



Honest Journalism Now Comes In Three Formats!

As a print subscriber, enjoy total access to all three at no additional cost!

Taking a few easy steps to set up your account will ensure unlimited availability of all our articles—and with no pesky paywall notices! As a loyal subscriber, you can access the print edition you're reading now, our digital content at **TheEpochTimes.com** and our new ePaper that provides the entire print edition online in an actual newspaper format.

It just takes a moment to set up your total access account: **DIGITAL ACCESS COMPLIMENTARY** Activate your digital subscription by clicking the link sent in your subscription confirmation email. If you can't find the link, email us at subscribe@epochtimes.com or call 917-905-2080.

E-PAPER COMPLIMENTARY An issue of our ePaper will arrive every weekday morning via email.

So, whether you prefer to turn a newspaper page, enjoy content online or simply download articles and columns it's your choice. You've got total access to Truth and Tradition—wherever you go!

THE EPOCH TIMES

Dental Insurance

Get the dental care you deserve with dental insurance from Physicians Mutual Insurance Company. It can help cover the services you're most likely to use -



6154-0120











- ♦ Helps cover over 350 services
- ◆ Go to any dentist you want but save more with one in our network
- ♦ No deductible, **no annual maximum**

Call today for all the details. 1-855-640-9261



Call now to get this FREE Information Kit! dental50plus.com/316



Product not available in all states. Includes the Participating Providers and Preventive Benefits Rider. Acceptance guaranteed for one insurance policy/certificate of this type. Contact us for complete details about this insurance solicitation. This specific offer is not available in CO, NY; call 1-888-799-4433 or respond for similar offer. Certificate C250A (ID: C250E; PA: C250Q); Insurance Policy P150 (GA: P150GA; NY: P150NY;

FOOD AS MEDICINE

Mediterranean Diet Feeds Gut Bacteria Linked to Healthy Aging

Older adults can better avoid frailty, inflammation, and cognitive decline with these helpful bacteria

PAUL O'TOOLE

s our global population is projected to **L** live longer than ever before, it's important that we find ways of helping people live healthier for longer. Exercise and diet are often cited as the best ways of maintaining good health well into our twilight years. But recently, research has also started to look at the role our gut—specifically our microbiome—plays in how we age.

Our latest study has found that eating a Mediterranean diet causes microbiome changes linked to improvements in cognitive function and memory, immunity and bone strength.

The gut microbiome is a complex community of trillions of microbes that live semi-permanently in the intestines. These microbes have co-evolved with humans and other animals to break down dietary ingredients such as inulin, arabi-

noxylan, and resistant starch, that the person can't digest. They also help prevent disease-causing bacteria from growing.

However, the gut microbiome is extremely sensitive, and many things including diet, the medications you take, your genetics, and even conditions like inflammatory bowel disease and irritable bowel syndrome, can all change the gut microbiota community. The gut microbiota plays such a huge role in our body, it's even linked to behavioral changes, including anxiety and depression. But as for other microbiome-related diseases such as Type 2 diabetes and obesity, changes in the microbiome are only the number of these microbes in the tributing factors.

Since our everyday diets have such a big effect on the gut microbiome, our team was curious to see if it can be used to promote healthy aging. We looked at a total of 612 people aged 65–79, from the United Kingdom, France, the Netherlands, Italy, and Poland. We asked half of them to change their normal diet to a Mediterranean diet for a full year. This involved eating more vegetables, legumes, fruits, nuts, olive oil and fish, and eating less red meat, dairy products, and saturated fats. The other half of participants stuck to their usual diet.

Small changes in one year can make for big effects in the longer term.

Mediterranean Microbiome

We initially found that those who followed the Mediterranean diet had better cognitive function and memory, less inflammation, and better bone strength. However, what we really wanted to know was whether or not the microbiome was involved in these changes.

Interestingly, but not surprisingly, a person's baseline microbiome (the species and number of microbes they had living in their gut before the study started) varied by country. This baseline microbiome is likely a reflection of the diet they usually ate, alongside where they lived. We found that participants who followed the Mediterranean diet had a small but insignificant change in their microbiome diversity—meaning there was only a slight increase in the overall number and variety of species

However, when we compared how strictly a person followed the diet with their baseline microbiome data and their microbiome after following the diet, we were able to identify two different gut microbe groups: diet-positive microbes that increased on the Mediter-



The Mediterranean diet has garnered another verified health claim after researchers discovered it fostered gut bacteria associated with improved cognition and healthy aging.

ranean diet, and diet-negative microbes whose abundance was reduced while following the diet.

Diet-positive microbes are microbes that flourished in the Mediterranean diet. Diet-negative microbes either couldn't metabolize the diet, or they were unable to compete with diet-positive microbes. These diet-positive microbes were linked with less frailty and inflammation in the body, and higher levels of cognitive function. Losing the dietnegative microbes was also associated with the same health improvements.

When we compared the changes in and unhealthy lifestyle are major conterranean diet) and the control group (those following their regular diet), we saw that the people who strictly followed the Mediterranean diet increased these diet-positive microbes. Although the changes were small, these findings were consistent across all five countries—and small changes in one year can make for big effects in the longer term.

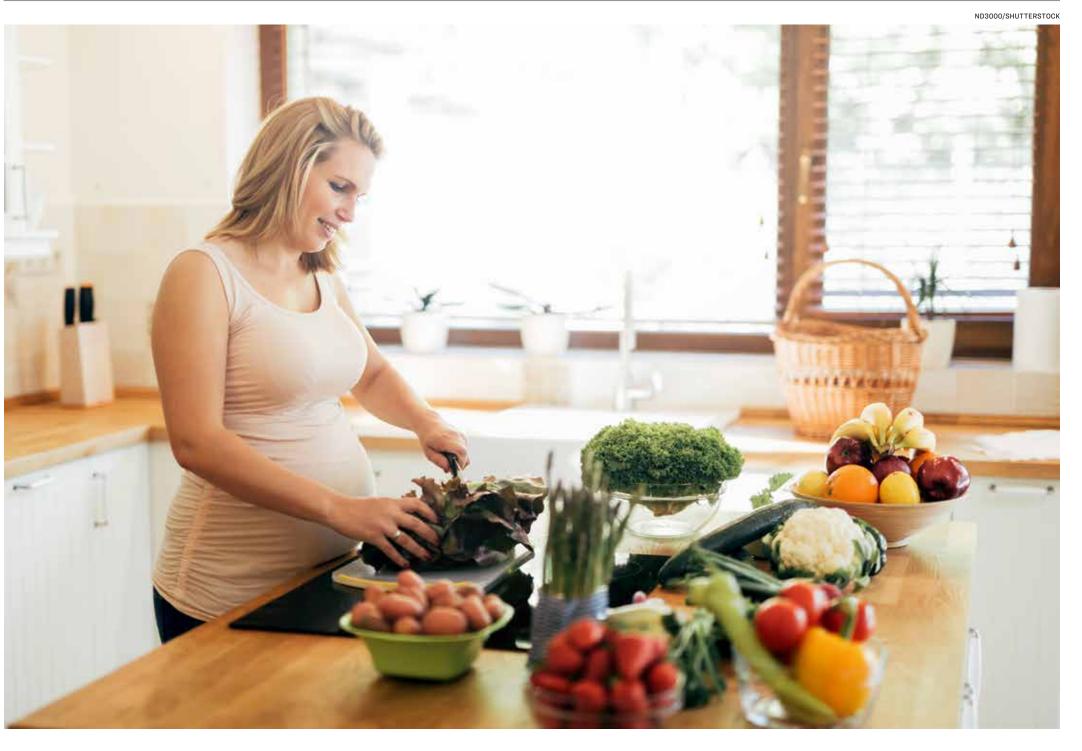
Many of the participants were also pre-frail (meaning their bone strength and density would start decreasing) at the beginning of the study. We found the group who followed their regular diet became frailer over the course of the one-year study. However, those that followed the Mediterranean diet were

The link between frailty, inflammation, and cognitive function to changes in the microbiome was stronger than the link between these measures and dietary changes. This suggests that the diet alone wasn't enough to improve these three markers. Rather, the microbiome had to change too—and the diet caused these changes to the microbiome.

These types of studies are challenging and expensive, and the microbiome dataset is often difficult to analyze because there are many more data-points to study than there are people in the study. Our findings here were possible because of the large group sizes, and the length of the intervention.

However, we recognize that following a Mediterranean diet isn't necessarily doable for everybody who starts thinking about aging, usually around the age of 50. Future studies will need to focus on what key ingredients in a Mediterranean diet were responsible for these positive microbiome changes. But in the meantime, it's clear that the more you can stick to a Mediterranean diet, the higher your levels of good bacteria linked to healthy aging will be.

Paul O'Toole is a professor of microbial genomics at the School of Microbiology and APC Microbiome Institute at the University College Cork in Ireland. This article was first published on The



Fruit and Vegetable Rich Diet Key to Avoiding Gestational Diabetes

You've heard a lot about the tors. No association was found benefits of eating fruits and vegetables, but did you know that a diet rich in these natural foods can be key to having a healthy

In a study published in July 2019 in the peer-reviewed International Journal for Vitamin and Nutrition Research, hort study published in November in Tehran, Iran, investigated the asin Western China, assessing dietary of gestational diabetes mellitus (GDM) in pregnant women.

Gestational diabetes is a condition that afflicts women during pregnancy who did not have diabetes before becoming pregnant. GDM typically onsets around the middle of the pregnancy term, between 24 and 28 weeks, and can recur during subsequent pregnancies. Doctors will often recommend eating a balanced diet and getting regular exercise to control GDM, although some women also require insulin to manage the condition.

This prospective study was conducted over a period of 17 months on a random sample of pregnant women between 18 and 45 years of age who were in the first half of their pregnancies and who had agreed to attend prenatal clinics in any of five hospitals affiliated with universities of medical sciences in different districts of Tehran, Iran.

Participants' dietary intakes were assessed during the 6th week of pregnancy using a 168-item, validated, semi-quantitative food frequency questionnaire. Between 24 and 28 weeks of gestation, all participants underwent a scheduled oral glucose tolerance test to determine whether or not they had gestational diabetes mellitus. The diagnosis of GDM was based on criteria set by the American Diabetes Association.

Fruits and Veggies Lower **Gestational Diabetes Risk**

Of 1,026 study participants, 71 tested positive for gestational diabetes mellitus. Based on results of BMI (bodymass index) tests and the results of the food questionnaires, researchers determined that a diet high in fruit and vegetable intake was "significantly and inversely associated with GDM risk."

Women who consumed 2.1 servings per day or less had significantly higher odds ratio for GDM than those who consumed at least 4.9 servings per day, between dairy products and GDM. Researchers concluded that fruit and vegetable consumption in women of reproductive age can help prevent GDM.

Other studies have produced similar findings. A prospective coa multi-disciplinary team of scientists 2018 followed 1,337 pregnant women sociation of consuming fruits, vegeta-intakes at 15–20 weeks of gestation with bles, and dairy products with instances a validated food frequency questionnaire and determining GDM with oral glucose tolerance tests at 24–28 weeks

> A total of 199 women, 14.9 percent of participants, developed GDM. Exploratory factor analysis was performed to derive dietary patterns, three of which were identified: a plant-based pattern, a meat-based pattern, and a high protein-low starch pattern. At the end of the study, researchers determined that there was no significant association between early pregnancy dietary patterns and GDM risk later in pregnancy, but a high protein-low starch diet was associated with lower risk for GDM among women who were overweight pre-pregnancy.

In addition to the increased risk of recurring GDM in subsequent pregnancies, women with prior gestational diabetes mellitus are at higher risk of developing Type 2 diabetes. A March 2019 study published in the

associations between dietary intake of fruits and vegetables and abnormal glucose tolerance among women with prior gestational diabetes mellitus. In this Canadian cohort study, a total of 281 women with prior GDM were recruited around six years after their pregnancy. Dietary intake was obtained with a validated food frequency questionnaire, and anthropometric measurements such as height, weight, and BMI were

European Journal of Nutrition explored

measured along with glycemic components, during a clinical visit. These readings allowed researchers to stratify women according to normal glucose tolerance or abnormal glucose tolerance, a significant factor in the development of Type 2 diabetes. Results of the study were determined

via a cross-sectional analysis, showing that of the 281 participants, a total of after adjustment for confounding fac- 155 women had normal glucose tolerance and 126 had abnormal glucose tolerance. Women with abnormal glucose tolerance had significantly fewer fruits and vegetables in their diets and tended to have lower fruit servings than women with normal glucose tolerance. To illustrate the big difference a small

dietary improvement can make, a reduced likelihood of having

Researchers concluded that higher intake of fruits and vegetables in the diet may be associated with a lower likelihood of abnormal glucose tolerance and decreased risk of developing Type 2 diabetes among women with prior gestational diabetes

Leafy Greens and Dark Yellow Vegetables Lower Diabetes Risk

Researchers from Harvard and the U.S. Centers for Disease Control and Prevention partnered to explore the dietary connection between fruit and vegetable intake and women at risk of Type 2 diabetes, once referred to as adult-onset diabetes but now occurring more frequently in children

In the 2004 study chaired by Brigham and Women's Hospital at Harvard Medical School in Boston, Massachusetts, researchers analyzed pro-

spective data from the Women's Health Study (WHS) taken from 1993-2003. They sought to evaluate the hypothesis that a high intake of fruits and vegetables protects against onset of Type 2 diabetes and to explore whether specific subgroups of fruits and vegetables differentially affect dia-

The WHS comprised 39,876 female health professionals who were at least 45 years of age and who were free of heart disease, stroke, or cancer at the time of the study and who had not been previously diagnosed with diabetes. Detailed diet information

was provided by 38,018 (95 percent) of participants who completed a 131-item semiquantitative food frequency questionnaire, which included 28 vegetables and 16 fruit types. Participants were asked to accurately

reflect their long-term dietary intake as a way of establishing good validity for the data. The average daily intake of individual fruits and vegetables was

calculated by multiplying intake frequency by portion size, with total intake computed by summing the intake of individual items.

Vegetables were divided into groups, including cruciferous (broccoli, cabbage, cauliflower, Brussels sprouts), dark yellow (carrots, yellow squash, yams, single serving increase of fruits and sweet potatoes), green leafy (spinach, vegetables was associated with a kale, lettuce), and other (corn, mixed vegetables, celery, eggplant, mushabnormal glucose tolerance. rooms, and beets). Diagnosis of Type 2 diabetes was based on self-reports, the validity of which was confirmed according to the American Diabetes Association diagnostic criteria. Analytical models were adjusted for age, total calories, and smoking. Follow-ups were conducted for an average of 8.8 years.

Researchers deter mined that a diet high in fruit and vegetable intake was 'significantly and inversely associated with GDM risk.'

Results showed a "significant inverse relationship with diabetes risk and total fruit and vegetable intake," further supporting the findings of similar studies. It is important to note that not all fruits and vegetables were equal in terms of positive health impact. Of the specific foods studied, intake of green leafy and dark yellow vegetables was significantly associated with reduced risk of Type 2 diabetes, while starchy vegetables such as potatoes showed a significant positive association with Type 2 diabetes risk.

[Editor's note: Other studies suggest that the association of foods like potatoes and rice with diabetes is closely linked to an insulin bump caused by eating these foods with animal proteins.]

To learn more about the powerful health benefits of a diet rich in fruits and vegetables, explore the fruit and vegetable research databases on Green-MedInfo.com

The GMI Research Group is dedicated to investigating the most important health and environmental issues of the day. This article was originally published on GreenMedinfo.com. Join the free newsletter at www.GreenmedInfo.health

When Bad Science Discredits Good Medicine

ANANDA MORE

ustralia's Medical Research Council has been caught using a problematic research review of homeopathic medicine.

A systematic review released five years ago by the National Health and Medicine Research Council of Australia (NHMRC) has been used globally to shape policy around homeopathic medicine. But the story surrounding the review suggests a serious bias, including a posthoc analysis that rejected the strongest positive studies and an earlier review that was buried.

The second public review claims to have looked at 1800 studies, but in fact they only considered 176, of which only 5 matched their unprecedented quality thresholds, based on the number of participants in a study.

That threshold meant the review only looked at studies that had more than 150 participants. While this may sound reasonable at first, it in fact has nothing to do with the NHMRC's standards for other trials, and this minimum set sample size has never been used before, or since. Other NHM-RC-published evidence reviews have no minimum trial size for reliability. The British Medical Journal (BMJ), one of the most highly respected journals in the world, sets their minimum for quality at 20 participants. The fact that this arbitrary number was decided upon in a posthoc analysis has raised concerns that intentionally biased the review by sharply limiting its scope.

The NHMRC dismissed some of the best and most reliable studies, such as Reilly's 1986 study on pollen with a sample size of 144 people, and Jennifer Jacobs study on pediatric diarrhea in Nepal with a sample size of 126. According to the Homeopathic Research Institute, had NHMRC actually used BMJ's threshold of 20 participants then 166 of the 176 studies considered would have been considered.

The NHMRC also used additional unknown criteria for quality, including a grading system that has never had its mechanics and definitions disclosed, creating a significant lack of transparency and trust in their assessment.

Fraud

When the Australian Homeopathic Association (AHA) learned of this report, they made a Freedom of Information Request to get a better understanding how this study was done. Unexpectedly, the uncovered a previous review commissioned by the NHMRC that had been buried.

Upon further investigation, the AHA learned that a very respected scientist conducted the first review, Prof Karen Grimmer, who had actually developed the NHM-RCs quality guidelines. That study had been well received, and yet the NHMRC quickly and silently buried it, while commissioning a completely new study. After a strong campaign led by the Homeopathic Research Institute (HRI), the Australian Homeopathic Association, and a petition that had gathered almost 75,000 signatures, the NHMRC finally released the first report in August of 2019.

What Was Found in the First Report?

The first report concluded that there is encouraging evidence for homeopathy in five conditions: fibromyalgia, ear infections, upper respiratory tract infections, side effects of cancer treatment, and postoperative ileus (first time to flatus after surgery). In other areas there weren't enough high-quality trials to make a proper assessment.

This is not absolute proof that homeopathy works, but it is a far cry from the notion that there is no evidence in its favor. The truth is we need to do more research, but funding for this kind of work is extremely limited, though excellent research is slowly trickling out. Scientists have a hard time building a career while focusing on alternative medicine. And, the NHMRC report, released in 2015, led to even less funding being available for new homeopathic studies.

If you're wondering whether the first report was buried due to quality issues, according to the Homeopathic Research Institute:

"The First Report is in draft form and as such it is not a 'perfect' finalized document. However, the report was sufficiently well-formed to have undergone peer review. FOI requests revealed that a member of NHMRC's committee overseeing the review process considered the first



The first report concluded that there is encouraging evidence for homeopathy in five conditions: fibromyalgia, ear infections, upper respiratory tract infections, side effects of cancer treatment, and postoperative ileus.



Homeopathy has been a polarizing medicine since its inception over 200 years ago by Samuel Hahnemann.

review to be high quality saying, 'I am impressed by the rigor, thoroughness and systematic approach given to this evaluation [....] Overall, a lot of excellent work has gone into this review and the results are presented in a systematic, unbiased and convincing manner.'4 (Professor Fred Mendelsohn, NHMRC Homeopathy

Working Committee)."

To rub salt in the wound, NHMRC released the report with annotations from their CEO, Professor Anne Kelso. The notes insinuate that this review is of low quality (very much in opposition to the panel's previous comments on the review). The Author, Dr. Grimmer, was never given the opportunity to respond to these notes before the release of the report.

A systematic review released five years ago by the National Health and Medicine Research Council of Australia has been used globally to shape policy around homeopathic medicine.

"This gives the impression that Prof Grimmer has not given sufficient consideration to the quality of the evidence being reviewed—a remarkable claim given her expertise and experience in using the FORM approach. In fact, risk of bias is one of the factors the author would have considered when assigning a 'grade' to the evidence base for each medical condition (grading it from A-D). Risk of bias is therefore integrated within the report's findings throughout, as well as being presented directly in the main text of each chapter."

Just to reiterate, Dr. Grimmer is considered a foremost expert in the FORM approach the framework that the Australian government has adopted for guideline development, it is misleading to assume her work is of inferior quality, these comments represent a petty attempt to discredit the report and save face.

So What Does This All Mean?

The way this study was done has enormous ramifications and casts doubts on the NHMRC's proclamations on homeopathy. The way this study was done, and the way the previous study was dealt with, raise concerns about the motivations and interest groups that may have influenced the NHMRC.

Past practices of some interest groups in the medical field, most notably perhaps being pharmaceutical companies, warn us to view these matters through a lens of protectionism and profits.

It is thanks to watchdogs like the Homeopathic Research Institute that this information is coming out. But, with so much at stake for media companies—dependent on pharmaceutical advertising funding—there is almost no chance that this information will get the broad and deep coverage it deserves.

Ananda More is the owner of Riverdale Homeopathy, a homeopathic dispensary, bookstore, and clinic. She is intrinsically connected with the homeopathic community. This article was first published on GreenMedInfo.com

'Fear Of Falling': How Hospitals Do Harm by Keeping Patients in Bed

Hospital policies that keep elderly patients bed-ridden often lead to dangerous long-term disability

MELISSA BAILEY

THE EPOCH TIMES Week 10, 2020

Dorothy Twigg was living on her own, cooking and walking without help until a dizzy spell landed her in the emergency room. She spent three days confined to a hospital bed, allowed to get up only to use a bedside commode. Twigg, who was in her 80s, was livid about being stuck in a bed with side rails and a motion sensor alarm, according to her cousin and caretaker, Melissa Rowley.

"They're not letting me get up out of bed," Twigg protested in phone calls, Rowley re-

In just a few days at the Ohio hospital, where she had no occupational or physical therapy, Twigg grew so weak that it took three months of rehab to regain the ability to walk and take care of herself, Rowley said. Twigg repeated the same pattern—three days in bed in a hospital, three months of rehab—at least five times in two years.

Falls remain the leading cause of fatal and nonfatal injuries for older Americans. Hospitals face financial penalties when they occur. Nurses and aides get blamed or reprimanded if a patient under their supervision hits the ground.

But hospitals have become so overzealous in fall prevention that they are producing an "epidemic of immobility," experts say. To ensure that patients will never fall, hospitalized patients who could benefit from activity are told not to get up on their own—their bedbound state reinforced by bed alarms and a lack of staff to help them move.

That's especially dangerous for older patients, often weak to begin with. After just a few days of bed rest, their muscles can deteriorate enough to bring severe long-term consequences.

"Older patients face staggering rates of dis-

"Older patients face staggering rates of disability after hospitalizations," said Dr. Kenneth Covinsky, a geriatrician and researcher at the University of California-San Francisco. His research found that one-third of patients age 70 and older leave the hospital more disabled than when they arrived.

The first penalties took effect in 2008 when the Centers for Medicare & Medicaid Services declared that falls in hospitals should never happen. Those penalties are not severe: If a patient gets hurt in a hospital fall, CMS still pays for the patient's care but no longer bumps up payment to a higher tier to cover the treatment of fall-related conditions.

Still, Covinsky said that policy has created "a climate of fear of falling," where nurses "feel that if somebody falls on their watch, they'll be blamed for it." The result, he said, is "patients are told not to move," and they don't get the help they need. To make matters worse, he added, when patients grow weaker, they are more likely to get hurt if they fall.

Congress introduced stiffer penalties with the Affordable Care Act, and CMS began to reduce federal payments by 1 percent for the quartile of hospitals with the highest rates of falls and other hospital-acquired conditions. That's substantial because nearly a third of U.S. hospitals have negative operating margins, according to the American Hospital Association.

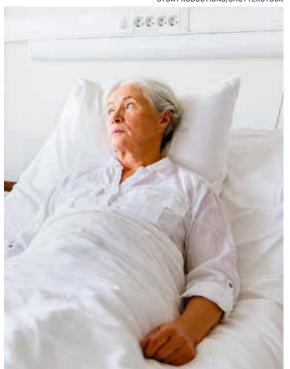
Nancy Foster, the AHA's vice president of quality and patient safety policy, said these policy changes sent "a strong signal to the hospital field about things CMS expected us to be paying attention to." Limiting patient mobility "certainly is a potential unintended consequence," she said. "It might have happened, but it's not what I'm hearing on the front line. They're getting people up and moving."

Twigg repeated the same pattern—three days in bed in a hospital, three months of rehab—at least five times in two years.

While hospitals are required to report falls, they don't typically track how often patients get up or move. One study conducted in 2006-07 of patients 65 and older who did not have dementia or delirium and were able to walk in the two weeks before admission found they spent, on average, 83 percent of their hospital stay in bed.

While lying there, older patients often find themselves tracked by alarms that bleep or shriek when they try to get up or move. These alarms are designed to alert nurses so they





Elderly patients lose muscle rapidly when compelled to stay in bed for days at a time.

can supervise the patient to safely walk—but research has shown that the alarms don't prevent falls. Often stretched thin, nurses are deluged by many types of alarms and can't always dash to the bedside before a patient hits the ground.

Dr. Cynthia J. Brown, a professor at the University of Alabama at Birmingham, has identified common reasons older patients stay in bed: They feel too much pain, fatigue or weakness. They have IV lines or catheters that make it more difficult to walk. There's not enough staff to help them, or they feel they're burdening nurses if they ask for help. And walking down the hallway in flimsy gowns with messy hair can be embarrassing, she added.

Yet walking even a little can pay off. Older patients who walk just 275 steps a day in the hospital show lower rates of readmission after 30 days, research has found.

Across the country, efforts are afoot to encourage hospital patients to get up and move, often inside special wings called Acute Care for Elders that aim to maintain the independence of seniors and prevent hospital-acquired disabilities.

Another initiative called the Hospital Elder Life Program, which is designed to reduce hospital-acquired delirium, also promotes mobility and has shown an added benefit of curtailing falls. In a study of HELP sites, there were no reported falls while staff or volunteers were helping patients move or walk.

Barbara King, an associate professor at the University of Wisconsin-Madison School of Nursing, studied how nurses responded to "intense messaging" from hospitals about preventing falls after the 2008 CMS policy change. She found that pressure to have zero patient falls made some nurses fearful. After a fall happened, some nurses adjusted their behavior and wouldn't let patients move on their own. CMS declined a request for an interview and did not directly answer a written question about whether its falls policy has limited patient mobility.

In 2015, King studied a nurse-driven effort to get more patients walking on a 26-bed hospital unit in the Midwest. The initiative, in which nurses encouraged patients to get out of bed and documented how often and how far they walked, boosted ambulation.

Hospitals still face barriers, such as the shortage of staff time, walking equipment, and ways to record ambulation in electronic medical records, King said.

Getting more patients out of bed will also take a significant change in mindset, she said. "If we think that a patient walking is a patient who will fall," King said, "we have to shift that culture."

Melissa Bailey is a Boston-based correspondent on the KHN enterprise team, focusing on aging and dying. This article was first published by Kaiser Health News.

BLACK CREATOR 24/SHUTTERSTOCK

What Not to Do When You Handle Receipts

BPA enters our bloodstream at significantly higher levels due to the effect of skincare products

MICHAEL GREGER

The plastics chemical bisphenol A, commonly known as BPA, was banned for use in baby bottles in Canada in 2008, in France in 2010, in the European Union in 2011, and in the United States in 2012. Then, in 2015, France forbade the use of BPA in any food or beverage packaging, something the U.S. Food and Drug Administration had decided was not warranted.

But, what about the more than 90 studies reporting relationships between total BPA in people's urine and a wide array of adverse health outcomes? These include a significant increase in the likelihood of developing cardiovascular disease and Type 2 diabetes, obesity, impaired liver function, impaired immune and kidney function, inflammation, and reproductive effects in men and women. There are also links to altered thyroid hormone concentrations, and neurobehavioral deficits such as aggressiveness, hyperactivity, and impaired learning.

Only a very small minority of studies appear to support the U.S. government's assertions that there were no effects of BPA at low doses. Where is the disconnect? Governmental regulatory agencies determine safety levels of chemicals by sticking tubes down into the stomachs of lab ani-

mals. In these types of tests, BPA is released directly into the stomach, where it goes to the liver to be detoxified into an inactive form called BPA-glucuronide. So, very little active BPA gets into the bloodstream. But, that's not what studies on humans show. People have active BPA in their blood. How did the FDA respond? By rejecting all such human studies as implausible.

The problem with a "blanket rejection" of human data is that there may be sources of BPA exposure that are not modeled by stomach tube exposure in rats. After all, we don't eat through a tube into our stomachs. Instead, we chew food and move it around in our mouths before it enters the stomach. It turns out that BPA can be absorbed directly into the bloodstream through our mouths, thus bypassing instant liver detoxification. The same would be the case for BPA absorbed through the skin.

Thermal paper, often used for cash register receipts, luggage tags, and many bus, train, and lottery tickets, is 1–2 percent BPA by weight. Taking hold of a receipt can transfer BPA to our fingers, especially if they're wet or greasy. Does the BPA then get absorbed into our system through the skin? A study published in Environmental Health Perspectives found cashiers had more BPA flowing through their bodies "[c]ompared with other occupations." That

small study, however, was based on only 17 people. Another small study found strict vegetarians had lower urinary BPA concentrations compared with nonvegetarians. But again, the sample size was too small to really make a conclusion. It's been estimated that even cashiers handling receipts all day may not exceed the "tolerable daily intake" of BPA—however, that could change if they were using something like hand cream.

Indeed, many skin-care products, including hand sanitizers, lotions, soaps and sunscreens contain chemicals that enhance skin penetration. So, using a hand sanitizer, for example, before touching a receipt could weaken the skin barrier.

What's more, a study published in PLoS One found "using hand sanitizer and handling a thermal receipt...prior to picking up and eating food with [our] hands" results in high blood levels of active BPA.

Researchers at the University of Missouri, conducting a study to mimic aspects of the behavior of people in a fast-food restaurant, found that when people handled a receipt right after using the hand sanitizer Purell, BPA was transferred to their fingers. Then, BPA was transferred from their fingers to their fries, and the combination of absorption through the skin and mouth led to significant levels of active BPA in their blood.

We can hold a receipt in our hand for 60 seconds and only come away with 3 micrograms of BPA in our body. In contrast, if

we pre-wet our hands with hand sanitizer, we can get 300 micrograms in just a few seconds—a hundred times more BPA.

"These findings show that a very large amount of BPA is transferred from thermal paper to a hand as a result of holding a thermal receipt for only a few seconds immediately after using a product with dermal penetration enhancing chemicals," found the study. This could explain why dozens of human studies show active BPA in people's systems, contrary to the assumptions based on stomach tube studies in rodents.

When actual evidence contradicts your assumptions, you reject your assumptions. The FDA, however, rejected the evidence instead

Dr. Michael Greger is a physician, New York Times bestselling author, and internationally recognized speaker on nutrition, food safety, and public health issues. A founding member and Fellow of the American College of Lifestyle Medicine, Dr. Greger is licensed as a general practitioner specializing in clinical nutrition. This article is republished from NutritionFacts.org

Many skin-care products, including hand sanitizers, lotions, soaps and sunscreens contain chemicals that enhance skin penetration.



MONKEY BUSINESS IMAGES/SHUTTERS

6 | MIND & BODY

The Super, Natural Benefits of Hiking

Nature hikes are good for our bodies, moods, minds, and our relationships

JILL SUTTIE

'm a hiker—"born to hike," as my husband likes to joke. It does my heart and soul good to strap on a pack and head out on a trail, especially when I'm alone and can let my mind wander where it will.

The experience of hiking is unique, research suggests, conveying benefits beyond what you receive from typical exercise. Not only does it oxygenate your heart, but it also helps keep your mind sharper, your body calmer, your creativity more alive, and your relationships happier. And, if you're like me and happen to live in a place where nearby woods allow for hiking among trees, all the better: Evidence suggests that being around trees may provide extra benefits, perhaps because of certain organic compounds that trees exude that boost our mood and our overall psychological

Hiking in nature is so powerful for our health and well-being that some doctors have begun prescribing it as an adjunct to other treatments for disease. As one group of researchers put it in the American Journal of Lifestyle Medicine, "The synergistic effect of physical activity and time spent in nature make hiking an ideal activity to increase overall health and wellness."

Here is what science is saying about the benefits of hiking.

Hiking Keeps Your Mind Sharp Being a professional writer, I sometimes have trouble justifying taking the time to hike in the middle of my workday. But research suggests that hiking doesn't just feel good, it might also

keep my brain in top shape. All exercise is good for us. Whether it's using an elliptical trainer, riding a sta- courages feelings of awe—a state of wontionary bike, or walking on a treadmill, etting your heart rate up and working your lungs can keep you feeling younger and stronger. Exercise also helps your brain thanks to the extra oxygen that

exercise delivers to it. But hiking involves something many other forms of exercise don't: trails. That means it requires navigating in a world that's not totally predictable. Slippery dirt, uneven terrain, overhanging branches, trail markers, and wild imals crossing your path—all of the things you might encounter on a trail require micro- and macro-adjustments to

your route, which is good for your brain. As Daniel Levitin explains in his book, Successful Aging, hiking exercises your brain in ways that help you navigate life, like the retrosplenial cortex and the hippocampus, which aid in memory.

Hiking Can Keep You Calm and Happy

Exercise, in general, can be a great stress-buster. But what sets hiking apart from other forms of exercise is that it's done outdoors in a natural setting. While other physical activities also rely on nature—for example, river rafting or backpacking—those often require more time and commitment than a simple hike and are therefore less accessible to many people. Hiking can happen almost anywhere—from a city park or public garden to a mountain trail—and give you that dose of nature you need to stay

Research is quite clear on the benefits of being in nature while exercising. Studies have found that, compared to walking in a cityscape or along a road, walking in green spaces helps us recover from "attention overload"—the mental fatigue that comes from living and working in a world where computers and cell phones are a constant distraction.

Being in nature is calming, too, and studies have found that people who spend time walking in nature are less anxious and suffer less rumination (thinking about the same worries or regrets over and over again), which should help protect against depression.

While it's not totally clear why nature provides these psychological perks, researcher Craig Anderson and others have found that being in nature ender coupled with a sense of being small in the presence of something bigger than yourself. Awe is a powerful emotion that has many benefits, including improving your mood and making you feel more

Hiking Helps Your **Relationships**

J. It may be obvious that hiking is good for our physical and emotional health. But there is mounting evidence that it helps our relationships, too.

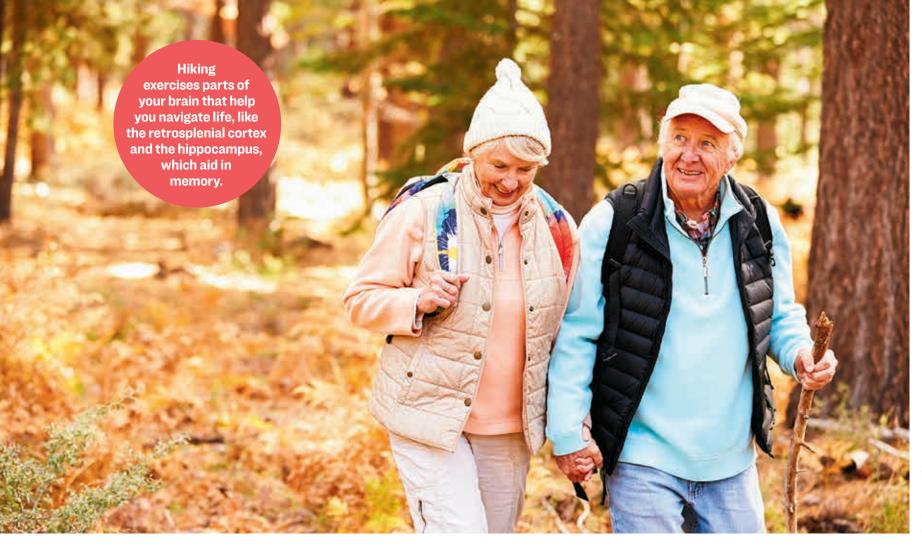
was which. Each morning, par-

ticipants reported the quality of

We also asked participants to

their sleep the previous night.

wear a sleep watch that moni-



Exposure to nature can help our relationships by making us more empathic, helpful and generous.

STORYTIME STUDIO/SHUTTERSTOCK

One reason is that many of us hike with other people, and exercising together can produce special feelings of closeness—and a sense of safety. I'm sure when a friend of mine recently fell on a trail and severely fractured her ankle, she was glad to have company to help her hobble down the mountain. But, even in less dire circumstances, having a friend along can be a lovely way to connect with another person in a setting free of other

distractions.

In one study, mothers and daughters spent 20 minutes walking in an arboretum (a botanical garden consisting of trees) and 20 minutes walking in a mall. The study showed that compared to the mall walk, after the nature walk the pair had better attention during a cognitive task, and improved interactions with each other, based on various tests and comments. Specifically, the pair demonstrated more connection and positive emotions and fewer negative emotions after walking in the natural setting. Other research suggests that exposure to nature can help our relationships by making us more empathic, helpful, and

What about hiking alone? Personally, on hiking specifically. I've often found that hiking alone helps me in my relationships, likely for all of the reasons above—it helps me reduce my stress, refreshes my depleted attention, and produces awe. And, when I'm feeling good, those effects spill over into my interactions with others once I return from the hike.

For anyone who spends a lot of time rejuvenating to let go of that responsibility for a bit and take to a trail. After a little more time on a trail.

all, it can't help but refresh you when you give yourself a break, making you more emotionally available to others

Hiking Can Increase Our Creativity

I'm sure I'm not alone in finding that walks in nature let my mind wander freely in creative directions. In fact, I've written many songs while hiking on a trail, lyric ideas bubbling up from some unconscious place when I'm not deliberately thinking.

Though we often read about philosophers or artists who've found creative inspiration in natural spaces, science is just beginning to document the connections between being in nature and creativity. David Strayer and his colleagues tested young adults in an Outward Bound program before and after they spent three days hiking in the wilderness. The participants showed increased creative thinking and problemsolving after the experience. Other studies have found connections between creative thinking and nature experiences, too, although they weren't focused

efits for creativity have to do with how natural settings allow our attention to soften and our minds to wander in ways that can help us connect disparate ideas. Others suggest that the spaciousness and unpredictability of natural scenery somehow enhances creativity. Whatever the case, if being in nature increases crecaregiving for other people, it can be ativity—which is tied to well-being—it might behoove creative types to spend

Hiking Builds Positive **Relationships With Nature** Hiking in Besides being good for us, hiking nature is so

powerful for

our health and

well-being that

some doctors

prescribing it

as an adjunct

treatments for

to other

disease.

have begun

may also help the world around us. After all, if we have the stamina to walk places and cover longer distances, we could use cars less and reduce our carbon footprint.

Beyond that, hiking benefits our planet indirectly, because it increases our connection to nature. Developing a positive relationship with the natural world can help us to care about its fate, making us more committed to conservation efforts. At least one study has suggested that when we have a personal connection to nature, we are more likely to want to protect it. That means experiences in nature—like hiking—can be mutually beneficial, helping people and the earth.

Conclusion

This all goes to show that hiking may be one of the best ways to move your body. These points have helped me recommit to hiking regularly. Instead of spending all day every day in front of a computer, I'm taking time to walk outside—even if it's just for 15 minutes. And I'm definitely noticing improvements in my mood, creativity, and relationships, as well as a growing sense of spiritual connection to the natural world.

So, grab a water bottle, a backpack, and, if you want, a friend, and head out on the trail. You will be glad you did.

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

The Smelly Truth About Romantic Relationships and Health

Our partner's scent has therapeutic effects we may not even realize, 2 studies suggest

MARLISE HOFER & FRANCES CHEN

aving trouble sleeping? Nervous about an important interview? Smelling your partner's worn clothing may help improve your sleep and calm your nerves.

While it may sound strange to smell your partner's clothing, these behaviors are surprisingly common. In one study, researchers asked participants if they had ever slept with or smelled their partners' worn clothing during periods of separation. Over 80 percent of women and 50 percent of men reported they had intentionally smelled an absent partner's clothing. Most of them said they did so because it made them feel relaxed or secure.

Social Scents and Health

Along with our colleagues at the University of British Columbia, we decided to take a closer look at whether exposure to the scent of our romantic partner might have benefits for our psychological and physical health. Specifically, we conducted

two experiments. The first tested whether a partner's scent improved sleep. The results of that research have been accepted for publication in the journal Psychological Science. The second study, which tested whether these scents reduced stress, was published in the Journal of Personality and Social Psychology.

In both studies, we wanted to capture the natural body scent. So we asked participants to wear a plain white T-shirt as an undershirt for 24 hours and to

avoid activities known to affect natural body odor, like smoking, eating spicy food or wearing scented body products. We also provided them with unscented shampoo and soap to use before wearing the shirt. When participants returned their shirts to us, we immediately stored them in a freezer to preserve the scent.

Sleep Quality and Scent In one study, we tested whether sleep quality would be improved by a partner's scent. We gave each of our 155 participants two identical-looking shirts: one control shirt and one that had

been worn by their partner. Each participant was asked to sleep with his or her partner's shirt as a pillow cover for two nights, and with the other shirt as a pillow cover for another two nights—without knowing which The average improvement in sleep efficiency from sleeping with a partner's scent was similar in magnitude to improvements documented for melatonin supplements.

tored their movement through the night. After the study was over, we asked participants to guess whether each of the shirts had been worn by their partner. People reported that their

> sleep was better on nights when they thought they were smelling their partner's scent. However, data from the sleep watches revealed that people's sleep efficiency was higher—in other words, they experienced less tossing and turning—on nights they were actually sleeping with their partner's shirt. This increase in sleep efficiency occurred regardless of whether participants guessed that the shirt was their partner's. This suggests that the effects of exposure to a partner's scent can occur outside of our conscious

Participants in our study experienced an average of more than nine additional minutes of sleep per night when exposed to the scent of their partner, equating to more than one hour of additional sleep per week. This increase

was achieved without participants spending any more time in bed. The average improvement in sleep efficiency from sleeping with a partner's scent was similar in magnitude to improve

Scent and Stress

used as a sleep aid.

In another study, we examined whether stress would be reduced by a partner's scent. We asked 96 women to come into our lab and smell a shirt, either a control shirt or one worn by their romantic partner. They smelled this shirt before, during and after a stressful mock job

ments documented for melato-

nin supplements, which are often

Women smelling their partner's shirt reported lower stress both when thinking about the upcoming interview and when recovering from the interview. Those who correctly reported that they were smelling their partner's scent had lower cortisol reactivity to the stressor. Cortisol is a natural hormone released by the

These findings suggest that the protective benefits of a partner's scent may be strongest when people are aware they are

body during stress.

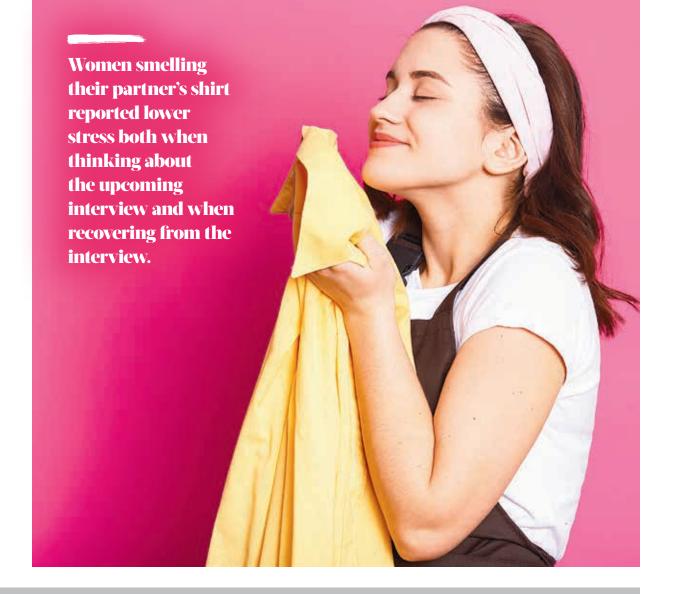
smelling their partner.

Future Research

In our upcoming research, we plan to investigate other questions about social scents, such as whether people who are happier in their relationships derive greater health benefits from the scent of their partner, and whether the health benefits might extend to other types of close relationships, like parentchild relationships.

By understanding how social scents affect health, future studies can examine the efficacy of simple methods to bolster well-being, such as taking a partner's scarf or shirt along when traveling. The current studies reveal that, often outside of our awareness, another world of communication is happening right under our noses.

Marlise Hofer is a doctoral student in the department of psychology at the University of British Columbia in Canada, and Frances Chen is an associate professor in the department of psychology at the University of British Columbia. This article was first published on The Con-



SCOTT MANN

it deserved.

A couple of years ago I was in Los

Angeles and I had just finished a

tary. It was a book about the Vil-

lage Stability program that helped

Afghan villagers stand up on their own against the Taliban. I wanted

to share our experiences, both good

learned, with the next generation of

war fighters. I wanted to be able to

give this project the continuity I felt

The book took two years to write.

5,000 interviews with village elders,

special operators, diplomats, and

communications experts went into

this book. It was an exhausting

One the greatest authors on

the planet, in my opinion, Steven

Pressfield, had agreed to review

Afghanistan and he loved our

I was leaving my hotel to meet

and bad, and everything that we

project that I had been working on

since before I retired from the mili-

We can all fall victim to the feeling we are unqualified but we can't let that hold us back.

CONNECT TO LEAD

How to Flip Imposter Syndrome

Self doubt can make a leader relatable—as long as it doesn't stop their mission

The men and women who stand to make the biggest change in the world are the ones most susceptible to imposter syndrome. Steve for breakfast with the manuscript in my hand and everything changed. The imposter syndrome kicked in, and it kicked in hard. I decided I couldn't do it. It wasn't ready, it wasn't worth his time yet. I needed to do some more work. I'd never written a book before. I'm not an author. What were my peers in Special Forces going to think? I'll be

I was walking around the hotel frantically, trying to talk myself into going to see Steve. As I paced around the motel room, my foot caught the corner of the bed and I fell. Hard. When I tripped this manuscript that was held together by a single butterfly clip went into the air. I watched it explode, paper after paper floating down, like a cruel snow storm, all around me.

The papers lay scattered everywhere on the floor. I looked at my watch. I had 20 minutes before my meeting with Steve. So, that was it. I took it as a sign to call off the

Defeated, I gave my Dad, Rex, a call and I let him know what happened. I gave him every excuse I had. This was not the time. The manuscript wasn't ready. My Dad kept pushing back with reasons to still give him the manuscript. Finally, when I realized he just didn't get it, I exploded, "Dad, who am I to be writing a book like this and taking Steve Pressfield's time?"

A pause, and then my Dad's level voice, "Who are you not to, son? What happens if you don't write this book? What will those future special operators, including your son, lose from you not sharing the lessons you learned? Who are you not to do this? That's the question you should be asking. You are right where you belong."

The imposter syndrome is a common mindset for authentic, relatable leaders. We are going to question ourselves. We are going the manuscript. We had a common to ask ourselves, "Who am I to be interest in stabilizing the tribes of standing in front of the boss asking for this resource? Who am I to be standing in front of this seasoned prospect trying to make them

a client with my inexperienced background? Who am I to propose this nonprofit when I don't know anything about this kind of work? Who am I to go in there and do this presentation to the board, when I'm the most junior associate?"

THE EPOCH TIMES Week 10, 2020

Rather than asking yourself, "Who am I to do this?", ask yourself, "Who am I not to do this?" Because you are depriving us of the gifts that you were given and the world needs those gifts. We're hungry for authentic, relatable leaders who can overcome the imposter syndrome mindset and make a deep impact in this world. The men and women who stand to make the biggest change in the world are the ones most susceptible to imposter

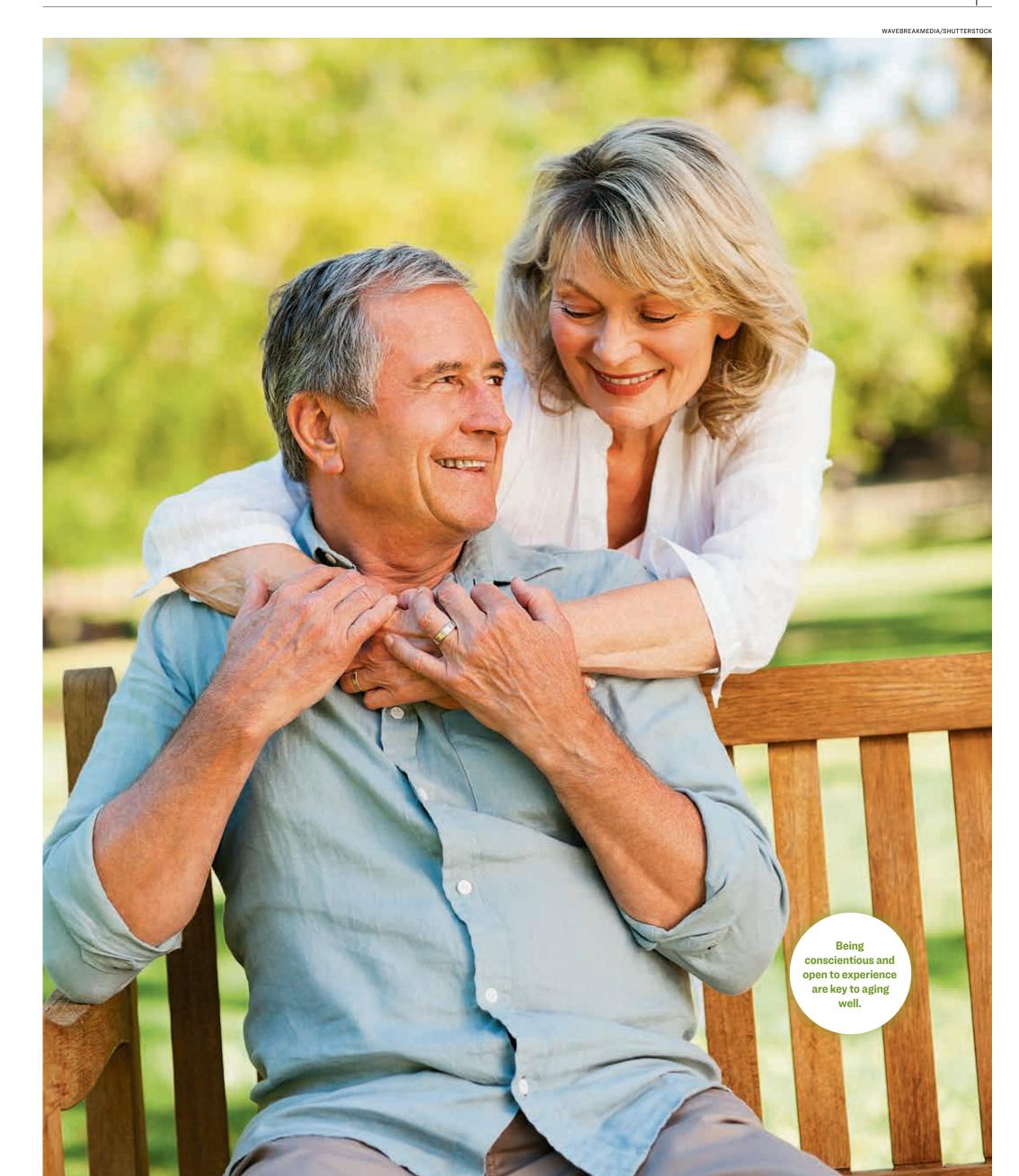
What if I had listened to my imposter syndrome and let that mindset win? Then my book never would have been published. It's now a number one international bestseller that is required reading for thousands of special operators deploying all over the world. It's being used by law enforcement in Philadelphia and California for community policing. And thousands of civilians have benefited from a more clear understanding of what violent extremism and human connection really mean in

These lessons have become valuable tools. But, if I'd listened to that "imposter" narrative, that could have changed.

We have to lean into what scares us. We have to be willing to do what

The next time you feel the imposter syndrome taking hold, all it takes to flip that mindset is asking yourself one powerful question: 'Who am I not to do this?"

Scott Mann is a former Green Beret who specialized in unconventional, high-impact missions and relationship building. He is the founder of Rooftop Leadership and appears frequently on TV and many syndicated radio programs. For more information, visit RooftopLeadership.com



What Neuroscience Can Teach Us About

Aging Better

A neuroscientist explains how our brains age and provides tips to gain vitality and happiness

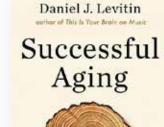


JILL SUTTIE

bout 13 years ago, I watched my very vital mother die a slow death from Lewy-Body dementia. For me, it was a wakeup call. If there was anything I could do to stay healthy myself—to avoid the slow decline of an aging brain—I wanted to do it. But what really helps us stay sharp longer? And how can we separate fad ideas from solid, evidencebased advice around aging?

Enter Daniel Levitin's new book, "Successful Aging: A Neuroscientist Explores the Power and Potential of Our Lives."

Levitin is a neuroscientist, psychologist, professor emeritus at McGill University in Montreal,



Power and Potential of Our Lives

A Neuroscientist Explores the

researched book provides fascinating insights into how our early childhood experiences, personalities, social relationships, and lifestyles all drive our brain's development, dispelling stubborn myths around the inevitability of cognitive decline. Arguing against ageism and highlighting the unique gifts of older people, Levitin shows us what we can all do to become sharper, happier, and wiser as we age.

and faculty fellow at UC Berkeley. His highly

I spoke with Levitin recently about his book and what we can learn from it. Here is an edited version of our conversation.

Continued on Page 11

THE **EPOCH** TIMES

TRUTH and TRADITION

ANEWSPAPER ABRAHAM LINCOLN WOULD READ

The very fabric of America is under attack our freedoms, our republic, and our constitutional rights have become contested terrain. The Epoch Times, a media committed to truthful and responsible journalism, is a rare bastion of hope and stability in these testing times.

> **SUBSCRIBE TODAY** ReadEpoch.com

best of everything. You just have

If you can be grateful for what

you have, not fixated on what you

don't have, you're a happy person.

If you're constantly looking at what

you don't have, you're not. Now

there's a certain amount of striving that's important—in order to

get things done and to be productive. But you have to reach a happy

MS. SUTTIE: You argue in the book

that older people have particular

cognitive strengths. Can you talk

to have enough.

about those?

HALFPOINT/SHUTTERSTOCK

SENIOR LIVING ADVISOR

INDEPENDENT LIVING • ASSISTED LIVING • MEMORY CARE

- ${\bf UNDERSTAND\ YOUR\ OPTIONS}-Learn\ the\ different\ types$ of senior care available
- **LOCAL KNOWLEDGE** Our Advisors have the local knowledge to help you hand-pick communities in your area
- SIMPLIFY Your dedicated Advisor will simplify your search and help schedule tours
- **EXPERIENCE** Our Advisors help thousands of families understand their options every day
- **SUPPORT** Our team is happy to provide additional support from movers to attorneys and much more



Dental Insurance

Get the dental care you deserve with dental insurance from Physicians Mutual Insurance Company. It can help cover the services you're most likely to use -













- ✦ Helps cover over 350 services
- ◆ Go to any dentist you want but save more with one in our network
- ◆ No deductible, **no annual maximum**

Call today for all the details.

1-855-640-9261



Call now to get this FREE Information Kit! dental50plus.com/316



Product not available in all states. Includes the Participating Providers and Preventive Benefits Rider. Acceptance guaranteed for one insurance policy/certificate of this type. Contact us for complete details about this insurance solicitation. This specific offer is not available in CO, NY; call 1-888-799-4433 or respond for similar offer. Certificate C250A (ID: C250E; PA: C250Q); Insurance Policy P150 (GA: P150GA; NY: P150NY;

The Problem With Turning Your House Into a Toy Store

Start early to teach

JOSHUA BECKER

"I just don't know what to do, Joshua. He never seems happy." This statement by my friend grabbed my attention and I sat up straighter in my

My friend is a few years older than me and, financially speaking, more successful in every way: more income, more cars, a bigger house, more

We were enjoying some wonderful food at a downtown restaurant and talking about marriage and parenting. At some point, our conversation turned to his elementaryaged son.

My friend's face was show them that less is ing visible frustration. "I don't understand. He has a whole drawer full of video games, a bedroom full of action figures, and a whole entire room in our house completely dedicated to toys. But he never seems happy. He's constantly telling me he's bored."

His attention began to shift. As is so often the case when it comes to parenting, he began thinking about his own childhood.

"When I was young," he said, "my family didn't have anything. I mean, Joshua, we were super poor. I only had three toys to play with, and I shared them with my three brothers. But we made do with what we had—and we had lots of fun. I don't ever remember asking my parents to buy me stuff."

I was ready with my response to this. I had spent years thinking about this topic and had considered the topic when writing Clutterfree with Kids. "Maybe your son is discontent

because he has too many toys," I told

"Think about it this way. When you were young, you only had three toys. But more importantly, you knew that wasn't going to change. You had three,

that's it. You were forced to make do with what you had and find happiness in it. That was your only choice.' My friend was nodding, so I contin-

"Your son, on the other hand, is in a completely different circumstance. Whenever he

> wants something new, whether it be from a commercial or something his friend gets, he just asks for it and then he gets it. You allow him to keep looking for happiness in the next toy, the next game, the next purchase. Heck, you practically encourage it.

Maybe if he was required to find happiness in the toys he already has, he just might find it. But for now, he is able to live under the impression that the next toy

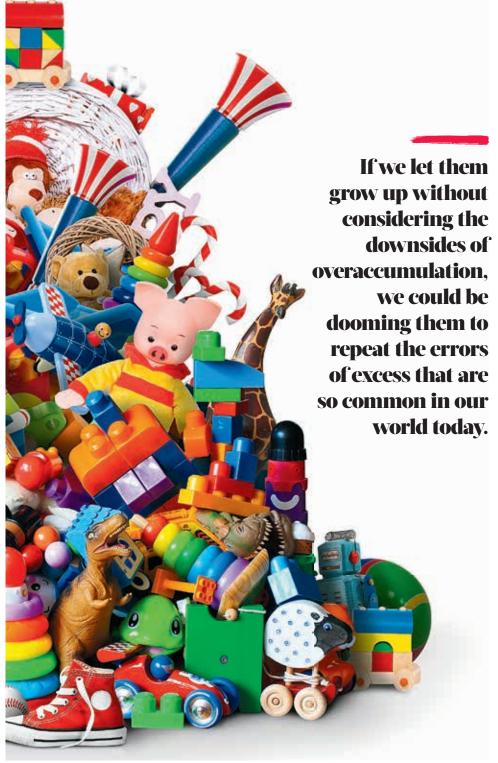
is going to bring it." My friend's face grew sadder because he knew that what I was saying was true. His own decisions were contributing greatly to the unhealthy relationship his son had formed with

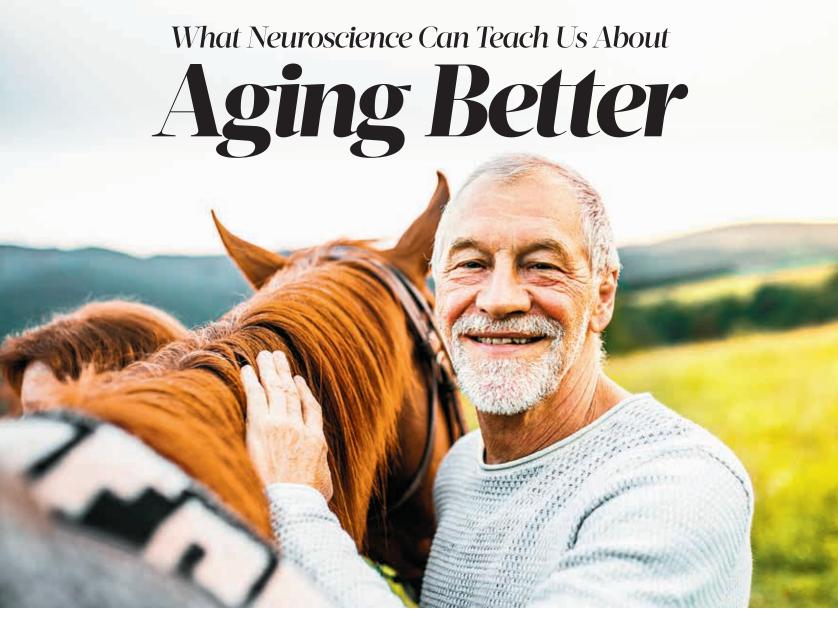
possessions. This is a reminder all of us parents need: our kids need boundaries.

If we don't give them a sense of how much is too much, they'll just keep wanting more. And if we let them grow up without considering the downsides of overaccumulation, we could be dooming them to repeat the errors of excess that are so common in our world today.

Don't you want to spare your kids the bondage that comes with having too much stuff? Start early to teach them that less is more. It's one of the best ways you can show them your

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





Happiness rises after 50, which gives you a good reason to help your brain stay engaged as you age.

Continued from Page 9

most surprised you?

many. But one is the myth of failing psychotherapy is. memory. Although some people do

or find yourself in the kitchen and health.

MS. SUTTIE: You write in your book can atrophy.

ful aging are conscientiousness a brain young. and openness to experience.

Conscientiousness is a cluster of traits that has to do with dependability, reliability, doing what Working on being you'll say you'll do, being proactive. A conscientious person calls the doctor when they're sick and, being open to when the doctor prescribes medication, actually takes it. We might **new experiences**, take these things for granted, you and me; but a lot of people don't do those things. A conscientious associations with person tends not to live beyond their means, and they put aside a **others active**, little money for a rainy day or for retirement. All those things correlate with living a healthy and **people, being**

long life. Openness is being willing to try new things and being open to following healthy new ideas and new ways of doing things. That's increasingly impor- **practices—which** tant as we age because we have a tendency to want to not do new things—to just do the things we've sleep hygiene, and always done—and that can cause a more rapid cognitive decline. We just have to be aware and fight the complacency to do the same thing. It's important to surround Daniel Levitin, author, ourselves with new people—young people—and to try new things. Not dangerous things, but new things.

In terms of conscientiousness, faculty fellow at UC Berkeley sometimes a life event will push

therapy you can change your perdegree, as well. **DANIEL LEVITIN:** Well, there are so sonality at any age. That's what

you might miss appointments, too, brain. But mostly that's about heart we'd know about it by now.

my plate," at 70 you think you must can move toward food and mates cream, or that you should elimihavior, just a different narrative. keep that part exercised, we do so essential for myelinating neurons

of a happy, productive life is peranything can happen. You have healthy diet. sonality and that we can actually to stay on your toes to some dechange our personality. How do gree. You're encountering twigs MS. SUTTIE: A lot of older adults suf-MR. LEVITIN: Statistically speaking, tures; you've got low limbs that times chronic. In your book, you the two most important personal- you have to duck under. All that write that how we suffer from pain Daniel Levitin, author, ity correlates that predict success- kind of stuff is essential to keeping is in part determined by what the neuroscientist, psychologist,

conscientious, keeping your especially young curious, and include diet, good movement—are all important.

neuroscientist, psychologist, professor emeritus at McGill University in Montreal, and

you to it—like being given a diabe- If you can't walk—if you're in a treating chronic pain. That's an tes diagnosis, where you actually wheelchair, for example—even important frontier that we need to have to change your lifestyle or die. navigating under your own loco- address. As I point out in the book,

Not all therapists work well with do it. And there's some evidence medical research goes into keep- to successful aging? JILL SUTTIE: What neuroscience every patient, but we now know now that virtual reality environ- ing people alive longer, not keeping MR. LEVITIN: Well, if you haven't finding about aging and the brain from a hundred years of psycho-ments exercise the brain to some people healthier or happier longer. read the book, that sounds a lit-

advice? Do any supplements or gratitude in aging well? have failing memory, it's not inevi- MS. SUTTIE: Many of us know ex- particular diets help us age well? MR. LEVITIN: Gratitude is probably ing. But, yeah, working on being table—everybody doesn't experiercise is good for our hearts and MR. LEVITIN: Having now spent the most under-used emotion and conscientious, being open to new brains. But you recommend speal to of time looking into all the the most misunderstood. It works experiences, keeping your asso-Sometimes the difference is in cific ways to exercise to keep your peer-reviewed papers on diet and at any age. The key to happiness ciations with others active, espethe stories we tell ourselves. When brain young—like hiking—which talking to people who are deep in according to many—including the cially young people, being curious, I taught at Berkeley and McGill, I require navigation skills. Why? the nutrition and eating field, I can Nobel prize winner Herb Simon and following healthy practices had 19-year-olds who were losing MR. LEVITIN: Robotic exercise is say that there is no magic diet. And and Warren Buffet, the Oracle of which include diet, good sleep cell phones all the time or losing certainly good—I have an ellipti- it kind of makes sense that there Omaha—is to be happy with what hygiene, and movement—are all their glasses or showing up in the cal trainer and I use it. I like getting isn't, because there are hundreds you have. Simon called it "satis-important. wrong classroom or forgetting what my heart rate up and oxygenating of different diets, and if one of them ficing." You don't have to have the It's also good to remember that day the exam was. When you're 70, the blood. And that's good for the was clearly superior to the others,

The best advice around diet not know why you're there or for- If you're talking about brain comes from Michael Pollan of UC get names or lose your cell phone. health, the hippocampus—the Berkeley: Eat a variety of foods and A study recently But, while the 20-year old says, "Gee, I've got to get more than five" brain structure that mediates memory—helps us remember are eating. It would be folly to say showed that monks hours of sleep," or "I have a lot on where we are going, so that we that you should never have ice have Alzheimer's. It's the same be- and away from danger. If we don't nate carbs or animal fats. Fats are **more than 20,000** at our own peril. The hippocampus and for building up amino acids in the brain. So all of them in modthat one of the key determinants Being outside is good because eration is an important part of a

> and roots and rocks and crea- fer from aches and pains, somepain means to us. Can you explain professor emeritus at McGill why that's relevant to dealing with University in Montreal, and pain as we age?

MR. LEVITIN: It has to do with the neuroscience of pain. If you've got a rock in your shoe, that can be very unpleasant, right? But, if you're on a massage table and somebody applies the exact same pressure in the exact same spot, you wouldn't find it unpleasant. Again, it comes around to the stories we tell ourselves about our pain.

Chronic pain that doesn't seem to have a reason and that you can't seem to do anything about is debilitating. But [Buddhist] monks and others practiced in meditation have been able to overcome even that. It doesn't mean that it doesn't hurt anymore, but you can get to the point where it doesn't aggravate you. In fact, a study recently showed that monks who'd meditated more than 20,000 hours could prepare themselves for impending pain and not be distressed by it. Any of us can practice some mindtraining techniques—whether it's yoga or meditation or anything that works for you.

Now, there's certainly some pain that isn't amenable to that, and there are a lot of people in chronic pain, and it can be terrible. The fact is that medicine is very bad at And that's a problem.

who'd meditated hours could prepare themselves for impending pain and not be distressed by it.

faculty fellow at UC Berkeley

MR. LEVITIN: In general, older people have acquired more in-

formation and experienced more just because they've lived longer. That leads to an increased ability to extract patterns—to see similarities in circumstances and situations-which can lead to better decision-making and better prob-

I always say that if you've got to go to a radiologist—because you found a growth or something you want a 70-year-old radiologist reading the x-ray, not a 30-yearold. You want somebody who's had lots of experience and a lot of feedback on his or her readings being accurate.

MS. SUTTIE: In your book, you use the acronym COACH: conscientiousness, openness, affiliations, curiosity, and a healthy lifestyle. We've talked about many of those elements already. Would you say And, as you know, therapy works. motion is very helpful, if you can the vast majority of the funding for that these are the essential keys

tle superficial—like the advice you've been given all along. If MS. SUTTIE: What about dietary MS. SUTTIE: What about the role of you have read the book, I think it takes on new depth and mean-

people tend to get happier after age 50. In over 60 countries, happiness peaks for people when they're in their 80s. We tend to think, Oh God, when I'm 80, I'm going to be miserable, and we all know some 80-year-olds who are miserable But the data and statistics show that's not the norm. People actually

are happier as they age, in general. The bigger picture is that, as a society, we need to change the conversation about aging and stop marginalizing older adults. We need to create a society in which older people are valued for their experience and integrated more into daily life. It's a great untapped resource.

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



MINDSET MATTERS

How Suffering Can Work for You

When we feverishly

and impulsively set

tough situation, our

out to change our

true feelings can

easily get pushed

down and ignored.

Allowing ourselves

to be who we are,

as we are, allows us

to feel deeply loved,

welcome in our own

life, and not alone.

Emotional pain can be a wise teacher, if we allow it to be

that made us feel connected, In fact, there is nothing wrong with doing grounded, or

safe. Sometimes many things fall apart at the same time, and it feels like our foundation has been lost, and we are bereft of

A friend of mine recently went through a divorce. The end of her marriage came, as many do, with great misunderstanding and pain. The worst part was that she felt like her best friend, her ex-husband, had turned into

someone she didn't know and who seemed to hate her. Naturally, this led to great sorrow and a feeling of helplessness.

She was now a 50-something single woman with the sense that nothing in life could be counted on. If this rupture could happen when her intentions had been good, with someone she loved deeply and had been honest with, then the world was surely an unsafe place. She felt untethered and tercapsule that had lost touch with its earthly command center.

And she had no idea how to move forward.

What my friend did next is what many of us do when we are suffering: She switched into action mode. She started making plans to meet the next man. She joined meetup groups, registered with dating sites, and called every one she knew to see if they could set her up with someone. She purchased subscriptions to magazines that

and got "out there" in every way. How my friend reacted to her sadness and fear is very normal and very human. When we dive into fierce action as a response to suffering, we are really just try-

city, signed up for new classes,

ing to make the bad feelings go away and difficult emotions—change who we are.

here are times in life when things better, so we set out to figure out how to fall apart, when we lose someone make that happen. We feel powerless, so or something deeply important we empower ourselves with action steps.

> things to make ourselves feel better when we are suffering.

And yet, my friend's very normal action approach missed one crucial ingredient: It did not allow her actual feelings to be included in the experience. When we feverishly and impulsively set out to change our tough situation, our true feelings can easily get pushed down and ignored.

Embracing the Unknown

When we experience great loss or emotional trauma, we usually don't know what to do or how to make it better—what the path to better will look like, and how it will come about.

In addition to allowing ourselves to feel the sadness, helplessness, and fear that loss brings, it is also profoundly important to rified—as if she were floating in a space allow ourselves to feel what it's like to have

> We can remind ourselves that the situation and the feelings will change, as everything always does. But right now, in this moment, we can give ourselves permission to not know what

For us Type A's, and even Type B's and C's, the feeling of not knowing can be scary. And yet, giving ourselves permission

to not know is a profound gift to ourselves and an act of deep can ease the suffering and take care of our pain, without us having to do anything else.

Suffering, as awful as it feels, is our teacher. But it can only teach us if we allow it to be felt. Sadness, fear, not knowing—all the

ficult emotions-

change who we are.

trying to fix our painful feelings.

calms our fear. Allowing ourselves to not know how to fix our pain soothes the anxifeel deeply loved, welcome in our own life, and not alone.

feel, we find the company of our own pres-

interfaith minister, and the author of the book "The Power of Off: The Mindful Way to Stay Sane in a Virtual World." For more information, visit her website NancyCo-



Week 10, 2020. THE EPOCH TIMES

Sadness, fear, not knowing-all the dif-

complish when we run around frantically

When we allow our real feelings to be there, as they are, we offer ourselves a warm embrace and the kindness of our own compassionate presence. We agree to be with ourselves, and keep ourselves company in our true experience.

It is contrary to how we are conditioned to respond to suffering in modern culture, but this simple act of emotional honesty extremely helpful in healing and generating

Allowing ourselves to be sad soothes sadness. Allowing ourselves to be afraid ety of having to fix it. Allowing ourselves to be who we are, as we are, allows us to

ence, which will always ease our suffering.

Nancy Colier is a psychotherapist, an

Just a Little Mindfulness Can Ease Pain and Negativity

BESS CONNOLLY MARTELL

ust a brief introduction to mindfulness helps people deal with physical pain and negative emotions, according to a new study. The effect of mindfulness was so pronounced, they found, that even when participants experienced high heat on their forearm, their brain responded as if it were a normal temperature.

"It's as if the brain was responding to warm temperature, and mindfulness might benefit not very high heat," says corre-

associate professor of psychiatry and psychology and corresponding author of the study in Social, Cognitive, and Affective Neuroscience.

Mindfulness—the awareness and acceptance of a situation without judgment—has been shown to have benefits in treating many conditions such as anxiety and depression. But Kober and colleagues wanted to know whether people with no formal training in meditation from a brief 20-minute introducsponding author Hedy Kober, tion into mindfulness concepts. mally would.

Researchers tested participants in two contexts while undergoing brain imaging scans one for assessing response to physical pain from high heat on the forearm and another for gauging their response when presented with negative images.

In both contexts, researchers found significant differences in brain signaling pathways when they asked participants to employ mindfulness techniques compared to when they asked participants to respond as they nor-

Specifically, participants re- nal decision-making, and so ported less pain and negative were not the result of conscious emotions when employing mindfulness techniques, and at the same time, their brains

showed significant reductions

in activity associated with pain and negative emotions. These neurological changes did not occur in the prefrontal cortex, which

regulates con-

scious or

willpower, the authors note.

"The ability to stay in the moment when experiencing pain or negative emotions suggests there may be clinical benefits to mindfulness practice in chronic conditions as well-even without long meditation practice," Kober says.

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

effect of mindfulness was so pronounced, that even when participants experienced high heat on their forearm, their brain responded as if it were a normal temperature.





BERNARD J. WOLFSON

attie Vargas saw ng clarity that her son Joel, 25 at the time, had a life-threatening drug problem. He came home one day in 2007 "high as a kite," went to bed and slept four days straight, Vargas, now a 65-year-old resident of Vacaville, California, recalls.

As Joel lay listless, a terrified Vargas realized her son needed help, but she didn't quite know where to start. She searched online and dialed the number of a treatment center she found.

The person who answered said reassuring things and walked her through the options, then sent a man to lead an intervention at the family's home in Escondido, California. The intervention ended with Joel reluctantly climbing into the guy's car and being whisked away to residential treatment in Laguna Beach, about 60 miles away.

Vargas was relieved to see her middle child head off to treatment—even though the 30-day program cost \$39,000. Little did she suspect it was only the beless cycle of rehab and relapse. Joel's drug of choice back then was methamphetamine, but by the time he died of heart complications a decade later, he was hooked on heroin.

As Vargas later realized, there are better ways than the internet to find effective rehab. With the U.S. death rate from drug overdoses more than triple what it was 20 years ago and alcohol misuse among the top preventable causes of death, the need for effective addiction treatment is massive. But finding affordable and reliable care, despite a proliferation of rehab centers in recent years, can be nearly impossible.

"There are good providers out there. They are few and far between, and it's really hard to tell the good from the bad," says Garrett Hade, co-founder of The Voices Project, an addiction recovery advocacy group.

The Affordable Care Act, by expanding insurance rolls and requiring insurers to cover the treatment of substance use disorders on par with other medical conditions, has helped spawn explosive growth in America's rehab industry. Unfortunately, that includes some operators interested more in the money than the welfare of patients.

As competition has intensified, some rehab operators have resorted to wily and unscrupulous methods to draw clients. A common practice is to pay "body brokers" thousands of dollars to troll social media and sobriety meetings for insured people who need treatment.

Some facilities fraudulently sign people up for insurance, fly them to treatment centers across the country and bill tens of thousands of dollars for multiple urine tests and other services of dubious necessity. Some operators

have even plied their clients with drugs between stints in rehab to recycle them back into the program

Sue Harris, a San Diego resident, sent her son Jameson to a rehab center in West Palm Beach, Florida, on the recommendation of a "treatment coordinator." It was the worst decision, she says. Jameson called from Florida and told her, "'I'm going to die here, Mom. There are drugs everywhere," Harris, 59, recalls. He was right: He died shortly afterward from an overdose of fentanyl-laced heroin.

A less shady practice by treatment facilities is to invest in strategies to push their names to the top of internet search results. "So you are not necessarily getting the best person. You are getting the ones who have paid money for search engine optimization," says David Skonezny, who runs a Facebook page called It's Time For Ethics In Addiction Treatment.

So, what's a better option for finding a reputable rehab center? Try attending meetings of recovery programs such as Alcoholics Anonymous or LifeRing. People who go to those meetings have experienced the same things you or your loved ones are going througl and often share tips and advice. But beware of anybody hard-selling a specific program.

You can also call the federal Substance Abuse and Mental Health Services Administration's 24/7 helpline (800-662-HELP), which provides information on addiction as well as referrals to treatment and support groups. A federal government website, www. findtreatment.gov, also offers referrals. If your child has a substance use disorder, the Partnership for Drug-Free Kids provides a wealth of information and support.

Once you have some promising leads, your real homework begins. You must vet them thoroughly not only to confirm their integrity but to maximize the chance that you or your loved ones will get the personalized care needed.

To weed out bad players, search

for complaints against facilities you are considering if your state puts them online. Unfortunately, California does not—though you can see the ones with revoked or suspended licenses, as well as those operating without licenses, on the website of the Department

At this point, Google actually comes in handy: Search the facility by name, paired with red-flag terms such as "fraud," "indicted" or "body broker."

of Health Care Services.

With the U.S. death rate from drug overdoses more than triple what it was 20 years ago and alcohol misuse among the top preventable causes of death, the need for effective addiction treatment is massive.

An alarm should sound if people running a treatment program ask about your insurance and finances right off the bat, says Cynthia Moreno Tuohy, executive director of Alexandria, Virginiabased NAADAC, the Association for Addiction Professionals. "If I'm more concerned about the money and the insurance, don't come to me," she says.

And don't be dazzled by dollar signs. "Just because it costs a lot of money, don't think it's great," says Vargas, whose daughter, Rebekah, also struggles with drugs.

It wasn't until her son was years into his meanderings through rehab that Vargas discovered public treatment programs that don't cost anything—though they are hard to get into. In California,

they are run by the counties and mostly funded by Medi-Cal, the government-run insurance program for people with low incomes

You can find a list of county programs and contact numbers on the DHCS website under the "individuals" tab.

How do you know what kind of program is a good fit? An initial assessment is critical. Get it done by a doctor with a specialty in addiction rather than at a treatment center.

In California, you can find board-certified addiction-medicine doctors on the California Society of Addiction Medicine website. If you live elsewhere, go to the American Society of Addiction Medicine site.

Ask any potential rehab program about the credentials of its physicians, social workers, clinical psychologists, and addiction counselors on staff. You can check the addiction-specific qualifications of rehab counselors and social workers by calling NAA-DAC (703-741-7686), or the organization that credentials them in your state. In California, check the website of the California Consortium of Addiction Programs and **Professionals**.

Another important question, recovery experts say, is whether a program endorses anti-addiction medications—it should—and is prepared to administer them in-house or through a competent outside party. Don't let them evade that question.

And remember: Addiction is a lifelong battle. Relapses are common. There's always hope, though for reasons difficult to ascertain, some people are better at recovery than others.

Harris says Jameson was not one of those people: "He loved his family. He loved life. But he just could not stop himself."

Bernard J. Wolfson is the managing editor for California Healthline, which is published by Kaiser Health News. This article was first published by California Healthline, a service of the California Health Care Foundation.



EAT WELL

Can Help Alleviate Ulcerative Colitis

Common herb and folk medicine has demonstrated medicinal properties

inger supplements may be the natural substance researchers have been searching for in the prevention and treatment of common inflammatory bowel diseases.

Research published in Complementary Therapies in Medicine indicates that ginger, or Zingiber officinale root, may be of therapeutic value in the treatment of ulcerative colitis, a disease exacerbated by oxidative stress.

While further research is needed to assess the appropriate dosage of ginger amongst ulcerative colitis patients, the antioxidant effects of ginger in improving the quality of life even among ulcerative colitis patients have been clearly demonstrated.

What Is Ulcerative Colitis? Ulcerative colitis (UC) is a chronic in-

flammatory disease that affects the colon and lower digestive tract and is thought to be triggered by a loss of intestinal flora and negatively impacted by oxidative stress. Conventional medications used to combat ulcerative colitis include aminosalicylates (to control inflammation), corticosteroids (steroids), and cyclosporine (immune suppressor), while alternative and more natural therapies include probiotics and fish oil.

In extreme cases IJC nati need a colectomy if they do not respond to treatment. Most UC patients are between 15 and 30 years old, and present with a variety of symptoms ranging in severity, including: intermittent rectal bleeding, mild to severe diarrhea, anemia, mild to severe cramps, bloating, constipation, fever, and rapid weight loss (in severe cases).

While the exact cause of UC is unknown, factors that have been linked to the development of the disease include:

Tobacco smoking: Both current and former tobacco use is linked with an increased risk of UC devel-

Diet: A typical western diet, characterized by high intake of sugar and unhealthy fat and decreased intake of dietary fiber, can cause changes in the gut microbiome. This damages immune function and is linked to an increased risk of UC.

Stress: Adverse life events, chronic stress and depression have all been linked to UC.

Oxidative stress: Oxidative stress is known to exacerbate symptoms and increase occurrences of relapse in UC patients.

Medication use: Antibiotics often have devastating effects on the gut microbiome, and patients taking high amounts of antibiotics experience an increased risk of developing inflammatory bowel diseases.

Ulcerative colitis, the most common form of inflammatory bowel disease worldwide, affects 1.4 million people in the United States, and the number of cases is growing. Unfortunately, many of the medications used to treat UC cause adverse effects to the bones, gastrointestinal tract, liver, eyes, pancreas, and immune system.

Many of the medications used to treat UC cause adverse effects to the bones, gastrointestinal tract, liver, eyes, pancreas, and immune system.

Because of the prevalence of UC cases in North America and Europe, researchers are eager to determine if natural remedies might prove as beneficial as more conventional treatments while presenting fewer side effects.

Effects of Ginger on Ulcerative Colitis

Ginger has known positive effects on many gastrointestinal diseases, including nausea and vomiting, and due to its antioxidant properties researchers have long speculated that ginger could improve UC symptoms and reduce recurrence rates by low-

ering oxidative stress. In the Complementary Therapies in Medicine study, researchers tested the effects of daily ginger supplements (2 grams per day) on participants with mild to moderate ulcerative colitis over a period of 12 weeks.

in oxidative stress and disease activity through a reduction in malondialdehyde, a marker for oxidative stress, in a dose-dependent manner.

The results showed an improvement

way to treat common

bowel disease

However, researchers believe higher dosage amounts are necessary to induce significant improvements. As this was the first clinical trial to study the effects of dried ginger capsules on oxidative stress in UC patients, further research is warranted, but the results are promising for those suffering from this uncomfortable and sometimes debilitating disease.

Additional Benefits of Ginger In addition to its antioxidant properties, ginger has several wellresearched properties including: anti-inflammatory, anti-diabetic, effective pain management, may lower cholesterol, anti-cancer properties protects against age-related

brain decline, and antibacterial. Visit the GreenMedInfo.com research dashboard for more research on the therapeutic values of ginger and gingerol, the active compound found in ginger root.

Other Remedies

for Ulcerative Colitis In addition to ginger, there are several natural remedies that have been

and preventing ulcerative colitis. **Curcumin:** When combined with mesalamine, curcumin supplements were shown to be effective in maintaining remission in ulcerative colitis patients.

studied for their efficacy in treating

Probiotics: Like curcumin, oral supplementation of probiotics proved useful in maintaining remission of ulcerative colitis.

Fish oil: Fish oil has anti-inflammatory effects on tissues affected by ulcerative colitis and other inflammatory bowel diseases.

Barley grass: Germinated barley grass, a prebiotic, reduced the clinical activity of UC after only four weeks of oral consumption.

Vitamin D: Vitamin D, known for its anti-inflammatory properties, reduced the incidence of polyps and adenomas in the colon, common complications associated with ulcerative colitis.

Cannabidiol: By controlling the neuroimmune axis, cannabidiol may be effective in reducing intestinal inflammation and have therapeutic benefits for treating inflammatory bowel diseases.

Aloe vera: In one study, aloe vera extract had a protective and healing effect in rats suffering from ulcerative colitis.

Frankincense: Frankincense extract was shown to reduce symptoms of mild ulcerative colitis and may help maintain UC remission in some patients.

For additional research related to ulcerative colitis and a complete list of all-natural remedies shown to improve ulcerative colitis symptoms, visit GreenMedInfo.com's Ulcerative Colitis Dashboard.

The GMI Research Group is dedicated to investigating the most important health and environmental issues of the day. Special emphasis will be placed on environmental health. Our focused and deep research will explore the many ways *in which the present condition of* the human body directly reflects the true state of the ambient environment. This work is reproduced and distributed with the permission of GreenMedInfo LLC. Sign up for their newsletter at www.GreenmedInfo.

FOOD AS MEDICINE

Cocoa Can Ease Walking Pain for People With Peripheral Artery Disease

DEVON ANDRE

If you're suffering from peripheral artery disease and looking for some relief from the painful, limiting condition, then here's a great one for you. A recent study has shown that a daily cup

of hot chocolate can ease pain, improve walking distance, boost blood flow, and enhance muscle health and function.

But I'm not talking about the steamy, thick milk chocolate with marshmallows sitting on top. That stuff won't help. To get

the benefits, you'll need to reach for dark chocolate options with at least 85 percent pure cacao.

Cacao is a great source of antioxidant compounds called flavanols

Peripheral artery disease (PAD) is a major cause of disability in people over 55. It's when blood vessels in the legs narrow, limiting the supply of blood available to the lower body. This is a problem because your legs have big muscles and a heavy workload that require plenty of oxygenated blood.

There are a limited number of therapies that can help treat the condition, and it seems like hot chocolate might be one of them.

Cacao is a great source of antioxidant compounds called flavanols. One, in particular, epicatechin, has been shown to have a unique effect on blood pressure. It can relax veins and allow blood to flow more freely.

The small study looked at 44 people, at an average age of 72, all with PAD. For six months, they were given a mixture of warm milk and a packet of cocoa with epicatechin or a placebo. They drank it three times per day.

At the end of the study, people given co-

coa showed a 20 percent improvement in blood flow, muscle health, and function, and were also able to walk further in a sixminute test than the control group.

Cacao, of course, is not the only source of flavanols. But it might be the most enjoyable (if you like the bitter taste of dark chocolate). Other foods with it include green veggies, berries, apples, and tea.

If you suffer from PAD, indulge yourself with a hot chocolate each day. It's unlikely to lead to weight gain—just remember it needs to be at least 85 percent cacao and free of sugars and other additives.

Devon Andre holds a bachelor's of forensic science from the University of Windsor in Canada and a Juris Doctor from the University of Pittsburgh. Andre is a journalist for BelMarraHealth, which first published

Some Infant Formulas Contain More Sugar Than Soda

Researchers in the UK uncover fructose and other problem sugars used in infant formula

GEMMA BRIDGE

ome formula milk has double the sugar per serving than a glass of soda. That was the key finding of our global investigation into the sugar content of infant formula and follow-on milk. But perhaps more shocking is the fact that there are so few regulations in place to control the sugar content and to make sure consumers are well informed.

We all love sugar. But too much of the sweet stuff can lead to obesity, Type 2 diabetes, and dental disease. Our preference for sugary foods stems from our primitive ancestors. who were scavengers and sought out sweet foods for energy. But if we are hardwired to like sweet foods, being fed lots of sugar as babies can increase our desire for sweet things and increase the risk of developing disease in later life.

Breast milk is the recommended source of nutrition for infants, especially during the first six months of life. Although it is sweet and high in energy, the sugar is mainly lactose and the content is specific to the needs of the growing infant. Conversely, infant formula milk has a standardized make-up and contains added sugars such as corn syrup which are added during production and are not found in breast milk. This is bad for babies because high consumption of added sugars may contribute to tooth decay, poor diet and lead to obesity in children.

We investigated the sugar content of 212 commercially available infant formula milk products targeted at infants under three. The products were being sold in supermarkets in 11 countries. We collected data on sugar content from nutrition labels and compared it to average breast milk compositions and sugar content guidelines. We also noted the clarity of the labels and the marketing strategies used on the packaging.

Our findings revealed that over half of the products contained more than 5g of sugar per 100ml. In many cases, the sugar content was over 7.5g per 100ml, which exceeds the European parliament's recommended levels for infants. For example, we found that a powdered product for infants under six months sold in France contained 8.2g of sugar per 100ml, or nearly two teaspoons, while a ready-to-drink milk formula for infants under 12 months old in the United Kingdom contained 8.1g of sugar per 100ml.

This comes at a time when sugar-sweetened beverages have been subject to widespread taxation to reduce their sugar content due to negative impacts on health. As a result, many formula products included in our study contained almost double the sugar of well-known drinks such as Fanta Orange.

Nutritional Information Obtaining information from the labels of these formula products was difficult as the fonts used were small and the facts

provided varied between countries. For example, some products listed sugar content per 100g while others listed it per 100 calories (kcal). This is despite guidelines, such as those in the United Kingdom,

If we are hardwired to like sweet foods, being fed lots of sugar as babies can increase our desire for sweet things and increase the risk of developing disease in later life.

There are so few regula-

tions in place to control the

sugar content and to make

sure consumers are well

informed.

which state that values should be expressed as kJ/kcal per 100ml (3.38 oz.).There are also codes in place to limit the marketing of infant formula products because they are not the best way to feed a growing baby. But most of these are voluntary codes of practice that manufacturers do not have to abide by. Even guidelines that are enforced by law can be side-

stepped by manufacturers since they are not strictly monitored and have loopholes. In some cases, manufacturers themselves have even influenced their devel-For example, it was revealed that

the industry has funded research into infant health and has given doctors free formula products. This almost certainly helps ensure that their sale is affected as little as possible by such guidelines. It is possible that the sale of infant formula products has increased worldwide as a result.

The World Health Organization's International Code of Marketing of Breastmilk Substitutes stipulates that infant formula products should not be promoted over breastfeeding. In the U.K. the guidelines state that the labels on products targeted at infants under six months should not include images of infants or any other pictures that idealize their use.

But we found that many of the formulas had labels that included images of infants or cute toys of animals, presumably designed to entice caregivers into buying. Such findings are not unsurprising as there is evidence that harmful marketing strategies have been used extensively by infant formula and follow-on milk manufacturers.

Recommendations

as is the potential negative impact of the high sugar content on the health of babies. We urge parents and caregivers to opt for breast milk whenever possible. However, to help those

families unable to breastfeed their babies, we also have two key recommendations for policymakers:

1) Regulate the amount and type of sugar in infant formula products as a matter of urgency. Encourage

manufacturers to aim for formulations as close to breast milk as possible. Such regulations could be conducted in a similar way to the taxes on sugar-sweetened beverages that have been implemented across the world.

2) We are also calling for the mandatory disclosure of added sugar by manufacturers and suggest that this could be implemented alongside the introduction of a clear front-of-pack labeling system. Such disclosures and clear labeling could aid consumers to make informed choices about what products they purchase.

Gemma Bridge is a doctoral candidate at Leeds Business School at Leeds Beckett University in the UK. This article was originally published on The Conversation.



A good rule of thumb to remember is to make sure that you're getting plenty of fresh fruits and/or vegetables at every meal.

AGE WELL

Eating to Stay Young: Anti-Aging Foods

Just as smoking accelerates aging, eating some foods can slow aging

JILL ETTINGER

In some ways, anti-aging is a hopeless pursuit. We all inevitably age. Well, if we're lucky. We all eventually kick the bucket too. That's just how life works.

We can't be young and vibrant without the inevitable keeping it all in balance. However, that doesn't mean that we have to grow old in an unhealthy way. In fact, the way we treat our bodies throughout our entire lives can greatly impact the aging process. Diet, of course, plays a monumental role in that regard. But can eating anti-aging foods really help?

When it comes to anti-aging there is no question that there are habits that will drastically speed up the aging process. These include smoking, drinking too much alcohol, and eating foods that are high in sodium, sugar, and trans fats. But eating foods that are high enough in phytonutrients like flavonoids and carotenoids (antioxidants found in a number of fruits and vegetables) can help with anti-aging and keep you feeling energetic and healthy.

A good rule of thumb to remember is to make sure that you're getting plenty of fresh fruits and/or vegetables at every meal. The more you add these foods into your diet, the less room you'll have for the stuff that's not so healthy

So what makes these foods such antiaging treats? Credit the high levels of antioxidants including anthocyanins, vitamins like A, C, E, and K, resveratrol, and healthy fats.

Here are some fruits, vegetables, and other foods that will help your body resist the effects of aging.

Fruits

- Blueberries
- Cranberries
- Apples Avocados
- Melons (including those yummy cucum-
- Winter squash (it's technically a fruit!)
- Citrus fruits (healthier varieties contain seeds)
- Tomatoes
- Olives Pomegranates
- Dark chocolate (It's technically the seed of a fruit and yes, it is good for you! Just make sure it's at least 70 percent cacao content and low in sugar. Better yet, try raw cacao beans or nibs)

Vegetables

Carrots

- Sweet potatoes
- Kale

• Beets

- Spinach Cabbage
- Lettuces Brussels sprouts

Broccoli

Miscellaneous

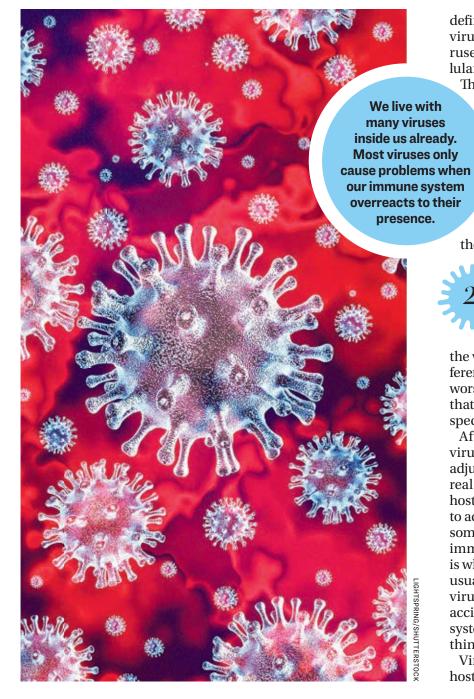
• Raw nuts (best when soaked in water for 6-8 hours)

- Beans (cooked from scratch, not the can)
- Green tea
- Wheatgrass juice Whole grains
- Seeds (particularly flax, hemp and chia)

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

What Are Viruses, and Why Do They Make Us Sick?

A virus expert explains these tiny parasites as fears of coronavirus continue



MARILYN J. ROOSSINCK

Editor's Note: Some viruses cause the common cold, and some are crucial to human survival. As world health leaders try to determine how to respond to the new coronavirus, virus expert Marilyn J. Roossinck answers a few questions.

Mhat Is a Virus?
Defining a virus has been a challenge, because every time

we come up with a good definition, someone discovers a virus that breaks the rules. Viruses are entities that infect cellular life. They are very diverse. The simplest just have a couple of genes made of RNA or

DNA wrapped up in a protein coat. Others have hundreds of genes, more than some bacteria.

All viruses are ultimately parasites. They require a host for replication. They cannot generate their own energy like cells can.

> Why Does a Virus Make People Sick? When a new human

virus disease appears, it is most often because the virus has jumped from a different species into humans. The worst viruses are often the ones that have very recently jumped species.

After jumping species, the virus goes through a process of adjustment to its new host. The real challenge, however, is to the host. As it tries to figure out how to adjust to an invasion from something completely new, the immune system overreacts. This is what makes the host sick. It usually isn't an advantage for the virus to make people sick; it is an accident of the hosts' immune system overreacting to something it doesn't recognize.

Viruses that have been in a host for a long time are less likely

to cause disease. For example, HIV jumped into humans from wild primates, in whose bodies it wasn't causing any disease.

Viruses don't respond to antibiotics, and in some cases taking antibiotics can make things worse, because antibiotics can hurt normal bacteria in the gut that are an important part of the immune response.

Every virus-host relationship is different. In most cases, viruses do not cause any disease, and many are beneficial. For example, in mice, a herpes virus prevents infection from the plague bacteria.

Why Is It So Important to Know the Original Source?

If the virus comes from an animal, knowing what that animal is can help break the chain of infection. Knowing the source also helps scientists understand mutations that might have occurred in the virus' genome. That's because host-jumping affects the variation in a virus genome. When a virus has been in its host for a long time, the genome is fine-tuned to that host, and mutations are not tolerated.

SARS Was a Formidable Foe and Then Seemed to Disappear. Why?

Measures to contain SARS started early, and they were very successful. The key is to stop the chain of transmission by isolating infected individuals. SARS had a short incubation period; people generally showed symptoms in two to seven days. There were no documented cases of anyone being a source of SARS without showing symptoms.

Stopping the chain of transmission is much more difficult when the incubation time is much longer, or when some people don't get symptoms at all. This may be the case with the virus causing CoVID-19, so stopping it may take more time.

What Is the Best Way to Treat Viruses? Viruses don't respond to

antibiotics, and in some cases taking antibiotics can make things worse, because antibiotics can hurt normal bacteria in the gut that are an important part of the immune response. Antiviral drugs can work with some viruses, but the mutation rate of most viruses means that they become resistant to antivirals very quickly.

The best treatment is to give the patient the best tools to allow their own body to fight off the infection. This usually means rest and keeping hydrated. Virus infection can suppress the immune system, so patients should be monitored for secondary infections that might require other treatments. Prevention is important. Sick people need to be isolated, and healthy people need to take precautions.

Most respiratory viruses are not transmitted just by breathing them in from sick people, but by getting them on your hands from tiny droplets that sick people distribute by coughing or sneezing, and then touching your face. Good hand-washing is important.

Marilyn J. Roossinck is a professor of plant pathology and environmental microbiology at Pennsylvania State University. This article was originally published on The Conversation.





MAR 5–29 Lincoln Center APR 23–29 NJPAC BUY TICKETS NOW: ShenYun.com/NY | 888.907.4697