

WEEK 30, 2021

THE EPOCH TIMES

MIND & BODY

PHARMACEUTICALS

Doctors Weigh Prescribing Controversial Alzheimer’s Drug

Pros and cons of an expensive new drug with questionable value put doctors in difficult situation

JUDITH GRAHAM

As physicians and health policy experts debate the merits of Aduhelm, the first new drug approved for Alzheimer’s disease in 18 years, patients want to know: “Will this medication help me—and how much?”

Doctors explaining the pros and cons of Aduhelm won’t have a definitive answer.

“On an individual basis, it will be absolutely impossible to predict,” said Dr. Allan Levey, director of the Goizueta Alzheimer’s Disease Research Center at Emory University.

Cognitive decline varies widely among people who have started experiencing memory and thinking problems or who are in the earliest stage of Alzheimer’s—the patients in whom Aduhelm was tested, Levey noted.

Continued on Page 4

The sad reality is Aduhelm isn’t the drug Alzheimer’s patients have been waiting for.

How to Spot the Signs and Symptoms of Substance Abuse in Children

Children can experience substance abuse. Here’s how to notice the signs.

HANNAH BENNETT

When we think of substance abuse, we often think of adults. But children are just as susceptible to the reality of addiction as adults—and potentially more so, because their minds and bodies are still developing.

When a child ventures into the territory of substance abuse, they may be doing so for a number of reasons. A chaotic home life, trouble in school, difficulty making or keeping friends, mental illness, and

other factors can all contribute to substance abuse in children. According to the National Institute on Drug Abuse, struggling in school or having poor social skills can be major risk factors for using drugs or becoming addicted to them.

And if a child uses such substances, their ever-changing brain is highly prone to addiction because it’s still so malleable. Research suggests that the human brain is still maturing in significant ways during childhood.

Young brains are particularly vulnerable to the effects of drugs, and drug use during adolescence can significantly increase a child’s risk for developing a substance use disorder later in life. The earlier a person uses drugs, the higher the chances are that they’ll form an addiction.

If you’re concerned that your child is abusing drugs or alcohol, consider the signs and symptoms below.

Continued on Page 6



A caring adult—such as a parent, friend’s parent, or teacher—can be a child’s best chance of rescue from substance abuse.

Behind the Subscription

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

Learn more at

EpochSubscription.com

THE EPOCH TIMES

TRUTH AND TRADITION



Thank you Epoch Times customers! I have my MyPillow Premium pillows at the lowest price ever. Also, use the promo code below to get deep discounts on all my other MyPillow products! - Mike Lindell

Premiums
\$29.98
Lowest Price Ever!

800-795-5289 **USE PROMO CODE: EPOCH99**
mypillow.com

THE EPOCH TIMES

The Book You've Been Waiting for...



NOW BIGGER SIZE, EASIER TO READ FORMAT

“Extremely well researched and true.”

“The Truth, as horrifying as it is, shall set us free. This should be on this country's academia's list of required reading.”

HOW THE SPECTER OF COMMUNISM IS RULING OUR WORLD

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

ORDER NOW!

Available at

amazon

EpochShop.com



The heat of summer is the perfect time to expel winter diseases.

CHINESE WISDOM FOR SEASONAL LIVING

Chinese Medicine Advises Not to Drink Iced Beverages or Chilled Food

Solar Term: ‘Major Heat’ (July 22 to Aug. 6)

MOREEN LIAO

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

Solar Term: ‘Major Heat’
2021 Date: July 22 to Aug. 6

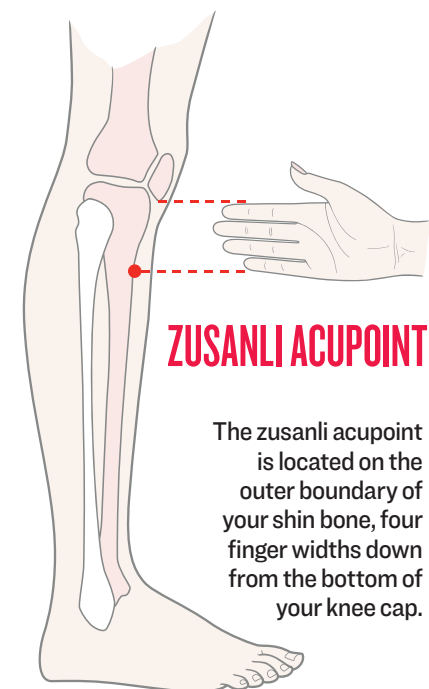
“Major Heat” is the last solar term of summer, often accompanied by heavy rain, floods, and thunder.

The ancient Chinese saw summer as the peak of one's life, but it precipitates the decline in the same way that summer soon cools into autumn with winter following. So as it is in life, so goes the year, and summer is the middle age of seasons.

There is an old Chinese saying, ‘The best time to fix winter diseases is summer, and the best time to treat summer diseases is winter.’

Knowing the solar terms allows one to live in harmony with the ways of nature. As all things have a season and a rhythm, living in harmony with this basic truth of the world is also beneficial for our health.

It's also a unique time, called San-Fu-Tian, according to traditional Chinese medicine, to purge winter diseases from the body. This year, the ideal period for this is between July 12 and Aug. 21. This also is the time to start building health reserves for the cooler months ahead.



ZUSANLI ACUPOINT

The zusanli acupoint is located on the outer boundary of your shin bone, four finger widths down from the bottom of your knee cap.

ALL IMAGES BY SHUTTERSTOCK

Impact on People

There is an old Chinese saying, “The best time to fix winter diseases is summer, and the best time to treat summer diseases is winter.” Winter diseases are like extremely cold ice present inside our bodies; if we want to melt them away, we need to find a time when both the environment and our bodies are hot. Major Heat is such a time.

The top Chinese doctors work with nature to treat diseases, and so can we, as individuals. We can help our bodies to recover from our old problems and prepare to transition into a safe winter if we take care of our bodies well.

Living in Harmony With the Season

Although it might be hard starting out, or a major change for some people, our bodies will appreciate it in the long run if we can avoid eating cold foods. Cold for this purpose means colder than our bodies' temperature. Especially food colder than room temperature should be avoided.

Our digestive system is a fire of sorts. This is why we used to burn food to see how much it could heat water to calculate the energy our body would derive from eating it. This process of determining the calories contained in a given food was refined as food regulators required that manufacturers provide more specific nutritional information, but the essential practice holds.

This is one reason not to eat cold foods. Doing so can affect the digestive process and unsettle the balance of cold and heat in the body.

It is also good to avoid being caught out in or soaked by the rain. And it's good to have your belly covered if you find yourself in an air-conditioned room. For those feeling hot, you may massage the back of your neck to reduce the feeling of heat. Anyone (even those not feeling hot) can massage the zusanli acupoint on the outer boundary of your shin bone, four finger widths down from the bottom of your knee cap.

The famous Tang Dynasty doctor, Sun Si Miao, lived to be more than 140 years old. He said the zusanli acupoint helps to strengthen one's health and avoid disease. It is one of the foremost acupoints for longevity and helps to improve digestion, activate blood circulation, and repel humidity inside one's body, according to ancient Chinese medicinal theory.

Foods to Eat: Eel, pineapple, pumpkin, mango, lamb, potato, yam, sweet potato, cumin, and pepper.

Those who have excess body heat can eat tomato, eggplant, peach, and green beans.

Epoch Times contributor Moreen Liao is a descendant of four generations of traditional Chinese medicine doctors. She's also a certified aromatherapist, former dean of the New Directions Institute of Natural Therapies in Sydney, Australia, and the founder of Ausganica, a certified organic cosmetic brand. Visit [LiaoMoreen.com](#)



Some medical statistics can provide transformative insight. Others confound us with misleading numbers devoid of context.

MEDICALLY CORRECT

Statistics: The Confounding Science

We rely ever more on numbers to tell us how our world and medicine work, but these numbers can be misleading

PETER WEISS

Medicine relies on statistics more than ever, but these numerical insights aren't always useful to our health and well-being. Statistics can help us make healthy decisions but they should not be used as a day-to-day instruction manual.

Statistics can be misleading. There is a 12.9 percent lifetime risk that a woman born in the United States will get breast cancer at some point in their life. It's also true that there's a 100 percent lifetime risk that we will die at some point. All that really matters is what is happening with you, the individual, at any given time.

The reason I bring this up, is that too often we see statistical, analytical, peer-reviewed articles cited and read as gospel truth. Mark Twain once wrote, “There are three types of lies—lies, damn lies, and statistics.” So what do we believe? I go back to common sense and a good pinch of skepticism. Your health and well-being may depend on it.

Back to the 12.9 percent lifetime risk of breast cancer. No one wants breast cancer. Yet, we have some women getting prophylactic (preventative) mastectomies to prevent the chance of getting breast cancer. In some cases, they are truly warranted but in others, it's more a fear factor and response to some statistics. Dr. John Inodes of Stanford wrote a paper in PLOS Medicine, titled “Why Most Current Published Research Findings Are False,” which is considered foundational to the field of metastasence, caused a tremendous stir and its implications have been discussed many times since. The author used a statistical model that indicated science is rife with false-positive results

Sometimes a study is designed in a way that makes its findings all but inevitable, even if the author didn't intend it.

that can't be replicated.

We tend to have confirmation bias even in science. Sometimes, a study is designed in a way that makes its findings all but inevitable, even if the author didn't intend it.

We also tend to believe the latest study, which is not necessarily the best study. If study A says the answer is 20 and then we have another newer study saying the answer is 30, we tend to believe the latest study. What's to say that the last study wasn't faulty?

Years back, I had a patient who was on hormone replacement therapy for quite a while. She felt wonderful and was living her life in menopause to its fullest. Then, a study came out stating that hormones can cause breast cancer and women should stop taking them immediately. My patient was scared to death. So she stopped, and her life became miserable with hot flashes, insomnia, and other symptoms. Other non-hormonal treatments didn't work.

It took several years of this misery for her to realize what she needed to do. She went back on her hormone therapy, was closely watched, and returned to a more normal life. By the way, that study was faulty and misleading.

Everything in life has risks. That's why we have a 100 percent lifetime risk of dying at some point. By the way, there is an increased risk of breast cancer from alcohol consumption as well, yet it's nice to have an occasional glass of wine with dinner. Wine can also have some medical benefits.

I break down statistics into two categories. One is simple, hard truths, which really don't need any study to confirm

what we already know. You don't need a scientific article to show you that riding a bicycle without a helmet can be dangerous, or wearing a seatbelt while driving is a good idea. This is just common sense. The other is teaching us something we don't yet know. This would be a new treatment for cancer or heart disease. Things we learn over time. Still, we have to watch out for the faulty studies, which isn't always easy to do.

Chris was 23 years old; her mother had died of ovarian cancer. Chris tested positive for a gene that would have put her at a higher risk for ovarian cancer and she was scared. We placed her on birth control pills, since studies have shown that long-term use can significantly lower the risk of getting ovarian cancer. This is great. However, she's overweight, diabetic, and has mild high blood pressure. The pill has risks, too, such as blood clots, stroke, and heart attacks (rare). She is a smart woman and was able to decide what is best for her by using statistics to weigh the benefits and risks.

Statistics can be powerful and we have to be able to use them wisely. We have to be careful of those who manipulate data to find the result they want. There is also something called spurious connections or spurious statistics. It is well-known that Swedes have a higher incidence of frostbite than Floridians. Statistically, it would be true to say that if a Swede then moves to Florida, he or she, as a “Swede,” would still have a higher incidence of frostbite, even though we know that's no longer true. A change in context can make a statistic true or false, independent of the variable once measured.

Gabby was 20 weeks pregnant when she had a very scary, high-level structural ultrasound with a perinatologist (high-risk pregnancy specialist). There was something wrong with the baby's lung development. The risk of this kind of lung issue is about 1 in 25,000. Of those, about 10 percent can be life-threatening to the fetus. She ultimately delivered a healthy girl with no evidence of any lung abnormality.

Statistics are important but how they are expressed can be critical in actually determining specific patient care.

For instance, media reports on statistics often draw no distinction between relative risk and actual risk. These numbers become critically different with regard to drug efficacy and other issues.

For instance, you might hear that a new drug reduces heart attack risk by 50 percent. That's the relative risk number. But the actual risk is that the drug reduced heart attacks to 1 in 100 from 2 in 100.

Use of relative risk has also been rampant when discussing COVID vaccines, for instance. We need to look at actual, and not relative, risks. There are many ways statistics can be manipulated for a desired end result.

We have to learn to read closely and question all those statistics we are given as facts. Our lives may depend on it. Not everything we see on the internet is true.

A well-known quote, author unknown, describes statistics as “the only science that enables different experts using the same figures to draw different conclusions.”

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

Tryptophan: Not Just in Turkey, Not Just Sleep Inducing

MAT LECOMPTÉ

The best part of an overall healthy diet is that you don't really have to worry about eating more of this and less of that. The nutrients and benefits just seem to fall into place.

But sometimes you might want to make a conscious decision to eat more of certain nutrients for the potential of a little something extra.

Tryptophan is a widely known amino acid known for helping people relax and inducing sleep. And although it likely

undeservedly gets the blame for the post-Thanksgiving nap (you probably just ate too much), there is some meat to the link.

Eating tryptophan-rich foods can make you feel more relaxed and ready for a nap because it increases relaxation hormones like serotonin and melatonin. And while a little bit might not make much of a difference, a huge helping could make you feel a little more tired earlier than usual.

But the benefits might not stop there. A recent study has found that along with promoting relaxation and potentially better sleep, tryptophan may also help protect against inflammation in advanced age.

The study, published in May in the International Journal of Molecular Sciences, found that high levels of tryptophan may



▲ Tryptophan isn't just in turkey, it's also in peanuts, salmon, spinach, and more. ALL PHOTOS BY SHUTTERSTOCK

encourage a stronger and more diverse population of gut bacteria and protect against inflammation.

There is one major caveat, however. The research was conducted on mice, meaning it's entirely possible that the same benefits may not occur in humans.

But let's think about it for a second. If you're eating a “high tryptophan” diet, it means you're eating a lot of food that is both associated with lower inflammation and good for gut health.

Remember, a healthy diet takes care of the nutrients you need.

So, what are some high tryptophan foods you can include in your diet?

Try snacking on peanut butter or pumpkin seeds. It's also in turkey and salmon, as well as healthy greens like spinach and edamame.

Mat Lecompte is a health and wellness journalist. This article was first published on [BelMarraHealth](#).

PHARMACEUTICALS

Doctors Weigh Prescribing Controversial Alzheimer’s Drug

Pros and cons of an expensive new drug with questionable value put doctors in difficult situation

Continued from Page 1

“The nature and rate of progression varies tremendously, and we’re not going to know when we treat somebody [with Aduhelm] if their progression will be fast or slow or average—we just won’t be able to say.” Nor will it be possible to specify how much difference this drug would make for a given patient.

“To try to tell an individual how much delay in progression they’ll experience [if they take Aduhelm] is simply something we cannot do,” said Dr. Jason Karlawish, a professor at the University of Pennsylvania Perelman School of Medicine and co-director of the Penn Memory Center.

Uncertainty about the potential benefits of Aduhelm, which received conditional approval from the Food and Drug Administration on June 7, is considerable. One phase 3 drug trial found that a high dose taken over the course of 18 months slowed cognitive decline by about four months; a second clinical trial failed to show any effect. The FDA is requiring a post-approval trial from drugmakers Biogen and Eisai Inc. to supply more data, although final results might not be available until February 2030.

With many unanswered questions about Aduhelm’s approval, the House Committee on Oversight and Reform has opened an investigation. Faced with criticism over insufficient guidance, the FDA on July 8 revised the drug’s label to narrow its potential use.

“Treatment with ADUHELM should be initiated in patients with mild cognitive impairment or mild dementia stage of disease, the population in which treatment was initiated in clinical trials,” it now reads.

These developments make the job of educating patients and families about Aduhelm and recommending for or against it extraordinarily difficult for physicians.

Conversations are going to be “very challenging, given the complexity of the information that needs to be conveyed,” Karlawish said.

Here are key points that experts aim to explain.

Effectiveness hasn’t been proven. Aduhelm has been shown to be very effective at removing beta-amyloid protein, a hallmark of Alzheimer’s, from patients’ brains. Clumps of this protein, known as amyloid plaques, are thought to be implicated in the underlying disease process. But clinical trials of other drugs that remove amyloid plaques haven’t demonstrated effectiveness in stopping Alzheimer’s progression.

Although data from two Aduhelm clinical trials were inconsistent, the FDA granted accelerated approval to the drug noting it was “reasonably likely to result in clinical benefit.” But this is speculative, not a proven result.

Potential benefits are small. Dr. G. Caleb Alexander, co-director of the Johns Hopkins Center for Drug Safety and Effectiveness, was on the FDA advisory committee that reviewed Aduhelm, a group that recommended against approving the medication.

He characterized positive results from one clinical trial of Aduhelm as “a tiny clinical change.” On an 18-point scale used to evaluate cognition and functioning, patients who responded to the drug experienced a 0.39 slowing in the rate of decline over 18 months. Roughly, this translates into a four-month delay in subtle symptoms.

Neuropsychological tests to evaluate cognition typically ask patients to copy a diagram, subtract 7 from 100 and spell a word backward, among other tasks.

“But navigating your daily life is much more complicated, and it’s not at all clear

Doctors have been given a new tool to fight Alzheimer’s, but its uses are sharply limited.

whether Aduhelm’s purported benefit would be enough to impact an individual’s daily living,” said Dr. Samuel Gandy, a professor of neurology and psychiatry at Mount Sinai’s Icahn School of Medicine in New York City.

Disease progression will continue. “Let’s say someone has cognitive impairment or other functional impairments and decides to take Aduhelm. Will they return to normal? There’s no evidence that this will happen,” said Dr. Henry Paulson, a professor of neurology and director of the Michigan Alzheimer’s Disease Center.

“The expectation has to be that disease progression will continue,” Emory’s Levey agreed.

Potential side effects are common. Brain bleeds and swelling occurred in 41 percent of patients treated with the highest dose (10 milligrams) of Aduhelm, the subgroup that showed some response in one clinical trial, according to a document released by the FDA. Brain scans identified these as mild in 30 percent of cases, moderate in 58 percent, and severe in 13 percent. Most cases were resolved, without serious incident, within three months.

The FDA recommends that patients taking Aduhelm get at least three MRI scans of the brain in the first year to check for side effects. Physicians and health systems are discussing what kind of safety protocols are needed beyond these scans.

Other tests will be necessary. Aduhelm was tested on patients with beta-amyloid deposits in their brain that had been confirmed by positron emission tomography (PET) brain imaging.

In clinical practice, only patients who have those deposits should take Aduhelm and imaging to confirm that should be required, experts agreed. But that presents a problem for many patients. Because of their age, most are covered by Medicare, which doesn’t pay for PET imaging outside of research settings. Instead, most medical centers will rely on amyloid cerebrospinal fluid tests, obtained through spinal taps.

Genetic tests for a form of the apolipoprotein E gene known as APOE4, the presence of which raises the risk of Alzheimer’s, will also probably be in order, Gandy suggested. Patients were more likely to respond to Aduhelm if they carried an APOE4 gene; at the same time, they were more likely to experience brain bleeding and swelling, he noted. But Medicare doesn’t pay for APOE4 testing or related counseling, and a positive test could significantly affect patients’ families.

“Once you find the APOE4 genotype, all those person’s first-degree relatives are at risk,” Gandy noted, “and you change the psychology of a family immediately.”

The APOE4 gene is linked with a reduced ability to remove plaques from the brain and a higher risk of developing Alzheimer’s.

Therapy will be expensive. Medicare and private insurers haven’t yet decided whether to impose restrictions on who can get coverage for Aduhelm, which will be administered through monthly infusions at medical centers. Considering an annual list price of \$56,000 for the drug alone, Kaiser Family

Foundation (KFF) researchers estimate that some Medicare beneficiaries could pay as much as \$11,500 out-of-pocket to cover their coinsurance obligation each year.

Add to that the costs for brain scans, monthly infusions, physician services, amyloid tests, and APOE4 genetic testing, and expenses could approach \$100,000 a year, some experts suggest.

“The most pressing thing we need is an understanding of payment for this medication,” said Dr. Aaron Ritter, a dementia expert with the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas. “Many patients are going to be on a fixed income with limited capacity to pay large amounts.” More than 1,000 patients at the clinic are good candidates for Aduhelm, he noted.

Specialists won’t prescribe to all Alzheimer’s patients. Although physicians can prescribe an approved drug to whomever they think it will help, dementia experts say Aduhelm should be considered only for patients similar to those in the clinical trials: individuals with mild cognitive impairment (memory and thinking concerns that don’t interfere with their functioning) and with early-stage Alzheimer’s (when symptoms are still mild but functioning becomes impaired).

“We are going to start small and go slow until we understand more” about the medication and how patients respond, said Dr. Maria Torroella Carney, chief of geriatrics and palliative medicine at Northwell Health, New York’s largest health care system.

Since Aduhelm wasn’t tested on people with moderate or severe Alzheimer’s, it shouldn’t be given to these patients, several experts said.

“If patients in these later stages ask for the drug, we’ll say we don’t have any evidence that it will work in you and we can’t justifiably give it to you,” said Paulson of the University of Michigan.

Physicians will respect patients’ wishes. Even physicians who worry that Aduhelm’s potential harms might outweigh potential benefits said they will prescribe the medication with caution and careful consideration. Penn’s Karlawish of is among them.

“Now that this medication is available, I have to adhere to a core ethic of the practice of medicine, which is respect for patient autonomy,” he said. “If patients and family caregivers ask for Aduhelm after a thorough discussion, I’ll be a reluctant prescriber.”

KHN (Kaiser Health News) is a national newsroom that produces in-depth journalism about health issues. Together with Policy Analysis and Polling, KHN is one of the three major operating programs at KFF (Kaiser Family Foundation), an endowed nonprofit organization providing information on health issues to the nation.

Judith Graham is a contributing columnist for Kaiser Health News, which originally published this article. KHN’s coverage of these topics is supported by The John A. Hartford Foundation, Gordon and Betty Moore Foundation, and The SCAN Foundation.

JACOB LUND/SHUTTERSTOCK

FOOD AS MEDICINE

Hate Beets? Learn to Love Them.

These red roots can deliver better cognition, cardiovascular health, and athletic performance

ERIN CHAMERLIK

Beets give away a vital clue as to what they can do for your health. They bleed!

Beets are good for the cardiovascular system and all the ways that healthy blood flow benefits the body—from athletic performance to cognitive function.

Beetroot is rich in vitamins, minerals, anthocyanin, betacyanin, phenolic compounds, flavonoids, vitamin C, and other biologically active components. Beets are unique because they contain powerful betalains. These compounds have antioxidant, anti-inflammatory, detoxification, and anti-cancer properties.

Betalains occur in two forms: betacyanin (red-violet pigment) and betaxanthin (yellow-orange pigment).

Betacyanins (a form of betalains in beets) are the reg pigments in beets and betanin (beetroot red) is the most common betacyanin. Betanin is an antioxidant and a scavenger of reactive oxygen species. It exhibits gene-regulatory activity. Betanin plays a role in detoxification and may induce phase II enzymes. Betanin has been shown to possibly prevent LDL oxidation and DNA damage.

The bioavailability of betalains from beetroot is low but may be enhanced by antioxidant metals such as selenium, which stabilizes betalains.

Health Benefits of Betalains

- Antiviral, antibacterial, antifungal, and anti-protozoal activity
- Anticancer properties
- Improves ratio of HDL cholesterol to LDL cholesterol and lowers the level of oxidized LDL
- Lowers blood glucose and body weight
- Liver protective. Induces detoxification phase II enzyme
- Improves mitochondrial function
- Lowers blood pressure
- Fights inflammation

In addition to betalains in beetroot, beets are also recognized as a powerful health-promoting food due to the presence of carotenoids (natural pigments with antioxidant properties) and nitrate (NO3-), which can enhance exercise performance by increasing nitric oxide production.

Nitrates in Beets

We have seen recommendations to limit nitrate and nitrite consumption but there is strong evidence linking the consumption of nitrate- and nitrite-containing plant foods to beneficial health effects.

The top seven foods with very high levels of plant-based nitrates are celery, cress, chervil, lettuce, red beetroot, spinach, and rocket (rucola).

Beets Enhance Efficiency of Mitochondria

Beets benefit the powerhouses of our cells, contributing to increased stamina and energy. That’s known through studies that have demonstrated that beetroot juice can enhance exercise performance. Beets are high in dietary nitrate shown to increase the production of nitric oxide. Mitochondria, the energy producers in cells, work more efficiently and physical performance increases.

In their study published in Cell Metabolism, researchers stated: “We conclude that dietary nitrate has profound effects on basal mitochondrial function. These findings may have implications for exercise physiology- and lifestyle-related disorders that involve dysfunctional mitochondria.”

SAGE EDWARDS

Doctors are seeing a surge in eating disorders across the country as people try to cope with the stress and anxiety induced by the COVID-19 pandemic.

Jennifer Wildes, an associate psychiatry professor and director of outpatient eating disorders program at the University of Chicago Medicine, says she’s “absolutely seeing massive increases.”

Patients are waiting 4 to 5 months for treatment when the wait for treatment prior to the pandemic was usually only a few weeks. Wildes’s program is treating about 100 patients currently, nearly double from before the pandemic.

Other programs are experiencing a similar problem. Jillian Lampert with The Emily Program has reported that her daily calls

have nearly doubled since 2019.

“The Alliance for Eating Disorders Awareness, which started offering virtual therapist-led support groups for adults during the pandemic, has also seen a surge. Since January, more than 7,000 people from every state and 32 countries have attended their support groups,” said alliance CEO Johanna Kandel.

Doctors are seeing an increase in cases across the board, meaning all races and ages. Eating disorders are more common among women than men. Stress and anxiety are common catalysts for eating disorders. Many people have experienced more stress and anxiety in the last year.

Sage Edwards is a writer and photographer for Organic Lifestyle Magazine, which originally published this article.

When purchasing beets, look for organic beets.

The top seven foods with very high levels of plant-based nitrates are celery, cress, chervil, lettuce, red beetroot, spinach, and rocket (rucola).



On a low-carb or ketogenic diet? Use beetroot powder.



Want an exercise boost? Drink beetroot juice.



ALL PHOTOS BY SHUTTERSTOCK

Increasing nitrate intake by consuming beets improves endurance exercise performance. Consumption of nitrate-rich, whole beetroot improves running performance in healthy adults.

A study of 12 male cyclists published in the International Journal of Sport Nutrition and Exercise Metabolism showed that “six days of nitrate supplementation (from beetroot juice) reduced pulmonary oxygen uptake (VO₂) during submaximal exercise and improved time-trial performance in trained cyclists.”

Dietary nitrate supplementation from beetroot juice improves performance during intense intermittent exercise.

Aging is associated with an impaired ability of the vascular endothelium to increase plasma nitrite and nitric oxide (NO) during exercise. Adding dietary nitrate in the form of beets gives the body a ready source of nitrates to produce nitric oxide which results in lower oxygen demand during exercise. A 2007 study concluded that energy production becomes more efficient.

Beetroot juice ingestion also substantially lowered blood pressure (BP) by up to 3 to 10 mm Hg over a period of a few hours in healthy volunteers in another study. Vasoprotective and antiplatelet aggregation properties were attributed to the conversion of nitrate in beetroot to nitrite which is reduced to nitric oxide.

How to Consume Beets for Health Benefits

Once one understands the many health benefits of consuming beets, we need to consider what form is best. When purchasing beets, look for organic beets. Beets grow underground and their thin skin means they easily absorb chemicals and heavy metals.

Beet Tips

- Avoid long cooking times to keep the betalains from being damaged.
- Cut medium beets into quarters. No need to remove the skin before steaming. Steam for 15 minutes. Rub the skin off with a paper towel.
- Grate raw beets for salads or use to garnish soups.

Beet Shots, Juices, Powders, and Supplements

When purchasing beet products, consider the country of origin and the extent of processing. Many “budget beets” are grown in Asia and then processed somewhere else into beet shots, beet juice, and beet powders. Choose products using organic beets with minimal

processing. Canned beets and boiled beets will be deficient in desired nutrients.

For beet shots and juices, the price tag increases with packaging, processing, and beet quality. You may pay \$3.00 to \$4.00 per serving for these products.

As with any supplement, consider the “other ingredients” added to the beetroot. Guar gum, citric acid, natural flavor, silica, maltodextrin, rice powder, magnesium stearate, and cheap juices for filler and flavor are often added.

A good alternative is a high-quality beet powder prepared from organic beets. These powders can be mixed into water or smoothies and some come in capsules.

A home freeze dryer will give you the ability to make your own beetroot powder and you control the quality of the beets. I have been using this method to prepare beet powder and have been adding the beet powder to daily smoothies.

Are Beets and Beet Juice High in Carbs?

Beets are high in carbohydrates. One cup of cooked beets has about 17 grams of carbohydrate, causing many to think that beets are off the table for them. If you follow a low-carb or ketogenic diet, you can enjoy all the benefits of beet nutrients without consuming too many carbs from beets if you choose to use beetroot powder.

Beetroot Research

Beets are nutrient-dense root vegetables offering a unique source of phytonutrients that have been shown to provide antioxidant, anti-inflammatory, detoxification, and anti-cancer properties.

The research on the health benefits of beetroot is growing. The National Library of Medicine lists nearly 700 studies, 22 percent of the studies were published within the last year. Beetroot is a remarkable vegetable that can be enjoyed by everyone desiring to boost health and performance to new levels.

For links to studies mentioned in this article, please see the article online at TheEpochTimes.com

Erin Chamerlik is a holistic nutrition educator and wellness coach, dedicated to helping others achieve optimal health, vitality and wellness. She is passionate about health and nutrition and a strong advocate for natural health. Learn more about her work here: GetBetterWellness.com This article was republished from Greenmedinfo.com

DMYTRO FLISAK/SHUTTERSTOCK



ELVA ETENNE/GETTYIMAGES

How to Spot the Signs and Symptoms of Substance Abuse in Children

Children can experience substance abuse. Here’s how to notice the signs.

Continued from Page 1

Behavioral Changes
Pay attention to changes in a child’s behavior. Some of the behavioral changes that might come with substance abuse are self-isolation, aggravation, hostility, defensiveness, or being quiet and unresponsive. They might stumble into their room, slur their words, or experience other impairments that affect their behavior.

Watch how they act when they come home from school, sports practices, when they leave a hangout with a group of friends, and other social engagements. If they’re acting out of the norm, they may be experiencing an issue with substances.

Changes in Appearance
Substance abuse often brings about several appearance changes. A few things you might notice are: dilated or pinpoint pupils, bloodshot eyes, poor hygiene, weight loss or gain, messy clothing, flushed cheeks, or sores around their mouth.

You may also notice track marks if they’re shooting up drugs. This is the scarring that results from using intravenous drugs and can usually be seen on the arms, feet, and legs.

Changes in Mood or Emotions
Look for any significant changes in mood and emotions. One of the potential risks of substance abuse is mental illness.

Have they been showing signs of depression, anxiety, bipolar disorder, post-traumatic stress disorder, or some other mental disorder? Mental illness and substance abuse are often interconnected: Substance abuse can develop as a result of mental illness, and mental illness can also lead to substance abuse.

A child who’s abusing drugs might have frequent mood swings, have difficulty regulating their emotions, have outbursts, feel depressed, withdraw from friends and family, or act unusually energetic. Certain mood changes vary based on the substance being abused, such as if it’s an upper, such as Adderall or cocaine, or a downer, such as alcohol or benzodiazepines.



▲ If you discover your child is using drugs, take a deep breath and stay calm.
RAPIDEVE/GETTYIMAGES

Changes in Eating, Sleeping, and Other Routines
Changes in routines may also be a sign of substance abuse in children. This can look like difficulty sleeping or insomnia, oversleeping and being late for school, over or under eating, skipping club meetings or practices, or a lack of motivation.

If your child usually loves going to their piano lessons or another activity and suddenly has no interest in pursuing the things they enjoy, they could be struggling with substance abuse. Watch for significant changes in their routines and normal living patterns.

Finding Drug Paraphernalia
Drug paraphernalia might be found under the bed, in a small box, hidden in the closet, under floorboards, or in school books. If a child is being secretive or keeping personal items such as backpacks close, they might be trying to hide something.

Examples of drug paraphernalia include needles or syringes, bottles, pipes, small spoons, bong, rolling papers, prescription drug bottles, and other items. A child might have obtained one of these items through peers, ordering something online, or from their own home.

What Do I Do If My Child Is Abusing Drugs?
At first, it might be best to do nothing. If you discover that your child has been abusing substances, chances are you’re feeling scared, angry, and a range of other emotions. Take some time to breathe

▲ **The earlier a person uses drugs, the higher the chances of forming an addiction.**

and process through it, and then think about the next steps. It’s easy to react out of emotion when it comes to serious issues like this, with our kids at the brunt of it.

Consider why your child might have turned to substances. Are they being bullied in school? Have they been struggling silently with depression or some other mental illness? Did they find it difficult to cope with a major life change? There are many reasons adolescents turn to substances for answers and comfort.

Try to open up a conversation with them and talk through the reasons why they might be abusing substances before jumping into action. Search their room and possessions if you feel it’s necessary, and explain your reasoning to your child so they can understand the heart behind the matter. Because at the end of the day, a child’s health and safety are of the utmost importance, especially when it involves substance use

Hannah Bennett is a content specialist for AddictionResource.net, an informational guide that equips those struggling with addiction and their loved ones with resources on substance abuse, mental health, and more.

Supercharge Your Day With a Mindful Morning

Breaking bad morning habits that derail your day can get you out the door on a better track

NISHA JACKSON

Some people leap from bed ready to rock the day. Others struggle to open one eye at a time and escape the gravity of their bed. Either way, getting into good morning habits will set you on the course for a productive and rewarding day.

And in that aim, here are some things you can stop doing to help you start doing mornings right.

Don’t Hit the Snooze Button
If you are one of the millions of people who think the extra 15 minutes will buy you extra energy, recovery, and brainpower—think again. Research shows that waking up and getting to sleep at the same time each day will improve sleep patterns and energy.

In addition, when you wake up after that “snooze,” you will likely be groggy and more disoriented. Avoid the snooze and kickstart your day by getting right out of bed and into your workout clothes.

Move Your Body, Not Your Thumbs
Don’t exchange actual morning movement for social media surfing. The daily excuse that you don’t have time to exercise needs to end. Studies show that people who exercise in the morning are more likely to stick with their program. Meanwhile, waking up and (in your bed or out) starting your day with a scroll through the latest on your phone can mean not having the time to work out. Working out in the morning fuels you up for better moods, fewer cravings, and less overall consumption of calories.

Hold Off on the Morning Emails
If you’re answering emails first thing in the morning—and checking your device before you even get to work—you’re starting your day with extra pressure. That pressure can compel you to get to work earlier and sacrifice crucial morning time for meditation, exercise, or family. Taking time in the morning and evening to disconnect from your devices will go a long way toward making you happier and healthier.

Pump the Brakes on the Negative Mindset
If you begin your day thinking about your problems and unpleasant tasks, you create a feeling of internal negativity that frames the day ahead. Why do that to yourself? It triggers a stress response that exhausts the nervous system and puts you in a poor emotional state if you focus on things you can’t change. There’s simply no benefit in looking at things in the most negative fashion. Try instead to set a plan of action for the anticipated problems. Then get your attitude in check to tackle them with an outlook energized with optimism.

Halt the Sugar Highjack
Don’t dare fool yourself that the delicious donut, bagel, or mocha in the morning will give you some sort of energy kick. It doesn’t work. That short-lived energy will be followed by an abrupt crash, and cravings that hijack your diet, mental performance, mood, and waistline. Consider instead a high-protein, high-fiber



LIGHTSTUDIOS/SHUTTERSTOCK

▲ Just 10 minutes of walking, sitting, exercise, or music meditation will help you set the tone for your entire day.

simple morning routine in quietness. Here are three of them.

Setting the Day’s Tone
Just 10 minutes of walking, sitting, exercise, or music meditation will help you set the tone for your entire day. If you don’t believe this, just try it both ways.

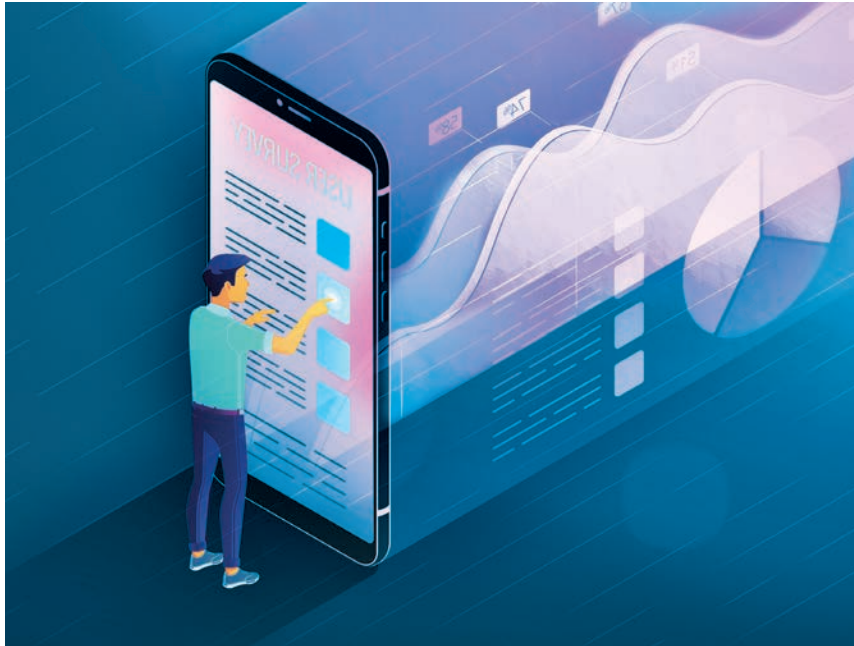
▲ **If you begin your day thinking about your problems and unpleasant tasks, you create a feeling of internal negativity that frames the day ahead.**

Just imagine, if you haven’t already experienced it, what it would be like to blow out of your house with a hundred things on your mind and no emotional mindset in order. Seems likely you will be more frazzled, negative, hungrier, and disorganized. Now imagine spending 10 minutes in gratitude, silence, clearing your mind, or listening to lovely music. You can probably anticipate how this will help you maintain internal balance amid the barrage of the outside world and see things more calmly. This then changes what you think, say, and do—not to mention how you perform.

Enhanced Energy
The endorphins released through meditation boost your mental and physical energy. Stress is extremely taxing on the body, triggering a hormonal reaction that is great for running away from a bear, but terrible for bearing the burden of office drama and workload overwhelm. Meditating can preempt this problem and also help eliminate that afternoon wall of exhaustion.

Biochemical Boost
Meditation boosts serotonin and dopamine, which will boost your overall sense of happiness, well-being, and focus. That will help you stay clear and productive on what matters. Please find 10 minutes daily to close your mind, be at peace, and be thankful for what you have. It’s imperative to a long and meaningful life!

Cheers to starting a new morning routine that will have your brain, body, and spirit ready for your day in record time!



VISUAL GENERATION/SHUTTERSTOCK

Don’t exchange actual morning movement for social media surfing.

breakfast that will carry you for hours. Another alternative is intermittent fasting and starting breakfast later to keep your energy up and your body burning fat.

A mental performance study in the Journal of Physiology reported that high sugar intake can actually block memory receptors in the brain. Another study in Metabolic Biology on sugar intake found a connection between dementia and high

sugar intake, including processed carbohydrates. Imagine needing to perform mentally at work or school and having receptors that would normally allow you to take in new information being disabled. Not a great way to impress your boss.

Counter Monkey Mind With a Quick Meditation
There are major benefits to an easy and

how long they felt it would last. We had them move a 100-point slider—0 meaning very short and 100 meaning very long—to a location that reflected their feelings.

As we suspected, the more participants looked forward to their Thanksgiving festivities, the farther away it seemed and shorter it felt. Ironically, longing for something seems to shrink its duration in the mind’s eye.

Winding the Mind’s Clock
Most people believe the idiom “time flies when you’re having fun,” and research has, indeed, shown that when time seems to pass by quickly, people assume the task must have been engaging and enjoyable.

We reasoned that people might be over-applying their assumption about the relationship between time and fun when judging the duration of events yet to happen.

As a result, people tend to reflexively assume that fun events—such as vacations—will go by really quickly. Meanwhile, pining for something can make the time leading up to the event seem to drag. The combination of its beginning pushed farther away in their minds—with its end pulled closer—resulted in our participants’ anticipating that something they looked

forward would feel as if it had almost no duration at all.

In another study, we asked participants to imagine going on a weekend trip that they either expected to be fun or terrible. We then asked them how far away the start and end of this trip felt like using a similar 0 to 100 scale. Forty-six percent of participants evaluated the positive weekend as feeling like it had no duration at all: They marked the beginning and the end of the vacation virtually at the same location when using the slider scale.

Thinking in Hours and Days
Our goal was to show how these two judgments of an event—the fact that it simultaneously seems farther away and is assumed to last for less time—can nearly eliminate the event’s duration in the mind’s eye.

We reasoned that if we didn’t explicitly highlight these two separate pieces—and

instead directly asked them about the duration of the event—a smaller portion of people would indicate virtually no duration for something they looked forward to.

We tested this theory in another study, in which we told participants that they would watch two five-minute-long videos back-to-back. We described the second video as either humorous or boring, and then asked them how long they thought each video would feel like it lasted.

We found that the participants predicted that the funny video would still feel shorter and was farther away than the boring one. But we also found that participants believed it would last a bit longer than the responses we received in the earlier studies.

This finding gives us a way to overcome this biased perception: focus on the actual duration. Because in this study, participants directly reported how long the funny video would last—and not the perceived dis-



▲ Take stock of your vacation’s duration to better appreciate the time.
K.DECOR/SHUTTERSTOCK

Why Vacations Feel Like They’re Over Before They Even Start

SELIN MALKOC

For many people, summer vacation can’t come soon enough—especially for the half of Americans who canceled their summer plans last year due to the pandemic.

But when a vacation approaches, do you ever get the feeling that it’s almost over before it starts?

If so, you’re not alone.

In some recent studies Gabriela Tonietto, Sam Maglio, Eric VanEpps, and I conducted, we found that about half of the people we surveyed indicated that their upcoming weekend trip felt like it would end as soon as it started.

This feeling can have a ripple effect. It can change the way trips are planned—you might, for example, be less likely to schedule extra activities. At the same time, you might be more likely to splurge on an expensive dinner because you want to make the best of the little time you think you have.

Where does this tendency come from? And can it be avoided?



SERGEY NIVEN/SHUTTERSTOCK

▲ **People tend to reflexively assume that fun events like vacations will go by really quickly.**

Vacations fly by because of the way we tend to think about time.

Not All Events Are Created Equal
When people look forward to something, they usually want it to happen as soon as possible and last as long as possible.

We first explored the effect of this attitude in the context of Thanksgiving.

We chose Thanksgiving because almost everyone in the United States celebrates it, but not everyone looks forward to it. Some

people love the annual family get-together. Others—whether it’s the stress of cooking, the tedium of cleaning, or the anxiety of dealing with family drama—dread it.

So on the Monday before Thanksgiving 2019, we surveyed 510 people online and asked them to tell us whether they were looking forward to the holiday. Then we asked them how far away it seemed, and

▲ **Pining for something can make the time leading up to the event seem to drag.**

tance of its beginning and its end—they were far less likely to assume it would be over just as it started.

While it sounds trivial and obvious, we often rely on our subjective feelings—not objective measures of time—when deciding how long a period of time will feel and how to best use it.

So when looking forward to much-anticipated events like vacations, it’s important to remind yourself just how many days it will last.

You’ll get more out of the experience—and, hopefully, put yourself in a better position to take advantage of the time you do have.

Selin Malkoc is an associate professor of marketing at The Ohio State University. This article was first published on The Conversation.

TRADITIONAL
CHINESE MEDICINE

A Picture
of Health

What does it mean to
be in truly good health

LYNN JAFFEE

Good health is a gift that many of us take for granted until it's lost. But how exactly would you describe good health?
Many doctors would say that being healthy is the absence of disease. This may be good enough if you're applying for life insurance, but what if you don't sleep at night or can't get down and back up off the floor to stretch or do a sit-up? Certainly in Chinese medicine, health is much more than simply not being sick. To an acupuncturist, symptoms such as retaining water, constantly feeling cold, or having a bitter taste in your mouth are signs that something in your body is out of balance.
Based on Chinese medicine, experience, and common sense, here's a list of some elements of good health:

Good health is more than the absence of disease, it is a quality of life that includes several key elements.



In Chinese medicine, good health is all about flow—the flow of blood through your vessels, food through your digestive tract, and even the smooth flow of emotions.

Being Free From Pain
There are many people who are seemingly healthy except that they struggle with some kind of pain—chronic headaches, aches that change with the weather, or pain that has lingered from old injuries. Along with the absence of disease, the absence of pain is also a good place to begin in defining good health.

The Ability to Get a Good Night's Sleep
Your body heals, recharges, and rejuvenates during sleep, so your ability to fall and stay asleep is crucial. And beyond getting enough sleep, having some psychological downtime is also important. During those periods in your life when you're stressed or consumed by some project, school, work, family, or caregiving, you need to take a break to avoid exhaustion and emotional burnout.

Appropriate Expressive Emotions
This is emotional wellness that includes a life that has meaning, joy, gratitude, resilience, an open heart, and loving relationships. Moreover, emotional health means you possess the tools to deal with the hard times and stressful situations that life throws your way.

A Good Appetite and Digestion
Most people would describe their appetite as being “too good.” However, it's possible to have a hearty appetite and eat healthy food, but if your digestion is funky, it's tough to have optimal health. That's because your digestion transforms the food you eat into energy and nutrients. If your digestion is compromised, it impacts your health. So if you're reaching for antacids after every meal, suffer from gas or bloating, have heartburn, stomachaches, constipation, or any other unspeakable digestive ills, your health could be just a little bit better.

Good Energy
Optimal health goes beyond just a lack of fatigue. There are many busy people who get through their day because they have no choice. They're driven by all they have to do, not by abundant energy. In a perfect world, the definition of good health includes the energy to do the things you want, plus enthusiasm and engagement.

An Element of Movement
This may mean physical movement in the form of exercise or stretching, but movement encompasses much more. In Chinese medicine, good health is all about flow—the flow of blood through your vessels, food through your digestive tract, and even the smooth flow of emotions. Good health through flow also relates to external factors such as your ability to change, try something new, and demonstrate flexibility. Like the element of wood, the ability to bend without breaking is a sign of good health.

Appropriate Use of Medications
Over the years, I've seen many patients who were taking 10 or more prescrip-



Good energy, being free from pain, and the ability to move well are all part of what it means to be healthy.

tion medications plus numerous over-the-counter preparations. Can this be healthy? Clearly, there are many health conditions that are managed or treated with medications. However, in many instances, one drug is prescribed to offset the side effects of another, drugs are prescribed as a result of drug company marketing efforts, and patients are routinely prescribed medications indefinitely with no alternative or end in sight. Taking medications is not inherently unhealthy, but overuse of medications can be.

Finally, being healthy is about how you feel. Good health feels good. Your health may not be perfect, but it's the rare person who never gets sick or has a health issue. The bottom line is that if you're able to eat and sleep well, enjoy your life, have events that you look forward to, and the energy and functionality to do them, your health is pretty good. Appreciate it!

Lynn Jaffee is a licensed acupuncturist and the author of “Simple Steps: The Chinese Way to Better Health.” This article was originally published on [AcupunctureTwinCities.com](#)

ALL PHOTOS BY SHUTTERSTOCK; PHOTO ILLUSTRATION BY THE EPOCH TIMES

How Artificial Sweeteners Destroy Your Gut

Zero calories often means zero nutrition and a host of potential problems

JOSEPH MERCOLA

After years of investigation about the dangers of artificial sweeteners, I wrote a book, “Sweet Deception: Why Splenda, NutraSweet, and the FDA May Be Hazardous to Your Health,” and published it in 2006. Since then, I’ve been warning the world about the ever-growing evidence that artificial sweeteners can damage your health in many ways. Now, new research finds that gut microbiome damage from artificial sweeteners is even greater than was previously thought.
Scientists have found that three of the most popular artificial sweeteners, including sucralose (Splenda), aspartame (NutraSweet, Equal, and Sugar Twin), and saccharin (Sweet’n Low, Necta Sweet, and Sweet Twin) have a pathogenic effect on two types of gut bacteria.

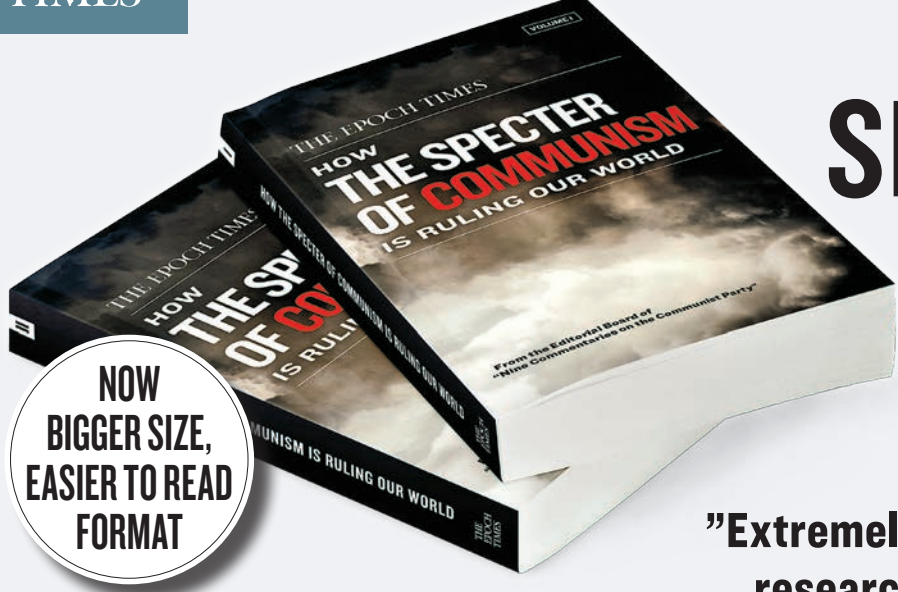
Continued on Page 12

Many sweeteners strike a devastating blow against our symbiotic microbiota.



THE EPOCH TIMES

The Book You’ve Been Waiting For...



NOW BIGGER SIZE, EASIER TO READ FORMAT

”Extremely well researched and true.”

ORDER NOW!

HOW THE SPECTER OF COMMUNISM IS RULING OUR WORLD

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


EpochShop.com

“The Truth, as horrifying as it is, shall set us free. This should be on this country’s academia’s list of required reading.”

Life Assumptions I Don’t Presume to Be True

Here are 10 common beliefs that are usually only as true as you make them

People often say parenting teenagers is awful, but that’s just a notion and needn’t be true.



JOSHUA BECKER

Beliefs have a powerful impact on the lives we live. They can limit our potential or expand it.
The more we believe something to be true, the more likely it is to become so. For example, self-limiting beliefs about our abilities can lead us to not try to grow. That’s why the stories we tell ourselves are so important as well as the words we speak to others.
There are a number of incorrect life assumptions in this world that, because people say them so often (to themselves and others), end up becoming true.

No doubt I have fallen for many of them myself. But I can also look back and identify a number of life assumptions that I have never presumed to be true.

10 Common Life Assumptions

1. Parenting teenagers is miserable.

I’ll start here because it’s a perfect example. I used to work full time with middle school and high school students and can’t count how many times I was told that parenting teenagers was miserable.

Continued on Page 15



2021 NTD 9TH
INTERNATIONAL CLASSICAL
CHINESE DANCE COMPETITION



PRELIMINARY
Sept. 2-3

SEMI-FINAL
Sept. 4

FINAL
Sept. 5

Gold Award \$10,000

SEMI-FINAL & FINAL Tickets on Sale \$30
Hotline 1-888-477-9228

Tribeca Performing Arts Center
199 Chambers Street New York, NY 10007

DANCE.NTDTV.COM

SHEN YUN
DANCER

SUMMERTIME STYLE

SEASONAL PIECES YOU'LL LOVE



ShenYunDancer.com

Dying Patients With Rare Diseases Struggle to Get Experimental Therapies

Fear of FDA approval problems keeps drugmakers from letting patients try potential life-changing treatments

CHRISTINA BENNETT

At 15, Autumn Fuernisen is dying. She was diagnosed at age 11 with a rare degenerative brain disorder that has no known cure or way to slow it down: juvenile-onset Huntington's disease. "There's lots of things that she used to be able to do just fine," said her mom, Londen Tabor, who lives with her daughter in Gillette, Wyoming. Autumn's speech has become slurred and her cognitive skills slower. She needs help with many tasks, such as writing, showering, and dressing. And while she can walk, her balance is off.

Autumn has been turned down for clinical trials because she is too young. "It is so frustrating to me," Tabor said. "I would sell my soul to try to get any type [of treatment] to help my daughter." For patients like Autumn with serious or immediately life-threatening conditions who don't qualify for clinical trials and have exhausted all treatment options, there may be another option: seeking approval from the Food and Drug Administration for expanded access, or compassionate use, of experimental therapies. Definitive numbers are hard to find, but studies from researchers, actions by drugmakers, and insights from experts suggest that getting expanded access to

unproven therapies for rare diseases is more difficult than for more common illnesses, such as cancer. Even with experimental treatments on the rise, patients with rare diseases frequently face an unwillingness by drug companies to provide them before clinical studies are completed. Developing drugs for these diseases is an especially fragile process because the patient populations are small and often diverse, having different genetics, symptoms, and other characteristics, which makes studying the drugs' effects difficult. Drugmakers believe offering a drug before studies are finished could impair its development and jeopardize FDA approval. Companies working on therapies for rare diseases, especially smaller ones, could feel those repercussions acutely, said Lisa Kearns, a researcher in the ethics division of New York University's medical school and member of the division's working group on compassionate use and pre-approval access. "There's not as much investment in rare diseases, so an [adverse] event could frighten the already limited number of potential investors." Drugs that weren't made available for compassionate use last year until studies were completed include Evrysdi, for spinal muscular atrophy; Enspryng, for an autoimmune disease of the optic



Autumn Fuernisen was diagnosed four years ago with a terminal brain disorder, juvenile-onset Huntington's disease. Patients with rare diseases often have difficulty qualifying for compassionate use programs for experimental therapies.



ALL PHOTOS BY LONDEN TABOR

Patients with rare diseases frequently face an unwillingness by drug companies to provide them with experimental treatments before clinical studies are completed.



Autumn needs help with many daily tasks, says her mother, Londen Tabor (left). "It is so frustrating," Tabor said. "I would sell my soul to try to get any [treatment] to help my daughter."

nerve and spinal cord called neuromyelitis optica spectrum disorder; and Viltespso, for certain patients with Duchenne muscular dystrophy. A spokesperson for Roche, which makes Evrysdi and Enspryng and is working on a treatment for Huntington's disease, said the decision was tied not to the type of disease but to company policy: Roche doesn't set up expanded access programs for any drugs until results are available from a phase 3 clinical trial. (Those phase 3 studies are typically the last testing done before the company seeks drug approval.) Another company's experimental drug for myasthenia gravis, an autoimmune disease that leads to skeletal muscle weakness, similarly was not available through an expanded access program until research was completed last year, and no programs have started for a therapy being studied in a phase 3 clinical trial for Huntington's disease and for amyotrophic lateral sclerosis (ALS), a fatal neurodegenerative disease often referred to as Lou Gehrig's disease. One slight, but notable, deviation: Drugmaker Biogen agreed this year to allow certain ALS patients to receive an experimental drug as early as July 15, after the testing was to be completed but before the results are known. Dr. Merit Cudkowicz, a neurologist at Massachusetts General Hospital in Boston, has helped patients get therapies through expanded access. Since September 2018, she and colleagues launched 10 programs that seek to match people with ALS therapies being developed by drug companies, but only about 120 patients have received therapies this way. More than 16,000 people in the United States were estimated in 2015 to have ALS and most don't qualify for clinical trials because of the progression of their disease or very strict eligibility requirements. These examples contrast with some drugs for more common problems. Gleevec, for leukemia, was offered to thousands of patients through expanded access programs before the manufacturer completed the

clinical studies that led to FDA approval. Videx, for HIV/AIDS, and Iressa, for the most common type of lung cancer, were similarly offered to large numbers of patients even as clinical trials were ongoing. Last year, Novartis gave more than 7,000 patients worldwide early access to cancer drugs. Doctors also report that getting experimental drugs for cancer patients is relatively simple. More than 200 physicians around the country were surveyed, and among those who applied for access, nearly 90 percent said they had secured drugs still being investigated for patients who weren't responding to approved therapies. California researchers found similar trends in a review of 23 social media campaigns launched by patients between 2005 and 2015 seeking a variety of experimental treatments. While seven of the 19 patients with cancer received early access to requested drugs, no access was allowed for three patients with rare diseases, although one of those patients was allowed to enroll in a clinical trial. Companies base their decisions on whether to provide therapy through expanded access on a number of factors, said Jess Rabourn, CEO of WideTrial, which helps pharmaceutical companies run compassionate-use programs. In general, there should be evidence that patients can tolerate the treatment and an expectation that any benefit outweighs the risk, he said. "This idea that you have to wait until the research is done is baloney," he said. "We're talking about patients who are going to die if they're told to wait." But drugmakers often view it differently, even though evidence suggests that granting early access very rarely disrupts drug approval. Kearns said companies often wait until phase 3, or after, because they can be "relatively" confident of a drug's safety and effectiveness. "They don't want to harm patients, of course, but they also do not want to threaten the drug's eventual regulatory approval with an adverse event in [a] very

sick patient population." Melissa Hogan, who consults on clinical trials for rare diseases and is an FDA patient representative, attributes the lack of access to the high cost of therapies and the tight-knit nature of the rare disease community, where patients and their families often set up social media groups and exchange ideas and treatment plans. Companies "know that if one patient gains access, other patients will know" and ask for access, said Hogan, who has a son with mucopolysaccharidosis type II. That could overwhelm small drugmakers with little manufacturing capacity. These concerns cause "many companies [to] just throw up their hands and take a hard line of no [expanded access] until they reach approval stage," said Hogan. The 2018 Right to Try law offers another option for some patients. Unlike expanded access, the law applies only to requests for medicines—not medical devices—and doesn't require approval from the FDA or an institutional review board, a committee that reviews and monitors people participating in research for their protection. The legislation, however, doesn't oblige companies to grant a request. For Cali Orsulak, expanded access may be her husband's only option. He was diagnosed with ALS in 2019 at age 43. "We did our best with the skill level we had to search clinical trials all over Canada and the U.S., and then COVID hit and it became increasingly difficult," said Orsulak, explaining that they live in Canada but seek medical care in the United States. "Now that my husband has progressed, it's even harder to get into clinical trials."

Christina Bennett, MS, is an independent medical journalist based in Texas with a special focus in oncology. She writes for trade and consumer media outlets and has bylines in Kaiser Health News, The Washington Post, Medscape, MedPage Today, INSIDER, Genetic Engineering News, Cancer Therapy Advisor, and several others. This article was originally published on Kaiser Health News.

Tips for Preventing Heatstroke

Knowing how to handle a heatwave is key to avoiding heatstroke—especially for the elderly

GABRIEL NEAL

As a primary care physician who often treats patients with heat-related illnesses, I know all too well how heatwaves create spikes in hospitalizations and deaths related to "severe nonexertional hyperthermia," or what most people call "heatstroke." Heatstroke is when a person's core body temperature rises too high—often more than 104 degrees F (40 C)—because high environmental temperatures and humidity prevent the body from cooling itself through sweating and breathing. As heatstroke develops, a patient experiences rapid heart rate, ragged breathing, dizziness, nausea, muscle cramps, and confusion. Eventually the patient may lose consciousness entirely. Without medical intervention, heatstroke is often fatal. On average, about 658 Americans die each year from heatstroke, according to the Centers for Disease Control and Prevention. Victims of heatstroke can be any age, but most often it strikes the elderly—particularly those over the age of 70—because our bodies' ability to cool off declines with age. Additionally, many common medications used to control blood pressure, seizures, and psychological disorders reduce a per-

Victims of heatstroke can be any age, but most often it strikes the elderly.

son's ability to regulate temperature. Those risks increase even more when an elderly person doesn't have awareness of a dangerous heatwave, doesn't have working air conditioning in their home, and doesn't have anyone to check on them. In addition to advancing age, other factors that increase the risk for heatstroke are obesity, diabetes, and heart disease. Here are three tips on how to prevent this potentially deadly condition: **Stay Hydrated** In hotter weather, drink more water and avoid sugary drinks and alcohol. If your doctor has limited your daily water intake because of heart failure or another diagnosis, stay in communication with them during a heatwave to avoid medical complications. **Rest** Don't exercise during the hottest hours of the day—typically between 10 a.m. and 5 p.m.—and expect longer recovery time after exercise when heat and humidity are elevated. **Find a Cool Environment** If you don't have an air-conditioned home or car, try: • wearing light, breathable clothing

- avoiding time in direct sunlight
- spraying yourself with water and sitting in front of a fan
- taking a cool bath or shower
- placing a cold pack on your neck, armpit, or head
- contacting your local health department about local heat-relief shelters

Fans can help, but not by lowering the air temperature. Fans cause air movement over the skin, resulting in the evaporation of sweat, which lowers body temperature. Even though fans are useful, air conditioning is better in high humidity because it produces drier air that allows your body to cool itself more readily. In a heatwave, take time to check in with your elderly neighbors, family, and friends to make sure they have the means to stay cool. If you encounter someone having symptoms of heatstroke, call 911 to get them to an emergency room for evaluation and treatment. Heatwaves don't heave to lead to heatstroke if you learn what to do. Just stay cool, rest, and stay hydrated. Simple, right?

Gabriel Neal is a clinical associate professor of family medicine at Texas A&M University. This article was first published on The Conversation.



Age, as well as many common medications, diminishes our bodies' ability to stay cool, putting many seniors at risk of heatstroke.



Check in with elderly people you know, to make sure they're OK and have what they need to stay cool during heatwaves.

ALL PHOTOS BY SHUTTERSTOCK

How Artificial Sweeteners Destroy Your Gut

Zero calories often means zero nutrition and a host of potential problems

Continued from Page 9

Specifically, research using lab data was published in the International Journal of Molecular Sciences, which demonstrated these common sweeteners can trigger beneficial bacteria to become pathogenic and potentially increase your risk of serious health conditions. This is the first study that demonstrated how two types of beneficial bacteria can become diseased and invade the gut wall.

The bacteria studied were *Escherichia coli* (E. coli) and *Enterococcus faecalis* (E. faecalis). As early as 2008, researchers found that sucralose lowered your gut bacteria count by at least 47.4 percent and increased the pH level of your intestines. Another study found that sucralose had a metabolic effect on bacteria and could inhibit the growth of certain species.

Just 2 Cans of Diet Soda Can Alter Beneficial Bacteria

The current molecular research from Angelia Ruskin University found that when E. coli and E. faecalis became pathogenic, they killed Caco-2 cells that line the wall of the intestines. Much of the past research demonstrating a change in gut bacteria had used sucralose.

However, data from this study showed that a concentration from two cans of diet soft drinks, using any of the three artificial sweeteners, could significantly increase the ability of E. coli and E. faecalis to adhere to the Caco-2 cells and increase the development of bacterial biofilms.

When bacteria create a biofilm, it promotes the invasion of the intestinal cell wall. Biofilms make bacteria less sensitive to treatment and more likely to express virulence that causes disease. Each of the three sweeteners tested also triggered the bacteria to invade the Caco-2 cells, with one exception.

The researchers found that saccharin didn't have a significant effect on E. coli invading the Caco-2 cells. Havovi Chichger, lead author and senior lecturer in Biomedical Science at Anglia Ruskin University, spoke about the results of the study in a press release:

"Our study is the first to show that some of the sweeteners most commonly found in food and drink—saccharin, sucralose and aspartame—can make normal and 'healthy' gut bacteria become pathogenic."

"These changes could lead to our own gut bacteria invading and causing damage to our intestine, which can be linked to infection, sepsis and multiple-organ failure."

Artificial Sweeteners Can Sabotage Your Diet Goals

Unfortunately, for many people, their sweet tooth has become an addiction, fueled by a food industry that continues to develop highly palatable, inexpensive, and ultra-processed foods loaded with sugar as well as artificial sweeteners. As such, the diet industry has become a cash-cow market for lab-created, low-calorie foods manufacturers promote for weight loss.

One study from George Washington University Milken Institute School of Public Health in 2017 found there was a 54 percent jump in adults who used low-calorie sweeteners from 1999 to 2012. This represented 41.4 percent of all adults in the



ALL PHOTOS BY SHUTTERSTOCK

United States at that time, or 129.5 million people. By 2020, the number had jumped to 141.18 million, which represented 42.6 percent of the population.

It appears that the jump in adults using low-calorie sweeteners that occurred from 1999 to 2012 has remained steady through 2020. This may be due in part to the growing evidence that low-calorie sweeteners, such as Splenda, are a large contributor to the growing number of individuals who are overweight and obese.

As the incidence of obesity and obesity-related health conditions continues to skyrocket, manufacturers seek out "perfectly engineered food" to drive sales and consumption.

Consequently, the obesity epidemic is one of the most important global public health challenges today, associated with 4.7 million premature deaths worldwide in 2017. Recent research suggests artificial sweeteners may contribute to a greater range of health conditions than we have thus far identified.

Metabolic Effects of Zero Calorie Sweeteners

It's important to recognize that even though artificial sweeteners have very few or no calories, they are still metabolically active. The New York Times reported that the FDA announced it was banning saccharin in foods and beverages in 1977 because it was linked to the development of malignant bladder tumors in laboratory animals.

However, the FDA later approved the use of saccharin saying "more than 30 human studies demonstrated that the results found in rats were not relevant to humans, and that saccharin is safe for human consumption."

But just because the FDA has approved something, it doesn't mean it's good for you. Scientists have explained that many studies have linked artificial sweeteners to an increased risk for obesity, insulin resistance, Type 2 diabetes, and metabolic syndrome. A paper published in Physiology and Behavior presented three mechanisms by which artificial sweeteners promote metabolic dysfunction:

They interfere with learned responses that contribute to glucose control and energy homeostasis; destroy gut microbiota and induce glucose intolerance; and they interact with sweet-taste receptors expressed throughout the digestive system that play a role in glucose absorption and trigger insulin secretion.

As past and recent research has demonstrated, artificial sweeteners have a significantly different effect on your gut microbiome than sugar. Sugar is detrimental because it tends to feed harmful microbes, yet the effects of artificial sweeteners may be worse, as they are downright toxic to gut bacteria.

One animal study published in the journal Molecules analyzed six artificial sweeteners including saccharin, sucralose, aspartame, neotame, advantame, and acesulfame potassium-K. The data showed they all caused DNA damage in, and interfered with, the normal and healthy activity of gut bacteria.

Diet Drinks Increase the Risk of an Early Death
One 20-year, population-based study of

451,743 people from 10 European countries discovered there was also an association between artificially sweetened drinks and mortality. The researchers excluded participants who had previously had cancer, stroke, or diabetes.

At the final tally, 71.1 percent of the participants in the study were women. The results showed that there was a higher all-cause mortality in people who drank two or more glasses each day of soft drinks, whether they were sugar-sweetened or artificially sweetened.

The researchers measured one glass as equivalent to 250 milliliters (8.4 ounces), which is less than the standard 330 milliliters (11.3 ounces) per can sold in Europe. In other words, the results of the study were based on less than two cans of soda each day.

The researchers found 43.2 percent of deaths were from cancers, 21.8 percent from circulatory disease, and 2.9 percent from digestive disorders. Compared to those who drank fewer soft drinks (less than one per month) those drinking two or more per day were more likely to be young, smokers, and physically active.

The data showed there was a link between artificially sweetened soft drinks and death from circulatory diseases and an association between sugar-sweetened soft drinks and death from digestive diseases. This suggests that policies aimed to cut or reduce sugar consumption may have disastrous consequences when manufacturers reformulate their products using artificial sweeteners.

More Health Damage Associated With Artificial Sweeteners

This same study also found a link between drinking soft drinks and Parkinson's Disease "with positive nonsignificant associations found for sugar-sweetened and artificially sweetened soft drinks."

Aspartame is another artificial sweetener that has been studied in the past decades. In one study, researchers asked healthy adults to consume a high-aspartame diet for eight days, followed by a two-week washout and then a low-aspartame diet for eight days.

During the high-aspartame period, individuals suffered from depression, headache, and poor mood. They performed worse on spatial orientation tests, which indicated aspartame had a significant effect on neurobehavioral health.

A second study evaluated whether people with diagnosed mood disorders were more vulnerable to the effects of aspartame. Researchers included 40 individuals with unipolar depression and those without any history of psychiatric disorder. The study was stopped after 13 completed the intervention because of the severity of the reactions.

Mice fed aspartame-laced drinking water developed symptoms of metabolic syndrome and another animal study found that aspartame had a negative effect on insulin tolerance and influenced gut microbial composition.

A further animal study determined that sucralose affected animal liver, "indicating toxic effects on regular ingestion." The finding suggests "sucralose should be taken with caution to avoid hepatic damage."

Scientists have found a long list of symptoms associated with consuming sucralose. These have included migraine headaches, raised risk of Type 2 diabetes, and enlargement of the liver and kidneys.

Sugar Alternative Has a Unique Action on Blood Sugar

There are several plant-based sugar substitutes, including stevia, Lo Han Kuo, and allulose. Stevia is a sweet herb from the South American stevia plant. It's sold as a supplement and can be used to sweeten most dishes and drinks.

Lo Han Kuo is similar to stevia but a bit more expensive. Another natural option is allulose. Although the market in Japan is significant, it's relatively unknown in the West. Allulose is found in small quantities in some fruits and was given a generally regarded as safe (GRAS) food designation by the FDA.

Researchers have said the compound has an energy value of "effectively zero," which suggests this rare sugar may be useful as a sweetener for obese people to aid in weight reduction.

In addition to contributing little to no calories, allulose elicits a physiological response that may help to lower blood glucose, reduce abdominal fat, and reduce fat accumulation around the liver. Read more about this natural compound in "Can This Natural Sweetener Lower Blood Sugar?"

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

Already known to have negative effects on healthy gut bacteria, a new study shows that common artificial sweeteners can even trigger beneficial bacteria to become pathogenic, potentially increasing your risk of serious health conditions.



The diet industry has become a cash-cow market for lab-created, low-calorie foods that manufacturers promote for weight loss.

Many studies have linked artificial sweeteners to an increased risk for obesity, insulin resistance, Type 2 diabetes, and metabolic syndrome.

Got Prediabetes? 5 Remedies for Your Health

Counter the future pains of diabetes with habits and supplements that can lower your risk

If you are at risk for Type 2 diabetes or have prediabetes, there are natural remedies that can help you regain control of your health.

When your baseline blood sugar level is higher than normal, but you haven't hit the threshold for a diabetes diagnosis, you may have prediabetes, a condition that often has no symptoms, but is still considered serious.

According to the Centers for Disease Control and Prevention (CDC), prediabetes is "a big deal" that puts you at risk for developing the more serious Type 2 diabetes, heart attack, and stroke. Surprisingly, it's estimated that as many as 1 in 3 adults, approximately 88 million Americans, have prediabetes, but most of these people don't know they have it. Risk factors for prediabetes are the same as Type 2 diabetes:

- Overweight
- Aged 45 or older
- Parent or sibling with Type 2 diabetes
- Physically active less than three times per week
- Experienced gestational diabetes or gave birth to a baby weighing 9 pounds or more

If you've received a diagnosis of prediabetes or suspect that you may have it, it's time to get serious about managing your health. Left unchecked, prediabetes can progress to Type 2 diabetes and a host of negative health implications, including increased risk of kidney failure, blindness, nerve damage, limb amputation, and more.

Prediabetes: A Lifestyle Disease

Prediabetes is a serious warning sign that it's time to make important lifestyle changes. Ignore the dangers and you may experience a deteriorating quality of life and some serious health consequences. The good news is that prediabetes, and often Type 2 diabetes, may be preventable by making a few key alterations to your daily regimen.

Here are five such remedies for prediabetes that you can implement today that will steer you down a healthier, more vibrant path, so you can get the most out of your days and more days to enjoy.



ALL PHOTOS BY SHUTTERSTOCK

Supplementing with high-quality vitamin D, or producing it naturally in your skin via sensible sun exposure, may help prevent the development of diabetes if you are currently at risk.

1. Vitamin D

Vitamin D is linked to many important health benefits, which include supporting strong bones, muscles, and nerves. It also helps prime your immune system to fight off invasive bacteria and viruses. Supplementing with high-quality vitamin D, or producing it naturally in your skin via sensible sun exposure, may also help prevent the development of diabetes if you're currently at risk.

Researchers in 2018 published the results of a meta-analysis of controlled clinical trials that assessed glycemic outcome measures for adults who were prediabetic, overweight, or obese. Twenty-eight placebo-controlled trials representing 3,848 participants were included in the final analysis, which showed that vitamin D supplementation significantly improved glycemic measures and insulin sensitivity and may be useful as part of a preventive strategy for Type 2 diabetes.

A 2019 study evaluated the effects of vitamin D supplementation in patients with diabetes mellitus. The meta-analysis reviewed vitamin D's effects on blood sugar and insulin sensitivity, among other biomarkers affected by diabetes, in diagnosed

Left unchecked, prediabetes can progress to Type 2 diabetes and a host of negative health implications, including increased risk of kidney failure, blindness, nerve damage, limb amputation, and more.

The good news is that prediabetes, and often Type 2 diabetes, may be preventable by making a few key alterations to your daily regimen.

patients across 37 studies.

Vitamin D levels were found to be significantly lower than the norm among diabetic patients, indicating a heightened need for supplementation. Boosting vitamin D levels led to better glycemic control and is suggested as an adjunct therapy along with other treatments.

Measured exposure to sunlight is your best source of vitamin D.



By integrating this level of movement into your routine, you may reduce your risk of developing Type 2 diabetes by as much as 58 percent.

2. Exercise

The health benefits of physical activity are legendary, and, when compared to the negative impacts of a sedentary lifestyle, the choice to become more active is clear, especially if you're prediabetic.

Taking a 30-minute brisk walk five times per week—or 75 minutes of vigorous activity each week—meets the Department of Health and Human Services' recommended level of physical activity for adults. By integrating this level of movement into your routine, you may reduce your risk of developing Type 2 diabetes by as much as 58 percent.

Research into associations between physical activity and sedentary behavior on cardio-metabolic biomarkers in patients with prediabetes and Type 2 diabetes found that shifting just 19 minutes of moderate-to-vigorous physical activity to sedentary behavior caused a 17 percent increase in the amount of fat in the gut region of participants. Reducing physical activity also increased insulin resistance by as much as 39 percent and lowered HDL or "good" cholesterol by up to 3.3 percent.

Interestingly, these same negative health effects were observed when participants lowered the intensity of their exercise from moderate-to-vigorous to light intensity, demonstrating that level of exertion when exercising is an important factor in receiving optimal health benefits.



Found in meat, fish, and nuts in scant quantities, therapeutic levels of CoQ10 can be achieved via a wide array of dietary supplements.

3. CoQ10

Coenzyme Q10, or CoQ10, is an antioxidant produced within your body that generates energy to grow and maintain cells. Levels of CoQ10 decrease as you age, making conscious intake of this enzyme increasingly important. Found in meat, fish, and nuts in scant quantities, therapeutic levels of CoQ10 can be achieved via a wide array of dietary supplements.

Studied for its usefulness in treating migraines, heart disease, dementia, and other inflammatory conditions, CoQ10 has also

been explored as a therapy to prevent Type 2 diabetes. A 2018 study examined whether the administration of CoQ10 would improve insulin resistance in patients with prediabetes.

The double-blind, placebo-controlled trial studied 80 adults with impaired glucose tolerance, randomizing them into a supplement group or placebo group. After eight weeks of treatment, the CoQ10 group exhibited a significant decrease in insulin resistance, along with lowered levels of toxic free radicals.



A separate study on curcumin as a "pretreatment" in at-risk rats found that curcumin regulated and moderated key cell signaling molecules to improve pancreatic glucose and insulin responses.

4. Curcumin

Curcumin is one of the most heavily researched of all healing herbs. Curcumin extract was explored as a preventative for Type 2 diabetes in a study published in the journal Diabetes Care. Researchers randomized all subjects to curcumin or placebo capsules for nine months. An array of biomarkers indicating progression toward Type 2 diabetes was measured at baseline and after the study period.

After nine months of treatment, 16.4 percent of subjects in the placebo group progressed into Type 2 diabetes, whereas no one in the curcumin group received a diabetes diagnosis. In addition, curcumin-treated subjects showed better overall functioning of beta cells, the type of cell found in the pancreas that synthesizes and secretes insulin.

A separate study on curcumin as a "pretreatment" in at-risk rats found that curcumin regulated and moderated key cell signaling molecules to improve pancreatic glucose and insulin responses.



Researched for usefulness in hundreds of diseases, yoga may be a promising treatment for prevention of prediabetes.

5. Yoga

Now that modern science has confirmed yoga's many health benefits, this ancient science is beginning to get the respect it deserves. Researched for usefulness in hundreds of diseases, yoga may be a promising treatment for the prevention of prediabetes.

A 2019 study explored yoga as an intervention in prediabetic adult women. The study characterized liver abnormalities, biochemical changes, and stress levels after three months of regular yoga practice.

Researchers found that glycosylated hemoglobin and glucose levels were significantly reduced in prediabetic women practicing yoga compared to those in the control (non-practicing) group. Other observed benefits of yoga practice were decreased stress levels and no escalation of fatty liver conditions.

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 the newsletter at www.GreenMedInfo.health





Anxiety may not be the inevitable condition some people think it is, but rather something that can be prevented through early mind training.

Can We Help Young Brains Fight Off Anxiety?

New research suggests that training children in managing upsets may treat anxiety

JILL SUTTIE

Anxiety is one of the most common childhood mental disorders. About 7 percent of children suffer from it at any given time, with nearly 1 in 3 adolescents experiencing it sometime during their teen years.

For an anxious child, seemingly normal activities can be hard. Worried kids have trouble adjusting to school, making friends, and learning. They can feel inhibited and may avoid challenges by running away or retreating into themselves. While parents may feel desperate to help, their approaches can backfire. For example, trying to talk kids out of their feelings or keep them away from anxiety-producing situations may inadvertently make the anxiety worse.

To help anxious kids, clinicians have developed treatments, such as cognitive-behavioral therapy, to alleviate symptoms. But the treatments can be cumbersome and expensive, and they don't always work. Anxiety in kids as young as preschool-aged can be a sign of future trouble—a precursor to later disorders such as social anxiety, phobias, or obsessive-compulsive disorder.

What if very young kids could be inoculated against anxiety somehow, sparing them from a future of worry and inhibition? A new line of research conducted by Kate Fitzgerald, professor of Psychiatry and Obstetrics at the University of Michigan, suggests this may be possible.

Fitzgerald has been studying very young children with anxiety symptoms and making important discoveries about the brain markers for childhood anxiety. Building on this work, she and her team have created a training program for young children aimed to increase their cognitive capacities, helping to lessen their anxiety—both immediately and, possibly, in the future.

"We hope our work will show that childhood anxiety is not inevitable, but might be prevented with the right intervention," says Fitzgerald. "So far, it's looking promising."

The Neuroscience of Anxiety

When we face challenging or scary situations in life, our brains naturally go into action. The amygdala sends out neurochemicals (like adrenaline) to make our hearts pound and prepare our bodies to "fight, flight, or freeze" in case of danger. At the same time, the frontal lobes engage our cognition to assess the situation, draw from past experience, and problem-solve to come up with an appropriate response. In healthy people, these dual systems work in tandem—one putting on the gas and the other applying the brakes—depending on what's needed.

In the context of this process, a little bit of anxiety can have a positive side—like when it motivates us to practice hard to master a piano piece or study for a test. But, in anxious people, that gas pedal goes to the metal

PHIL MITSUNSKI/GETTY IMAGES



A young child with low cognitive control is more likely to develop anxiety later on in childhood, while one with a higher capacity will be more resilient to stress.

About
7
PERCENT
of children suffer from it at any given time, with nearly 1 in 3 adolescents experiencing it sometime during their teen years.

OKSANA SHUFRYCH/SHUTTERSTOCK



Fitzgerald and her team have created a training program for young children aimed to increase their cognitive capacities, helping to lessen their anxiety—both immediately and, possibly, in the future.

Preventing Harmful Anxiety

To test this idea, Fitzgerald and her colleagues conducted a pilot study (as yet unpublished) with anxious 4- to 7-year-olds. The children came to a "camp" the researchers designed called Kid Power for four half-day sessions over two weeks. At the camp, children played fun, ordinary childhood games, such as "Simon Says" and "Red Light-Green Light," that help strengthen cognitive control.

Counselors at the camp gradually increased the challenge within the games to help kids master the skills needed to do well—such as being flexible, using their working memory, and inhibiting undesirable responses (such as moving when they're supposed to freeze). They also enjoyed the company of other kids, with whom they brainstormed ways to improve their performance. And parents participated at the end of each session, learning the games from their kids so they could practice playing together at home.

To see the effects this training had on the kids' brains and behavior, Fitzgerald and her colleagues measured their startle response and ERN before they attended the Kid Power camp and 4 to 6 weeks afterward. To do that, they had kids play computer games that required cognitive control while wearing special monitors that could capture their startle and ERN responses when they made mistakes. Additionally, the researchers gathered information from the parents and the kids themselves about anxiety symptoms before and after the camp.

After analyzing the data, the team found that the children's ERNs increased (signifying greater cognitive control), while their startle responses went down—a pattern associated with less anxiety at that age.

"The brain signal that related to detecting an error actually increased, but in a good way," said Fitzgerald. "Kids were getting better at doing hard things, stopping instinctual responding, including the fear response."

This mirrored the children's (and their parents') own assessments. They reported fewer anxiety symptoms, including fear and avoiding challenging situations, after the training—something Fitzgerald found particularly rewarding.

"It's exciting to link the brain to behavior, but what's even more rewarding is the individual children we've seen go through the program who are experiencing less anxiety symptoms," she said.

For example, one parent reported that her daughter, who'd had symptoms of obsessive-compulsive disorder prior to attending the Kid Power camp, had made noticeable improvement, even while the camp was still going on.

"She didn't want to leave while she was here, and she was in a better mood during the week in between—a little less rigid and able to experience more joy," the parent wrote in an evaluation.

Fitzgerald recalls another 5-year-old camper who'd been very afraid of making mistakes in his kindergarten class, which led to bouts of crying and other disruptive behaviors, requiring daily calls home. After attending the camp, though, and learning how to calm anxiety, everything changed.

"After a week of playing those games that were part of the intervention, those calls from home stopped," said Fitzgerald. "His mom was impressed, because earlier counseling with a trained therapist had not led to improvement. Only after Kid Power did he successfully adjust to kindergarten and begin to enjoy it."

With encouraging results from this pilot study, Fitzgerald applied for and received a \$3 million National Institutes of Health grant to expand the Kid Power program and conduct further research. She hopes future studies will help her nail down the key ingredient in the program that led to reduced anxiety and, potentially, find a way to tailor treatment to individual children—some of whom may need a stronger dose of the training or slightly different activities to improve, she says.

If her initial findings hold, her work could have broad implications, providing a template that others can follow for treating and preventing childhood anxiety disorders in the future.

"Interventions are within reach," she says. "As we work to understand the science behind anxiety in young minds, we can use that science to develop treatments that are more effective."

This article was originally published by AIM Youth Mental Health, a nonprofit dedicated to finding and funding promising youth mental health research that can identify solutions to make a difference in young people's lives today, which contributed to funding Kate Fitzgerald's research.

Jill Suttie, Psy.D., is Greater Good's former book review editor and now serves as a staff writer and contributing editor for the magazine. This article was republished from the Greater Good online magazine.

Life Assumptions I Don't Presume to Be True

Here are 10 common beliefs that are usually only as true as you make them

Continued from Page 9

One person even said to me: "Little kids are so cute. But then they become teenagers and you suddenly can't wait for them to leave."

I've never believed that had to be true. Does parenting teenagers require intentionality and a shift in parenting strategy? Of course, but I've never believed it had to be unenjoyable or that teenagers would be disrespectful.

2. Extended time with extended family is lamentable.

Not true. I love seeing my family—including spending extended time with them.

Now, I realize not every family is stable, and I still recognize the importance of separation for the purpose of establishing your own identity. But we go home twice a year to spend time with our families (usually close to two weeks each time).

Coming home is one of my favorite things in the world. And I always cringe when people crack jokes about how hard it is to be with family.

How can work be enjoyable if the goal is to get out of it?

3. I can't wait for retirement.

Retirement has been described as the new American Dream. And it seems, in many cases, people live as if the goal of work is retirement. But how can work be enjoyable if the goal is to get out of it?

I probably learned it from my grandfather, who worked 40 to 50 hours per week until the age of 99, but retirement has never been a goal of mine. I prefer meaningful work and will continue to do so as long as my physical body allows.

4. A productive life is a busy life.

When I was early in my first career, I made the mistake of stopping in the office on my first scheduled day off. I don't remember the exact details, but I was either trying to impress my new boss or had forgotten something at my desk (probably the former).

When I walked through the front door, the receptionist said to me, "Make sure you honor your days off—always. You're going

Many of our assumptions misguide how we treat others and ourselves, affecting our lives for the worse.

Mother-in-laws are supposed to be an affliction, but this lie can cost us a warm and loving presence in our lives.



MOTORTION FILMS/SHUTTERSTOCK

WISE HABITS

Haiku Productivity: The Power of Limits for Increasing Focus

Sometimes we need to be constrained to really get done what we most want to do

to need them. Because there is a lot to do around here."

In one sentence, I learned that a productive life doesn't require me to work every day. Finding time for rest enables me to accomplish more.

5. We need debt to finance an enjoyable life.

Kim and I have never presumed that having or spending a lot of money was required for happiness or a meaningful life. In fact, we made less than \$20,000 combined our first year of marriage—and the next six weren't much more than that.

But we never outspent our means. We did take out a mortgage to buy our first house, and I borrowed \$7,000 to help offset the cost of graduate school in my late 20s, but other than that, we have added no other debt.

Sure, our life has never been extravagant. But that wasn't necessary for an enjoyable or meaningful life, either.

6. Mothers-in-law are difficult.

Lawyers and mothers-in-law are the punchlines of quite a few jokes. And mothers-in-law are almost always portrayed as difficult to get along with on television sitcoms. Just picture how many times the mere presence of a mother-in-law standing at the front door prompted a laugh track.

But my mother-in-law, Kay, is wonderful. She is kind, thoughtful, fun, and a pleasure to spend time with. I don't dislike being with her at all. In fact, I enjoy it quite a bit.

7. Money doesn't change you.

Of course money changes you. Anyone who thinks money only reveals who you are, rather than changing our very hearts, isn't paying attention.

Does this mean everybody with financial means is evil? Of course not—that would include most of us. But it does mean that we should be aware of its potential negative influence on our lives and stay hyper-focused on our personal ethics in light of it.

It also means money isn't always worth all the work we put into acquiring more of

it. There are, after all, better things to be than rich.

8. Religion is a boring weakness.

My faith brings me meaning, joy, peace, and stability. In fact, I can't imagine life without it.

When I was young, I used to think religion was stifling and boring. But not anymore. I appreciate the role it plays in my life and how it has brought me strength through difficult times.

9. Kids are terrible in their 2s.

Children often rise to the expectations we place on them. (Not always, but often.)

When we were parenting younger children, we never wanted to let "2 years old" or "3 years old" be an excuse for tantrums or bad behavior. And we never presumed that had to be the case. Instead, we sought to understand their developmental phase and worked hard to instruct and help them properly through it.

We should always fight against the presumption that our kids are going to act a certain way just because that's the assumption we grew up hearing and believing.

10. People are talking about me behind my back.

Perhaps it is because of my background working at churches or even my current role now, but I hear a good number of comments from people about "being judged by others." In many circumstances, I wonder if that's even the case or just projection.

I used to think people were talking behind my back until I realized they were all too busy talking about themselves.

Reject life assumptions. In so doing, you will regain the power to craft your own life—the one you actually desire.

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

tant. You can't waste words.

Over the years, I've often lost sight of this wisdom, but I keep coming back to it: When a container is unlimited, you'll just fill it with anything. When you have constraints, you'll be more careful, be more appreciative of your limited space, and explore what's important to you in more depth.

This applies to every area of life:

Productive Time

If you have a long list of things to do, and the entire work week to do them, it doesn't feel that urgent, and you often fill your days with little things—answering emails, messages, group chats, or reading things online. But

Continued on Page 16

ARIEL PAREDES/PEXELS

WISE HABITS

Haiku Productivity: The Power of Limits for Increasing Focus

Sometimes we need to be constrained to really get done what we most want to do

Continued from Page 15

what if you only had an hour a day, and you had one really important project? You'd be more focused. More on this below.

Clutter

If you only allow yourself to have 33 items of clothing for each season, you'll be more conscious about what clothes you have in your life. This is true of any possessions: a smaller home means you're forced to choose. A limit on how many books you have makes you pick those that are dearer to you and those you think you'll actually read.

Projects

It's easy to say 'yes' to new work or personal projects, and then suddenly your life becomes overfull and you're not doing a good job with any of the projects. What if you forced yourself to pick just one? Or two? How would that change the way you worked? You might find more focus and fewer complications, and do an amazing job with each project.

People

Some of us keep adding new relationships, making new connections (other people have the opposite problem, not actively seeking relationships, but that's not the topic of this post). Making new relationships is a beautiful thing, but when we realize that we only have a limited amount of time to create deep relationships, it's worth thinking about who we want to spend our limited time with, and curate our relationships.

What if you only had an hour a day, and you had one really important project?

Life

Life is limited. We all know this, and yet we act as if we have an unlimited supply of life and we can use it up however we want. We fritter away our days on little things, not really appreciating the miracle of each moment, not really taking advantage of the incredible opportunity of each day. What if we saw each day as precious and made the absolute most of it?

The list could go on much further, but what I really want to talk about is the power of limits in increasing our focus on the meaningful work we really want to do—whether that's creating art, creating a new business, creating happiness in our team or customers, or working on something meaningful in our personal lives.

Limits and Focus

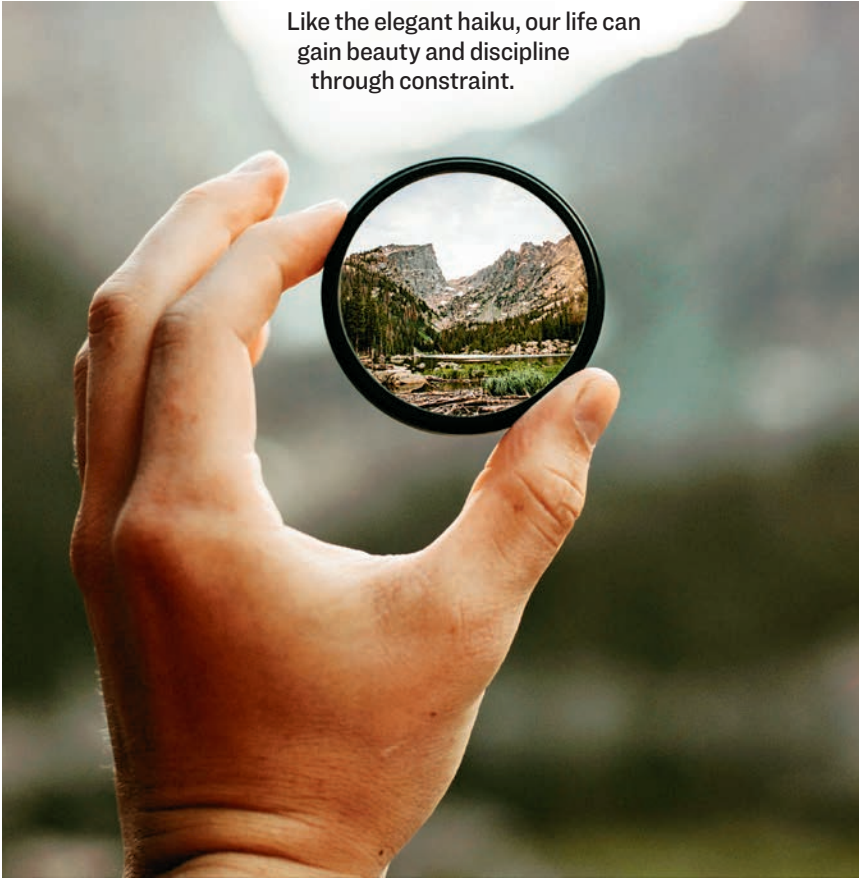
During a trip to Japan and Guam, I had many things going on with family and other things I needed to get done, which meant my time to do work was sharply limited. Maybe I had an hour a day, maybe a little more, but sometimes even less.

This was fantastic for my focus.

I didn't waste (as much) time on distractions, and when I needed to write something, I got down to it without delay. I knew my time was limited, and I knew how important it was to use that limited time wisely.

This is Haiku Productivity, the power of constraints. We often rebel against constraints, but they work for us.

Limit yourself to one habit change at a time, and you'll be much more focused—and much more likely to succeed with it.



Like the elegant haiku, our life can gain beauty and discipline through constraint.

AMAN PATELLI/SHUTTERSTOCK

When you have constraints, you'll be more careful, be more appreciative of your limited space, and explore what's important to you in more depth.

Limit yourself to one important project at a time, and you'll be much more focused—and more likely to do an amazing job with it. Limit yourself to one task at a time, and you'll be able to bring your entire being to bear on it.

One task at a time. A limited time box to do that task. Pure focus, with a mindful appreciation of how precious that limited time really is.

Here's what you might try:

Pick one task to do in the next hour. Make it a hard deadline by promising it to someone by the end of the hour, and making other appointments after the hour is up so you can't extend the deadline. Your time is limited, and you need to get it done.

Now see what changes with your focus. See if you waste less time and fill your hour with fewer distractions. See if you appreciate that hour more.

This is the power of constraints, and I'd love for you to apply it to a few areas of your life in the next month.

Leo Babauta is the author of six books; the writer of Zen Habits, a blog with over 2 million subscribers; and the creator of several online programs to help you master your habits. Visit ZenHabits.net



SHEN YUN SHOP

Decorate Your Home With Shen Yun-inspired Splendors

Explore home decor and summer highlights

