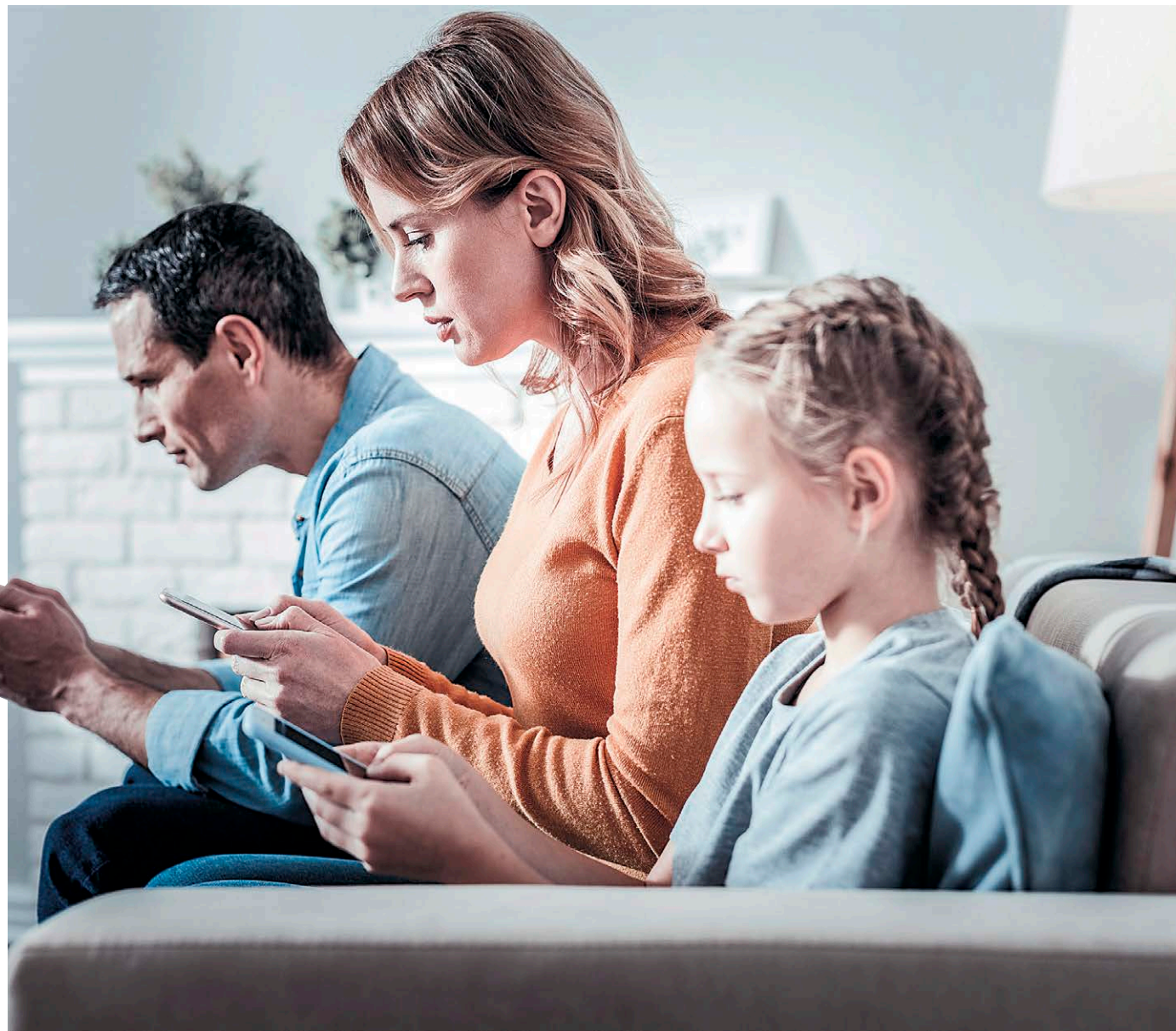
The internet has sped up the pace of comparison considerably. We compare the size of our homes, the model of our car, the beauty of our family, the vacations we take—even the food we eat.

When you see somebody's picture on Instagram of their picture-perfect life, remind yourself again that nobody is living a perfect life. And social media is only a highlight reel of a person's experience.

In many ways, the caricature we post online about ourselves is fiction—it's only the story we want the world to see. Nobody is posting photos of themselves exhausted, sitting on a couch eating potato chips, but everybody does it.

### 4. Prefer substance over clickbait.

It's helpful to remember that many websites make their income based solely on how



▲ The internet can devour our time, consume our relationships, and destroy our credit card balance. But it doesn't have to.

many page views they receive. Advertisers pay the site owner an agreed-upon dollar amount per 1,000 impressions (or CPM). Similar is a PPC ad (pay-per-click).

In both scenarios, the sole business plan of the site owner is to get as many people clicking onto (and within) their website as possible because each click results in income. They could care less if they are providing value as long as they are generating clicks.

To navigate the internet effectively, prefer websites and articles that offer real substance, rather than clickbait headlines and stories.

### 5. Just because you can find the information online doesn't mean you should.

One of the most beautiful aspects of the internet is also the most dangerous. Literally any piece of information can be located online day or night, 24 hours a day.

Want to know the weather in Barcelona? You can find it in a few seconds. Who does your favorite sports team play next weekend? Easy. What's your ex-girlfriend up to these days? Who starred in that one movie? What's the price of tea in China?

Anything and everything can be known whenever you want. And this reality too often pulls us away from the conversations and people right in front of us. Just because you can find that piece of information anytime you want, doesn't mean you need to (or even should). Sometimes it's better to stay present in the moment—or let the debate die.

### 6. Find voices you trust.

There are many incredible minds posting content on the internet in every available form: words, videos, photos, tweets, audio, plus others. When you find a content creator that is helpful to you and challenges you in positive ways, remember their name and the website. Write it down or subscribe to their emails.

Some of my favorites are Leo Babauta, Ryan Holiday, Ann Voskamp, Seth Godin, and Brian Baumgartner. Find voices that you trust and enjoy, and then return to their work routinely—the fact that such amazing content can be found for free online truly is amazing.

### 7. Don't be someone you're not.

We let our kids open limited social media accounts when they turned 13. Many of their peers started on social media much earlier. But my explanation to them was always the same, “The minimum age to open an account on social media is 13. Sure, you can just lie about your age or click accept on the terms even if you aren't 13 in real-life. But your first action on social media is not going to be a lie.”

Like I mentioned before, everyone is spinning fiction on social media. But it's important to remain true to yourself and who you are both online and offline. A lie online is still a lie. Don't be someone you're not.

### 8. Remember that information won't always soothe your anxiety.

I think information is great and almost always positive. But information still has its limitations. And information alone won't always soothe your anxiety.

It's certainly not wrong to research that one disease while you're waiting to hear back from your doctor's office about the test results. But just know that reading more about it probably isn't going to soothe your anxiety—it might even make it worse.

### 9. Don't argue politics with strangers.

If you want to increase your enjoyment of the internet and life in general, stop debating politics with strangers. Talk with your friends, sure—and that can even happen online.

But once you start debating people who you don't know in real life, it becomes far too easy to make negative assumptions about the other person and their character or motivation. Talk politics with people you know and love and trust—you'll be less likely to make negative assumptions about their motives or character.

### 10. Know that not every statement you disagree with is a personal attack on you.

Sometimes that social media post or news report had nothing to do with you—even if you disagree with it. Not every negative statement about your diet, your industry, your religion, your way of life, or your political party is a personal attack on you. And most of the time, it's just better to let it go and move on with your life.

### 11. You can't believe everything you see on the internet.

Websites can be faked, reviews can be faked, identities can be faked, news can be faked, photos can be faked, even videos can be faked these days. With the internet available to everyone, almost everything on the internet can be a fake—sometimes for fun, but sometimes by people with really, really bad motives. Verify, verify, verify.

**The internet has sped up the pace of comparison. We compare homes, cars, the beauty of our family—even the food we eat.**

### 12. Know when to take a break.

As Anne Lamott once said, “Almost everything will work again if you unplug it for a few minutes, including you.” The last rule for navigating the internet effectively is to take time away and do more things that make you forget to check your phone. The internet isn't life—and that's coming from somebody who makes their living on it.

Those are my 12 rules for navigating the internet effectively. I hope your internet habits serve your purpose and these habits can help you find an internet of meaningful information and conversation.

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 [Becoming-Minimalist.com](http://Becoming-Minimalist.com)

# Choose Your Mood Wisely

You decide what you feel by controlling what you think

JEFF GARTON

An old friend stopped by recently for conversation. She spent the previous two weeks in a sad mood contemplating whether to end a four-year relationship with her fiancé. After hearing her list of grievances, I asked if she still loved him. She did, and then I revealed what her problem was. I said, you think this place is real. Think again.

She was dumbfounded until after we played a game of What If. For example, what if scientists like Tom Campbell, Eben Alexander, and Bruce Greyson are right in saying we live in a virtual reality—a make-believe world created by our consciousness that can survive the death of our bodies? We're spiritual beings on earth for a human experience. This is soul school.

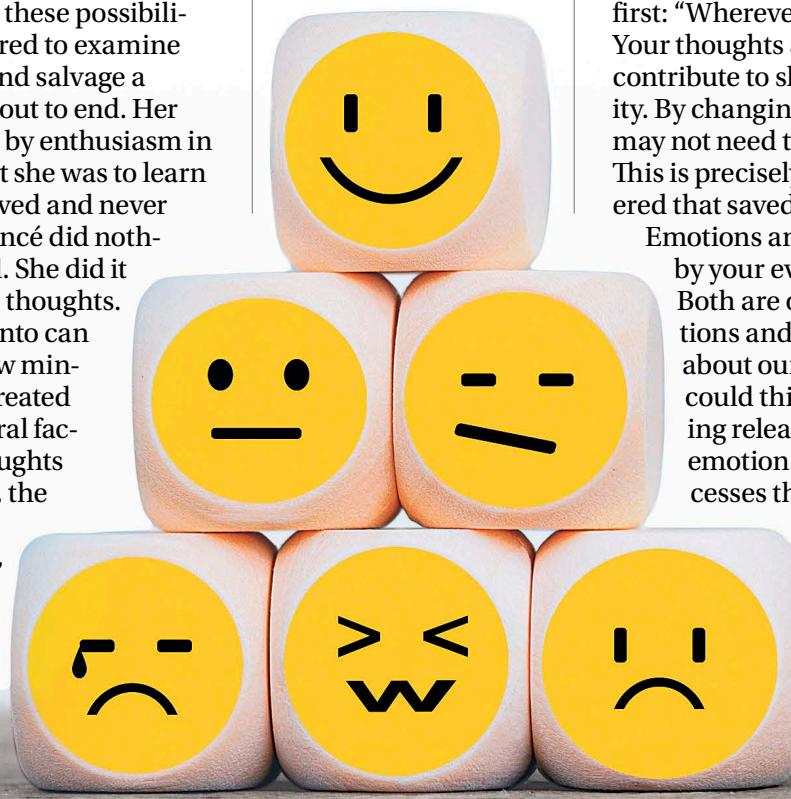
I suggested that if this is true, her fiancé may be a member of her soul group. He's playing a role the two of them previously agreed upon so she could learn how to love in this virtual world. The source of her grievances may not be real, but learning opportunities that the two of them decided to make happen just for the experience. She was supposed to discover what she was to learn from this relationship and her fiancé.

After chuckling about these possibilities, my friend felt inspired to examine her negative thinking and salvage a relationship she was about to end. Her sad mood was replaced by enthusiasm in wanting to explore what she was to learn from a man she truly loved and never wanted to leave. Her fiancé did nothing to change her mood. She did it herself by changing her thoughts.

The moods you enter into can last anywhere from a few minutes to weeks. They're created by the influence of several factors, including your thoughts and emotions (feelings), the environment (weather, lighting, music, people), and your physical state (health, diet, exercise).

As my friend's story

Sometimes we let our feelings and emotions drive our thoughts, not realizing we can choose our thoughts and change our feelings.



demonstrates, you can change your mood and its duration by changing the influencers. You change yourself, your surroundings, or both. But regardless of what you do, change how you think first. If you don't, you might later regret making the wrong changes and remain stuck in the mood state you wanted to escape. Here's why this happens.

**Unsupervised thinking can lead to wild mood swings and erratic behavior.**

Research has found that your thoughts tend to mirror the mood you're in. So if you've entered into a sad mood state, your continuing sad thoughts will create emotions that can perpetuate your sad mood (garbage in/garbage out). Change your moods by changing your thoughts first.

John Kabat Zinn, the founder of Mindfulness Based Stress Reduction said this about attempting to improve your situation without changing your thoughts first: “Wherever you go, there you are.” Your thoughts and resulting emotions contribute to shaping your virtual reality. By changing how you think first, you may not need to change anything else. This is precisely what my friend discovered that saved her relationship.

Emotions and moods aren't dictated by your evolving circumstances. Both are optional. We choose emotions and moods by how we think about our circumstances. You could think of it like this: Thinking releases a chemical we call an emotion. When your body processes that chemical, you experience the feeling. Before this occurs, you have the option not to think, control what you think, and to rethink so as to

replace the unwanted feeling with a better one.

By flexing your thoughts, you can cause yourself to feel courageous in frightening situations, confident in uncertain situations, content in dissatisfying situations, and enthusiastic in frustrating situations like my friend.

Realize though, that not all feelings are emotions. You can feel tall or short, fat or thin, rich or poor, strong or weak, sick or well, and satisfied or dissatisfied. But your height, weight, wealth, strength, health, and satisfaction are conditions, not emotions. You can't change any of these conditions with just your thoughts.

Paying attention to how you feel can help you examine your thoughts and the necessity of changing them. Otherwise, your unwanted feelings can stack up to influence your moods and decisions. But rather than supervising our thoughts, we tend to blame others or our circumstances for how we cause ourselves to feel. That's simply irresponsible.

Unsupervised thinking can also lead to wild mood swings and erratic behavior. One moment, you're riding high and the next moment, you're down and blue. This imbalance occurs when you live in response to circumstances you can't control. What if, let's say, you tried living in response to how you think intentionally in a non-negative manner about your circumstances? This is something you control exclusively.

In this virtual world we live in, your circumstances are always secondary or subject to your thoughts about them. Until you think about them and react emotionally, they're meaningless. You assign the meaning which makes you responsible for the reality your thoughts create. Change your thoughts to shape your most desirable reality.

Jeff Garton is based in Milwaukee and is author of the first book and training resources on the emotion of career contentment and likeability for employment. He is a certified career coach with a background specialized in HR with Kraft Foods and Miller Brewing Co.

# Why Aren't People Good at Thinking Just for Fun?

Thinking for pleasure can be a powerful tool to shape our emotions—no battery life required

ALLISON CLARK

If you find it harder to be pleasantly lost in your thoughts or daydreams these days, you're not alone.

“This is part of our cognitive toolkit that's underdeveloped, and it's kind of sad,” said Erin Westgate, a psychology professor at the University of Florida.

The ability to think for pleasure is important, and you can get better at it, Westgate said. The first step is recognizing that while it might look easy, daydreaming is surprisingly demanding.

“You have to be the actor, director, screenwriter, and audience of a mental performance,” she said. “Even though it looks like you're doing nothing, it's cognitively taxing.”

Another obstacle that Westgate's research revealed: We don't intuitively understand how to think enjoyable thoughts.

“We're fairly clueless,” she said. “We don't seem to know what to think about to have a positive experience.”

### Daydreaming Benefits

Westgate wants to help people recapture that daydream state, which may boost wellness and even pain tolerance. In a study published recently in the journal *Emotion*, Westgate and colleagues Timothy Wilson, Nicholas Buttrick, and Rémy Furrer of the University of Virginia and Daniel Gilbert of Harvard University instructed participants to think meaningful thoughts.

Westgate anticipated that this would guide the thinkers toward a rewarding experience, but they actually found it less enjoyable than their unguided thoughts. “I was so confused,” she said. Then, she took a look at the topics the participants reported thinking about.

“It was heavy stuff. It didn't seem to occur to them that they could use the time to enjoy their own thoughts.”

When we're nudged to think for fun instead of meaning, we tend to default to superficial pleasures such as eating ice cream, which don't scratch the same itch as thoughts that are pleasant but also meaningful. But when Westgate provided participants with a list of examples that were both pleasant and meaningful, they enjoyed thinking 50 percent more than when they were instructed to think about whatever they wanted.

That's knowledge you can harness in your everyday life by prompting yourself with topics you'd find rewarding to daydream about, like a pleasant memory, future accomplishment, or an event you're looking forward to, she said.

Daydreaming can be an antidote to boredom, which Westgate's work has shown can induce people to bully, troll, and show sadistic behavior. In one experiment, participants opted to kill bugs with a coffee grinder to alleviate their ennui. (The bugs weren't actually hurt, but the participants didn't know that.) In another study, 67 percent of men and 25 percent of women preferred to give themselves an electric shock than be alone with their thoughts.

Sure, our devices provide an endless stream of distraction, but in certain situations, electronic entertainment is unavailable or unsafe. (“If you're at a stoplight, I'd much rather you reflect on a nice picnic you once had than reach for your phone,” Westgate said.)

### How to Get Better at Thinking for Pleasure

Aside from its boredom-fighting abilities, thinking for pleasure can be its own reward.

“It's something that sets us apart. It defines our humanity. It allows us to imagine new realities,” Westgate said. “But that kind of thinking requires practice.”

Here's how to master it. Trust that it's possible to have a good experience if you prime your brain with topics you'll find pleasant. “This is something all of us can do once you have the concept. We give 4- and 5-year-olds these instructions, and it makes sense to them.”

That said, “This is hard for everybody. There's no good evidence that some types of people are simply better thinkers. I'm the world's worst person at this: I would definitely rather have the electric shock,” Westgate said. “But knowing why it can be hard and what makes it easier really makes a difference. The encouraging part is we can all get better.”

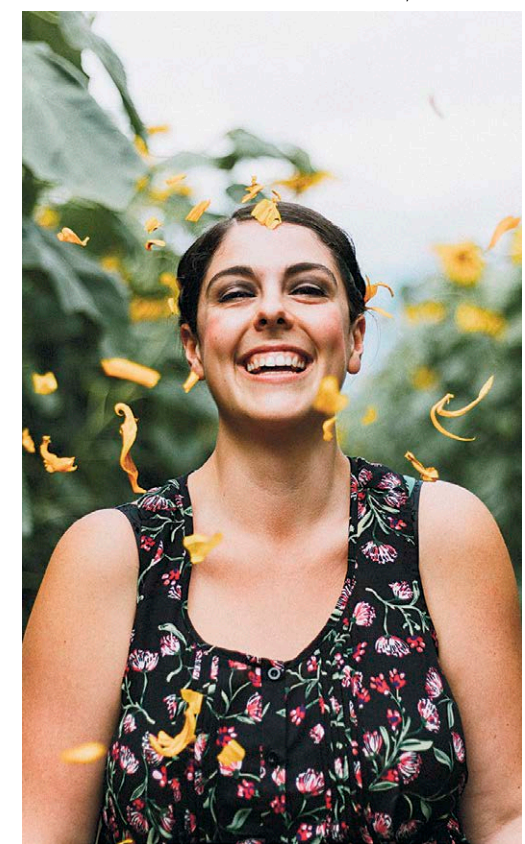
Don't confuse planning things with thinking for pleasure. “People say they enjoy planning, but when we test it, they do not.”

Choose the right time to try. Research shows we're most likely to daydream when our minds are minimally occupied with something else, like showering or brushing our teeth. “The next time you're walking, instead of pulling out your phone, try it,” Westgate said.

As you build your ability to daydream, you'll have a source of enjoyable thoughts at your disposal during stressful times, Westgate said.

“What we feel is a function of what we think. Thinking for pleasure can be a powerful tool to shape our emotions.”

This article was originally published by the University of Florida. Republished via [Futurity.org](http://Futurity.org) under Creative Commons License 4.0.



Before cellphones offered endless distraction, people found more pleasant diversions in their own minds.

“What we feel is a function of what we think.”

Erin Westgate, psychology professor, University of Florida.



# How Kindness Fits Into a Happy Life

A new analysis of decades of research shows that when we are kind to others, we are healthier and happier

JILL SUTTIE

**W**e all know that it's good to be kind to others. Kindness is an important virtue. It also sustains relationships and helps us build a trusting and cooperative society.

You may have also heard that kindness makes you happier and healthier. But what does that mean for you? What acts of kindness will make us happiest, and who tends to benefit the most? A newly published review of decades of kindness research provides some answers.

In this paper, researchers analyzed the results from 126 research articles looking at almost 200,000 participants from around the world. The studies they chose all had to meet certain criteria, such as including only adults and reporting good statistical data; some were experiments, where people did a kindness practice to observe its effects, while others just surveyed people about how kind and happy they were. The studies measured well-being in a variety of ways, including both mental and physical health.

As expected, people who were kind tended to have higher well-being. Lead researcher Bryant Hui was surprised the relationship wasn't stronger than it was, but he was still encouraged by the results.

"Although the overall relationship between prosocial (kind and helpful) behavior and well-being is weak, given that so many people around the world act prosocially, the modest effect can still have a significant impact at a societal level," he said.

A small effect like this—an average of all the participants' experiences—can sometimes hide other patterns going on below the surface. So, he and his colleagues considered when kindness might have a bigger impact on our well-being.

One thing they found was that people who performed random, informal acts of kindness, such as bringing a meal to a grieving friend, tended to be happier than people who performed more formal acts of kindness, such as volunteering in a soup kitchen.

It's possible that informal helping may fill our more basic psychological needs for autonomy and close relationships, which is why it could lead to greater happiness.

The researchers also found that people who were kind tended to be higher in "eudaimonic happiness" (a sense of meaning and purpose in life) than "hedonic happiness" (a sense of pleasure and comfort). Perhaps this makes sense, given that being kind involves effort, which takes away from comfort but could make people feel better about themselves and their abilities, which would provide a sense of meaning.

Being kind came with greater eudaimonic happiness for women than for men, too. According to Hui, this could be because, in many cultures, women are expected to be kinder than men; so, they may have more to gain from it. And younger participants experienced more happiness when they were kind than older participants, perhaps for developmental reasons, he said. Younger adults are at a stage of life when they tend to be figuring out their identity and actively seeking the purpose and meaning in life that kindness can bring, less so than pleasure and comfort.

What other, specific benefits might kindness have? The researchers found that people who were kind tended to have higher self-esteem and a sense of self-efficacy. To a lesser degree, they also experienced less depression and anxiety and improved physical health—with the links to health being strongest in older adults.

Hui doesn't know for sure why acting kindly might have these different effects on different groups, but he points to theories put forth by researcher Elizabeth Midlarsky: Being kind may make us feel better about ourselves as a person or about the meaning of our lives, confirm our self-competence, distract us from our own troubles and stressors, give us a warm-glow feeling, or help us be more socially connected with others. All of these could potentially improve our well-being—reducing our stress, improving our mood, or providing community—and they could hold more



▲ People who were kind enjoyed a happiness rooted in meaning and purpose.

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

importance at different stages of life, too.

By understanding the connection between kindness and well-being, Hui thinks researchers can design better studies that take into account all of the relevant factors, and innovators could create more effective kindness practices. In the future, he hopes there will be kindness apps or online programs that could reach more people, generating a larger impact around the world.

In the meantime, Hui said, the biggest take-home from his research is something he heard the Dalai Lama say long ago: "If you want others to be happy, practice compassion. If you want to be happy, practice compassion."

"Helping others is a universal virtue and a very affordable and economic way to benefit others' and our own well-being," he said. "As the saying goes, helping others is helping yourself."

Made from Purslane

## NATURE'S OMEGA-3 GOLD

**P**uritang plant based Omega-3,6,7,9 is made from purslane and perilla seeds. It contains over **61%** concentration of omega-3 – the highest possible without chemical additives, not possible to derive naturally from fish or other plants, and this combined with omega-6,7,9, accounts for more than **90%** of product content!

Purslane is nature's gold mine of omega-3, containing the highest level of any green plant, making pure high concentration possible. The purslane and perilla seeds are grown on South Korea's beautiful Hwangmaesan Mountain, an area where use of chemical fertilizers and pesticides are prohibited.

0% trans fat and 0% hormones, this product is 100% organic and 100% natural. It has no fishy aftertaste or risk of ocean-borne contaminants. It is also non-GMO. Made in Korea.

PURITANG  
普瑞堂®

Natural Purity for All

Order Online!



Puritang Green Vegetable Omega 3, 6, 7, 9 Inspired by Nature. Made from the Heart.

[www.Puritang.com](http://www.Puritang.com)