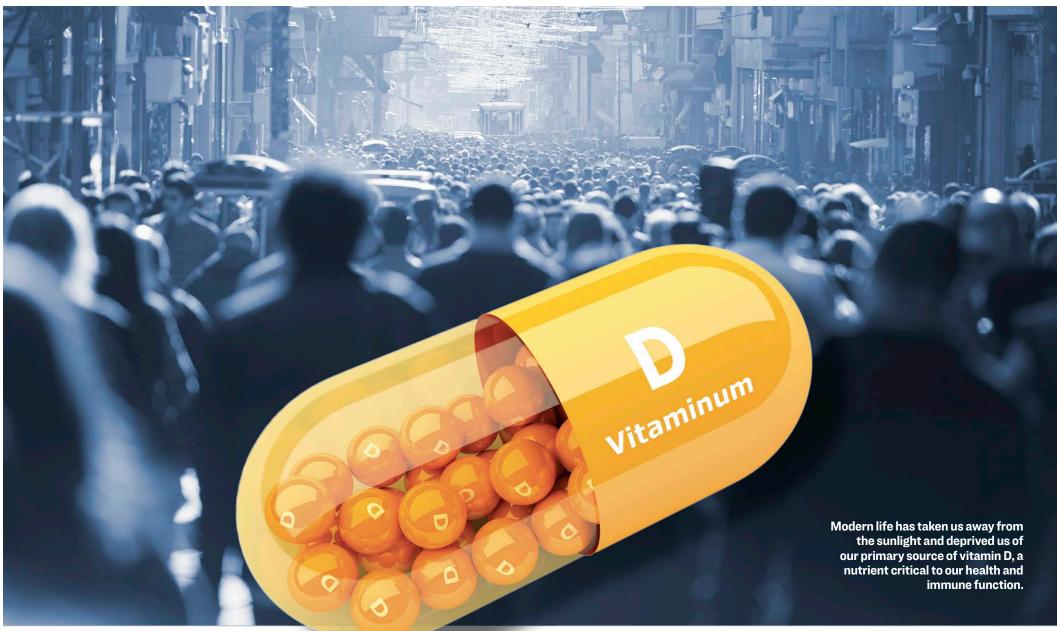
WEEK 5, 2021

# THE EPOCH TIMES MININGS MINI

ALL IMAGES BY SHUTTERSTOCK



# Could Most COVID-19 Deaths Have Been Prevented?

Mounting research on vitamin D's effects on COVID-19 have more clinicians and researchers calling for its wider use

### JOSEPH MERCOLA

n recent weeks and months, there's been an upshot of studies demonstrating the benefits of vitamin D against COVID-19. The evidence is so compelling, more than 200 doctors, scientists, and leading authorities have signed an open letter calling for increased use of vitamin D in the fight against COVID-19.

"Research shows low vitamin D levels almost certainly promote COVID-19 infections, hospitalizations, and deaths. Given its safety, we call for immediate widespread increased vitamin D intakes," the letter states.

"Vitamin D modulates thousands of genes and many aspects of immune function, both innate and adaptive," it states, before listing some of the validated findings on vitamin D.

The authors note that higher vitamin D blood levels are associated with lower rates of SARS-CoV-2 infection and a lower risk of a severe case (hospitalization, ICU, or death).

Vitamin D's effectiveness is also shown in intervention studies, they say, adding that many research papers reveal several biological mechanisms by which vitamin D influences COVID-19.

The letter recommends taking enough vitamin D to achieve a blood level of at least 30 ng/mL (75 nmol/L). The authors urge testing all hospitalized COVID-19 patients and adding vitamin D to the treatment protocol for any patient whose level is below  $30 \, \text{ng/mL}$ .

Continued on **Page 4** 

Higher vitamin D blood levels are associated with lower rates of SARS-CoV-2.

### The Fascinating Story of Placebos

Placebos have a long history; new research suggests doctors should use them more often.



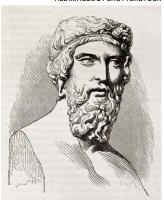
Placebos work particularly well for some conditions.

### JEREMY HOWICK

According to "Plato in Twelve Volumes" published by Harvard University Press, for headaches, Plato prescribed "a certain leaf, but there was a charm to go with the remedy; and if one uttered the charm at the moment of its application, the remedy made one perfectly well; but without the charm, there was no efficacy in the leaf."

We would now call Plato's "charm" a placebo. Placebos have been around for thousands of years and are the most widely studied treatments in the history of medicine. Every time your doctor tells you that the drug you take has been proven to work, they mean that it has been proven to work

ALL IMAGES BY SHUTTERSTOCK



The power of placebos has been known for since antiquity. Even Plato prescribed placebo remedies.

better than a placebo.

Despite their importance, doctors are not allowed to use placebos to help patients (at least, officially), and there are debates about whether we still need them in clinical trials. Yet the science of placebos has evolved to the point where our views should—but haven't—changed our prejudice against placebos in practice and the privileged position of placebo controls in clinical trials.

In this whistle-stop tour of the history of placebos, I will show what progress has been made and suggest where knowledge of placebos might go in the near future.

Continued on Page 6

THE EPOCH TIMES Week 5, 202

"Extremely well researched and true." "The Truth, as horrifying as it is, shall set us free. This should be on this country's academia's list of required reading."

# **HOW THE SPECTER OF COMMUNISM** IS RULING OUR WORLD

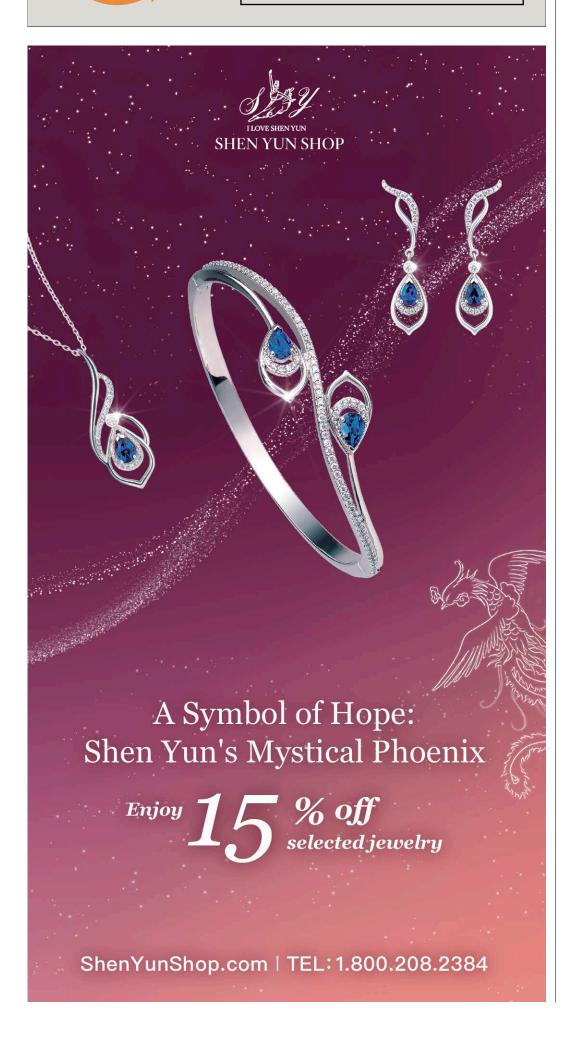
The specter of communism did not disappear with the disintegration of the Communist Party in Eastern Europe

### **ORDER NOW!**

Available at

amazon

EpochShop.com



**CHINESE WISDOM FOR SEASONAL LIVING** 

# Your Last Chance to Store Extra Nutrients Before the Coming Spring

Solar Term: 'Major Cold' (Jan. 20–Feb. 2)

### **MOREEN LIAO**

A solar term is a period of about two weeks and is based on the sun's position in the zodiac. Solar terms form the traditional Chinese calendar system. The calendar follows the ancient Chinese belief that living in accordance with nature will enable one to live a harmonious life. This article series explores each of the year's 24 solar terms, offering guidance on how to best navigate the season.

Solar Term: 'Major Cold

**2021 Dates:** Jan. 20–Feb. 2

With the freezing ice storms parts of the country have been having this January, it isn't hard to identify with the current solar term, "Major Cold," which runs from Jan. 20 to Feb. 2.

Ancient Chinese people considered the cold to be critical for agriculture, forestry, fisheries, and animal husbandry. The ancients saw how the extreme cold—when the earth is frozen to its deepest level was necessary for killing off insects and bacteria, so that when spring came, pest problems were minimized.

Major Cold was also a time to look forward to a very important festival, known as Bodhi Day, which is still celebrated on Jan. 24, according to the traditional Chinese calendar. The occasion marks the day Buddhism's founder, Shakyamuni, reached enlightenment under a bodhi tree.

This was a major commemoration in China after Buddhism was spread there in the early sixth century, and it became an important royal ceremony during the Qing Dynasty (1644–1911). Qing emperors conducted the ceremony at the Yonghe Temple in Beijing, which was completed in 1694 by the great Qing Emperor Kangxi.

One of the main activities of Bodhi Day involved eight days of preparing a giant pot of congee for the celebrations. The congee, a kind of savory rice that has important porridge cooked with plenty of water, would be shared widely among royals and members of the court.

Congee was also eaten on the day of the ceremony in households across the nation. And while this highly nourishing food was symbolic, due to it being a restorative food that helped Shakyamuni reach enlightenment, it also happened to be the perfect type of food to eat during Major Cold.

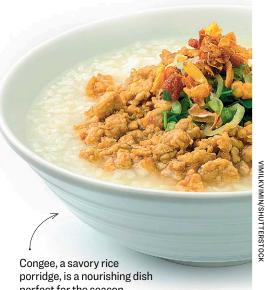
### Seasonal Eating

Major Cold is the last solar term in the Chinese calendar year, and it is also the last chance to supplement our bodies with extra nutrients. During winter, our body stores energy and nutrients to use in the spring. Spring is the time to grow, and the body shifts to using the energy it has stored during winter to fuel that growth.

Thick, warm soups such as congee, with purely vegetarian ingredients or lean meats, are suggested. It is encouraged to avoid overly greasy or fatty foods, as these will block the necessary yang energy from rising in the coming spring or clog the blood veins for other problems.

Chinese people would also preserve garlic in vinegar on this day, which would take about a month before it would be ready to eat. A little sugar was also added to the vinegar to help it ferment. Fermented garlic is less stimulating, or heat inducing, which makes it more suitable to consume in the upcoming spring season.

Other good foods for the season are warming foods such as black beans, eggs, duck, lamb, fennel, mushrooms, sesame, walnuts, and yams. The spices anise, cinnamon, fennel, cumin, oregano, and nutmeg are all helpful as seasonings or taken as a tea.



### **Attune Your Lifestyle**

There are three major areas of our bodies that ancient Chinese wisdom advises to keep warm during Major Cold: the respiratory system, neck and spine, and feet. Aren't these exactly the areas we tend to protect when we go out in the cold? When you're outside, remember to

keep both your nose and chest toasty by wearing layers of warm clothing and

Your spine and lower back are particularly susceptible to the cold, according to traditional Chinese medicine theory. Wear longer tops and sweaters during this season to avoid imbalances, and if you need to bring heat back into the area of your lower back, apply a heating pad, a hot water bottle, or simply use a hair blow dryer to keep the area nicely warm.

The end of winter is upon us, and physiological consequences as the body shifts from storing and conserving energy, to using it for the season of growth.

To protect your feet, wear warm boots and always keep your feet covered. This is especially important for the elderly. Having a foot bath with very warm water before sleep is also a nice ritual during this time of the season. To boost the effects, add fresh ginger, freshly ground cinnamon, or black peppercorns to the water. You can also place two golf balls in the water, and press the bottoms of your feet firmly onto the balls, concentrating on the center of each foot. This assists in getting good quality sleep and keeping the body warm at night.

Traditionally, it is also best to get plenty of sleep and rest during the cold period. Restrain sexual activities to preserve the yang energies of the body for growth in the spring.

Here's to keeping you in your best health for the whole year.

Epoch Times contributor Moreen Liao is a descendant of four generations of traditional Chinese medicine doctors. She is also a certified aromatherapist, former dean of the New Directions Institute of Natural Therapies in Sydney, and the founder of Ausganica, a certified organic cosmetic brand. Visit Ausganica.com.au

TRADITIONAL CHINESE MEDICINE

# When Food Is Medicine

Healthy food nurtures the body and helps us combat illness

### LYNN JAFFEE

was an incredibly picky eater as a kid. Dinnertime was a stressful battle between me, my parents, and the green stuff on my plate-most of which came from a can or the freezer and was cooked to within an inch of its life. It wasn't until I discovered spinach salad with creamy ranch dressing that my life turned around. It was a breakthrough that allowed me to add foods like red bell peppers, strawberries, arugula, and kale to my diet-and like them.

Chinese food therapy has long known what modern nutritional research is now unravelling: good food is effective medicine.

I'm thankful that my pickiness is in the past, because as an acupuncturist and practitioner of Chinese medicine, food plays a huge role in the healing process. In the Eastern tradition, it's believed that food is medicine that you get to eat three times a day. In addition, if you're sick, it is believed that you should first try to heal yourself by eating the right foods, and only if that fails, should you turn to acupuncture

Chinese food therapy is considered a healing modality unto itself. Used alongside acupuncture, herbal therapy, and Asian bodywork, food therapy is based on a number of principles that align with Chinese medicine. In fact, the properties of foods, while not as strong, are similar to the properties of herbs. Here are some things to know about healing with food in Chinese medicine:

### Foods have an inherent temperature.

This is not about your food being served piping hot, but rather about whether it and are ready to eat during the height of warms you up or cools you off after you the summer. have eaten it. Foods can be hot, warm, neutral, cool, or cold. For example, ginger, Foods also have scallions, or cinnamon are considered to inherent actions on your body. be warming foods. In contrast, mint, mung Some foods are good for building up your

How you cook your food affects its thermal qualities. In general, the longer you cook a food, the more warming it is to your body. For example, potatoes that have been roasted in the oven for 45 minutes are energetically warmer than those that have been boiled for ten. Raw foods are considered to be the up phlegm. most cooling, which is why people tend

Chinese sticky rice dumplings, or zongzi, often include twice-cooked ingredients and are an example of a warming food.

### In general, how long a food has taken to grow affects its temperature.

to eat lots of fresh, raw vegetables in the

summer and prefer warmer, roasted foods

in the colder months.

bean sprouts, and melons will cool you off.

So a squash that has taken most of the sum mer and fall to ripen is more warming than tomatoes or cucumbers that ripen quickly

energy or strengthening your blood, other foods are used if you're retaining water, and others are used to enhance your digestion. For instance, if you are retaining water, adding celery would be a good choice. However if you have been sick and have a dry raspy cough, you would be better off eating apples and pears for their ability to moisten your lungs without building

### Digestion is a huge component of Chinese food therapy.

Simply put, you need good digestion to get the most energy and nutrients from your food. If you are having any kind of symptoms, from heartburn to gas, bloating, stomachaches, or bowel problems, then your digestion needs a little help. In the world of food therapy, good digestion is the foundation for everything else that follows.

ferent benefits from foods. This has been *TwinCities.com*.

backed up recently by Western researchers, who have found that eating the same food affected the insulin levels of study subjects differently. In addition, the stated calories for a food is just a guess, based on your digestion and metabolism. Practitioners of Chinese medicine have long known that each of us has unique dietary needs, and thankfully Western medicine is finally catching up.

The bottom line is that what you eat matters. For me, the road has been long from being a formerly picky eater to enjoying meals that feature spinach and spring lettuce, zucchini, Swiss chard, and a variety of fruit. It's involved acquiring a taste for new foods and being open to cooking differently. I also keep in mind that food is a building block to good health, and what I eat directly affects how I feel.

Lynn Jaffee is a licensed acupuncturist and the author of "Simple Steps: The **people are not created equal.** Each of us Chinese Way to Better Health." This article has different health needs and derive dif- was originally published on Acupuncture-

# Stretching Is More Beneficial Than Walking to Lower High Blood Pressure

Walking still essential to reducing body fat, but stretching has a direct impact on blood vessels

### **MOHAN GARIKIPARITHI**

Those looking to lower their blood pressure may find that stretching is more beneficial than walking. A new study from the University of Saskatchewan has found that stretching is superior to brisk walking for reducing blood pressure.

According to new figures from the U.S. Centers for Disease Control and Prevention, nearly half of all American adults have high blood pressure. High blood pressure (hypertension) is a leading risk factor for cardiovascular disease and among the top preventable risk factors affecting overall mortality.

Walking has long been suggested by physicians as a way to help reduce blood pressure. However, this new study has found a possibly better way to get the numbers down.

"Everyone thinks that stretching is just about stretching your muscles," said kinesiology professor Phil Chilibeck a co-author of the study. "But when you stretch your muscles, you're also stretching all the blood vessels that feed into the muscle, including all the arteries. If you reduce the stiffness in your arteries, there's less resistance to blood flow," he said, noting that resistance to blood flow increases blood pressure.

**Stretching Versus Walking** Previous studies have



hypertension.

at the start of the study. The gold standard for accurate blood pressure measurements was used to evaluate the findings. This included measuring participants' blood pressure while sitting, lying down, and over 24 hours using a portable monitor. Chilibeck and his colleagues were

shown that stretching can reduce blood

pressure, but the University of Saskatch-

in a head-to-head comparison against

average age of 61 into two groups.

Over an eight-week study period,

one group did a whole-body stretching

routine for 30 minutes a day, five days a

week. The second group walked briskly

for the same amount of time and fre-

quency. All participants had elevated

blood pressure, or stage 1 hypertension,

stretching. For the study, researchers as-

signed 40 older men and women with an

ewan research is the first to show walking

able to conclude that stretching resulted in bigger reductions in blood pressure across all three types of measurements. One difference that was noted was that the walkers did lose more body fat off their waist in the eight-week study.

The study protocol had participants stretching for 30 minutes, but researchers believe that the same benefits can be achieved by doing a shorter routine that emphasizes the larger muscle groups in the legs, particularly the quadriceps and hamstrings.

Chilibeck explains: "The beauty of stretching is that it's so easy to incorporate into a person's daily routine. You're not at the mercy of the weather and it's easy on your joints—a big plus for people with osteoarthritis. And it doesn't require a big commitment of time, another barrier to exercise for many people."

While this study outlines the benefits of stretching, it also showed that walking was able to reduce dangerous body fat off the waist. Because of this, researchers believe that people who wish to lower high blood pressure should continue to walk as a primary exercise, but to add in some stretching techniques.

Mohan Garikiparithi holds a degree in medicine from Osmania University (University of Health Sciences). He practiced clinical medicine for over a decade. During a three-year communications program in Germany, he developed an interest in German medicine (homeopathy) and other alternative systems of medicine. This article was originally published on Bel Marra Health.

the paper.

authors.

COVID-19 patients with serum 25OHD

deficiency, since this approach might have

beneficial effects in both the musculoskel-

etal and the immune system," wrote the

**How Vitamin D Impacts COVID-19** 

On Oct. 31, 2020, my own vitamin D re-

view, co-written with William Grant and

Dr. Carol Wagner, both of whom are part

 $of the \, Grassroots Health\, expert\, vitamin\, D$ 

panel, was published in the peer-reviewed

journal Nutrients. You can read the paper

As noted in that paper, dark skin color

increased age, pre-existing chronic con-

ditions, and vitamin D deficiency are all

features of severe COVID-19 disease, and

of these, vitamin D deficiency is the only

factor that is readily and easily modifiable.

You may be able to reverse chronic dis-

ease, but that typically takes time. Op-

timizing your vitamin D, on the other

hand, can be achieved in just a few weeks,

thereby significantly lowering your risk of

In our paper, we review several of the

mechanisms by which vitamin D can

reduce your risk of COVID-19 and other

respiratory infections, including but not

· Reducing the survival and replication

· Maintaining endothelial integrity—

· Increasing angiotensin-converting en-

zyme 2 (ACE2) concentrations, which

via the ACE2 receptor—ACE2 is down-

cessive accumulation of angiotensin II,

a peptide hormone known to increase

duces respiratory distress, and it improves

Vitamin D also helps produce surfac-

tants in your lungs that aid in fluid clear-

ance and lowers your risk of comorbidities

associated with poor COVID-19 prognosis,

including obesity, Type 2 diabetes, high

Data from 14 observational studies—

summarized in Table 1 of our paper—sug-

gest that vitamin D blood levels are in-

versely correlated with the incidence and

severity of COVID-19, and the evidence

currently available generally satisfies

Hill's criteria for causality in a biological

Our paper also details several features of

COVID-19 that suggest vitamin D defi-

ciency is at play in this illness. For starters,

SARS-CoV-2 emerged in the winter in the

northern hemisphere, and as we moved

into summer, positive tests, hospitaliza-

tions and death rates fell. So, generally,

COVID-19 prevalence has been inversely

correlated with solar UVB doses and vi-

tamin D production, just like seasonal

**COVID-19 Features Related** 

to Vitamin D Status

blood pressure, and heart disease.

the severity of COVID-19

overall lung function.

system.

influenza.

Endothelial dysfunction contributes to

severe COVID-19.

production

COVID-19

limited to the following:

for free on the journal's website.

Mounting research on vitamin D's effects on COVID-19 have more clinicians and researchers calling for its wider use

### Continued from Page 1

Many other doctors are also urging government health agencies to get onboard with vitamin D recommendations.

Two experts in the Netherlands shared similar thoughts with the NL Times in De-

"There is a growing consensus in the scientific world about the important role of vitamin D," Manfred Eggersdorfer, professor of healthy aging at the University Medical Center Groningen, told the Times, adding that vitamin D can reduce the chances of catching a coronavirus and shorten the duration of infection.

and kidneys scientific community.

require mag-

Professor of immunology at Wagenin-**D** loading that metab- gen University, Huub Savelkoul, told the olize vitamin Times the wait-and-see attitude govern-D in your liver ments have adopted is frustrating to the COVID-19

"There are more and more studies showing the benefit of vitamin D. I think it is a CONCEPTW/ SHUTTERSTOCK Wants to warts wants to wait for a meta-study first. It seems as if we don't care that people come to the hospital and die in the meantime. You have to be careful with that comment, but that's where my frustration lies," he said.

### **Vitamin D Optimization Is Powerful Prevention**

In a December 23, 2020, Fox News interview, Dr. Peter Osborne with the Origins Nutrition Center stated that the most recent studies suggest 9 out of 10 COVID-19 deaths could have been prevented had people had adequate vitamin D levels.

While I suspect this might be an overestimation, there's no doubt in my mind that optimizing vitamin D levels among the general population would significantly lower COVID-19 incidence and death.

Osborne shared an example showing this understanding is growing among cli-

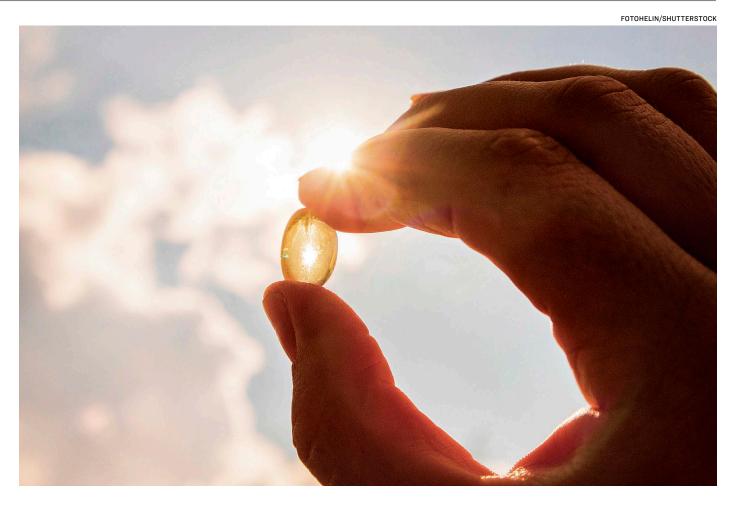
"At the East Virginia School of Medicine there's a COVID protocol that includes vitamin D," Osborne said. "So, if you're hospitalized for COVID, they're automatically putting you on between 20,000 and 60,000 units of vitamin D. This is part of their standard of care protocol in that hospital system."

Osborne also recommends using vitamin C and zinc, as well as quercetin, which allows for greater zinc absorption. Quercetin also boosts type 1 interferon, which signals infected cells to produce proteins that stop the virus from replicating. Type 1 interferon works synergistically with vitamin C.

As noted in a December 2020 Frontiers in Nutrition review: "During the COVID-19 pandemic, the adequate intake of zinc and vitamins C and D may represent a promising pharmacological tool due to the high demand for these nutrients in the case of contact with the virus and onset of the inflammatory process." However, vitamin D isn't

my first choice for acute illness that requires immediate treatment. While highdose vitamin D loading may be helpful in some respects, my first choice for treating acute respiratory illness is nebulized hydrogen peroxide, which I'll discuss at the end of this article. It goes to work immediately, while vitamin D requires time, at bare minimum, days, to

make a difference. With respect to pre-



venting COVID-19 deaths, I strongly believe

that nebulized hydrogen peroxide could

easily prevent at least 90 percent of the

deaths if administered properly. It deeply

saddens me to see so many die needlessly

because they don't use this incredibly in-

Now, bear in mind that prevention and

treatment are not the same. I firmly be-

lieve that vitamin D optimization will help

prevent COVID-19 infection and reduce

your risk of severe symptoms should you

In fact, I launched an information cam-

paign about vitamin D back in June 2020,

which included the release of a down-

science behind vitamin D. This report, as

well as a two-minute COVID-19 risk quiz is

There's also evidence to show high-dose

available on StopCovidCold.com.

expensive and safe therapy.

**Vitamin D Improves** 

**COVID-19 Outcomes** 

While the sun is our best source of vitamin D, many people need to supplement with vitamins to get enough.

### **Evidence** shows highdose vitamin

Fatty fish like salmon

and sardines are good

sources of vitamin D.

Increased vitamin D

immune function in as

little as a few weeks.

levels can improve

contract it. can improve loadable scientific report that detailed the outcomes.

vitamin D loading can improve COVID-19 outcomes even in acute and severe cases. According to a December 2020 randomized, double-blind study in the European Journal of Integrative Medicine, giving critically ill COVID-19 patients high doses of vitamin D significantly reduced the number of days they had to spend in the ICU. They were also less likely to need ventilation. According to the authors: "Thirty patients

level on the seventh day of the study and tamin D," he said. TAC [total antioxidant capacity] levels.

"ICU length of stay was 18.3±8.4 and Vitamin D Speeds Viral Clearance 25.4±6.6 days in the intervention and placebo arms of the study. Twelve patients in the placebo group and 5 in the vitamin D group died within the 28-day study period. The duration of mechanical ventilation was 15.7±9.3 vs. 22.6±9.1 days in vitamin D and placebo arms, respectively."

Similarly, a mathematical reanalysis conducted by MIT researchers of a calcifediol trial concluded there's a "strong role for vitamin D in reducing ICU admissions of hospitalized COVID-19 patients." The analysis looked at data from an earlier trial done on hospitalized COVID-19 patients in Córdoba, Spain.

As explained by the authors of the analysis: "The treatment was associated with reduced ICU admissions with very large effect size and high statistical significance, but the study has had limited impact because it had only 76 patients and imperfect blinding, and did not measure vitamin D levels pre- and

> comorbidities." In an effort to account for these shortcomings, they reanalyzed the data using statistical techniques, concluding that "the randomization, large effect size, and high statistical significance address many of these

post-treatment or adjust for several

concerns." For starters, they found that "random assignment of patients to treatment and control groups is highly unlikely to distribute comorbidities or other prognostic indicators sufficiently unevenly to account for the large effect size."

They also demonstrated that the imperfect blinding didn't have a negative impact, as it would have had to have "an implausibly large effect to account for the reported results."

To double-check their findings, they also compared the data with two other randomized clinical trials of vitamin D supplementation for COVID-19, ELIZAVETA GALITCKAIA/SHUTTERSTOC

one from India and another from Brazil. In conclusion, the authors stated that "the Córdoba study provides sufficient evidence to warrant immediate, well-designed pivotal clinical trials of early calcifediol administration in a broader cohort of inpatients and outpatients with COVID-19."

Week 5, 2021 THE EPOCH TIMES

### **Irish Experts Call for Increased** Recognition of Vitamin D

In addition to the open letter mentioned earlier, the Irish Covit-D Consortium is also calling for greater use of vitamin D against COVID-19, citing evidence showing it can lower the risk of death from COVID-19 in the elderly by as much as 700 percent.

In a position statement published in the Irish Journal of Medical Science, the team urges health professionals and policymakers "to recognize the importance of enhanced vitamin D in ... the optimization of immune response" and to "develop explicit population guidance and clinical protocols for vitamin D supplementation at ... effective doses."

"The accumulation of evidence linking low vitamin D levels and COVID-19 is now considerable," Dr. Dan McCartney, program director of human nutrition and dietetics at TU Dublin and Trinity College Dublin, told Ireland's Herald.

"This evidence includes studies which show an increased risk of infection in those with low vitamin D levels and a 25 to 30completed the study. The results show that fold reduced risk of ICU admission and a injection of vitamin D leads to a significant substantial reduction risk of death in older ncrease in the mean changes of vitamin D COVID-19 patients supplemented with vi-

Another recent study, published in November 2020 in the Postgraduate Medical Journal, looked at oral vitamin D supplementation on SARS-CoV-2 viral clearance. This study included only asymptomatic or mildly symptomatic SARS-CoV-2-positive individuals who also had vitamin D deficiency (a vitamin D blood level below 20

Participants were randomly assigned to receive either 60,000 IUs of oral cholecalciferol (nano-liquid droplets) or a placebo for seven days. The target blood level was 50 ng/mL. Anyone who hadn't achieved a blood level of 50 ng/mL after the first seven days continued to receive the supplement

until they reached the target level. Periodically, all participants were tested for SARS-CoV-2 as well as fibringen, Ddimer, procalcitonin and CRP, all of which are inflammatory markers. The primary outcome measure of the study was the proportion of patients testing negative for COVID-19 before day 21 of the study, as well as changes in inflammatory markers.

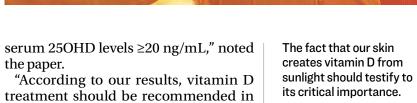
"A greater proportion of vitamin D-deficient individuals with SARS-CoV-2 infection turned SARS-CoV-2 RNA negative with a significant decrease in fibrinogen on high-dose cholecalciferol supplementation," reported the study authors.

### Vitamin D Slows COVID-19 Spread As reported by KRGV 5 News in Texas, doc-

tors in the Rio Grande Valley are also urging people to check their vitamin D levels and supplement if they're deficient.

That move was inspired by research like that published in the Journal of Endocrinology and Metabolism which suggests people who have low vitamin D levels are more prone to contracting SARS-CoV-2 infection and more likely to spread the infection to

"Vitamin D deficiency was found in 82.2 percent of COVID-19 cases and 47.2 percent of population-based controls ... Vitamin D-deficient COVID-19 patients had ... a longer length of hospital stay than those with



Vitamin D regulates cytokine production, lowering the risk of a cytokine storm.

higher COVID-19 case and death rates than Caucasians. Vitamin D is produced in your skin in response to sun exposure, but the darker your skin, the more sun exposure you need in order to maintain an optimal vitamin D level. As a result, vitamin D deficiency tends to be far higher among blacks and dark-skinned Hispanics. Blacks and Hispanics are also high-risk groups for COVID-19. Thirdly, one of the lethal hallmarks of

Secondly, people with darker skin have

COVID-19 is the cytokine storm that can develop in severe cases, which manifests as hyperinflammation and tissue damage. Vitamin D is known to regulate inflammatory cytokine production, thereby lowering this risk. Lastly, vitamin D is an important regulator of your immune system, and dysregulation of the immune system is a hallmark of severe COVID-19.

A growing body of evidence shows that vitamin D plays a crucial role in disease prevention and maintaining optimal health. There are about 30,000 genes in your body, and vitamin D affects nearly 3,000 of them, as well as vitamin D receptors located throughout your body.

For a more detailed and comprehensive analysis of the connection of vitamin D and COVID-19, please review the report on stopcovidcold.com that I created that could be used to address any health care professionals who would disagree with this recommendation.

Also included is a shortened version of for mild, moderate, and even severe illness. the document that will be better to educate Dr. David Brownstein, who has success those that you would like to convince of the importance of getting your vitamin D levels optimized. Doing so has other benefits, including slashing your risk for cancer and helping prevent at least 16 different types of cancer, including pancreatic, lung, ovarian, prostate and skin cancers.

Vitamin D from sun exposure also radically decreases your risk of autoimmune diseases such as multiple sclerosis and Type 1 diabetes.

### **Magnesium Is Necessary** to Activate Vitamin D

Since more than half the population doesn't get enough magnesium and far more are likely deficient, magnesium supplementation is recommended when taking vitamin D supplements. This is because magnesium helps to activate vitamin D, as the enzymes that metabolize vitamin D in your

liver and kidneys require magnesium. What GrassrootsHealth observed in testing and analyzing nutrient intakes from more than 15,000 patients is that about half of those taking vitamin D supplements were unable to normalize their vitamin D levels until they started to take supplemental magnesium.

They also found that those who don't take supplemental magnesium need, on aver-

ANTONIO GUILLEM/SHUTTERSTOCK to achieve a healthy blood level of 40 ng/ ml (100 nmol/L), compared to those who take at least 400 mg of magnesium along with their vitamin D supplement.

The only real way to know if you are deficient in these nutrients is to get tested.

### **How Much Vitamin D Should You Take** If you know your vitamin D level, you can use the calculator below to find the best dose to take.

If you are unable or unwilling to get a vitamin D test, they have found that the average dose to achieve a healthy vitamin D level of 40 ng/ml is about 8,000 units per day. If you are underweight, you will want to reduce this dose to 6,000-7,000 units per day as heavier people tend to need more vitamin D.

Most of the 200 doctors, scientists, and authorities who signed the open letter mentioned at the beginning of this article recommend 4,000 IU a dav.

### **How to Test Your Levels**

If you would like to know your vitamin D or other nutrient levels, you can order a test kit  $from\,GrassrootsHealth\,Nutrient\,Research$ Institute. GrassrootsHealth has expanded its research projects to include a range of different tests, seeing how deficiency may be needlessly affecting the health of so many. Like its Vitamin D\*action Project, the Magnesium\*PLUS Focus Project will allow us all to take action on known science with a consensus of experts.

The Vitamin D\*action Project has truly demonstrated the value measurement can have on public health. You can order a base test kit to get your vitamin D levels for \$79. Besides learning your own levels, once the study of a community is completed, all the information from participants can be used to push for public health recommendations that will benefit everyone.

### Nebulized Peroxide— **My Favorite Treatment Choice**

As mentioned earlier, while vitamin D is certainly important, if you develop symptoms of COVID-19, or any other respiratory infection for that matter, downing vitamin D will take time to take effect and may be too little, too late. I believe your best option at this point is to use nebulized peroxide. This is a home remedy I recommend everyone familiarize themselves with, as in many cases it can improve symptoms in mere hours.

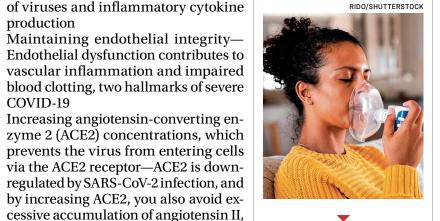
Nebulizing hydrogen peroxide into your sinuses, throat, and lungs is a simple, straightforward way to augment your body's natural expression of hydrogen peroxide to combat infections and can be used both prophylactically after known exposure to COVID-19 and as a treatment

fully treated more than 100 COVID-19 patients with nebulized peroxide, published a case paper about this treatment in the July 2020 issue of Science, Public Health Policy and The Law. He also reviews its benefits in our article "How Nebulized Peroxide Helps Against Respiratory Infections," on Mercola.com.

Nebulized hydrogen peroxide is extremely safe, and all you need is a desktop nebulizer and food-grade hydrogen peroxide, which you'll need to dilute with saline to 0.1 percent strength. I recommend buying these items beforehand so that you have everything you need and can begin treatment at home at the first signs of a respiratory infection. In the video above, I go over the basics of this treatment in a video on Mercola.com.

Dr. Joseph Mercola is the founder of Mercola. com. An osteopathic physician, best-selling author, and recipient of multiple awards in the field

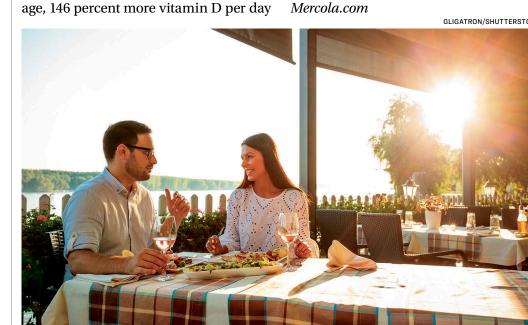
of natural health, his primary vision is to change the modern health paradigm by providing people with a valuable resource to help them take control of their health. This article was originally published on GLIGATRON/SHUTTERSTOCK



Dr. Mercola recommends nebulized hydrogen peroxide as an effective, low-risk treatment for COVID-19.

Vitamin D is also an important component of COVID-19 prevention and treatment because it boosts your overall immune function by modulating your innate and adaptive immune responses, it re-

> A healthy lifestyle with good nutrition and adequate sunlight is your best protection against





**Placebos** 

are not

inert or invariable.

# The Fascinating Story of Placebos

Placebos have a long history; new research suggests doctors should use them more often.

Continued from Page 1

### From Pleasing Prayers to Pleasing **Treatments**

The word "placebo", as it is used in medicine, was introduced in Saint Jerome's fourth-century translation of the Bible into Latin. Verse 9 of Psalm 114 became: placebo Domino in regione vivorum. "Placebo" means "I will please," and the verse was then: "I will please the Lord in the land of the living."

Historians are keen to point out that his translation isn't quite correct. The Hebrew transliteration is iset'halekh liphnav Adonai b'artzot hakhayim, which means, "I will walk before the Lord in the land of the living." I think historians are making much ado about not much: Why would the Lord want to walk with anyone who wasn't pleasing? Still, arguments about what placebos "really" are

After funerals back then, as often happens today, the mourning family provided a feast for those who attended the funeral. Because of the free feast, distant relatives, and—this is the important point—people who pretended to be relatives attended the funeral singing "placebo," just to get the food. This deceptive practice led Chaucer to write, "Flatterers are the Devil's chaplains, always singing Placebo."

Chaucer also named one of "The Merchant's Tale" characters Placebo. The protagonist of the tale is Januarie. Januarie was a wealthy old knight who desired recreational sex with a younger woman called May. To legitimize his desire, he considers marrying her. Before making his decision, he consults his two friends Placebo and Justinius.

Placebo is keen to gain favor with the knight and approves of Januarie's plans to marry May. Justinius is more cautious, citing Seneca and Cato, who preached virtue and caution in selecting a wife.

After listening to them both, Ianuarie tells Iustinius that he didn't care about Seneca: he marries May. The theme of decention arises here too because Januarie is blind and doesn't catch May cheating on him.

In the 18th century, the term "placebo" moved into the medical realm when it was used to describe a doctor. In his 1763 book, Dr. Pierce describes a visit to his friend, a Lady who was ill in bed. He finds "Dr. Placebo" sitting at her bedside.

Dr. Placebo had impressive long curly hair, he was fashionable, and he carefully prepared his medicine at the patient's bedside. When Dr. Pierce asks his friend how she was doing, she replies: "Pure and well, my old friend the Doctor has been just treating me with some of his good drops."

Pierce seems to imply that any positive effect Dr. Placebo had was due to his great bedside manner, rather than the actual contents of the drops.

Eventually, the word "placebo" started being used to describe treatments. The Scottish obstetrician William Smellie (in 1752) is the first person I'm aware of who uses the



Placebos have long been an important way to verify the efficacy of new drugs.

Placebos

have shown

particular

effective-

ness in pain

MONKEY BUSINESS

Research

suggests

doctors

should

prescribe

"honest

placebos."

term "placebo" to describe a medical treatment. He wrote: "It will be convenient to prescribe some innocent Placemus, that she may take between whiles, to beguile the time and please her imagination." ("Placemus" is

> another form of the word "placebo.") Placebos in Clinical Trials

Placebos were first used in clinical trials in the 18th century to debunk so-called quack cures, which is paradoxical because the so-called non-quack cures at the time included bloodletting and feeding patients the undigested material from the intestines of an oriental goat. These were considered to be so effec-

tive that no trials were needed. The earliest example I'm aware of where a placebo control was used is in a trial of "Perkins tractors." In the late 18th century, an American doctor called Elisha Perkins developed two metal rods he claimed conducted what he called pathogenic "electric" fluid away from the body.

He received the first medical patent issued under the Constitution of the United States for his device in 1796. The tractors were very popular, and even George Washington is said to have bought a set

They reached Britain in 1799 and became popular in Bath, which was already a hub for healing because of its natural mineral waters and associated spa, which have been used since Roman times. Dr. John Haygarth, however, thought tractors were bunk and proposed to test their effects in a trial. To do this, Haygarth made wooden tractors that were painted to appear identical to Perkins' metal tractors. But because they were made

of wood, they couldn't conduct electricity. In a series of 10 patients (five treated with real, and five with fake tractors), the "placebo" tractors worked as well as the real ones. Haygarth concluded that tractors didn't work. Interestingly, the trial did not show that the tractors did not benefit people, but merely that they did not produce their benefit via electricity. Haygarth himself admitted that the fake tractors worked very well. He attrib-

uted this to faith. Other early examples of placebo controls tested the effects of homeopathy tablets compared with bread pills. One of these early trials revealed that doing nothing was better than both homeopathy and allopathic (standard) medicine.

Week 5, 2021 THE EPOCH TIMES

By the middle of the 20th century, placebocontrolled trials were prevalent enough for Henry Knowles Beecher to produce one of the earliest examples of a "systematic review" that estimated how powerful placebo were. Beecher served in the U.S. Army during World War II. Working on the front line in southern Italy, supplies of morphine were running out, and Beecher reportedly saw something that surprised him. A nurse injected a wounded soldier with saltwater instead of morphine before an operation. The soldier thought it was real morphine and didn't appear to feel any pain.

After the war, Beecher reviewed 15 placebocontrolled trials of treatments for pain and a number of other ailments. The studies had 1,082 participants and found that, overall, 35 percent of the patients' symptoms were relieved by placebo alone. In 1955, he published his study in his famous article "The Powerful Placebo."

In the 1990s, researchers questioned Beecher's estimates, based on the fact that the people who got better after taking the placebos might have recovered even if they had not taken the placebo. In philosophyspeak, the possibly mistaken inference that the placebo caused the cure is called the post hoc ergo propter hoc (after, therefore because of) fallacy.

To test whether placebos really make people better, we have to compare people who take placebos with people who take no treatment at all. Danish medical researchers Asbjorn Hrobjartsson and Peter Gotzsche did just that. They looked at three-armed trials that included active treatment, placebo control, and untreated groups. Then they checked to see whether the placebo was better than doing nothing. They found a tiny placebo effect that they said could have been an artefact

They concluded that "there is little evidence that placebos, in general, have powerful clinical effects," and published their results in an article called "Is the placebo powerless?" which contrasted directly with the title of Beecher's paper.

However, Hrobjartsson and Gotzsche corrected Beecher's mistake only to introduce one of their own. They included anything labeled as a placebo in a trial for any condition. Such a comparison of apples and oranges is not legitimate. If we looked at the effect of any treatment for any condition and found a tiny average effect, we could not conclude that treatments were not effective. I exposed this error in a systematic review, and now it is widely accepted that just as some treatments are effective for some things but not everything, some placebos are effective for some things—especially pain.

### **Placebo Surgery**

Recently, placebo-controlled surgery trials have been used. In perhaps the most famous of these, American surgeon Bruce Moseley found 180 patients who had such severe knee pain that even the best drugs had failed to work. He gave half of them real arthroscopy and the other half placebo arthroscopy.

Patients in the placebo arthroscopy group were given anesthetics and a small incision was made in their knees, but there was no arthroscope, no repairing of damaged cartilage, and no cleaning out of loose fragments

To keep the patients ignorant about which group they were in, the doctors and nurses talked through a real procedure even if they were performing the placebo procedure.

The fake surgery worked as well as the "real" surgery. A review of over 50 placebocontrolled surgery trials found that placebo surgery was as good as the real surgery in more than half the trials.

### **Honest Placebos**

A placebo can work even if a patient doesn't believe it is a "real" treatment.

In the first of the studies of open-label placebos (placebos that patients know are placebos) I know of, two Baltimore doctors by the names of Lee Park and Uno Covi gave openlabel placebos to 15 neurotic patients. They presented the placebo pills to the patients and said: "Many people with your kind of condition have been helped by what are sometimes called sugar pills and we feel that a so-called sugar pill may help you, too."

The patients took the placebos, and many of them got better after having the placebo even though they knew it was a placebo. However, the patients were neurotic and a bit paranoid so they didn't believe the doctors. After the placebo made them better, they thought the doctors had lied and actually given them the real drug.

More recently, several higher-quality studies confirm that open-label placebos can work. These "honest" placebos may work because patients have a conditioned response to an encounter with their doctor. Just like an arachnophobe's body can react negatively to a spider even if they know it's not poisonous, someone can react positively to treatment from a doctor even if they know the doctor is giving them a sugar pill.

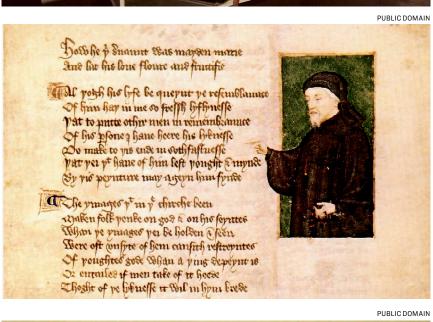
### The History of Learning **How Placebos Work**

An early study investigating the inner pharmacology of placebo mechanisms is Jon Levine and Newton Gordon's 1978 study of 51 patients who had impacted molars extracted. All 51 patients had received a painkiller called mepivacaine for the surgical procedure. Then, at three and four hours after the surgery, the patients were given either morphine, a placebo, or naloxone. The patients didn't know which one they had received.

Naloxone is an opioid antagonist, which means that it stops drugs such as morphine and endorphins from producing their effects. It literally blocks the cell receptors, so it stops morphine (or endorphins) from docking onto those receptors. It's used to treat morphine overdose.

The researchers found that naloxone blocked the painkilling effect of placebos. This shows that placebos cause the release of painkilling endorphins. Since then, many experiments have confirmed these results. Hundreds of others have shown that placebo treatments affect the





PUBLIC DOMAIN



Naloxone, an opioid antagonist. blocked the painkilling

effect of

placebos.

brain and body in several ways. The main mechanisms by which placebos are believed to work are expectancy and con-

In a comprehensive study published in 1999 of conditioning and expectancy mechanisms, Martina Amanzio and Fabrizio Benedetti divided 229 participants into 12 groups. The groups were given a variety of drugs, were conditioned in a number of ways, and were given different messages (to induce high or low expectancy). The study found that placebo effects were caused by both expectancy and conditioning.

Despite the progress, some researchers argue—and I agree—that there is something mysterious about how placebos work. In a personal communication, Dan Moerman, a medical anthropologist and ethnobotanist, explained it better than I can: "We know from all the MRI people that it's easy enough to see what happens inside to the amygdala, or whatever other bit might be involved, but what moved the amygdala, well, that takes some work."

### **History of Placebo Ethics**

The accepted view in clinical practice is that placebos are not ethical because they require deception. This view has not yet fully accounted for the evidence that we don't need deception for placebos to work.

The history of the ethics of placebo con-

trols is more complex. Now that we have many effective treatments, we can compare new treatments with proven therapies. Why would a patient agree to enroll in a trial comparing a new treatment with a placebo when they could enroll in

a trial of a new treat-"Placebo," as a ment compared with medical term, a proven one? comes from an

Doctors who take early Latin Bible. part in such trials may be violating their ethical duty to help and avoid harm. The World

Medical Association initially banned placebo-controlled trials where a proven therapy was available. Yet in 2010, they reversed this position and said we sometimes needed placebo-controlled trials, even if there is a proven therapy. They claimed there were "scientific" reasons for doing this.

These so-called sci-In Chaucer's time, entific reasons have "singing placebo" been presented uswas considered ing obscure (to most people) concepts such

as "assay sensitivity" and "absolute effect size." In plain English, they boil down to two (mistaken) claims:

1. They say we can only trust placebo controls. This was true in the past. Historically, treatments like bloodletting and cocaine were used to treat a number of ailments vet were often harmful. Say we'd done a trial comparing bloodletting with cocaine for anxiety, and it turned out bloodletting was better than cocaine. We couldn't infer that bloodletting was effective: it could have been worse than a placebo or doing nothing. In these historical cases, it would have been better to compare those treatments

A quack treating a patient with **Perkins Patent** Tractors. (James Gillray, 1801)

now, we have effective treatments that can be used as benchmarks. So if a new drug came along for treating anxi-

against a placebo. But

ety, we could compare it with the proven effective treatment. If the new treatment proved to be at least as good as the old one, we could say it is effective.

2. They say only placebo controls provide a constant baseline. This is based on the mistaken view that placebo treatments are "inert" and therefore have constant, invariable effects. This, too, is mistaken. In a systematic review of placebo pills in ulcer trials, the placebo response ranged from 0 percent (not having any effect) to 100 percent (complete cure).

As the arguments supporting placebo-controlled trials are being questioned, there is now a movement urging the World Medical Association needs to do another U-turn, back to its original position.

### Whither Placebo?

For centuries, the word "placebo" was closely linked to deception and pleasing people. Recent studies of open-label placebos show that they need not be deceptive to work. Contrariwise, studies of placebos show that they are not inert or invariable and the basis for the current World Medical Association position has been undermined. The recent history of placebos seems to pave the way for more placebo treatments in clinical practice and fewer in clinical trials.

I acknowledge the James Lind Library, the writing of Ted Kaptchuk, Jeffrey Aronson, and the mentorship of Dan Moerman.

Jeremy Howick is the director of the Oxford empathy program at the University of Oxford in England. This article was first published on The Conversation.

# Eat the Frog-First Chance You Get

Pre-decisions can help you stress less and accomplish more

### **MARK BATTERSON**

Eat the frog!

No, I'm not advocating a new diet. "If it's your job to eat a frog," Mark Twain is purported to have said, "it's best to do it first thing in the morning." Why? Because you can go through the rest of your day knowing that the hardest task is behind

What to-do list items are hardest for you to check off? What difficult decisions are

you delaying? What goals have you had forever, but you have yet to take the first step? That, my friend, is your frog! Destiny isn't a mystery. Destiny is a de-

According to one estimate, we make as many as 35,000 decisions every day. The

question is: How do we make good ones? The answer is making decisions before you have to make the decision! They're called pre-decisions, and they help you maximize the power of 24 hours.

Twyla Tharp is one of the most accomplished choreographers of the modern era. Her credits include 129 dance compositions, 12 television specials, six Hollywood films, and four Broadway shows. She has won two Emmys, one Tony, and the presti-

What to-do list items are hardest for you to check off? What difficult decisions are you delaying? What goals have you had forever?

gious Kennedy Center Honor. Did I mention her 19 honorary doctorates?

How has she produced such an impressive LinkedIn profile? You guessed it—she eats the frog every day!

"I begin each day of my life with a ritual,"

writes Twyla in "The Creative Habit." "The quasi-religious power I attach to this ritual keeps me from rolling over and

going back to sleep." What is her ritual? After waking up at 5:30 a.m., she puts on her workout clothes, walks out of her Manhattan home, and hails a cab to take her to the Pumping Iron Gym at 91st Street and First Avenue. "The ritual is not the stretching and weight training I put my body through each morning at the gym," said Twyla. "The ritual is the cab."

Does Twyla enjoy her two-hour workout every day? Not any more than you do! There are days when she doesn't feel like going to the gym, but she doesn't give herself an out. That is the genius of pre-decisions. They eliminate the option of opting out.

You can't wait until your alarm goes off to decide whether or not to work out. We all know how that story ends—with the snooze button! The decision has to be made beforehand, with a pre-decision. Then that pre-decision has to be put into deliberate practice with a well-designed ritual.

Ritualization gets a bit of a bad rap in some circles, and there can definitely be a downside to the things we do repeatedly. It's easy to learn how and forget why. That's when we start going through the motions.

The key to sustained growth in any area of our lives is routine, but once the routine becomes routine, you have to reinvent the routine. It's called the law of requisite variety. If you don't disrupt the status quo, the law of diminishing returns kicks in.

While recognizing the downside, we should also acknowledge the upside to automating our actions through ritualization.



A routine can help you get a solid start on the day—and your frog.

The blue jeans, black turtleneck, and New Balance shoes worn by Steve Jobs every day are exhibit A. Was Steve Jobs trying to make a fashion statement? I think not.

So, why did he wear the same outfit every day? It was one less decision he had to make. It was one less thing he had to

That's what daily rituals are all about. Along with maximizing our Godgiven potential, they also streamline our lives by saving time and energy. I'm not advocating the same outfit every day per se. But reducing the number of decisions we make every day buys back bandwidth for the big decisions.

What frog do you need to eat?

It might be doing as many sit-ups as you have years on this planet before you showbreakfast. Whatever it is, make it a daily routine by picking a time and a place. If possible, stack the habit with your regular

routine. Learn to leverage your shower, your breakfast, or your commute.

Most goals are important, but they aren't urgent. Eating the frog is making time for the important things over and above the urgent things.

Whatever it is, you've got to figure out a morning routine that works for you. And I might add, one that works for your spouse and your kids and your dog and your boss! You don't have to shirk your responsibilities to eat the frog. All you have to do is plan your work, then work your plan.

The good news? Well-begun is half-done!

Mark Batterson is The New York Times best-selling author of 20 books including "Win the Day: 7 Daily Habits to Help You Stress Less & Accomplish More" and er, or five minutes of meditation before the lead pastor of National Community Church in Washington, D.C. Visit him at MarkBatterson.com. This article was first published by BecomingMinimalist.com

LOLOSTOCK/SHUTTERSTOCK

# Strategies for Cultivating Hope This Year

Hope is built from a planning for success and nurtured with attention, community, and evidence

### **JACQUELINE S. MATTIS**

The raging coronavirus pandemic, along with political turbulence and uncertainty, have overwhelmed many of us.

From almost the start of 2020, people  $were \, faced \, with \, bleak \, prospects \, as \, illness, \,$ death, isolation, and job losses became unwelcome parts of our reality.

Indeed, all through these times, both the dark and bright sides of human nature were evident as many people engaged in extraordinary compassion and courage when others were committing acts of violence, self-interest, or greed.

As a research scientist whose work focuses on positive psychology among people facing challenges, I am deeply aware that if ever there were a time for a conversation about hope, it is now.

### **Hope Versus Optimism**

First, let's understand what hope is. Many people confuse optimism with hope. **Sustaining** 

Charles R. Snyder, author of "The Psychology of Hope," defined hope as the tendency to see desired goals as possible, and to approach those goals with "agency thinking," a belief that you or others have the ability to achieve the goals. He also defined hope as "pathways thinking," a focus on mapping routes and plans to achieve those goals.

Optimism is different. Psychologist Charles Carver defines optimism as a general expectation that good things will happen in the future. Optimists tend to seek out the positive and, at times, deny or avoid negative information. In sum, optimism is about expecting good things; hope is about how we plan and act to achieve what

Here are five key strategies to cultivate hope in these trying times:

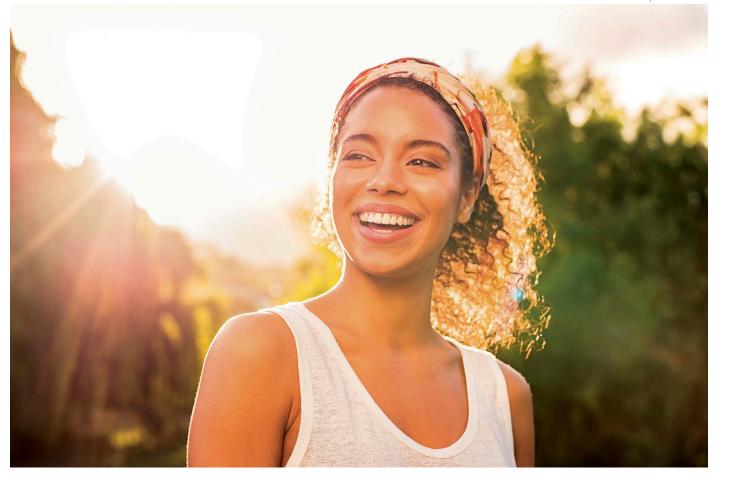
### 1. Do Something—Start With Goalss

Hopeful people don't wish—they imagine and act. They establish clear, achievable goals and make a clear plan. They believe in their agency—that is, their capacity to achieve the outcomes. They recognize that their path will be marked by stresses, roadblocks, and failure. According to psychologists such as Snyder and others, people who are hopeful are able to "anticipate these barriers" and they "choose" the right ATION "pathways."

Further, hopeful people adapt. When their hopes are thwarted, they tend to become more focused on doing things to achieve their goals.

As psychologist Eddie Tong writes, "Hopeful people tend to think that desired goals are attainable even if personal resources are exhausted." In other words, people of hope persist even when prospects may not be so favorable.

Importantly, evidence suggests that the belief that one is capable of achieving



Optimism is the expectation that good things will happen; hope is the expectation that you can make them

hope depends,

in part, on the

company

we keep.

For people working to

bring social change, rela-

tionships and community

than knowing how to achieve those goals. 2. Harness the Power of Uncertainty

Several researchers have argued that, for hope to arise, individuals need to be able

to perceive the "possibility of success."

Research shows that many of life's uncertainties could help people cultivate hope in difficult times. For example, a 2017 study showed that parents of children diagnosed with multiple sclerosis used the fact that so little is known about the condition in childhood to fuel and sustain their sense of hope. Parents reasoned that since it is so hard to accurately diagnose childhood multiple sclerosis and prognosis is so varied, there was a chance that their children were misdiagnosed and they could recover and live normal lives.

In sum, a future that is uncertain holds lots of possibilities. As such, uncertainty is not a reason for paralysis—it is a reason to hope.

### 3. Manage Your Attention

Hopeful and optimistic people show similarities and differences in the kinds of emotional stimuli they pay attention to in the

For example, psychologist Lucas Kelberer and his colleagues found, through using eye-tracking technology, that optimists tended to seek out positive images, such as that of happy people, and avoid images of people who seem depressed.

Hopeful people didn't necessarily seek Hope also requires trust. Hopeful people out emotionally positive information.



one's goals may be more important for hope However, people high on hope spent less time paying attention to emotionally sad or threatening information.

> In a world in which we are overwhelmed with options for what we read, watch, and listen to, maintaining hope may not require us to go after positive information, but it does require that we avoid negative images and messages.

4. Seek Community—Don't Go It Alone Hope is hard to sustain in isolation. Research demonstrates that for people working to bring social change, particularly anti-poverty activists, relationships and community provided the reason for hope and ignited their conviction to keep fighting.

Connection to others allowed activists to feel a sense of accountability, to recognize that their work mattered, and that they were part of something bigger than themselves.

Relationships are important, but health research also suggests that sustaining hope depends, in part, on the particular company we keep. For example, parents of chronically ill children often maintained hope by withdrawing from or avoiding interactions with negative people who challenged their efforts to seek positive ends. We can stay hopeful if we connect with others who hold us accountable and remind us of why our struggles matter.

### 5. Look at the Evidence

stake their trust in data, particularly in the evidence of history. Research demonstrates, for example, that anti-poverty activists drew hope from knowing that, historically, when people joined together in resistance, they were able to create change.

Cultivating and sustaining hope, then, requires that we gather evidence from our own lives, history, and the world at large and use that evidence to guide our plans, pathways, and actions.

Hope also requires that we learn to use this data to effectively calibrate progress no matter how small.

Jacqueline S. Mattis is the dean of faculty at Rutgers University—Newark. This article was originally published on The





### MYTH NO. 1 We're OK with what's happening. We can agree with it.

ight now there's something go-

ing on in my life that's very dif-

ficult. I definitely wish it wasn't

part of my life, and yet it's clear

my wishing has done nothing

As is always the case: Fight with reality,

And so it occurred to me (brilliantly)

that this might be an auspicious time to

When investigating an idea or practice,

I like to start with what the thing is not. In

this case, what are the myths and miscon-

ceptions about acceptance that get in the

way of our being able to do it?

to change it.

reality wins.

practice acceptance.

The biggest misunderstanding about acceptance is that it means that we're OK with the thing we're accepting, that we've somehow gotten on board with this situation that we don't want.

**REALITY** Acceptance does not require that we're OK with what we're accepting. Acceptance doesn't imply that we now want what we don't want. It doesn't include feeling good or peaceful about what we're accepting. It doesn't mean we now agree with it.

MYTH NO.2 | Acceptance means we stop trying to change it.

all efforts to make things different. Acceptance is saying we agree that this situation will go on forever. It's deciding to pull the covers over our head.

### REALITY Acceptance doesn't mean suspending efforts to change what is.

Acceptance doesn't imply that we're giving up on reality becoming different. Acceptance is all about now and has nothing to do with the future. Furthermore, acceptance isn't an act of passivity, but rather an act of wisdom. It means agreeing to start our efforts from where we actually are and considering what actually is.

We believe that acceptance is synonymous Continued on Page 10

# 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.

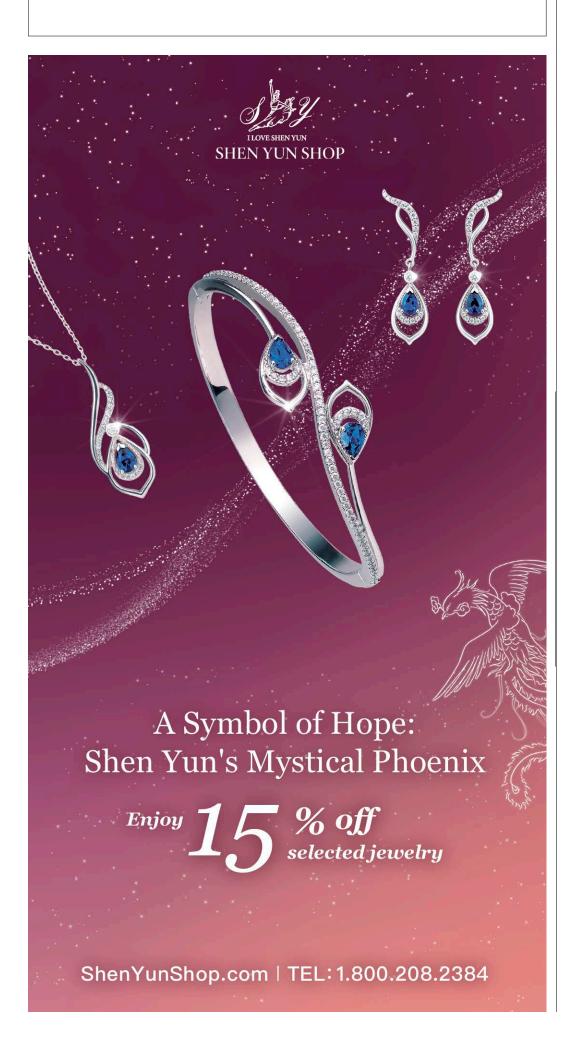
We aim to tell you what we see, not how to think; we strive to deliver you a factual picture of reality that lets you form your own opinions.

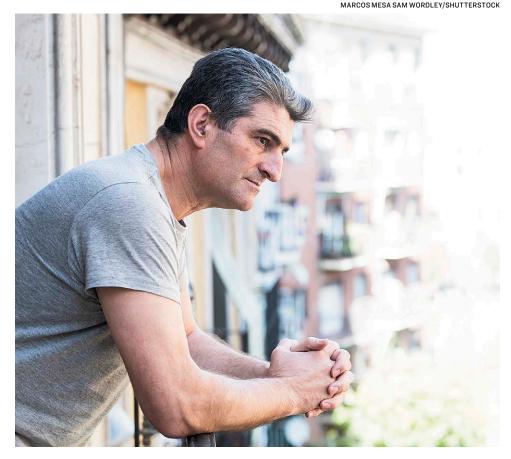
We believe that we live in truly epochal times, where the faithful representation of our current events won't just be important for the people of today, but also for the generations to come. The records we keep now will directly inform the foundations of the history they'll learn and the values they'll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

Learn more at

**EpochSubscription.com** 

THE EPOCH TIMES





The first meaningful step to resolving any hardship is accepting its existence. We can't move forward when we reject where we are.

### **MINDSET MATTERS**

# How to Accept What We Really Don't Want to Accept

Why acceptance is the hardest and most important practice of them all

Continued from Page 9

MYTH NO. 3 Acceptance is failure.

In our culture, acceptance is for the meek, for losers. It's what we do when we've failed at doing everything else. We see acceptance as a choice-less choice, a disempowering and depressing end to a battle lost.

### **REALITY** Acceptance is not

Acceptance can, with the right understanding, be experienced as an act of courage. It's for those who have the strength to face the truth and stop denying it. It can be the first step in a process of genuine success and movement.

So if it isn't these myths, then what is this thing we call acceptance?

It might help to use a different word. Rather than asking, "Can I accept this?" I prefer, "Can I relax with this?" Or, "Can I be with this as it is?" Or, "Can I agree that this is the way it is right now?" These pointers feel more workable given what we associate with acceptance. Because the fact is, something inside us will never fully accept or get OK with what we don't want, and that part of us needs to be included in this process, too.

### Acceptance is a profound and powerful step in our growth and development. It requires courage to be honest about where we are.

To relax with what is means that we also relax with the part of ourselves that's screaming "no" to the situation.

It means that we make space for the unacceptance in us. We accept the situation and also the fierce rejection of it at the same time. We don't ask ourselves to get rid of the resistance; that resistance is our friend. It's there to protect us from what we don't want. So we accept and allow the negative situation and also the hating of it.

Secondly, acceptance is about acknowledging that this particular situation is indeed happening. It isn't saying that we like it, agree with it, or will stop trying to change it, it simply means that we're accepting that it is what is. The primary element of acceptance is opening to reality as it is, not how we feel about it. Acceptance means we're willing to tolerate an unpleasant situation.

In my case, with the situation I have going on, I'm practicing relaxing with the reality that I don't have an answer to this difficult situation. I accept this situation, even though I want it to be different and I don't know right now how to make that happen.

What's comical is that our refusal to accept a situation usually involves a fight against reality. We refuse to allow what's already been allowed. Seen in this light, our refusal to accept reality has a tinge of insanity to it.

When we practice acceptance, we're just saying, "Yes, this is happening. That's it. And paradoxically, that frees us up to start changing the situation or changing ourselves in relation to it.

As a good friend said, the situation will change or you will change, but change will happen.

We waste so much energy fighting reality that we don't apply our energy and intention to what we can do about it. We're stuck in an argument with the universe. Acceptance allows us at least to begin doing whatever we can do from where we are.

Acceptance is a profound and powerful step in our growth and development. It requires courage to be honest about where we are. Acceptance requires determination to feel what's true. This can be excruciating, but it's far more useful than avoiding such feelings by denying reality.

When we practice acceptance, which includes our initial "no," we give ourselves permission to join our life, to experience the present moment as it is. We allow ourselves to stop fighting with reality, which is exhausting and useless.

Acceptance is counterintuitive and yet supremely wise. When we're willing to say, "Yes, this is the way it is whether I want it or not," something primal in us relaxes. We can exhale; the hoax we've been conducting is up at last.

The funny thing is, we nearly always know what's true and only trick ourselves with our non-acceptance. To accept offers us permission to finally be authentic with ourselves, to be in our own company.

When we can say I accept that this is the way it is—even if I hate it and don't know what to do about it—then I can at least be in the truth, which ultimately, is the most empowering, brave, and self-loving place from which to create our life.

Nancy Colier is a psychotherapist, interfaith minister, public speaker, workshop leader, and author of "The Power of Off: The Mindful Way to Stay Sane in a Virtual World." For more information, visit NancyColier.com

# Psychologist Explains the Unhealthy Incentives Behind 'Cancel Culture'

Jonathan Haidt, author of 'The Righteous Mind,' says one mark of an open and civil society is not being afraid to share opinions

### **BRITTANY HUNTER**

fthere was a video documenting every second of my life, you can bet it would contain some pretty stupid comments I've made over the years. I would also probably be reminded of some opinions I no longer believe. If you're being honest with yourself, yours likely would be equally cringeworthy.

The things we've said in the past may not have been outrageously offensive, but we have all made comments, or held opinions, we later regret. We are, after all, inherently flawed creatures.

But imagine if one instance of poor judgment or one "fringe" opinion stuck with you forever. This is the problem our society is now facing with the prevalence of cancel

In 2016, then-high school freshman Mimi Groves posted a video to Snapchat in which she used a racial slur. The three-second video later circulated around her school, though it wasn't met with controversy at

Fellow classmate Jimmy Galligan hadn't seen the footage until last year when the two were seniors—four years after it first made the rounds at Heritage High School. By this time, Groves had moved on to focus on her role as varsity cheer captain with big dreams of attending the University of Tennessee-Knoxville, a school known for its nationally ranked cheer squad.

For Groves, summer 2020 had been a time of celebration as she found out she had been accepted to the university's cheer team. But her joy was short-lived when the death of George Floyd outraged the nation, sparking a resurgence of the Black Lives Matter movement.

Like many teens, Groves used her social media platforms to urge people to protest, donate, and sign petitions in support of ending police brutality. It was then that her unfortunate video came back to haunt her. "You have the audacity to post this, af-

ter saying the N-word," one commenter, unknown to the teen, posted on her Ins-

Galligan had held onto the video made four years earlier and had chosen to celebrate Groves's admission to UT by blasting the footage to every major social media platform.

As the video began going viral, public outrage ensued, calling for the university to rescind her acceptance.

Capitulating to the mob, UT removed her from their cheer team, a decision that resulted in Groves withdrawing from the school because of what she perceived as pressure from the school's admissions office.

Make no mistake, making racial slurs of any kind is demeaning and inappropriate behavior. But is one comment made four years prior enough to ruin the future of a teen who hadn't even entered adulthood yet? The court of public opinion said 'yes,' without giving Groves any chance at re-

### Why People 'Cancel'

Groves's story is just one of many.

Cancel culture has become more widespread over the last several years than anyone could have imagined. When I penned this article on the topic two years ago, I had no idea the problem would escalate to the level it has reached today.

But cancel culture isn't reserved only for those who have made distasteful comments in the past.

Today, those espousing any opinion that goes against "woke" rhetoric are ridiculed online, fired from their jobs, and some are banned from using popular social media platforms altogether.

One University of North Carolina Wilmington professor, Mike Adams, even took his own life after tweets construed as offensive pushed him into early retirement after years of service to the institution.

Jonathan Haidt, author of "The Righteous Mind" and co-author of "The Coddling of the American Mind," has been an outspoken critic of the cancel culture phenomenon for some time.

"Part of a call-out culture is you get credit based on what someone else said if you 'call it out," he said in a 2018 interview.

This virtue signaling, which is really just



a means of proving to society how "good" and "moral" your views are, is only half of the equation, however. Cancel culture is also about personal destruction, which is obvious in Groves's situation, since Galligan didn't use this ammunition against her until the time was ripe for maximum

of personal vindictiveness, where people go out of their way to find ways the things other people say could be construed as insensitive," Haidt said.

cancel culture has made people scared to share their opinions lest they be condemned for thinking "incorrectly" about any given issue.

### **The Costs of Cancel Culture**

That's when her phone began ringing We now live in an era where people are victims of cancel culture.

> mind, nor is there room to defend opinions you genuinely believe. And this is a huge problem for any civil society.

> Haidt spoke of the importance of protecting open dialogue so that we may live in a society filled with varying opinions from which to choose.

"One of the most important [aspects] is

The odds are high that your opinions

We're no longer given the room to share our opinions today because we're no longer able to disagree with each other re-

The destruction wrought by mob-driven cancel culture comes with even greater costs than individual lives turned upside down and dreams

We have all

made com-

ments, or held

opinions, we

Brittany is a writer for

the Pacific Legal Foun-

dation. She is a co-host

of "The Way The World

Works," a Tuttle Twins

article was originally

published on FEE.org

podcast for families. This

later regret.

destroyed.

"It [cancel culture] has reached a level

Slurs and inappropriate comments aside,

constantly looking over their shoulders, or computer screens, worried that whatever opinion they post might make them

There's no opportunity to change one's

that people are not afraid to share their opinions—they're not afraid that they're going to be shamed socially for disagreeing with the dominant opinion," Haidt said.

about certain issues will change over time. However, some may not, and you shouldn't live in fear that your beliefs will be met with social condemnation and isolation.

spectfully.

You're not always going to agree with ev-

fessors, your classmates, or your parents. In fact, you might even find that your own views change as you learn new things and grow as a person and adult. But having the freedom to consider all opinions and decide what you genuinely

erything other people say—not your pro-

believe is vital to the human experience and civil discourse. There is a market of choice in all things,

from what clothes you wear, products you buy, and what ideas you subscribe to. When you go shopping, you might not

like the first outfit you try. You might not even like the second or third. But trying on different looks, or opinions, allows you to think for yourself and figure out what it is you want, or believe.

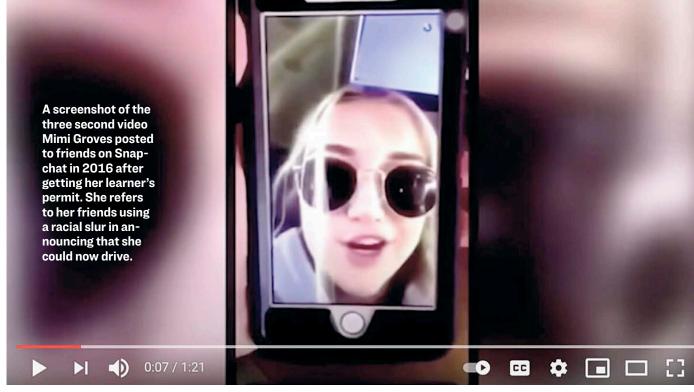
To be truly open-minded, you must be able to consider all opinions, instead of condemning any thought contrary to your own. The free exchange of ideas pushes individuals to share unique ideas and allows for opinions to evolve.

Dissent is what makes democracy strong. Our Constitution has outlasted so many others because the Founders disagreed and debated with each other until they crafted a document that fostered "a more perfect union" than had ever been seen before. We would be wise not to forget the example they set.

Put simply, shaming others doesn't work. It's purely punitive and self-aggrandizing. It also rarely changes a person's mind and often further radicalizes their beliefs, widening the divide already growing in our country.

Free speech serves as a central tenet of innovation, community, and civil society. How we preserve and protect this fundamental value is what makes our society extraordinary.

Without the ability to speak freely and consider all opinions, civil discourse cannot occur. In its absence, society as we know it will cease to exist, and the divides between us will continue to grow.



Gardens allow us to get outside and connect with nature in a meaningful way

### **TANIA WISEMAN**

his year more than any other we've been reminded that access to outdoor private space is a privilege—not all of us have a home with a garden. But many of us have also spent more time outdoors in nature this year and felt a greater sense of connection with the trees, plants, and the natural world.

With this in mind, I've pulled together some tips on how you can nurture your mental health through nature. These ideas will work for all gardens (both public and private)—from the smallest patch to a stately home.

### Reflect

Nature connects us in complex ways. And stopping to think about this connection is one way you can get in tune with the natural world around you. In your garden or local park, walk a path that has been walked before, you could choose an ancient path and consider all the people that have walked that way before. Or choose a route you have walked with someone vou care about.

Nature connects us in complex ways. And stopping to think about this connection is one way you can get in tune with the natural world around you.

If you have a garden, think about peo- Gardening is experienced as both a ple who have contributed to it, take a slow, long-term project—transformations of careful tour, focus on each plant—how did the garden may take years to achieve—

it come into the garden? Show appreciation for it and its story, send a mental message of thanks to the person who gifted it or inspired its adoption.

The certainty of the rhythmic cycle of the seasons can also help to connect us to a better future. Gardening is inherently related to nature's cycles. Gardening is continuous and can be characterized as "quiet sustainability" or quiet activism. Through the act of willing things to grow we are imagining that spring and summer will come and there will be renewal. Don't worry about the look of the garden, just focus on what it means to you in this season of bare branches and empty flowerbeds.

### Harvest and Tidy

Gardeners often share and gift their surplus vegetables, plants, and seeds with family, friends, and neighbors. In this sense then, gardening doesn't have to be an expensive hobby—many gardeners base their acquisition of plants and seeds on mutual exchange with other gardening enthusiasts within their community.

If you bear the responsibility of a garden, then you will also appreciate the pleasure of a newly cleared patch. So, whether there is obvious produce or not, get to work. Tidy, weed, and collect seed pods and cases, use paper bags or envelopes to store them.

Don't worry if you are unsure which plant they came from, take a picture, or draw a map of the spot. You can return to it in the spring if your seedlings start to sprout and you're still not sure what they are. Allow your seeds to dry thoroughly and spend time on rainy afternoons trying to identify them. Reflect on the wonder that each tiny speck will become the producer of thousands of new seeds.

and as a spontaneous and intrinsically rewarding activity. Many gardeners endure chore-like aspects such as weeding as part of their overall project of caring for the garden—which reciprocally appears to care for them.

Nurturing acts can include transforming pine-cones into bird feeders by squeezing fats and seeds into their spaces and hanging them where you can see them. Piles of dry twigs can also be made into excellent hotels for beneficial garden insects and bigger piles may attract hedgehogs.

You can also care for the earth by making your own Christmas decorations from garden leaves and other things you find

In a recent study of Danish allotment gardening, people thought of going to their garden patch as an "escape" and used terms such as "refuge," "oasis," and "haven" to describe their plot. Many gardeners also highlighted the sense of freedom access to outdoor space gave them—along with

a chance to relax and mentally unwind. So give yourself permission to play and disconnect. Get muddy, dig and weed, move and organize, have fun, get sweaty. If something catches your eye—a strange insect or curious seed case—stop and stare. Be in the moment, allow wonder and childlike feelings and sensory experiences, colors and smells, to fill your mind. Even when it's not fun, it's satisfying.

Though many garden tasks can be enjoyable in their own right, sometimes it can be a bit of chore-like outdoor housework. Let your imagination roam while doing those necessary, but boring jobs and you can add a layer of meaning to create a sense of purpose in the overall project of tending the garden.

For example, you could plan your next holiday while raking leaves, or imagine a beautiful spring border when planting bulbs. Allowing the imagination to roam allows you to create enjoyment in a mundane task. And this sense of delayed gratification is an essential feature of gardening. It doesn't matter if the enjoyment is in the task itself or in the freedom it gives to let the mind wander—just the fact you're doing it is enough.

Tania Wiseman is a principal lecturer at the school of health sciences at the University of Brighton in the United Kingdom. This article was originally published on The Conversation.

> Those who garden know something that others mav not: the act of working with nature to cultivate something beautiful is transformative and uplifting.

# Self-Controlled Kids Tend to Be Healthier Adults

Researchers found one of the benefits of self control was looking younger

### **KARL BATES**

In a new study, researchers found people who had higher levels of self-control as children were aging more slowly than their peers at age 45.

Their bodies and brains were healthier and biologically younger, the researchers

Self-control, the ability to contain one's own thoughts, feelings, and behaviors, and to work toward goals with a plan, is one of the personality traits that makes a child ready for school. And, according to the study, which tracked 1,000 people from birth through age 45 in New Zealand, ready for life as well.

In interviews, the higher self-control group also showed they may be better equipped to handle the health, financial, and social challenges of later life as well. The researchers used structured interviews and credit checks to assess financial preparedness. High childhood self-control participants expressed more positive views of aging and felt more satisfied with life in middle age.

"Our population is growing older, and living longer with age-related diseases," said Leah Richmond-Rakerd, an assistant professor of psychology at the University of Michigan who is the first author of the study in the Proceedings of the National Academy of Sciences.

"It's important to identify ways to help individuals prepare successfully for later-life challenges, and live more years free of disability. We found that self-control in early life

may help set people up for healthy aging." The children with better self-control

tended to come from more financially secure families and have higher IQ. However, the findings of slower aging at age 45 with more self-control can be separated from their childhood socioeconomic status and IQ. The analyses showed that self-control was the factor that made a difference.

And childhood isn't destiny, the researchers are quick to point out. Some study participants had shifted their self-control levels as adults and had better health outcomes than their childhood assessments would have predicted.

Self-control also can be taught, and the researchers suggest that a societal investment in such training could improve life span and quality of life, not only in childhood, but also perhaps in midlife. There is ample evidence that changing behaviors in midlife (quitting smoking or taking up exercise) leads to improved outcomes.

"Everyone fears an old age that's sickly, poor, and lonely, so aging well requires us to get prepared, physically, financially, and socially," said Terrie Moffitt, professor of psychology and neuroscience at Duke University and last author on the paper.

"We found people who have used selfcontrol since childhood are far more prepared for aging than their same-age peers."

Children with higher self-

control showed they may

be better equipped to

cial, and social challenges

handle the health, finan-

of later life.

The Dunedin Multidisciplinary Health and Development Study, based in New Zealand, has tracked these people since they were born in 1972 and 1973, putting them through a battery of psychological and health assessments at regular intervals

since, the most recent being at age 45. Teachers, parents, and the children themselves assessed childhood self-control at ages 3, 5, 7, 9, and 11. The children were measured for impulsive aggression and other forms of impulsivity, over-activity, perseverance, and inattention.

From ages 26 to 45, researchers measured the participants for physiological signs of aging in several organ systems, including the brain. In all measures, higher childhood self-control correlated with slower aging.

The people with the highest self-control walk faster and have younger-looking faces at age 45 as well. "But if you aren't prepared for aging yet, your 50s is not too late to get ready," Moffitt said.

The U.S. National Institute on Aging, the National Institute of Child Health and Human Development, the UK Medical Research Council, the Jacobs Foundation, the U.S. National Science Foundation, and the Lundbeck Foundation funded the work. The New Zealand Health Research Council and the New Zealand Ministry of Business, Innovation and Employment supports the Dunedin Multidisciplinary Health and Development Study.

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

# Tooth or Consequences

Even during a pandemic, avoiding the dentist can be bad for your oral health

### **ANDREW J. CORSARO**

Dental care remains critical for tens of mil lions of Americans, even during the pandemic. More than one-quarter of adults in the United States live with untreated tooth decay, with nearly half of adults over 30 showing signs of gum disease. And nearly 1 in 4 adults reports having felt pain in or around their mouth in the past year.

Poor oral health is associated with numerous chronic diseases, including heart disease and diabetes. These problems pose an immediate health risk and require urgent care. Yet, less urgent dental conditions can have long-term negative effects as well.

But how can you visit your dentist during a pandemic? As a professor, I can tell you that dentists have made many changes to the way your care is provided to improve safety. You should still go, but if you are high risk, you should discuss it with your dentist first. Here are some things you need to know—and do—before visiting.

### **Home Care: More Critical Than Ever**

With dentists worldwide postponing nonurgent dental treatment, your home care is your first line of defense. Consuming carbohydrates and the subsequent secretion of acid by oral bacteria is what causes tooth decay. Chronic inflammation of the tissues supporting your teeth is called gum, or periodontal, disease. Both conditions are exacerbated by poor diet, tobacco use, a weakened immune system, and poor oral

### COVID-19 has given us a whole new set of reasons to feel anxious about going to the dentist, but if you have a dental emergency, you better get it tended to.

You can battle all of these things by controlling dental plaque, the soft, sticky material on teeth and gums consisting of saliva, food debris, and bacteria. Plaque that remains on teeth for a period of time will form tartar (dental calculus), further promoting bacterial biofilms, ecosystems of bacteria that cause dental problems.

To remove biofilms and plaque, and prevent tartar formation, you must clean all surfaces of the teeth and gums. That means brushing teeth for two minutes, twice a day, using a soft-bristled toothbrush. You must also clean the spaces inbetween teeth once a day, typically with dental floss.

Studies show an electric toothbrush is more effective at cleaning teeth and gums than a manual one. An alcohol-free mouth rinse helps too but isn't a substitute for brushing or flossing. Overthe-counter mouth rinses with fluoride are available for those at higher risk for tooth decay.

You can also improve oral health with your diet. Limit sugar intake, along with other carbohydrate-containing foods and drinks, such as sodas, fruit juices, sweetened coffee and tea, and candy. You don't have to completely avoid their consumption, of course, but cutting back on both can be extremely beneficial. Avoid hard and sticky foods that can break teeth and dental work.

COVID-19's psychological impact has had many indirect effects on oral health. Medications prescribed for depression and anxiety are known to cause dry mouth, which harms oral health. Increased anxiety is linked to bruxism, the clenching or grinding of teeth. More tobacco and alcohol use aren't good for your teeth. A poorer diet can lead to many health problems, such as gastroesophageal reflux disease (GERD), which can damage teeth.

### When to See Your Dentist

Oral pain may indicate an infection; take it seriously. Broken teeth and dental work are other examples of dental emergencies. In the early weeks of the pandemic, many states mandated the restriction of all nonemergency dental procedures. In response, the University of Florida College of Dentistry, along with many other care providers, instituted teledentistry services. This remote, virtual consultation with a dental professional is one way to help you decide whether to delay care or to visit a dentist.

nally published on The If you have a loose or failing dental work, Conversation.



Dentist offices have taken effective precautions to ensure they can take care of dental emergencies amid the pandemic.

HEERANUCH/SHUTTERSTOCK

Poor oral health

is associated with

numerous chronic

diseases, including heart

disease and diabetes.

Andrew J. Corsaro is

a clinical assistant

professor at the Col-

lege of Dentistry at the

University of Florida.

This article was origi-

try to keep the area clean without further dislodging it. Usually, it's helpful to insert floss around a loose restoration, then gently pull the floss through to the side, to avoid lifting broken dental work out of place. A completely debonded crown can sometimes be temporarily recemented with over-the-counter dental cement or even toothpaste. A teledentistry consultation can help determine if this is appropriate.

A few rare oral problems can constitute life-threatening emergencies. If you have difficulty breathing or swallowing, or uncontrolled bleeding in or around the mouth, seek immediate emergency care. Extreme pain or a high fever associated with dental problems also requires imme-

### Changes at the Dentist's Office

For decades, dental professionals have been sterilizing instruments and disinfecting surfaces. Early reports show a lower COVID-19 prevalence among U.S. dentists than in the general public. With

COVID-19, additional precautions are needed. Patients should ask their dentists if they are taking these precautions.

Here's a brief checklist: First, your dentist's office should screen you and other patients for COVID-19 symptoms. The office may call you in the days leading up to your appointment to make sure you don't have symptoms. You may be asked to come to your appointment alone, wear a mask, and wash your

hands while at the office. When you arrive, you may be asked to wait outside or in your car until your appointment time. Waiting areas should have fewer chairs, all properly spaced. All magazines and toys should be removed.

Dental staff should wear appropriate personal protective equipment (PPE), including an N95 mask, along with protective gowns, head coverings, gloves, and face shields. Disposable barriers should cover commonly touched surfaces. Air quality controls, such as HEPA filters, single-pass air circulation, and negative pressure should be in use; they help to contain any aerosols generated during dental procedures.

You may be asked to rinse your mouth with a solution containing diluted hydrogen peroxide. This will decrease the viral load prior to your dental procedure. High-volume evacuation, more commonly known as dental suction, should be used for all procedures that may generate aerosols.

The good news is this: The new safety measures now in place may be sufficient to prevent infection in dental settings. Still, you must consult with a dental professional to help determine the need for treatment. As the COVID-19 pandemic evolves, and new research becomes available, expect more changes at your dentist's office.

Can Fatty Acids in Foods Fight Multiple Sclerosis? New study links low levels of oleic acids to loss of sensors crucial to proper

**FOOD AS MEDICINE** 

### **BILL HATHAWAY**

Dietary change might help treat some people with multiple sclerosis, new research suggests.

According to a new study, the lack of a specific fatty acid in fat tissue can trigger the abnormal immune system response that causes multiple sclerosis (MS) by attacking and damaging the central nervous system.

Fat tissue in patients diagnosed with MS lack normal levels of oleic acid, a monounsaturated fatty acid found at high levels in, for instance, cooking oils, meats (beef, chicken, and pork), cheese, nuts, sunflower seeds, eggs, pasta, milk, olives, and avocados, the researchers report in the Journal of Clinical Investigation.

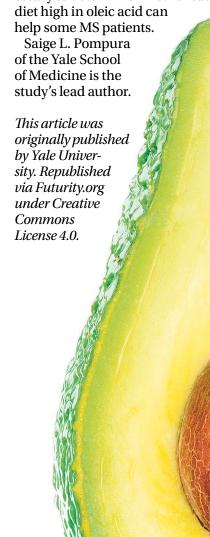
### **Obesity triggers** unhealthy levels of inflammation and is a known risk factor for MS.

This lack of oleic acids leads to a loss of the metabolic sensors that activate the T cells that mediate the immune system's response to infectious disease, the researchers found. Without the suppressing effects of these regulatory T cells, the immune system can attack healthy central nervous system cells and cause the vision loss, pain, lack of coordination, and other debilitating symptoms of MS.

When researchers introduced oleic acids into the fatty tissue of MS patients in laboratory experiments, levels of regulatory T cells increased, they found.

"We've known for a while that both genetics and the environment play a role in the development of MS," said senior author David Hafler, professor of neurology and professor of immunobiology and chair of the neurology department at Yale University. "This paper suggests that one of environmental factors involved is diet."

Obesity triggers unhealthy levels of inflammation and is a known risk factor for MS, an observation that Hafler said led him to study the role of diet in MS. He stresses, however, that more study is necessary to determine whether eating a diet high in oleic acid can



Cheese, nuts,

sunflower seeds, eggs, pasta, milk, olives, and avocados are some of the foods high

in oleic acids.



Oolong tea garden in Alishan in Chiayi, Taiwan.

which impacts energy metabolism by in-

creasing our heart rate," wrote the study

The note that studies suggest drinking

tea could increase fat breakdown, inde-

"We therefore wanted to examine the

effects of oolong consumption versus caf-

feine alone on energy and fat metabolism

"The stimulatory effects of oolong tea on

fat breakdown during sleep could have

real clinical relevance for controlling

body weight. However, we need to de-

termine whether the effects we observed

in the 2-week study translate into actual

body fat loss over a prolonged period,"

among a group of healthy volunteers."

pendent of caffeine's effect.

**FOOD AS MEDICINE** 

# Oolong Tea May Help Shed Pounds While You Sleep

An unknown factor in this healthful beverage is attracting interest from researchers

**JOSEPH MERCOLA** 

effects of caffeine. Around the breakfast and lunch each day. world, tea is one of the most ing 1 percent is split between oolong, white, out any effect on energy expenditure. and dark teas.

According to the Tea Association, total rose to \$12 billion by 2016. The market continues to grow, albeit at a slower rate, with reported sales of \$12.67 billion in 2019. The Tea Association hypothesizes several trends could be affecting their industry, including a healthier outlook of consumers and a greater number of people who practice alternative nutrition such as gluten-free, dairy-free, vegetarian, and

On any day, nearly half the people in the United States are drinking tea, with a greater concentration of tea drinkers found in the South and Northeast. Although black tea is the preferred drink, it may be time to consider the less bitter and flavorful oolong tea.

### Oolong in the Evening **Burns Fat at Night**

A recently published study from a team of researchers at the University of Tsukuba in

Japan found that drinking oolong tea can help your body burn fat, even while you're ata from Japan show drinking sleeping. The study took place over 14 days oolong tea may help your body and engaged 12 non-obese men who drank burn fat, independent of the either oolong tea, caffeine, or a placebo at

On Day 14, 24-hour measurements were popular beverages, second only to water. In recorded. The researchers found that popularity, 84 percent of tea consumed is drinking caffeine or oolong tea raised fat black; 15 percent is green; and the remain- burning by approximately 20 percent with-

However, they also found a greater decrease was experienced by those drinking sales in 1990 were \$1.84 billion, which the oolong tea suggesting there was an unidentified ingredient in the tea that has a greater effect on fat oxidation. Additionally, it appeared that the effect on fat burning was suppressed immediately after meals and occurred during sleep.

The researchers also found drinking two cups of oolong tea per day didn't interfere with the participants' sleep habits. Past research has demonstrated caffeine at greater than 100 milligrams (mg) can increase energy expenditure, but in the present study the amount of caffeine ingested didn't increase energy expenditure.

This suggested to the researchers that the participants became tolerant over the two weeks of routine caffeine ingestion. While the researchers did measure fat burning, they noted two weeks wasn't a long enough duration to assess the effects this intervention could have on body

"Like all teas, oolong contains caffeine,

**Japanese** adults who drank 8 ounces or more of oolong tea each day significantly reduced their risk of cardiovascular disease mortality.

The authors want to test a decaffeinated oolong tea to figure out how other components of tea burn fat. They say such a study will help them understand how exactly oolong helps with fat breakdown. Green, Black, or Oolong?

Although the health benefits of green tea are well covered, black tea is the most commonly consumed tea in the United States. As the health benefits of oolong tea aren't as well publicized, one team of researchers set out to assess how well a group of dental students understood the benefits of oolong tea.

Using a set of questionnaires, they drew data from 100 participants using an online survey. Among the students, only 19 percent had ever heard of oolong tea, and of those only 55 percent were aware of the health benefits.

All black, green, oolong, and dark and white teas are all made from the leaves of the same tree, an evergreen named Camellia sinensis. Of course, people make teas from other herbs and plants, but technically speaking those are more accurately called "tisanes." The difference in the taste and color of actual tea happens when the leaves are processed. But, no matter which type of tea it is, or whether it's caffeinated or decaf, it's only 24 hours from the time tea leaves are picked until they're packed.

Before processing starts, the tea leaves are graded and sorted. The most common method of processing tea leaves is the orthodox method during which the leaves go through four stages, including withering, rolling, oxidation, and drying.

It's in the oxidation stage that the color,

taste, and strength of the tea is determined. The leaves are laid out and left at 26 degrees Celsius (78.8 degrees Fahrenheit) for 30 to 120 minutes. During this time, oxidation occurs, which changes the color of the leaves. The oxidation process is left

out when making green tea, which gives the tea leaves a light fresh flavor. Black tea goes through the longest oxidation and oolong is made from partially oxidized leaves. The oxidation goal for tea leaves destined to become oolong is 70 percent green and 30 percent brown, enough to give a delicate color and fruity aroma.

The shape of the leaves and flavor of oolong tea can vary depending on where it's grown and how it's processed. For instance, oolong tea from Taiwan is traditionally less oxidized and the famous Chinese teas are grown in a harsh environment, which gives the leaves a rich flavor.

### **Oolong Shifts Salivary** and Gut Microbiota

In addition to raising fat metabolism, oolong tea also has an impact on your oral and gut microbiota. One study, published in the journal Nutrients, evaluated the oral microbiota of three healthy adults who drank 1 liter (33 ounces) of tea daily for eight weeks. Before the intervention, during the treatment, and after the study, the participants' salivary microbiota were sampled, sequenced, and analyzed.

"Oolong tea consumption reduced salivary bacterial diversity and the population of some oral disease related bacteria, such as Streptococcus sp., Prevotella nanceiensis, Fusobacterium periodonticum, Alloprevotella rava, and Prevotella elaninogenica," the authors wrote.

The results suggested that drinking oolong tea for an extended period of time could change your salivary microbiota and have a protective effect on dental health. Several studies have also evaluated the effect oolong tea has on modulating human intestinal microbiota in the lab and in animal models.

One study published in Food Research International demonstrated the compounds commonly found in oolong tea, including epigallocatechin gallate (EGCG), (-)-gallocatechin gallate (GCG) and epigallocatechin - 3 - (3" - O - methyl) gallate (EGCg3"Me), modulated bacterial growth in the intestines. They inhibited the growth of harmful bacteria and helped beneficial bacteria to proliferate.

A second study evaluated the effect tea had on gut microbiota in light of the known anti-obesity properties. The results of this animal model suggested drinking tea substantially increases the diversity and structure of gut microbiota, which may have an impact on fat burning.

Researchers also demonstrated the polyphenols extracted from green tea, oolong tea, and black tea could modulate intestinal flora and produce a greater number of short-chain fatty acids, contributing to a healthy gut microbiome.

### **More Health Benefits Associated** With Oolong Tea

Oolong tea is also rich in antioxidants beneficial compounds that help reduce the effects of free radicals and reactive oxygen species. This plays a role in the development of various diseases, including diabetes, stroke, cancer, and rheumatoid

One study evaluated the effect of oolong tea on bone mineral density in 476 postmenopausal women. They were questioned about their lifestyle, types of tea they drink, demographic features, and health

When researchers compared the tea drinkers against the non-tea drinkers, they found those drinking oolong tea had higher bone-mineral density. It was significantly higher in those who drank 1 to 5 cups of tea per day but didn't go up for those drinking more than five cups per day.

The antioxidants, caffeine, and theanine found in oolong tea may also contribute to a lower risk of cognitive impairment and decline that researchers have found in community-living Chinese adults 55 years and older who consistently drank oolong

In a review of the literature, researchers identified an increase in insulin activity. This occurred with black, green, and oolong teas with an increase in insulin activity of at least 15-fold in laboratory fat cell assays. Oolong tea also reduced plasma glucose and is believed to be an effective adjunctive treatment of Type



Paper tea bags are treated with epichlorohydrin, which is a chemical that prevents tears and has been found to be a probable human carcinogen.

Drinking caffeine or

oolong tea raised fat

burning by approx-

imately 20 percent

without any effect on

energy expenditure.

Oolong tea has been associated with a reduction in heart disease. In one study with 76,979 Japanese adults, those who drank 8 ounces or more of oolong tea each day significantly reduced their risk of cardiovascular disease mortality. In a

separate study, those drinking 1 to 2 cups of green tea or oolong tea each day significantly reduced their risk of stroke.

### EGCG Helps Improve **Zinc Absorption**

During flu season and the CO-VID-19 pandemic, it bears remembering that the epigallocatechin gallate (EGCG) a unique plant compound found in green, black, and oolong tea-can help improve absorption of zinc. Zinc is an essential mineral and a cofactor for nearly 3,000 proteins in the body.

In addition to this, zinc is crucial for healthy immune functioning. Zinc deficiency has been shown to impair your immune function as it modulates cell mediated immunity and acts as an antiinflammatory agent and antioxidant.

Although there's no cure for viral infections, your body uses a process to fight viruses that includes zinc. Zinc has also demonstrated the ability to reduce the length of a cold by an average of 33 percent.

One effective treatment for the early symptoms of COVID-19 has been a combination of hydroxychloroquine and zinc. Hydroxychloroquine is routinely used in the treatment of rheumatoid arthritis, lupus, and other autoimmune diseases.

The hydroxychloroquine acts as an ionophore, driving zinc into the cells where it can impair the replication of the SARS-CoV-2 RNA virus. Beyond immune health, zinc has an impact on wound healing, age-related macular degeneration, sense of smell and taste, and blood sugar balance.

EGCG is a major polyphenol component found in tea and has demonstrated the ability to act as a zinc ionophore, transporting zinc across the cell membrane. A study published in the Journal of Agricultural and Food Chemistry used a lab model to demonstrate EGCG and quercetin (a flavonol present in many fruits and vegetables) could rapidly increase levels of zinc in cells in the laboratory.

They hypothesized that the ionophore activity of the dietary polyphenols tested may play a significant role in raising the levels of intracellular zinc and thus may be responsible for many of the biological actions attributed to the polyphenols.

### **Get the Most From Your Tea**

While drinking oolong tea is healthy, using tea bags adds a level of toxins you don't want. Tea bags may be more convenient, but many are made with heat resistant polypropylene that prevents the bag from breaking apart in hot water and releases minute pieces of plastic in each drink.

Paper tea bags are treated with epichlorohydrin, which is a chemical that prevents tears and has been found to be a probable human carcinogen. Instead, seek out loose tea leaves and store them in an airtight container kept in a dry, dark cabinet away from direct sunlight and heat.

Since the processing techniques used affect the ideal brewing temperature, look for the directions on the package of tea you buy. However, here are some general tips

- Use fresh, pure filtered water. Do not use distilled water as it will give your tea a flat flavor.
- In general, the tea should be steeped between 180 degrees and 200 de-
- grees Fahrenheit for 1 to 3 minutes. Oolong teas can be used multiple times. With each cup, the leaves open a little more, which releases more flavor. You may be able to get up to five uses out of a high-quality tea.
- Oolong tea tastes best after steeping for a short time, so it's a good idea to taste it after the recommended time before deciding to steep it longer.
- Cover the tea while it steeps to keep all the heat in the vessel and try drinking it without any additives, such as milk or sugar, to improve the health benefits and appreciate the handcrafted flavor of the tea.

Dr. Joseph Mercola is the founder of Mercola.com. An osteopathic physician, bestselling 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



If you are middle aged and not very active, it's time to shape up or your brain may ship out.

### **MADE TO MOVE**

### Get Fit Now, and You'll Remember It Down the Road

Another study has linked brain health to long-term physical activity levels

### **MOHAN GARIKIPARITHI**

Exercise is good for you, but it might do more than you think. New research suggests that deciding to get fit today may help your brain well into the future.

Brain age is a growing concern for people reaching middle age and beyond. You may even be expecting to experience memory loss, dementia, or other forms of cognitive decline.

It's entirely possible you believe you're destined for this outcome and that it is simply a "natural" part of aging.

Your brain will go through some natural changes with age, just like the rest of your body. But by getting fit now, in middle age, you might be able to keep your brain healthy for decades to come.

A new study, published in Neurology, suggests that getting at least an hour and 15 minutes of moderate-to-vigorous physical activity per week or more may help promote brain health and preserve brain structure.

### Being active and fit today doesn't help you tomorrow if you aren't consistent.

If you're able to get more than 2.5 hours of exercise each week, the effects could be even more profound.

Researchers in New York collected data on more than 1,600 people with an average age of 53. They went through five physical exams over 25 years and reported weekly activity levels. After the study period, they underwent brain scans.

The correlation between activity and brain age was quite strong. Results revealed that those who didn't reach an hour and 15 minutes per week had a 47 percent greater chance of developing brain damage than those who exercised more.

Researchers suggest that the results could have something to do with exercise's effect on small blood vessels in the brain. Moderate-to-vigorous exercise gets the blood pumping, opening up blood vessels to ensure they are functioning optimally. Exercise also offers other benefits for brain health. It can increase nitric oxide production, reduce the risk of heart disease, and help neural pathways remain open and functional.

Starting an exercise routine today to carry into the future may help you fight against memory loss and age-related cognitive de-

cline. There is only a single caveat: consistency. Being active and fit today doesn't help you tomorrow if you aren't consistent. Once the activity stops, the benefits taper off. So, build your healthy habits and keep it going as you age. You won't be disappointed.

Mohan Garikiparithi holds a degree in medicine from Osmania University (University of Health Sciences). He practiced clinical medicine for over a decade. During a threeyear communications program in Germany, he developed an interest in German medicine (homeopathy) and other alternative systems of medicine. This article was originally published on Bel Marra Health.



Oolong teas like these samples from Taiwan represent a middle ground in the processes that create black tea and green tea. All teas (not including herbal teas or tisanes) are made from the camellia sinensis plant.

## How Engineering Can Help Reimagine Public Health Care

Health care engineering is a new interdisciplinary field focused on the widest scope of health care delivery

### **WOODROW W. WINCHESTER III**

Of the many things that COVID-19 has made abundantly clear to us, surely one of them is a newfound realization that public health has become increasingly complex. Understanding the challenges to public health—that is, the task of guarding the well-being of the U.S. population—is more essential now than ever.

As an engineer, design futurist, and graduate program director, I have seen how COVID-19 has transformed how public health preparedness is viewed and understood. Some say the pandemic has made reimagining public health an urgent matter.

From problems in producing personal protective equipment that demonstrate the vulnerabilities in critical supply chains, to solutions in vaccine distribution challenges that leverage innovative public-private partnerships, new perspectives and approaches to public health are necessary.

# The time is ripe for evolving the field of public health systems engineering.

One way to accomplish this is by using health care engineering, or more specifically, the application of systems engineering in health care.

"Researchers in health care systems engineering seek to increase efficiency, reduce errors, and improve access and overall quality of health care," notes a description on the Mayo Clinic website.

Systems engineering is defined as an interdisciplinary approach and means to enable the realization of successful systems. It is the combination of engineering and engineering management that focuses on how to design, integrate, and manage

complex systems over their life cycles. These could include such complex systems as aircraft and spacecraft systems.

Already, this concept is flourishing. Research centers throughout the United States, including those at the Mayo Clinic and Northeastern University's Healthcare Systems Engineering, suggest challenges such as patient safety could be made better by applying systems engineering principles and techniques through more holistic and human-centered approaches to systems design.

These efforts have proven helpful to health care delivery in response to CO-VID-19. But more is required, particularly in the use of systems engineering in informing public health responses and interventions. A field of public health systems engineering is needed.

Its intent: to develop and apply systemic and integrated approaches to understanding and solving public health problems. Formalizing a field of public health systems engineering—focused on health care at the population level—offers the needed research and educational pathways to advance this work.

### **The Systems Engineering Imperative**

Examples of systems engineering include designing and developing personal protective equipment, repairing the vulnerabilities in the food supply chain, and grappling with vaccine logistics. COVID-19 has made clear the growing interconnected, interdisciplinary, and multifaceted nature of public health's future. In partnering with public health, systems engineering can mature mind-sets (systems thinking) and practices that can aid in meeting this future.

Illustrating this notion are efforts by Pinar Keskinocak, the co-founder and director of the Center for Health and Humanitarian Systems at Georgia Institute of Technology, and her colleagues. In a recent interview, Keskinocak said: "Whenever there is a complex problem, it needs serious analysis or technology and that's where an engineer comes in.



Effective health care requires a broad overview too often missing from current approaches but systems engineering may help change that.

This is exactly the situation now, very complex, dynamic, and uncertain. It's difficult to understand what's going on or make decisions just by sitting around a table and discussing. We need expertise in engineering."

And it's not just technical or technological concerns. Human systems integration or human factors considerations are equally central in systems engineering approaches. For example, building trust with black Americans is vital to the success of contact tracing. Public health systems engineering could advance efforts to develop more equitable practices that could improve black participation. An example is works that further the development of requirements elicitation techniques such as storytelling that provide a more comprehensive understanding of users and their context of use. These more inclusive practices would consider historical context and support more community-led public health design engagements.

A 'Test We Cannot Fail'
COVID-19 has often been called a stress

test for public health. COVID-19 will not be our last or worst pandemic; our emerging understanding of the public health implications of climate change further spotlights this growing need.

As the future of public health is likely to become increasingly digital, the technical understanding and holistic approach offered by systems engineering will begin to fill this critical public health knowledge gap. Fortunately, efforts are emerging in meeting these needs. Emory University's Health DesignED, the Design Institute for Health at the Dell Medical School, Vanderbilt's Medical Innovators Development Program, and recent initiatives such as those at Johns Hopkins are examples. The time is ripe for evolving the field of public health systems engineering. It is something the U.S. public health system desperately needs.

Woodrow W. Winchester III is a graduate program director of professional engineering programs at the University of Maryland-Baltimore County. This article was first published on The Conversation.



