

THE EPOCH TIMES

MIND & BODY

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Healing Herbs for Anxiety

Anxiety is a common experience for millions of Americans but research-backed herbal remedies can help

Research shows lavender has sedative, mood stabilizing, neuroprotective, and anticonvulsant effects.



Statistically, women are more likely to experience anxiety disorders than men.

When Gluten-Free Eating Is the Best Medicine

Part One: For those with celiac disease or gluten sensitivity, there's only one cure

MELISSA DIANE SMITH

This article is the first in a three-part series on gluten-related health conditions and the gluten-free diet. The next article in the series is "Why Have Wheat and Gluten Become So Problematic?"

My investigation into gluten began more than 20 years ago and revealed some surprising things about this problematic protein.

I interviewed a woman named Victoria for my book "Going Against the Grain" (2002) who had unexplained low blood iron counts that kept getting lower each year for, believe it or not, a period of 20 years.

At one point, she was taking nine iron supplements a day, and none of the doctors she had seen could determine why she wasn't properly absorbing iron. She grew sicker: She kept getting more and more exhausted, extremely pale, and short of breath, and her fingernails were curling up.

Finally, after a two-decade-long health journey, she ended up seeing one more gastroenterologist, who gave her the answer to her condition: She had celiac disease, an autoimmune reaction in the gut to the gluten in wheat and other grains, and it could be corrected with a change in her diet.

After "Going Against the Grain" was published, a client named Pam, who was diagnosed with osteoporosis at age 35, came to see me because she kept breaking small bones in her feet when she hiked or biked. I was shocked to learn this.

Although she had tested negative for celiac disease, she had enough other symptoms pointing to a possible non-celiac gluten sensitivity that I suggested she try a gluten-free diet to see if it improved both her overall health and her bone health.

To my delight, it did.

Within six months, not only did other aspects of her health resolve, but her bone density dramatically improved, and she never broke another bone in her feet again. Her doctor was truly amazed by these results.

Continued on **Page 3**

1 in 5

Americans suffer from an anxiety disorder in any given year.

SOURCE: NATIONAL INSTITUTE OF MENTAL HEALTH

SHERRA VORLEY

Anxiety is a natural and normal response to danger and challenging situations—most of the time. Our ability to feel anxious helps us to react and prepare for life events. It's perfectly normal, for example, to feel concerned that winter is coming. So we put snow tires on the car, save some extra funds for home heating costs, and bring out winter blankets. On the other hand, anxious feelings are sometimes less tangible. They can become excessive or intrusive. In these situations, anxiety may negatively impact our daily life. The result of uncontrolled anxiety is the potential to develop an anxiety disorder.

Surprisingly, anxiety disorders are the most common form of mental disorder. Anxiety affects about 30 percent of adults at some point in their lives, according to the American Psychiatric Association. Anxious or intrusive thoughts might keep us awake at night, interfere with our productivity or enjoyment of tasks, or drive us to avoid situations out of worry. Fortunately, anxiety disorders are identifiable, and several effective treatments improve people's lives. According to data from the Institute for Health Metrics and Evaluation's 2019 Global Burden of Disease study, more than 300 million people in the world suffer from anxiety disorders.

Continued on **Page 6**



MORINKA/SHUTTERSTOCK

The best way to avoid gluten in processed foods is to eat a diet of whole foods, including vegetables and meats.

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People who consume more than 7 grams (0.25 ounce) of olive oil per day exhibit a significantly lower risk of death.

FOOD AS MEDICINE

Study: Olive Oil Is a Natural Cancer-Fighting Food

Research reveals the disease-fighting, life-lengthening effects of eating olive oil daily

SPRING LIN

Cancer is the second leading cause of death in the United States, and younger and younger people are developing the disease year by year. And as awful as the disease is, treatments such as chemotherapy and radiation therapy also can be excruciating.

A Harvard study published in the Journal of the American College of Cardiology in January suggests one way to better avoid a fatal cancer diagnosis is to consume olive oil. The study found that people who consume more than seven grams (0.25 ounce) of olive oil per day exhibited a significantly lower risk of death.

Studies have found that olive oil not only has the effect of preventing cardiovascular and cerebrovascular diseases and anti-oxidation, but also contains a special compound that can make cancer cells die quickly without harming normal cells.

The Mediterranean diet is the healthy dietary pattern best known by nutritionists today. Incidentally, a key component of it is the daily consumption of olive oil.

An earlier study, published in the journal “Molecular and Cellular Oncology,” used human cancer cell lines in culture and found that the oleocanthal in olive oil can make cancer cells die within one hour.

One of the authors of the study, American nutritionist Paul Breslin, explained how the mechanism works.

Oleocanthal, a phenolic compound, can puncture a cell’s lysosomes. These organelles or “organs”

istic of tasting bitter at first of a cell break down or digest and dispose of cellular waste. Lysosomes are enlarged in cancer cells and also contain more waste. When the enzymes in lysosomes are subsequently

released, they break down the organic material needed for life, causing the cancer cells to die from a lack of nutrients.

This phenomenon occurs in various cancer cell types observed by the team.

The team also found that oleocanthal didn’t damage healthy cells, but rather put them into a dormant state from which they were reactivated after approximately 24 hours with no negative effects.

The researchers said their findings “provide evidence that the anticancer benefits of EVOO [extra virgin olive oil] result, in part, from the ability of OC [oleocanthal] to rupture lysosomal membranes in cancer cells leading to cell death via necrosis and/or apoptosis.” The study may provide the mechanism of action to explain olive oil’s anti-cancer effects.

Another recent Harvard University study found that compared with those who never consumed olive oil, people who consumed more than seven grams of olive oil per day had a 19 percent lower risk of cardiovascular disease death, a 17 percent lower risk of cancer death, and a 17 percent lower risk of neurological death. On top of that, there’s also a 29 percent lower risk of death from degenerative diseases and an 18 percent lower risk of respiratory death.

The Mediterranean diet is the healthy dietary pattern best known by nutritionists today. Incidentally, a key component of it is the daily consumption of olive oil.

As early as the 16th century, the Chinese medicine classic “Compendium of Materia Medica” compiled by Li Shizhen, a medical scientist of the Ming Dynasty in China, recorded that olives “produce body fluid, relieves polydipsia, treats sore throat, and chewing pharyngeal juice can help detoxify all poisons from fish and crab.” If women take olive oil as part of their daily diet, it can also enhance skin elasticity.

As olives have a special characteristic of tasting bitter at first of bite and then gradually turning sweet, traditional Chinese medicine calls them a “faithful fruit” or “remonstrative fruit,” which is a metaphor for saying faithful admonitions are always unpleasant for the ears at their first de-liberation but will turn out to be beneficial to the listener in the end.



The Mediterranean diet includes copious amounts of olive oil.

When Gluten-Free Eating Is the Best Medicine

Continued from Page 1

We’ve all heard the saying by Hippocrates: “Let food be thy medicine, and let medicine be thy food.” For many people, the truth of this can be seen in the many ways that adopting and following a gluten-free diet can dramatically improve their health. For people with gluten-related conditions such as celiac disease and non-celiac gluten sensitivity, a gluten-free diet is not only the best medicine, it’s the only medicine.

Celiac Disease

People can have different reactions to eating gluten, a protein in wheat, rye, barley, oats, and other less well-known grains such as triticale, farro, einkorn, spelt, and kamut.

Some people develop celiac disease, an autoimmune disorder characterized by damage to the small intestine lining. Previously considered rare, celiac disease is now recognized as common, with an increasing prevalence in the United States and around the world.

Celiac disease can develop at any age, including in elderly people. According to a 2020 article in Gastroenterology, before blood testing for celiac disease began in the 1990s, the “classical” symptoms that doctors looked for were diarrhea, weight loss, malabsorption of nutrients, and growth failure in children.

After blood testing for the disease began, researchers gained a broader understanding of the wide variety of symptoms celiac disease could present with. Although diarrhea continues to be a common symptom, most patients receive their diagnosis based on what are called “nonclassical” presentations.

Nonclassical presentations of celiac disease include:

- Abdominal pain
- Bloating
- Constipation
- Abnormal liver biochemistry
- Neurologic symptoms (migraines, epilepsy, and ataxia or loss of muscle coordination)
- Iron-deficiency anemia
- Bone disease (including osteopenia and osteoporosis)
- Fatigue
- Delayed puberty
- Type 1 diabetes
- Autoimmune thyroid disease
- Down syndrome
- Skin conditions (psoriasis, eczema, and dermatitis herpetiformis)

“Silent celiac disease” is asymptomatic. Patients don’t complain of any symptoms, but unknowingly have damage in the gut lining and malabsorption of nutrients.

Individuals with untreated celiac disease can have osteoporosis because of chronic inflammation and malabsorption of calcium and vitamin D. These patients are at increased risk of fracture.

When you see a label that says ‘gluten free,’ you probably assume that it means no gluten. But that isn’t what it means.

People with untreated celiac disease also have an increased risk of infertility, pregnancies of poor outcome, and intestinal lymphoma, a small intestine cancer.

In addition, the longer people with celiac disease go undiagnosed and continue to eat gluten, the greater the likelihood of developing another autoimmune disease. People with the condition who are diagnosed and treated early, however, don’t have an increased risk for autoimmune diseases.

Non-Celiac Gluten Sensitivity

Non-celiac gluten sensitivity, also called gluten sensitivity or gluten intolerance, is a condition characterized by gastrointestinal and non-gastrointestinal symptoms from eating gluten, but it isn’t an autoimmune reaction.

Adverse symptoms can develop between a few hours up to one day after eating gluten. The symptoms can vary and can be similar to symptoms that people with celiac disease experience.

According to a 2014 Italian study published in BMC Medicine, the large majority of people diagnosed with a gluten sensitiv-



ity report more than two gastrointestinal or non-gastrointestinal symptoms.

Other research has indicated that gluten sensitivity can be primarily, and at times exclusively, a neurological disease.

Gluten sensitivity is found more frequently in adults than in children and is much more common in women than in men.

Although there still may be skepticism or lack of knowledge about the condition by some conventional medical doctors, gluten sensitivity was first described in the medical literature as early as 1980, and reports have continued through the decades. In 2008, two important revelations about gluten sensitivity came to light.

The first was that we learned about an important distinction between gluten sensitivity and celiac disease. With celiac disease, the innate immune system, the most ancestral form of defense we have against “invaders,” responds and coordinates with the adaptive immune system, a more recent branch of the immune system, to produce the autoimmune reaction that takes place.

With gluten sensitivity, only the innate immune system reacts to gluten. Later research confirmed an important role of the intestinal innate immune system in the development of gluten sensitivity without an adaptive immune response.

The second was that we learned that humans aren’t alone in having non-celiac gluten sensitivity. Rhesus monkeys, who are genetically similar to humans, have it too.

One study found that many captive rhesus monkeys that were fed a monkey chow with gluten had symptoms such as diarrhea, bloating, fatigue, depression, and skin rashes and blistering.

Nearly all of those had elevated IgA and/or IgG anti-gladin antibodies, which some holistic practitioners believe are good indicators of gluten sensitivity.

Only a few of the monkeys tested positive for celiac disease.

When the animals were fed a monkey chow that was gluten-free, their antibody



It can take a certain amount of investigating to figure out if a food is gluten-free.

levels normalized, and symptoms disappeared.

There are no universally recommended methods to test for a non-celiac gluten sensitivity. While some nutritionists and doctors recommend certain blood or stool tests, most conventional doctors and research authors say that the best strategy right now is to get tested for both celiac disease and wheat allergy. If you test negative for both conditions, try a gluten-free diet and see if any uncomfortable symptoms resolve. If they do, that’s the best determination that you have a gluten sensitivity.

Why Going Gluten-Free Is So Important

The only way to eliminate symptoms in both celiac disease and gluten sensitivity and to keep them from coming back is to eat a gluten-free diet. This means not “cheating” on occasion or having just “a little bit” of gluten.

It’s often easy for people who experience troublesome symptoms from either condition to avoid cheating because they feel so badly when symptoms flare up.

However, people who don’t have noticeable symptoms and have been unknowingly malabsorbing nutrients may find it more difficult to give up gluten-containing foods altogether.

These people may have received the diagnosis of celiac disease after first discovering they had a condition such as iron-deficiency anemia or osteoporosis.

However, even if they don’t directly feel adverse symptoms from eating gluten, it’s critical for them to eat a gluten-free diet to reverse, and prevent a recurrence of, celiac disease-related complications.

Problems With ‘Gluten-Free’ Labels

To eat a diet with no gluten, you have to buy food that’s truly gluten-free. When you see a label that says “gluten-free,” you probably assume that it means no gluten. But that isn’t what it means.

The Food and Drug Administration’s (FDA’s) gluten-free food labeling rule, which was finalized in 2013, specifies that any foods that carry the label “gluten-free,” “no gluten,” “free of gluten,” or “without gluten” must contain less than 20 parts per million (ppm) of gluten.

A number of celiac experts think this amount is too high.

During a comment period for feedback on the guidelines before they were enacted, hundreds of people wrote in.

Some, including registered dietitian Tricia Thompson of GlutenFreeWatchdog.org, and Peter Olins, a biochemist who runs the website UltimateGlutenFree.com, have

urged the FDA to lower the 20 ppm rule to as low as 5 ppm to protect people who say they react to and get sick from even very low levels of gluten.

One of the FDA’s own reports published in May 2011 stated that some people with celiac disease have adverse effects and symptoms from ingesting considerably lower amounts than 20 ppm of gluten.

Overall, though, there’s limited research and much uncertainty about the threshold of toxicity of gluten in different people.

Dr. Rodney Ford, author of “Gluten: Zero Global” and a New Zealand pediatrician who specializes in gluten-related conditions, thinks people around the world who have celiac disease or gluten sensitivity should demand foods with no gluten to protect themselves from ill health and bodily damage.

Captive rhesus monkeys that were fed a monkey chow with gluten had symptoms such as diarrhea, bloating, fatigue, depression, skin rashes, and blistering.

New Zealand and Australia have the toughest labeling laws in the world; these have been set by the Australia New Zealand Food Standards Code and apply to all food sold or prepared for sale, including imported food.

The code for these two countries requires that foods labeled as “gluten free” must not contain any detectable gluten. Ford thinks the United States and other countries around the world should follow these standards.

The Risk of Gluten Contamination

Many practitioners who prescribe a gluten-free diet recommend eating naturally gluten-free grains, seeds, and flours. But these foods actually are often at risk for gluten contamination.

A study published in June 2010 in the Journal of the American Dietetic Association found that nine out of 22 inherently gluten-free products, such as corn and millet, contained mean levels of gluten ranging from 8.5 ppm to 2,925 ppm.

Also, 32 percent of naturally gluten-free grains and flours tested contained gluten in amounts greater than 20 ppm.

Given those findings, “gluten contamination of inherently gluten-free grains, seeds, and flours not labeled gluten-free is a legitimate concern,” the researchers wrote.

To protect yourself, look for gluten-free grains, seeds, and flours that are processed in a dedicated gluten-free facility and are batch tested for gluten. Or look for products that have the certified gluten-free logo by the Gluten-Free Certification Organization, which verifies there’s no more than 10 ppm gluten content in tested foods.

That standard is twice as strict as the FDA standard for the “gluten-free” claim.

An even safer strategy is to try completely removing these foods from your diet and see if you feel better.

The Best Way to Go Gluten-Free

To eat no gluten (or as close to that as possible), emphasize fresh fruits and vegetables and unprocessed meat, eggs, and fish. Eating these naturally non-gluten foods and cooking with them from scratch is your safest bet to avoid unwanted gluten.

Melissa Diane Smith is a holistic nutrition counselor and journalist who has been writing about health topics for more than 25 years. She is the author of several nutrition books, including “Syndrome X,” “Going Against the Grain,” “Gluten Free Throughout the Year,” and “Going Against GMOs.”

Symptoms of gluten sensitivity include:

- Abdominal pain
- Bloating
- Diarrhea
- Nausea
- Gastroesophageal reflux disease (GERD)
- Tiredness
- Headache
- Anxiety
- Foggy mind
- Arm and leg numbness
- Joint and muscle pain resembling fibromyalgia
- Anemia
- Depression
- Dermatitis
- Skin rash



Walking 10,000 Steps Is Good, Walking Briskly Is Great

Researchers have created a depth of data about the most effective way to reduce dementia and prolong life

FLORA ZHAO

Taking 10,000 steps a day is a habit that can reflect the degree of someone's physical activity. It can mean someone has a more active, and natural, lifestyle compared to the sedentary lives that many people live today. However, 10,000 steps may seem like a vague concept. Not all steps are created equal, and there are significant differences between a casual stroll and a brisk walk. As we strive to reach 10,000 steps, what speed or cadence should we adopt to get the best results?

Walk More, Live Longer

Many studies support the fact that increasing both the time and speed of walking can reduce the risk of all causes of mortality and some diseases. However, most of these findings were analyzed based on people's self-reported walking speed, which may not be accurate.

A joint study by Danish, Australian, and American researchers has solved this problem by collecting wrist accelerometer data from 78,500 adults aged 40 to 79 in the United Kingdom. The researchers tracked the data for an average of seven years, counting the incidences of cancer, cardiovascular disease (CVD), dementia, or death to reveal what impact step count and exercise intensity had on people's health.

The study, published in September, offers insights into how to maximize the benefits of walking and how to walk most efficiently when time is short.

Statistics show that as daily steps increase, all-cause mortality decreases. When daily steps reach approximately 10,000 steps, the decline in mortality is greatest, meaning that people who take 10,000 steps a day have the least chance of dying prematurely. Above 10,000 steps, the mortality-reducing effect of walking is no longer apparent.

Of all of the participants, only a fraction of them walked 10,000 steps daily. Still, even walking a little is better than not walking at all. The data show that for each 2,000 daily step increment, all-cause mortality dropped by 8 percent, cancer mortality by 11 percent, and CVD mortality by 10 percent.

Walking Faster Is Better Than Walking Longer

Walking faster may help you to achieve better results compared to walking longer.

Walking speed constantly varies throughout the day. Researchers, therefore, counted each participant's average steps per minute for the 30-highest minutes in a day. In the experiment, individuals with a peak 30-minute cadence of fewer than 52 steps were categorized as the slowest walkers; individuals with more than 96 steps were the fastest walkers.

The results showed an additional 34 percent reduction in all-cause mortality among individuals in the highest 10 percent of walking speed compared to individuals in the lowest 10 percent. This suggests that walking faster can reduce mortality even further.

How to Walk to Keep Dementia at Bay

Using the same set of data, the scientists then delved into the effects of walking on dementia.

The risk of dementia lowered by 51 percent with maximal effect when an individual's daily steps reached 9,800 steps. Greater or fewer steps resulted in much more limited benefits.

Most people may find it difficult to take 9,800 steps a day. However, the findings suggest that people who suffer from health conditions that prevent them from walking that much can at least strive for a basic target of 3,800 steps a day, which also provides a 25 percent lower risk of dementia.

Walking faster has an even better effect on reducing the incidence of dementia. Statistics show that a walking speed of 112 steps per minute has the optimal effect on reducing the incidence of dementia, with



Picking up your walking pace can help you maximize your time and gain more health benefits.

a 62 percent reduction. However, walking faster than that doesn't reduce the incidence of dementia any further.

Brisk Walking Reduces the Risk of Heart Failure, Stroke, Many Other Diseases

Overall, brisk walking is linked to a lower risk of all-cause mortality. There are many other studies that support this viewpoint.

First, brisk walking also reduces the mortality rate caused by respiratory disease.

Some researchers divided walking speed into three categories: a slow pace of less than three miles per hour; an average pace of three to four mph; and a brisk pace of over four mph. They also had nearly 320,000 UK adults rate their speed and walking time themselves.

The five-year follow-up showed that a one-category increment in walking pace is associated with a 9 percent and 10 percent reduction in all-cause mortality in women and men, respectively. Brisk



Adults and the elderly (over 65) are advised to engage in more than

150 MINUTES of moderate-intensity activity and at least two days of muscle-strengthening activity per week.

There are significant differences between a casual stroll and a brisk walk.

walking in women can reduce respiratory disease mortality by 28 percent and chronic obstructive pulmonary disease by 71 percent when compared with slow walking; in men, the reduction is 24 percent and 51 percent, respectively.

Interestingly, the study also finds that individuals who walk at a slow pace have higher morbidity and mortality from CVD and respiratory disease regardless of the length of time spent walking. In contrast, individuals who walk a moderate or low amount of time at a fast pace have lower morbidity and mortality from these diseases. Therefore, researchers recommend shorter brisk walks, which may fit into people's busy schedules and still offer benefits for those who fall short of the recommended amount of activity.

Second, brisk walking also reduces the risk of CVD, including heart failure.

American scientists tracked more than 25,000 women, aged 50 to 79, for an average of 16.9 years and found that brisk walking can prevent heart failure.

Specifically, compared with casual walkers (slower than two mph), women who walk at an average pace (two to three mph) or at a brisk pace (faster than three mph) have a 27 percent and 34 percent lower risk of heart failure, respectively.

On the other hand, if an individual walks less than an hour per week at a faster pace, the risk of heart failure is equivalent to that of casual walkers and average-pace walkers who walk more than two hours per week. This indicates the importance of walking pace.

Brisk walking also reduces the risk of stroke.

Another study conducted a meta-analysis of seven studies that included over 135,000 participants and came to the conclusion that brisk walking significantly reduces the risk of stroke.

Compared to individuals in the slowest walking-pace category (with a median pace of one mph), individuals in the fastest walking-pace category (with a median speed of 3.5 mph) had a 44 percent lower risk of stroke.

There is also a linear relationship between stroke risk and walking pace, with the risk reduced by 13 percent for every 0.6 mph increase in walking pace.

A study published in the journal *Stroke* with a sample size of more than 360,000 participants had similar findings. Among adults over 65 years of age, individuals who walk slower than three mph have a 42 percent higher risk of stroke compared to individuals who walk faster than four mph.

How to Most Effectively Take 10,000 Steps

Adults and the elderly (over 65) are advised to engage in more than 150 minutes of moderate-intensity activity and at least two days of muscle-strengthening activity per week. Walking at a speed of 2.5 to 4 mph is categorized as moderate-intensity activity.

As mentioned earlier, the stepping cadence that has the optimal effect on reducing dementia incidence is 112 steps per minute or about three mph. Roughly speaking, walking about two steps per second is a relatively fast speed and cadence. With this cadence, walking for 30 minutes a day, five days a week, will meet the weekly recommendation of 150 minutes of moderate-intensity exercise.

Furthermore, for people with limited time and physical strength, a daily 30-minute brisk walk can almost achieve the basic target of 3,800 steps per day proposed in the study, effectively decreasing dementia risk. The remaining steps can be taken at a slower pace to complete the 10,000-step walk.

Those who are physically unable to walk briskly for 30 minutes in the beginning can start with a shorter period of time, and gradually increase the brisk walking time by five minutes weekly to allow the body to adapt. It is also possible to combine brisk walking and slow walking, in which the accrued brisk walking time is 30 minutes.

Before starting brisk walking, a five-minute slow walk to warm up the ankles and knee joints is suggested. After the brisk walk, five to 10 minutes of physical relaxation can gradually slow down the heart rate and breathing.



Walking faster may help you to achieve better results compared to walking longer.

For each **2,000 DAILY STEP INCREMENT**, all-cause mortality dropped by **8%**, cancer mortality dropped by **11%**, and CVD mortality dropped by **10%**.

WESTEND61/GETTY IMAGES

Biologics can be made in bizarre processes that involve animal ovaries and genetic modification.

The drugs are otherworldly chimeric mixtures of human and animal cells.



Costly Drugs With Bizarre Origins Raise Questions

New biologics offer to treat a range of conditions but also come with some downplayed risks

MARTHA ROSENBERG

It isn't your imagination. More and more pharmaceutical drugs are expensive and meant to be injected, and that isn't counting vaccines.

Biologic drugs, also called biologics, are produced from or with living organisms and are made up of blood components, cells, genes, and recombinant proteins such as those found in monoclonal antibodies.

Usually injected, these drugs typically cost about 22 times more than regular pharmaceutical drugs and "can generate profit margins of up to 40 percent," according to *Pharma's Almanac*, which explains the biologic drugmaker direction. In fact, in 2017, while only 2 percent of people in the United States had used biologic drugs, they accounted for 40 percent of prescription drug spending. Unlike regular pharmaceuticals, biologics can evade generic copies and can monopolize a market longer.

Last year, the global biologics market was estimated to be \$366.43 billion. It's projected to reach \$719.84 billion by 2030, according to Precedence Research.

While biologics can target cancer and deliver chemotherapies, three of the 10 top-selling biologics in 2021—Humira, Enbrel, and Remicade—treat a cluster of immune-related conditions such as ankylosing spondylitis, rheumatoid arthritis, and plaque psoriasis, conditions that were less well-known before the years of heavy drugmaker advertising.

Without insurance, Humira costs \$9,065 a month, Enbrel \$8,717 a month, and Remicade about \$4,000 a month, making drugmakers more than \$28 billion dollars in 2021 alone, with Humira pulling in the post at \$20.7 billion and Enbrel and Remicade adding \$4.36 billion and \$3.2 billion, respectively.

Compare that to the \$7.8 billion Pfizer made with its COVID-19 vaccine in 2021 and you see the profit bonanza.

But even as the biologics perform as blockbuster for their manufacturers, questions persist about their high prices, safety, efficacy, and marketing.

Drawbacks of Immune Suppression

Humira, Enbrel, and Remicade are monoclonal antibodies called TNF suppressors; they work by suppressing the body's "tumor necrosis factor," which plays a role in autoimmune diseases and inflammation.

Genetically engineered in a lab like all monoclonal antibodies, the drugs are otherworldly chimeric mixtures of human and animal cells, a fact not found in their prescribing information or heard in their ubiquitous ads (although it's conceded that Humira stands for "human monoclonal

antibody in rheumatoid arthritis").

Humira and Enbrel are made from genetically-modified Chinese hamster ovary cells, and Remicade is made from genetically engineered "humanized" mouse cells.

Because TNF suppressors weaken the immune system, they invite infections. According to Humira's prescribing information, the biologic's users are "at increased risk for developing serious infections that may lead to hospitalization or death. ... Reported infections include: active tuberculosis (TB), including reactivation of latent TB ... invasive fungal infections, including histoplasmosis, coccidioidomycosis, candidiasis, aspergillosis, blastomycosis, and pneumocystosis."

And sure enough, the Milwaukee Journal Sentinel reported in 2019 that "Humira [has been] linked to 169,000 reported serious adverse events and 13,000 reports of deaths."

Problematic Ads

There's a marketing term, "disease mongering," which refers to a drugmaker selling a disease in order to sell the drug manufactured to treat it.

Ads for rare conditions such as non-24-hour sleep-wake disorder and EPI, or exocrine pancreatic insufficiency, that "raise awareness" of an obscure condition and often include self-quizzes are clear examples of disease mongering, but ads for biologics may somewhat share the tactics.

"Growing patient knowledge of rheumatoid arthritis problems is another factor driving the global rheumatoid arthritis medications market," Precedence Research wrote this year, noting that "the global rheumatoid arthritis drugs market size is estimated to surpass around US\$70 billion by 2030."

Certainly ankylosing spondylitis, rheumatoid arthritis, plaque psoriasis, and similar conditions exist and cause suffering, but marketers know that the seeking of treatment for diseases rises with drug advertising.

Ten years after direct-to-consumer drug advertising, which heavily sold antidepressants, research published in the *Journal of Business Ethics* in 2008 stated:

"This study finds that familiarity with direct-to-consumer (DTC) print advertisements for antidepressant brands is associated with inflated perceptions of the prevalence and lifetime risk of depression. ... The study ultimately demonstrates that DTC advertising may play a role in constructing social reality of diseases and medicine ... as well as presenting issues regarding public health and the business ethics of advertising drugs to consumers."

AbbVie Machinations

How did AbbVie turn an expensive, possibly dangerous drug into pay dirt? In 2003, its parent company, suburban-based Abbott Laboratories, announced that it would "provide its recently approved rheumatoid arthritis drug [Humira] free to Medicare patients without drug coverage until the government agrees to pay for the medicine," according to the *Chicago Tribune*.

The maneuver worked, and the drug was covered by Medicare. Abbott then hired the public relations giant Edelman and the pharmaceutical ad agency Harrison and Star to blitz Humira and, in 2012, gave Humira to a newly spun-off company called AbbVie.

AbbVie took it from there. Between 2013 and 2017, AbbVie gave \$2 million in grants and donations to the American Academy of Dermatology, which didn't hurt sales. It launched a "nurse ambassador" program in 2012 in which registered nurses were paid to go to the homes of Humira patients,

Without insurance, Humira costs \$9,065 a month, Enbrel \$8,717 a month, and Remicade about \$4,000 a month, making drugmakers more than \$28 billion dollars in 2021 alone.

Remicade is made cells that come from genetically engineered "humanized" mice.



\$366.43 BILLION

The estimated size of the world biologics market in 2021.

\$719.84 BILLION

The projected size of the biologics market in 2030.

all the while downplaying the biologic's risks of cancer and serious infections. The nurses were instructed to avoid directly answering patient questions about serious side effects, according to the Milwaukee Journal Sentinel.

California Insurance Commissioner Ricardo Lara's office estimated that private insurers based in California alone likely "paid out \$1.2 billion in Humira claims from 2013 to 2018, making it potentially the largest insurance fraud case in the department's history," the *Journal Sentinel* reported in 2019.

"Through the program, doctors allegedly got kickbacks in the form of cash, meals, drinks, gifts, trips, even patient referrals," the newspaper wrote. "One court document indicates the national program reached 179,000 patients."

What Do Patients Say?

Some patients swear by the TNF-suppressing biologics, which certainly explains their popularity—and profits.

On the website Ask a Patient, where patients rate prescription drugs, a 67-year-old woman who had been on Humira for nine years posted in 2017 about the drug: "Thankful every day for this amazing drug, which has given me back my life. Severe pain all over my body, from [the time I was] a fit and active 27-year-old, [I] became totally debilitated and most DMARDs [disease-modifying antirheumatic drugs] barely touched it. ... No pain, no psoriasis. Happy person, back at work, and learnt to SCUBA dive."

Yet other patients on Ask a Patient cite staphylococcus and other serious infections, depression and mood side effects, sinus side effects, and the Humira ceasing to work after a while.

A 43-year-old man who took Humira for one year to treat spondylopathy wrote: "When I took Humira, it worked immediately. But within three months, I began to have worse sinus issues. Contracted klebsiella pneumonia and a systemic fungal infection and had to stop taking it. The fungal infection has been treatment resistant. I wish I knew then what know now ... that an anti-inflammatory diet works wonders for autoimmune disease. My arthritis is cleared from the diet, but I am disabled because of the infection caused by Humira. Stay away at all costs."

Conclusion

Clearly, the profit potential of TNF-suppressor biologics has made them a drug of choice for many physicians and patients. However, concerns about pricing, risks, effectiveness, and marketing may raise skepticism—are the drugs good for patients or just good for drugmakers?

Many health-oriented websites offer natural treatments for the conditions that the TNF-suppressing biologics address. For many of these conditions, lifestyle, exercise, and dietary changes can have a profound effect. These approaches may help patients avoid a costly class of drugs and potential side effects.

Martha Rosenberg is a nationally recognized reporter and author whose work has been cited by the Memorial Sloan Kettering Cancer Center, Mayo Clinic Proceedings, Public Library of Science Biology, and National Geographic. Rosenberg's FDA exposé, "Born with a Junk Food Deficiency," was widely praised and established her as a prominent investigative journalist. She has lectured widely at universities throughout the United States and resides in Chicago.

Healing Herbs for Anxiety

Continued from Page 1

Estimates of the number of Americans afflicted with anxiety range widely based on the definition and duration of anxiety, but according to a study by the National Institute of Mental Health, around 1 in 5 Americans suffer from an anxiety disorder.

Statistically, women are more likely to experience anxiety disorders than men. Anxiety disorders are further characterized as specific phobias, social anxiety disorder, panic disorder, agoraphobia, generalized anxiety disorder, and separation anxiety disorder. Specific phobias are the most common type of anxiety disorder, followed by social anxiety.

Symptoms and Causes

Anxiety is different from fear. While fear is an appropriate, short-lived response to an identifiable threat, anxiety is often future-oriented worry based on a less demonstrable threat.

A person with a diagnosis of an anxiety disorder has anxious feelings with little provocation almost every day for more than six months. The anxiety negatively affects one's home life, social life, and work life. A person with an anxiety disorder may have difficulty focusing and feelings of restlessness and irritability. Sufferers may also have trouble sleeping and often feel tired.

There are a variety of medical issues that may lead to an anxiety condition.

Respiratory disorders such as chronic obstructive pulmonary disease or asthma can cause feelings of anxiety.

Similarly, heart disease, diabetes, thyroid disorders, and digestive issues, as well as side effects from medications can lead to anxiety that's difficult to control. Sufferers of anxiety would benefit from seeking personalized medical advice regarding medical conditions that may exacerbate an anxiety disorder.

Many factors beyond our control can trigger anxiety, such as grief or trauma. People can also be genetically predisposed to anxiety and other mental health issues. This may prompt us to pay close attention to our mental health.

Lifestyle and environmental factors, some of which we control and some we don't, influence our ability to manage anxiety.

Understandably, stress influences how we manage anxiety and comes to us from myriad sources. Financial issues and situations at work and at school, as well as our relationships, may cause stress that leads to uncontrolled anxiety.

However, lifestyle factors that we can control such as sleep hygiene, activity levels, and diet play a significant role in how we handle stress and anxiety. Perhaps it goes without saying that a high intake of caffeine, sugar, alcohol, and other drugs can exacerbate issues with anxiety.

Managing an Anxiety Disorder

Anxiety disorder is identifiable and treatable. In conventional medicine, the two most common courses of treatment are psychotherapy, also known as talk therapy, and medications. A type of talk therapy is cognitive behavior therapy, which aims to help people learn new ways of thinking, reacting, and behaving. The



Lavender's unique chemical compounds and ethnobotanical properties give it therapeutic and curative attributes.

depressive disorder, generalized anxiety disorder and panic disorder," notes Nur Hani Zainal, from The Pennsylvania State University and lead author of the study.

Sleep hygiene, activity levels, and diet play a significant role in how we handle stress and anxiety.



Gathering plants and flowers, surrounding ourselves with them, and utilizing them can have powerful effects in helping us be present and reduce anxiety.

Plant-Based Medicines to Treat Anxiety

As with medications prescribed for anxiety, plant-based medicines may help with symptoms of anxiety. As accessible and cost-effective tools, certain herbs and spices have anti-anxiety and calming effects on the mind and body, many with comparable results to prescription medications. Derived from nature, herbs and spices have been used for millennia in traditional medicine. While there are many herbs and spices to choose from for soothing, relaxing effects, here are the top three: lavender, chamomile, and ashwagandha.

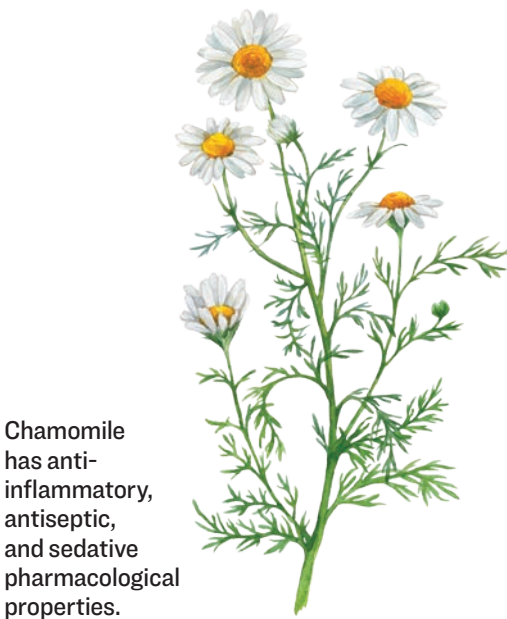
Sherra Vorley is a writer passionate about food sovereignty, self-reliance, and holistic health. Her wish is to help people by providing actionable tools for disease prevention and holistic healing.

Lavender



Lavender grows well in many regions, and there are drought resistant varieties that do well with little tending.

Chamomile



Chamomile has anti-inflammatory, antiseptic, and sedative pharmacological properties.

Ashwagandha



Ashwagandha is an adaptogen, a plant that helps your body respond to stress, anxiety, and fatigue.

Lavender, genus *Lavandula*, has been used in traditional remedies for centuries due to its unique chemical compounds and ethnobotanical properties. Growing evidence supports the therapeutic and curative attributes of lavender, namely its sedative, mood stabilizing, neuroprotective, and anticonvulsant effects.

The famously aromatic properties of lavender flowers and foliage are found in 30 *Lavandula* species, from which there are hundreds of subspecies, hybrids, and cultivars. Native to the Old World, that is the world as people knew it before the discovery of the Americas, lavender was found on the dry, sandy hillsides surrounding the Mediterranean Sea and Southern Europe, as well as Northeast Africa, the Middle East, Southwest Asia, and Southeast Asia. That large variety of suitable climates means that by choosing the right species for your growing zone, you can also enjoy this rewarding, fragrant, woody perennial that thrives in full sun and is drought tolerant.

If growing lavender isn't convenient, you may look to high-quality lavender essential oil and essential oil blends, which are readily available through most essential

oil brands. Many whole food markets and health food stores may have a variety of whole flowers, foliage, or tea for sale. Be sure to source organic, naturally grown lavender to retain the integrity of the beneficial constituents.

Lavender Constituents and Healing Activity

Lavender's main beneficial chemical compounds are linalool, camphor, linalyl acetate, 1,8-cineole B-ocimene, and terpinen-4-ol.

People experience specific benefits from lavender that aid in anxiety relief, including lowered heart rate, improved mood, improved sleep quality, breathing regulation, and lowered levels of adrenaline.

Lavender helps to control anxiety through the parasympathetic nervous system, which regulates hormones, breathing rhythm, and heart rate. A 2013 study titled "Lavender and the Nervous System" showed lavender to be superior to a placebo in 221 patients suffering from an anxiety disorder. The patients also experienced associated symptom improvement, including reduced restlessness and

higher-quality sleep, which positively influences general well-being and quality of life.

How to Use Lavender

Lavender essential oil has multiple uses generally common to essential oil aromatherapy methods. For example, lavender essential oil baths and massage products can induce calm and anxiety relief. You can make lavender bath salts by mixing 10 drops of lavender essential oil into 2 cups of Epsom salts. Add a half cup of this mix to a relaxing bath.

Lavender massage oil is similarly easy to make at home. Add five drops of lavender essential oil into a carrier oil of your choice such as coconut, olive, avocado, or sweet almond. Massage into skin, avoiding the eyes, and enjoy.

Diffuse lavender essential oil to bring a state of calm to your surroundings. Whole flowers and foliage make for a relaxing tea or tonic with excellent neuroprotective potential.

Capsules of lavender oil and tinctures of concentrated lavender extracts are a convenient way to achieve a daily lavender dose of 80 milligrams.



Lavender essential oil.

As a natural substance, chamomile is widely used as herbal medicine for anxiety because it's relatively free from side effects, easy to obtain, and considered healthful. The flowers are primarily used as tea or distilled to chamomile essential oil.

Chamomile Constituents and Healing Activity

Evidence shows chamomile helps regulate mood-influencing neurotransmitters such as serotonin, dopamine, and gamma-aminobutyric acid.

It may also assist the body's stress response by helping to regulate the hypothalamic-pituitary-adrenocortical axis.

Chamomile's therapeutically interesting active compounds include sesquiterpenes, flavonoids, coumarins, poly-

acetylenes, and 11 bioactive phenolic compounds. These include caffeic acid (phenylpropanoids), apigenin, apigenin-7-O-glucoside, luteolin and luteolin-7-O-glucoside (flavones), quercetin and rutin (flavanols), and naringenin (flavanone).

How to Use Chamomile

The proof is in the pudding, as they say. Put chamomile essential oil in a diffuser and assess your body's stress level. Or try a cup of chamomile tea an hour or two before bed. The calming effects may be felt quite quickly.

For even more proof, take the tea bag out of the tea and place it on an area of soreness like tense neck muscles, sore knuckles, or tight wrists. The calming, soothing effect just from a used tea bag is rather surprising.



Chamomile tea.

ucts that are naturally or organically produced. Use as directed.

Ashwagandha Constituents and Healing Activity

A highly researched botanical, ashwagandha contains about 140 specialized compounds that make up its biological properties and active phytochemicals. Ongoing studies and research reviews continue to validate its use and provide insight into optimal ways to use it. The botanical is known to have anti-stress properties and a proven efficacy in mitigating the effect stress has on neurodegenerative disorders, including Alzheimer's disease, Huntington's disease, and Parkinson's disease.

How to Use Ashwagandha

An aqueous extract of the root is beneficial in reducing stress and anxiety. Although its name translates roughly to "smell of

the horse," many people find the whole root to have a sweet, pleasant odor.

Boil a tablespoon of dried whole root in two cups of water. Strain and serve. To improve the flavor, add other calming herbs such as chamomile and lavender.

For simplicity, ashwagandha is available in supplement form. Tinctures, powders, and extracts of the plant can also be found online and in health food stores.

Anxiety disorder is the most common mental health issue worldwide. While anxiety is normal, if it begins to harm our daily lives, there are a multitude of treatments available. Even though many causes of anxiety are out of our control, there are small adjustments we can make throughout the day to improve our ability to handle stress and anxiety. The powerful botanical compounds found in lavender, chamomile, and ashwagandha may also contribute to a healthy ability to manage anxiety.



Ashwagandha powder.

How to Get Rid of a Headache

This technique seems strange, but it really works (and there are others that do, too)

JENNIFER MARGULIS

In Greek mythology, the goddess Athena sprang, fully formed, from her father Zeus's head. That must have been quite painful for the thunder god. I can sympathize. When I get headaches, they really do feel like someone's trying to batter their way out of my skull.

It turns out that I, too, can often eject unwelcome invaders. I discovered a technique to get rid of headaches, courtesy of a Colorado-based friend and colleague. My friend, who goes by Robbie Rose, showed me how to cure a headache without using analgesics (painkillers).

Try this the next time your head is pounding, and see if it works.

Ask Your Headache 2 Questions

Maybe the last thing you want to do is pay

attention to your aching head when it hurts. But since you're in pain anyway, you have nothing to lose. Here's the technique: You ask two questions to your headache. Or, you can have someone else ask you the questions about your headache.

The first question: If your headache were a color, what color would it be?

The second: If your headache had a flavor, what would it taste like?

I know this sounds strange. It is strange. But it works. To wit, I tried it recently on my husband, who is sadly prone to both migraines and painful tension headaches. He said the color of the ache in his head was a green-orange-brown, kind of like an ugly shag carpet from the 1960s. Then he chided me for laughing, since the laughing hurt his head.

We moved on to the second question. This headache of his, he said, had the flavor of peanut butter mixed with sand.

"That sounds disgusting," I said.

"It is,"

We sat quietly for a moment.

"How does your headache feel now?" I asked.

"Better," he said. Then he paused for a moment, to check in with his head. "I think it's gone."

You can also do this on yourself. Sit quietly and check in with your headache. Ask yourself what color it is and describe the color—you can do this silently or write about it in your journal. Then ask yourself about how the headache tastes.

Even if it doesn't cure your headache, which I've experienced that it can, it's an interesting thought experiment.

Not only headaches, but all pain very often starts in our head.

Why Does Naming a Color and Flavor Affect the Pain?

I put this question to my friend Robbie, the one who taught me this technique. Robbie isn't a health professional, but she is one of

the smartest and best-read people I know.

She told me she thinks it works best for tension headaches, which are caused by your neck and scalp muscles tensing up. When your muscles contract in this way, it's often due to stress, or to a stressful or emotional trigger. Then, because your head is hurting, you feel more stressed or even more emotional as a result of the headache itself. When this happens, Robbie said, it blocks your qi.

In traditional Chinese medicine, qi is your energetic life force, a force that flows throughout your body. It's often described as the energy your body obtains from food and air.

When your qi is blocked, your energy, libido, and even your decision-making skills suffer.

On the other hand, when your qi is flowing freely, you feel calm, centered, creative, and confident.

"For me, I'm focusing my energy into the places that are hurting, and it somehow relaxes the tension," Robbie said.

Dr. Cammy Benton, a family physician based near Charlotte, North Carolina, says that directing mindful energy toward pain is often a way to help the body to heal.

"The pain is information," Benton said, "and if we can stop and pay attention to it and ask ourselves about what it could be, then we can support our bodies' natural ability to heal."

When it comes to headaches and other aches and pains, Benton said, natural remedies are always better, more long-lasting, and more health-giving than simply taking drugs.

"Be curious about where this [pain] is coming from," she said. "It can be as simple as 'I need to stretch my body because I've been looking at the computer too long.' Then you get up, go for a walk, stretch a little bit, and the pain goes away."

Benton also said that she advises families in her practice to avoid ever giving their children any acetaminophen-containing products.

Acetaminophen, the main ingredient in Tylenol, has been linked to neurological disorders, liver problems, asthma, and even infertility.

Benton also believes that it's important to drill down to the cause of the headaches—or any other pain—and address it at the root.

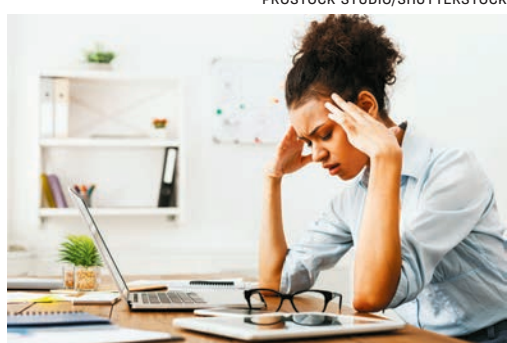
"It's important to find the root cause of the headaches," she said. "It could be something structural. Or it could be emotional. It could be something toxic in the environment. Just taking a Tylenol just covers up the cause, and it will keep coming back."

The Root Cause of the Pain in Your Head

My grandfather grew up in a small town on the Russian border with Romania. He emi-

grated with his family to the United States, living most of his life in New York and then moving to California with my grandmother to be closer to their grandchildren. Grandpa Willy was hale and active his whole life. He ate well, had a sharp mind, and lived to be nearly 90.

He had a different surefire cure for headaches. He believed headaches were caused by constipation and that if you moved your bowels, the pain in your head would go away. Constipation, in turn, is often caused by eating too little fiber, not getting enough exercise, being magnesium deficient, and not drinking enough water.



If we can focus ourselves to send mindful energy toward the pain, it is often a way to help the body to heal itself.

Dr. Victor Frankenstein’s Failure

On achieving more by focusing on what is within our power

PETER MCCULLOUGH & JOHN LEAKE

Mary Shelley described Dr. Victor Frankenstein as an Italian-Swiss scientist born into one of the most distinguished families of Genoa, though he was born in Naples. He obtained one of the best scientific educations available at the University of Ingolstadt in Bavaria. Gifted in mathematics and chemistry, he succeeded in creating a human-like creature by assembling dead tissue and reanimating it. The trouble was, upon completing his task, Frankenstein perceived his own creature to be a crude and repulsive imitation of a human being and not a real one.

At this moment in the story, the brilliant and arrogant scientist becomes all too human by dodging responsibility for his abominable creation. When people around him are murdered, he knows his creature is the culprit, but instead of revealing the truth to his community, he tries to conceal it.

The only time Frankenstein shows any courage is when he denies the creature’s demand for a female companion. Only then does he realize there is no way he can continue playing God.

In recent years, I’ve often thought about Shelley’s fascinating novel, which was apparently inspired by her relationship with her husband, the English poet and amateur scientist, Percy Shelley. She was reflecting on how rapid advances in science altered our understanding of ourselves and our limitations.

The intellectual and spiritual problem she identified in 1818 is orders of magnitude more severe today with the advent of modern technology, which has grossly distorted our understanding of the human condition. Consider the following immutable facts that so many of us now struggle to recognize and accept:

1 We’re born either male or female (with the notable exception of children born with ambiguous genitalia or intersex characteristics). No amount of surgery or hormones can change this essential fact.

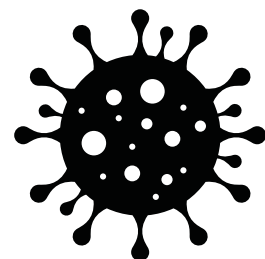
2 We grow old, and we lose our youthful appearance. No amount of surgery or other procedures can change that.

3 Our health is impaired by the excess consumption of calories, alcohol, and drugs. We can’t consume whatever we please and expect to remain fit. Having excess body fat is unhealthy.

During the COVID-19 pandemic, it quickly became apparent that the greatest factors for serious disease were morbid obesity and diabetes—common American conditions that are curable by changes of habit and lifestyle, not by expensive patented medications.

4 Medical science can’t create a pill or shot to relieve every ailment. We have to assume responsibility for

The preposterous notion that the vaccinated possessed better immunity than the COVID-recovered was one of the biggest lies of the pandemic.



We know several ways to treat coronavirus respiratory infections—besides vaccines.



Clean water and household sanitation are powerful disease fighters.

our health and cultivate good habits for taking care of ourselves.

5 Medical science can’t create a superior substitute for the human immune system. Conventional vaccines work by inducing natural immunity, not by replacing it. Anyone acquainted with basic immunology understood this before SARS-CoV-2 arrived.

The preposterous notion that the vaccinated possessed better immunity than the COVID-recovered was one of the biggest lies of the pandemic.

6 Medical science can only manipulate nature to a certain point. Certain natural phenomena aren’t amendable to certain bio-technological interventions.

For example, everyone who has seriously studied respiratory viral infections knows that these infections, which begin in the upper respiratory tract, aren’t preventable by vaccines that induce antibodies in the blood.

The reason for this is obvious: The virus doesn’t interact directly with the blood until it penetrates the lungs’ alveoli, where gas is exchanged. By then, the host is already infected and likely transmitting the virus. A far more promising approach is to develop interventions that work in the mucosa of the upper respiratory tract, where the virus replicates.

7 We can’t receive any satisfying benefit without earning it. If we receive benefits without working for them, we take them for granted and become petulant when we don’t receive more.

While all of the above may seem lamentable, great strength can be derived from recognizing and accepting the limits imposed on us instead of chafing against them. In our conversations about

infectious disease, Dr. Peter McCullough has often emphasized that the greatest advances in medicine were achieved through the construction of clean water and sanitation facilities and through personal hygiene. Medical technologies such as vaccines achieved a tiny fraction of the benefit conferred by clean water, public and household sanitation, and hand washing.

The same applies to chronic physical and mental health conditions. For most of us, better health could be achieved by knocking off the booze, slimming down, and getting a good night’s sleep than all of the prescription drugs in the world. For obvious reasons, the pharmaceutical industry doesn’t want you to think very carefully about that.

Swiss psychiatrist Carl Jung once famously remarked, “Modern people don’t see God because they don’t look low enough.” For most of us, the elements for building a satisfying, tranquil, and even joyful life are right in front of us. By focusing more on what we do have and working with it, it’s likely we could all vastly improve our human condition for ourselves and for our communities.

Dr. Peter McCullough is a practicing internist, cardiologist, epidemiologist managing the cardiovascular complications of both the viral infection and the injuries developing after the COVID-19 vaccine in Dallas. He has dozens of peer-reviewed publications on the infection, multiple US and State Senate testimonies, and has commented extensively on the medical response to the COVID-19 crisis in TheHill, America Out Loud, NewsMax, and on FOX NEWS Channel.

John Leake studied history and philosophy with Roger Scruton at Boston University. He then went to Vienna on a graduate school scholarship and ended up living in the city for over a decade, working as a freelance writer and translator. He is a true crime writer with a lifelong interest in medical history and forensic medicine.

Health does not come in a pill, it comes in a pattern of life where we embrace well-being with our daily decisions.

Spike Protein Linked to Huge Increase in Psychosis

COVID and vaccine linked to mental illnesses, but some therapies may help

YUHONG DONG & HEALTH 1+1

Various studies on COVID-19, long COVID, and COVID-vaccine-injured patients suggest that millions of people contend with lasting symptoms after COVID infection or injections. Studies also show that half of the symptoms are neuropsychiatric, resulting in a spike in the number of people suffering depression, anxiety, brain fog, memory problems, and other issues.

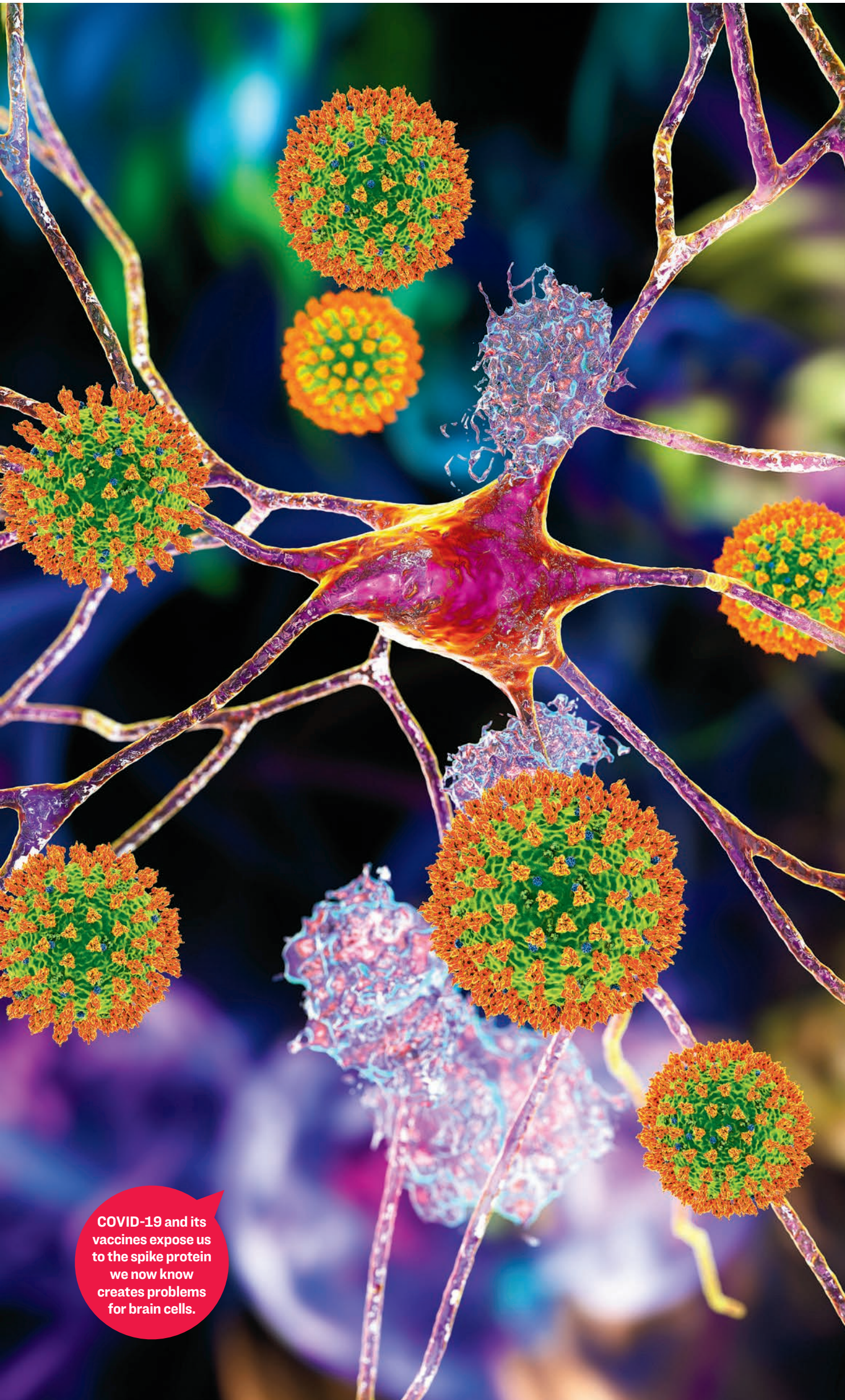
Other studies have documented a rise in psychosis, a difficulty in telling what is real and what is not. We have covered these studies in the past, and now aim to explain the mechanisms by which this disease can induce such problems—and what can be done to help resolve them.

In April 2020, a group of doctors at Strasbourg University Hospital in France published a letter in the New England Journal of Medicine on a study of 58 intensive care unit (ICU) patients with severe SARS-CoV-2 infection during the period from March 3 to April 3, 2020.

Out of the 58 patients, 40 showed agitation, while 26 of the 40 agitated patients had confusion, according to the confusion assessment method for the ICU.

Overall, the patients not only exhibited respiratory problems, but also neurologic disorders, from agitation and confusion to transient ischemic attack, partial epilepsy, and mild cognitive impairment.

The main author of the letter, Dr. Julie Helms, told the BBC that what’s more alarming is that many of these patients were young people in their 30s and 40s.



COVID-19 and its vaccines expose us to the spike protein we now know creates problems for brain cells.

Continued on Page 12

Can You Resolve the Root Cause of ADHD?

Focusing on potential sources of symptoms can have value in treating ADHD without expert help

AMY DENNEY

Four words can end a shame spiral: “It’s not your fault.”

In the case of people with attention deficit hyperactivity disorder (ADHD), who just want to function optimally and have a better sense of self, it can come as a relief to

know that they aren’t to blame for the traits that make it hard for them to operate like the rest of the world.

The causes of ADHD may not be well understood, but there are many studies connecting the neurological condition and other factors, such as biome depletion, environmental stimulus, injury, and genetics. Knowing what’s at the root of ADHD makes treatment more personalized and effective, and, when going a pharmaceutical-free route, can be invaluable information.

Continued on Page 15

Many people react poorly to the drugs commonly used to treat ADHD.



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THE EPOCH TIMES



Fall is the time to get warm and cozy with comforting food and clothes. It's also the time to tune into our emotions so we don't get pulled into the cold, grayness of the season.

TRADITIONAL WISDOM FOR SEASONAL LIVING

Traditional Chinese Wisdom Says Now's the Time for Wine, Sun, and Plenty of Ginger

Solar Term: 'Winter Commences' (Nov. 7 to 21)

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 solar term, offering guidance on how to best navigate the season.

Solar Term: 'Winter Commences'

2022 Dates: Nov. 7 to 21
"Winter Commences" (Nov. 7–21) is the first solar term of winter. Far from being too cold to enjoy, this season has much to offer. Now is the time for harvesting grains and roots, savoring cold-hardy chrysanthemums, and partaking in or making warming wines.

The traditional Chinese calendar system recognizes winter a full six weeks earlier than what most Americans know as winter's start, but we can already see proof in the colder parts of the world that water is starting to freeze, and frost is starting to blanket the ground.

It's very common to feel depressed around this time of year.

Plants that live above ground have mostly stopped growing because of the cold, while grains and root vegetables are at their peak. For wildlife and people, it's the season to hibernate and conserve energy.

Now is a good time to make wine, as the temperatures are perfect to facilitate winemaking without the risk of spoiling.

And as a special treat, beautiful chrysanthemums are in full bloom during this time. The abundant petals of certain species of chrysanthemums can be enjoyed as a tea and are especially gorgeous to admire in a glass teapot.

Petals may also be cooked into a hot soup or stew, together with meat or beans. Chinese chrysanthemum is thought to cleanse the lungs and blood, and to prevent buildup inside the blood vessels. If you want to try cooking with chrysanthemums, make the soup base and add the petals at the end of the cooking process.

Although it's getting too cold outdoors for most plants to grow, there's a nice and aromatic one we can keep indoors around this time: daffodils!

Now is the perfect time to plant daffodil bulbs. Water them throughout the winter, and they will be ready in early spring with both their aroma and pretty flowers. The anticipation of the daffodils' delicate scent and elegant shapes will lift your mood in the gray, cold days of winter.

Impact on People

It's very common to feel depressed around this time of the year. The body feels cold, the sky is dark, and we feel sleepy.

A nice energy recharge is highly recommended. Try basking in the midday sun, drinking a quality herbal tea, or listening to classical music such as by Bach, Mozart, Beethoven, or the Shen

Yun Symphony Orchestra. For the most fortunate ones, you may find Shen Yun performing in your area. Check it out!

Living in Harmony With 'Winter Commences'

A midday walk in the sun helps to counteract the underlying mood of the season. It reduces the chances of suffering from seasonal depression, improves the immune system, improves the absorption of Vitamin D, helps the body metabolize carbohydrates, and improves circulation of both blood and energy. It's particularly beneficial for elderly people.

Going to bed early and getting up late are also recommended. Restraint of sexual activity in winter is also mentioned in the traditional Chinese medical texts.

Always cover your skin when exposing yourself to the cold air, or it will consume too much yang energy, and the muscles and fascia will feel tight and sore in the coming spring.

Seasonal Foods

Ginger is your best ingredient right now. It can be added to almost anything on the table. The spicy root can be eaten raw or cooked, in either savory or sweet dishes, and in any shape, from big chunks in soup to finely chopped bits in ginger cookies.

Ginger helps to improve circulation, repel the chill, and remove buildup in the body. It's said that ginger was the favorite food of Confucius (551–479 B.C.), who was a famous teacher, scholar, and virtuous politician who lived during China's Spring and Autumn period.

Thick, hearty soups are especially suitable for this time. Try to use root vegetables and lean meats, instead of heavy cream or fat, to reduce the burden on the heart.

Nut creams, such as soaked and blended cashews, are a good, healthier option for those who love thick, creamy soups.

Also enjoy blackberries, carrots, curry, dates, duck, goji berries, kelp, lamb, leeks, mulberries, sesame oil, shellfish, shiitake mushrooms, spinach, sweet potatoes, and walnuts.

Seasonal Herbs and Essential Oils

Try using beauty products featuring seasonal essential oils, or using an essential oil diffuser to enjoy the balancing scents of birch, cedarwood, cinnamon, clary sage, ginger, rose, rose geranium, rosewood, or wintergreen.

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 an Institute in Sydney, and the founder of Heritage Formulations, a complete solution for TCM professionals. Visit ausganica.com.au for details.



Chrysanthemums make a beautiful and nourishing tea that is perfect for the season.

Can Eating Apples Really Keep the Doctor Away?

Health and nutritional benefits of the popular fruit abound, but there are compelling reasons to buy organic

MELISSA DIANE SMITH

Keep chronic disease at bay and lose some weight in the process by enjoying one of fall's most abundant fruits—apples. While apples may be common and easy to take for granted, research suggests they really can help keep the doctor away.

However, there are red-flag issues with apples that many people aren't aware of. The fruit is consistently on the Environmental Working Group's list of produce items with the highest concentrations of harmful pesticides, and some varieties are genetically modified.

Here is a complete rundown on apples' many benefits, along with cautions about the potential risks from the modern agricultural practices used to grow them.

A Rich Source of Phytochemicals

Apples are a rich source of vitamins C and E, potassium, magnesium, and phytochemicals, non-nutrient plant compounds that confer many health benefits. Thousands of phytochemicals have been identified in foods, yet there are still many that haven't been identified.

Flavonoids, powerful antioxidants that help fight off free radicals that damage and age the body, are a major type of phytochemical found in apples. In a Finnish study of approximately 10,000 people, flavonoid intake was associated with lower total mortality. Dietary flavonoids from apples showed the strongest association with decreased mortality.

Reduced Risk of Obesity, Cancer, and Other Diseases

Apples are high in water and dietary fiber, which makes them filling. They're also lower in carbohydrates and calories than other sources of carbs, such as grains and beans. For these reasons, eating apples may help with weight control.

Studies on animals and humans have shown that eating apples in different forms can cause weight loss in overweight subjects, and some studies suggest that the polyphenols in apples may have anti-obesity effects.

Additionally, apples have been found to decrease one's risk of chronic diseases including cancer, asthma, and cardiovascular disease. "In vitro and animal studies have demonstrated that apples have high antioxidant activity, can inhibit cancer cell proliferation, decrease lipid oxidation, and lower cholesterol, potentially explaining their role in reducing risk of chronic disease," a 2004 research review published in Nutrition Journal reads.

Studies suggest that eating apples may improve blood vessel function, cholesterol metabolism, and inflammation—factors that may explain their protective effects against cardiovascular disease. Research from 2015 suggests that the fiber and polyphenols in apples benefit gut microbiome composition, which may also play a previously unrecognized role in reducing cardiovascular disease risk factors.

In terms of protection against cancer, a 2011 review titled "A Comprehensive Review of Apples and Apple Components and Their Relationship to Human Health" explains that there are "multiple plausible mechanisms" by which apples might reduce risk of cancer in humans. Test-tube studies suggest that apple polyphenols keep cancerous cells from multiplying. These polyphenols, along with apples' antioxidant properties, are believed to exert "chemopreventive" activity, lowering a person's risk of developing cancer or preventing it from coming back. Apple pectin fiber may provide other cancer-fighting properties.

Apples might protect lung function and help prevent inflammatory and allergenic lung diseases, like asthma, because of their antioxidant potential and phytochemical content.

Other Health Benefits

An ongoing trial found that women who ate one apple per day had a 28 percent lower risk of Type 2 diabetes compared to those who consumed no apples.

The previously mentioned article from 2011 summarized studies that suggest that apples may have beneficial effects on outcomes related to Alzheimer's disease, cognitive decline in aging, and bone health.

That same article concluded that the data



Apples are a perfect weight-loss food. They are a convenient replacement for fattening snacks and fill you up for a few hours.



Apples are a rich source of vitamins C and E, potassium, magnesium, and phytochemicals that offer several health benefits.

As beneficial as research shows apples to be, many synthetic chemical pesticides are applied to nonorganic apples, which may offset some of their benefits or add new health risks.



related to apple products and disease risk reduction are "provocative and varied." The combined phytochemical and nutrient profiles in apples suggest "their potential to be powerful in the prevention of several chronic conditions in humans."

Beware of Pesticides

As beneficial as research shows apples to be, many synthetic chemical pesticides are applied to nonorganic apples, which may offset some of their benefits or add new health risks.

Each year since 2004, the Environmental Working Group has updated its "Shoppers Guide to Pesticides in Produce" and compiled a "dirty dozen" list of the produce items with the most pesticide residues. Apples are generally near the top of the list because they contain an average of 4.4 pesticide residues, including some at high concentrations. Apples were, once again, on the dirty dozen list in 2022.

Tests of raw apples conducted by Department of Agriculture scientists in 2016 found diphenylamine on 80 percent of them. Diphenylamine is a controversial chemical that was restricted on European imported apples beginning in 2014.

But pesticide concerns go far beyond diphenylamine. A database of pesticides used on different crops in the United States, compiled by Beyond Pesticides, shows that there are 109 pesticides used on apples. Ninety-four of the pesticides, including the problematic herbicide glyphosate, are linked to chronic health problems (such as cancer); 92 are poisonous to wildlife; 44 are considered toxic to insect pollinators, including honeybees; 39 are acutely toxic, creating a hazardous environment for farmworkers; and 25 contaminate streams and groundwater.

While not all of the pesticides on the list are applied to apples, there's no way to tell which pesticides are applied to any given conventional apple on your store shelf. The main ways to protect yourself are to buy organic or talk to local farmers about the pesticides they use.

Genetically Modified

Another relatively new issue is the introduction of genetically modified (GM) apples engineered for a purely cosmetic effect. These are rarely clearly labeled as GM.

The Arctic apple, developed by Okanagan Specialty Fruits, has been genetically modified to not immediately turn brown when cut or bruised. This modification utilizes a relatively new genetic engineering technology known as RNA interference, which interferes

with the fruit's natural production of an enzyme that causes browning (i.e., polyphenol oxidase) by silencing the genes that express it, thereby sharply reducing the amount of the enzyme present in the apple, according to The Non-GMO Project.

The apples, which are slated to be sold as grab-and-go, pre-cut slices or cubes, have the name Arctic, a logo, and a square QR code on packages.

The Center for Food Safety said that the USDA's environmental assessment of the new variety was inadequate, and that a proper characterization of the polyphenol oxidase genes, their functions, and the impacts of silencing them in the apple tree as a whole wasn't conducted before these apples were allowed on the market in the United States. The center noted that those genes have been shown in other plants to be associated with pathogen resistance and that silencing them could lead to more susceptibility to disease and pests, possibly resulting in increased use of pesticides on GM apples.

About half of U.S. adults are wary of the health effects of genetically modified foods, according to Pew Research Center surveys, and nearly half of U.S. consumers at least somewhat avoid GM foods, according to a 2018 survey.

Furthermore, the non-browning cosmetic effect is unnecessary because there are other ways to keep apples from browning when sliced: for example, by spritzing the slices with a little lemon juice or another form of vitamin C.

If you want to purchase apples that don't easily brown when cut, try naturally non-browning Opal apples, a variety produced using natural breeding techniques. They're a warm golden yellow color and similar in flavor to Honeycrisp apples.

A key way to avoid both pesticides and GM foods is to purchase organic apples.

Get the Most Benefits from Apples

Apples are a powerful, nutrient-rich, and disease-preventing food. To reap the most health benefits from them with the lowest level of potential risks, eat them in their whole form with the skin, where the highest amounts of their most protective nutrients are found, and buy organic varieties.

Melissa Diane Smith is a holistic nutrition counselor and journalist who has been writing about health topics for more than 25 years. She is the author of several nutrition books, including "Syndrome X," "Going Against the Grain," "Gluten Free Throughout the Year," and "Going Against GMOs."

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Science tries to reduce people to molecules and chemicals but we exist beyond those realms.

BY THE NUMBERS

31% of patients with COVID-19 experienced altered mental status.

49% of the patients with altered mental status were under 60.

Music can resonate with the internal organs through sound waves and by transmitting vibrating energy substances, thus regulating the functions of the organs and improving their health.

Spike Protein Linked to Huge Increase in Psychosis

Continued from Page 9

A New York Times article dated Dec. 28, 2020, talked about psychotic symptoms in people who had COVID-19. A 30-year-old construction worker in New York recovered from COVID-19 but became delusional. He thought his relative was going to kill him, so he tried to strangle the relative in bed.

A 42-year-old mother of four experienced mild physical symptoms from COVID-19 but developed psychotic symptoms months later. She kept hearing voices telling her to kill herself and her children, and she kept seeing scenes of her children being gruesomely murdered.

In April 2020, during the early months of the pandemic, a group of psychologists, researchers, and mental health professionals from around the world issued a call for action for mental health science in The Lancet Psychiatry. They said that there's an urgent need for research to address how mental health consequences for vulnerable groups can be mitigated under pandemic conditions.

In June 2020, Robert Stevens, associate professor of anesthesiology and critical care medicine at Johns Hopkins Medicine in Baltimore, said that a large portion of COVID-19 patients suffered from only one symptom: confusion. Stevens warned that "we are facing a secondary pandemic of neurological disease."

It isn't only a neurological disease. What could be even worse is an increasing rate of psychiatric conditions.

The Difference Between Neurological and Neuropsychiatric Issues

The human nervous system is tangible. It can be touched and measured. But the human psyche is intangible. Neurological problems such as pain, fainting, numbness, and cognitive impairment can be both.

The psyche is related to the nerves but is more complicated than the nervous system. It can't be seen by our naked eyes; however, it's sensible and measurable. Neuropsychiatric issues such as hallucinations are directly related to sub-molecular levels.

In June 2020, The Lancet Psychiatry published a UK-wide surveillance study on neurological and neuropsychiatric complications in patients with COVID-19. The paper defined "altered mental status as an acute alteration in personality, behavior, cognition, or consciousness." The study found that 31 percent of patients with COVID-19 experienced altered mental status. And 49 percent of the patients with altered mental status were younger than 60.

A more recent study published in The Lancet Psychiatry in August looked at more than 1 million patients in the past two years. It was a

Science has now provided proof to the old saying that illnesses are caused more by psychological reasons than physical reasons.

retrospective cohort study done by scientists from the University of Oxford and the University of Cambridge, led by professor Paul Harrison.

The studied data spanned 62 medical establishments in eight countries on four continents, from January 2020 to April 2022. The data came mainly from the United States, but also from Australia, the UK, Spain, Bulgaria, India, Malaysia, and Taiwan.

The study compared 1.28 million COVID-19 patients against other respiratory infection patients over the same period of time. Age, gender, profession, risk of contracting diseases, and vaccination status were compared.

The study found that, in addition to the persistent risk of cognitive decline, including brain fog and dementia, the risk of psychosis remained even two years after the infection.

Psychosis Worsens the Disease, Increases Risk of Long COVID by 30 to 50 Percent

COVID-19 can trigger psychosis. Negative psychological conditions can worsen the incidence of long COVID.

A cohort study published in JAMA Psychiatry on Sept. 7 reported that pre-infection psychological conditions may increase the risk of long COVID infection by 1.3 to 1.5 times. The study followed 3,193 persons for one year, from April 2020 to April 2021. They reported no COVID-19 infection prior to April 2020 but were infected during the one-year follow-up period. Their pre-infection psychological conditions included depression, anxiety, perceived stress, loneliness, and worry about COVID-19.

Such risk conditions have surpassed those commonly known risk factors which might trigger long COVID, including old age, smoking, diabetes, high cholesterol, hypertension,

asthma, cancer, and obesity.

These high-risk psychological stresses have been ignored historically. Science has now provided proof to the old saying that illnesses are caused more by psychological reasons than physical reasons.

Why COVID-19 Induces Psychological Issues

From the cellular point of view, the SARS-CoV-2 virus can cause damage to the brain cells directly. It can also destroy the structure and function of brain mitochondria. This is equivalent to destroying the brain's electrical supply system, which causes the brain itself to crash.

A meta-analysis of blood cytokine alterations in psychiatric patients, published in Molecular Psychiatry in 2016, states that the common characteristic in acute psychiatric patients is the increase of a type of cytokine called interleukin-6 (IL-6).

According to this study, SARS-CoV-2 can trigger extreme immune responses in humans and release a large number of cytokines, including IL-6. These cytokines can cause damage to the structure and function of nerve cells and increase the risk of psychosis. A single spike protein in SARS-CoV-2 can induce IL-6 in monocytes and macrophages. Almost all current COVID-19 vaccines have spike proteins. So, vaccination can also cause psychiatric issues.

COVID-19 Vaccine-Induced Psychosis

A paper published in Psychiatry Research in October 2021 describes a case study done by experts from the Department of Psychiatry and Behavioral Health at Stony Brook University in New York and the Northport Veterans Affairs Medical Center in New York.

The report describes a 31-year-old single Hispanic male who had no history of psychiatric disorders. After receiving his first dose of an mRNA COVID-19 vaccine, he developed bizarre and inscrutable behavior. Specifically, he became anxious, vigilant, and pompous, and also experienced hallucinations (of people drumming outside). He even mistook a colleague for his lover and talked to himself in his hospital room, saying that an EEG machine in the hospital was communicating with him.

Three weeks later, the man received a second dose of the vaccine, and his symptoms deteriorated significantly.

The man was treated in the psychiatric ward with milieu treatment, and the hallucinations and delusions resolved after two days. Milieu treatment involves using everyday scenarios to help patients with interaction in community settings. After he was discharged, he returned to his normal work.

A review of 11 published reports was published in the Asian Journal of Psychiatry in May. These reports described 14 cases of psychiatric reactions after COVID-19 vaccines, 11 of which were diagnosed as neurological disorders. Those 11 patients were an average age of 40, and included four females, six males, and one unspecified. Most of them were young or middle-aged.

Five cases of psychiatric disorders happened within hours to 10 days after the vaccination. Three cases reported a loss of sense of direction, hallucination, and agitation. Two cases were mania. One case was depression. More than two-thirds of the cases happened after

the first dose of the vaccine.

What Exactly Are Emotions and the Spirit? How Can They Have Such a Great Influence on the Human Body?

The human being is a mysterious and complicated entity composed of body, mind, and spirit. Modern science has more knowledge and understanding of human organs, cells, and molecules, but the understanding of the human brain, spirit, and other aspects is still relatively shallow.

In heart transplantation, psychiatric features, including donor personality and preferences, have even been shown to be transmitted to the heart recipients.

In 1988, Dr. Paul Pearsall, a professor of nursing at the University of Hawaii, first reported on the personality changes in a heart recipient after transplantation. These included changes in food, music, and art preferences; emotional and temperamental changes; and even identity changes.

Another case study was reported in the journal Explore: The Journal of Science and Healing by Larry Dossey in 2008. In it, Carter, a 9-month-old boy diagnosed with congenital heart disease, received the heart of a 16-month-old boy named Jerry, who died due to an accident. After the heart transplant, Carter underwent a surprising change in his language and behavior, almost acting in the same way as Jerry.

In 2019, Dr. Mitchell Liestner of the University of Colorado School of Medicine Department of Psychiatry published an analysis of organ recipients' personality changes in the journal Medical Hypotheses. The analysis concluded that the personality and identity changes were the result of cellular memory.

We believe that the human spirit may be a microscopic material particle, which is likely preserved in the microstructure of the human heart (and perhaps all tissues). When people undergo a heart transplant, not only is the physical heart transplanted, but also the spirit, character, and other microscopic components may be transplanted as well.

Scientists have studied the near-death experiences of survivors of the Tangshan earthquake in China in 1976 and found that the human body can feel the separation of mind from matter at the moment of death. The spiritual part of the body can detach from the physical body. Scientists found that 68 percent of people had a sense of unfamiliarity with the body, and 43 percent felt their consciousness leaving their body.

Because mind and spirit are matter, they can be affected by the virus and even appear sick. The virus is a nano-level matter, and so are the spirit and mind.

Music Therapy Helpful in Treating Psychosis After COVID-19, Vaccines

Psychotic patients are characterized by disorders of thoughts, feelings, beliefs, and perceptions. There are usually two main groups of symptoms: namely positive symptoms



If our mind and character are affected by the virus, then they can also affect our recovery.

(additions) and negative symptoms (losses). Positive symptoms include hearing voices or seeing things (hallucinations), and acute onset of strange beliefs (delusions). Negative symptoms include feeling down, depression, social withdrawal, and memory problems.

Medications don't address the underlying causes. Antipsychotic drugs forcibly suppress the symptoms by drugging the receptors, forcibly blocking them. Drugs developed according to the target lead theory are prone to receptor fatigue and drug resistance, making psychosis even more difficult to treat down the road.

Since the spirit is at the microscopic level, most of the current drugs can't reach it, so we need to have an open mind and find some other methods to solve the problem of psychosis.

One method is horticultural therapy, which is useful for relieving mental stress. I have visited a mental hospital in the United States where patients do gardening, and there's a noticeable therapeutic effect. This is why psychiatric hospitals are usually located in places where there are many trees and are close to nature.

Another treatment for these conditions is music therapy.

Music therapy is a modern and emerging discipline. In the mid-20th century, several universities in the United States established music therapy programs.

From a modern medical point of view, human organs vibrate at a certain frequency. Music can resonate with the internal organs through sound waves and by transmitting vibrating energy substances, thus regulating the functions of the organs and improving their health.

Many people feel their pores opening when listening to music. This is related to the functional changes of the skin's nerve cells.

Scientists have found that music nourishes the brain. Music is an energetic substance, the movement of patterns through air. It has a physical resonance. Good music reduces stress, enhances immune function, balances brain wave activity, increases endorphin levels, and triggers a feeling of inner peace.

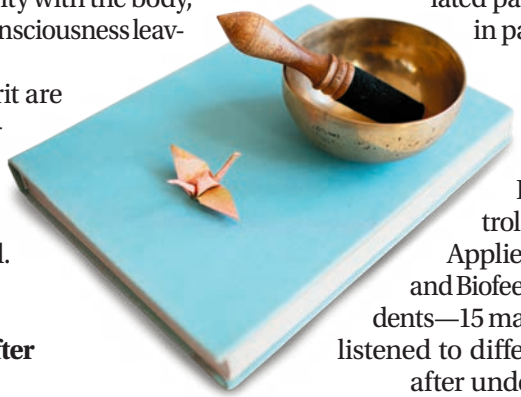
Not all music has this effect, though. Only music that calms us and is good for our physical and mental health can achieve healing effects.

Good music can also help the body to regulate its corticosteroid levels, control the severity of spastic muscle tremors, reduce cancer-related pain, and reduce stress in patients.

Classical Music Can Lessen Depression

In a randomized controlled trial published in Applied Psychophysiology and Biofeedback, 56 college students—15 males and 41 females—listened to different types of music after undergoing a stress test.

Listening to classical and relaxing music of their choice significantly reduced anxiety, anger, and sympathetic nervous system arousal compared to those who sat in silence or listened to



Good music reduces stress, enhances immune function, balances brain wave activity, increases endorphin levels, and triggers a feeling of inner peace.

US Deer Get COVID-19; What Are the Implications?

MARTHA ROSENBERG

Whether you are a nature lover, environmentalist, hunter, or all of the above, you no doubt heard the news in early 2021 that the U.S. Department of Agriculture (USDA) found that as much as a third of tested white-tailed deer in Illinois, Michigan, New York, and Pennsylvania harbored COVID-19 antibodies.

Questions immediately ensued from the discovery: How did the deer get the virus? Could they transmit it to humans? And is their meat safe to eat?

As scientists investigated the COVID-19 variants harbored by the infected deer, more questions arose. While some strains resembled the Delta variant at the same time that Americans were experiencing Delta, other strains appeared to be the Alpha variant—which had long since waned in the United States. Why was it still active in deer? Were deer becoming U.S. COVID-19 reservoirs, keeping the virus alive?

A year after the USDA's original discovery, COVID-19-exposed deer were found in 24 of 30 states sampled. In New York, white-tailed deer harbored the same variant as New Yorkers themselves—the Omicron variant. Adding to pandemic-related concerns, the variant found in deer in Canada exhibited 76 mutations that departed from the original Wuhan virus, including changes that increased the spike protein's infectivity, reported Nature.

According to Colorado State University researchers, viruses adapt to the body temperature, diet, and immune system of whatever animal they are living in, which encourages such mutations. "It's possible that the new [COVID-19] variants emerging in people could infect new animal species," they wrote in a February article published on the university's website. "Or it's possible that new variants could initially arise from animals and infect humans."

How Did Deer Contract COVID-19, and Can They Transmit It?

Scientists do not yet know how U.S. white-tailed deer came to harbor COVID-19, but it is known that the virus is transmitted between them, which seems to explain why it's spreading. Did the deer drink water contaminated with COVID-19? Did it come from food given to them by humans, including hunters, who sometimes bait the animals? Did it come from minks, which are known to carry the disease? Could the virus have resulted from the deer "digging their noses into discarded masks, or gobbling flowers and garden vegetables that humans have sneezed on," as Nature asked? Close to 30 million deer live in the United States—there's one for every 10 people—and their habitats are increasingly urban as they commingle with people.

Scientists and hunting experts say that transmission to humans is unlikely because COVID-19 is airborne—though both rec-

ommend wearing face coverings when in close contact with deer. However, Juergen Richt, director of the Center of Excellence for Emerging and Zoonotic Animal Diseases at Kansas State University, warned that "if you as a hunter kill an animal, which is infected, and you got that animal, and you take out the lungs, etc., where the virus resides, there's a chance that you [will] get infected," according to the Topeka Capital-Journal.

Earlier this year, National Geographic reported news that was less reassuring regarding viral transmission: It looks like a deer-to-human transmission has been documented. A team of 32 academic and government researchers working in Canada found that a virus strain previously only found in deer had appeared in a human, and "that a person who had close contact with white-tailed deer in Ontario was infected with the same [deer] variant of coronavirus."

"Together, those factors suggest that the



The variant found in deer in Canada exhibited 76 mutations that departed from the original Wuhan virus, including changes that increased the spike protein's infectivity.

virus had been circulating among deer and accumulated mutations as it hopped from one animal to the next, before ultimately being passed to a person," the magazine reported.

Is Meat From Animals With COVID-19 Safe to Eat?

Worries about the transmission of COVID-19 to humans through eating meat surfaced early during the pandemic when slaughterhouse workers became sick and died from the virus. According to the Midwest Center for Investigative Reporting, in the few months from the start of the pandemic until April 2020, there had been "at least 86,000 reported positive cases tied to meat and poultry processing facilities from at least 499 outbreaks in 38 states, and at least 423 reported worker deaths in at least 67 plants in 29 states." Worker outbreaks also occurred in Europe and Southeast Asia.

However, "there's no indication that anyone has contracted [COVID-19] from eating any kind of uncooked food, including rare or raw meat," Angela L. Rasmussen, a virologist at the Center for Infection and Immunity at the Columbia Mailman School of Public Health, told Forbes in 2020.

Nor should the surfaces of packages be feared, the Centers for Disease Control and Prevention (CDC) says. "Although some people who work in food production and processing facilities have gotten COVID-19, there is no evidence of the virus spreading

to consumers through the food or packaging that workers in these facilities may have handled," the agency wrote.

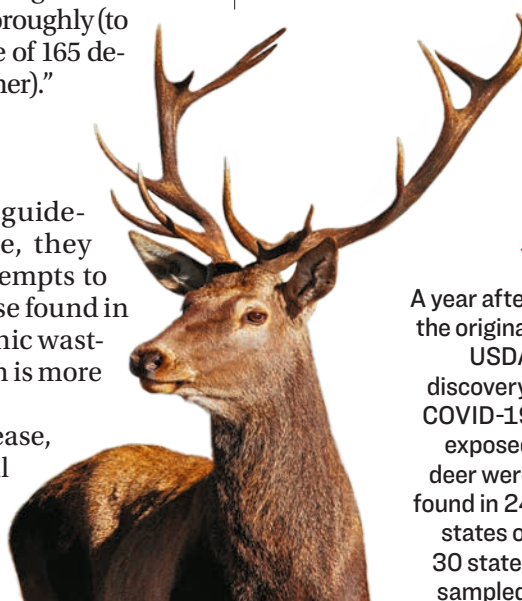
Still, the government recommendations for hunters handling deer that may contain COVID-19 or other diseases are off-putting:

- "Do not allow contact between wildlife and domestic animals, including pets and hunting dogs."
- "Do not harvest animals that appear sick or are found dead."
- "Keep game meat clean and cool the meat down as soon as possible after harvesting the animal."
- "Avoid cutting through the backbone and spinal tissues and do not eat the brains of wildlife."
- "When handling and cleaning game ... wear rubber or disposable gloves."
- "Cook all game meat thoroughly (to an internal temperature of 165 degrees Fahrenheit or higher)."

Another Deer Disease Affects Hunting

While the government guidelines may look extreme, they no doubt come from attempts to contain a different disease found in deer and elk called chronic wasting disease (CWD), which is more transmittable.

Similar to mad cow disease, CWD is a progressive, fatal "spongiform encephalopathy" (brain disease) transmitted by a misfolded protein called a



A year after the original USDA discovery, COVID-19 exposed deer were found in 24 states of 30 states sampled.

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heavy metal music.

Therefore, listening to less rock music and more classical music will make us happier, more relaxed, and less anxious.

Music Therapy Can Improve Psychosis

A Cochrane review published in Cochrane Library looked at 176 studies of people with schizophrenia or schizophrenia-like disorders receiving music therapy or standard care. Eighteen trials with a total of 1,215 participants were examined.

Compared to standard care, the researchers found that music therapy improved overall status and positive and negative symptoms, as well as mental status, social functioning, and quality of life.

Music Therapy Can Help Reduce Medicine for Psychiatric Patients

In 2016, 27 patients with schizophrenia, schizoaffective disorders, bipolar affective disorder, depressive episode, and specific personality disorders were randomized to receive group music therapy plus standard care (48 weekly sessions of two hours each) or standard care only.

The study measured doses of neuroleptics, benzodiazepines, mood stabilizers, and antidepressants.

The group without music therapy had increased doses of antidepressants and sedatives. The group that received music therapy and medication showed significant improvements in antipsychotic sedative doses and modest increases in antidepressant doses.

The pandemic has brought people physical and mental illnesses. Spirituality is often considered immaterial, but it seems more than reasonable to acknowledge that there is likely an element of existence we are unable to directly measure at this time. People around the world and throughout time have reported sensing, experiencing, or believing in a spiritual plane beyond our material dimension. Nearly all people around the world have believed that something of the human body persists after death. If we do carry something with us that persists in the body while we are alive, and without the body when we die, that it is reasonable to expect it is also affected by our mental, physical, and emotional ailments. With the continuous exploration of spiritual phenomena, I believe that the understanding of the nature of human life will rise to a new level in the future.

Dr. Yuhong Dong, a medical doctor who also holds a doctorate in infectious diseases in China, is the chief scientific officer and co-founder of a Swiss biotech company and former senior medical scientific expert for antiviral drug development at Novartis Pharma in Switzerland.

Health 1+1 is the most authoritative Chinese medical and health information platform overseas. Every Tuesday to Saturday from 9:00 am to 10:00 am EST on TV and online, the program covers the latest on the coronavirus, prevention, treatment, scientific research and policy, as well as cancer, chronic illness, emotional and spiritual health, immunity, health insurance, and other aspects to provide people with reliable and considerate care and help. Online: EpochTimes.com/Health TV: NTDTV.com/live



Viruses adapt to the body temperature, diet, and immune system of whatever animal they are living in, which encourages such mutations.

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Can You Resolve the Root Cause of ADHD?

Many people are seeking more fundamental solutions to ADHD than drugs can provide.



Known Associations With ADHD

According to the Centers for Disease Control and Prevention (CDC), some known associations with ADHD are:

- Low birth weight
- Premature delivery
- Prenatal maternal smoking and drug abuse
- Prenatal and early childhood toxic exposures (e.g., lead)
- Brain trauma

Possible Factors Behind ADHD

Functional medicine also considers other contributors to ADHD to be:

- An unbalanced microbiome
- Excess antibiotic use
- Toxin and heavy metal exposure
- Acetaminophen exposure
- Trauma

but the reason still isn't understood.

The disorder tends to run in families, but the reason isn't clear. Health authorities in the United Kingdom acknowledge that diet plays a role, but the CDC maintains that it isn't at all associated, a stance that's parroted by many mainstream medical sites.

Hussey and other functional medicine experts disagree about diet and consider ADHD more of a brain-gut disorder.

Acetaminophen as a factor in ADHD is gaining acceptance in the medical community after two studies, in 2014 and 2019, found that babies born to women who had used acetaminophen—found in Tylenol and more than 600 other medications—had a higher likelihood of an ADHD diagnosis.

Jillian's Story

Tylenol use is where Jillian Burne's story begins.

"My mother was definitely an avid Tylenol user. That definitely resonates that there could be some insults during pregnancy," she said.

Early in elementary school, Burne was diagnosed with ADHD, entered a pilot program at Ohio State University, was put on Ritalin (a popular stimulant drug approved for hyperactivity in the 1970s), and received ongoing cognitive behavioral therapy. She was taught that, just as a diabetic patient needs daily insulin, she would need daily stimulant medication.

And yet, Burne still struggled. College, her first two jobs, and marriage were difficult. Along came her children, and she slowly started thinking about the kind of childhood she wanted them to have. She appreciated her mom's tenacity to advocate for her, but she believed that modern medicine only made her problems worse.

"Being on Ritalin created a lot more issues for me than it solved," Burne said.

In the lines at a juice bar in New York City, she heard interesting conversations about environmental toxins and the dangers of drinking city tap water, and she noticed after drinking the juice that it made her feel, think, and behave better.

Burne dove into the study of her own disorder and body. One certification led to another and another, and now she's a certified health coach specializing in nutrition, assisting doctors who help patients get to the root cause of their illnesses.

Continued from Page 9

"I find that people are getting less and less inclined to look at medication," said Dominick Hussey, functional medicine practitioner and osteopath at Complete Wellbeing Centre in Ottawa, Canada.

"They've already been searching. They've already been through the different options orthodox medicine has looked at and had trouble with medications or [had] unpleasant outcomes."

The fact that ADHD is married to a myriad of comorbid conditions treated with a patchwork of prescriptions, including some to remedy the side effects of others, has made plenty of people determined to investigate the root cause of this increasingly common disorder.

Comorbid conditions include anxiety,

depression, personality disorders, oppositional defiant disorder, eating disorders, gut disorders, and others.

The adult population with ADHD is expected to surpass the number of children with ADHD. And the numbers appear to be rapidly growing. The rate was 5 percent in 2013 and more than 10 percent by 2018, according to the organization Children and Adults with Attention-Deficit/Hyperactivity Disorder.

"As a society, it's better to be understanding of the reason people have these issues," Hussey said. "There's a lot of research out there looking at the reasons, but doctors aren't really looking at it yet. It normally takes about 20 years for these to surface."

That 20 years is known as the translational research lag. On average, it takes 17 years for the findings of research to actu-

ally make their way into clinical practice, according to a study published in the Journal of the Royal Society of Medicine in the United Kingdom. That means that many common treatments are due to be replaced, but medical practice simply hasn't caught up with available science.

Those with ADHD may have trouble paying attention or controlling behaviors (acting impulsively), or they may be overly active. For many children, this is normal behavior in some settings. But those with severe symptoms that are ongoing and interfere with their ability to learn, complete basic tasks, work a job, and get along with others are likely to end up with an ADHD diagnosis.

Neurotransmitters, chemicals responsible for carrying messages within the brain, operate differently in children with ADHD,

How to Deal With Self-Doubt

6 practical tips for finding your way out of the fog of uncertainty

MIKE DONGHIA

Any description of human behavior should have something to say about the complicated relationship we have with our emotions.

I'm someone who longs to be rational and well-reasoned in most of what I do, but upon reflection, I can see how frequently my life is, instead, steered by emotion. This shouldn't come as a surprise: Decades of research, synthesized in a research article published in the Public Administration Review, have concluded that human decision-making is complex and not easily explained by a single model.

Those two forces—rationality and emotion—seem to cooperate and compete inside me. What's to be done when one of them throws my whole being out of balance?

There are, for example, stretches of life when I'm happily pursuing my goals and all of a sudden I'm incapacitated by self-doubt.

Just a single thought, criticism, or struggle can cause my clearly thought

out plans to become tangled and covered in a fog of doubt.

I've watched people I love struggle through the same. What follows are my thoughts to share with those going through such a phase. Food for thought, from one traveler to another.

Tips for Seasons of Uncertainty

Pause to see the bigger picture. When strong emotions shake my heart, I like to remind myself that my feelings are likely out of proportion to reality. Emotions, even when they're speaking some truth, are amplifying a message. This is how they get our attention.

As important as it is to take heed, it's wise to pause and consider how this message fits in with everything else you know to be

Rethinking Food

Food is a relatively easy place to start because it can cause rapid transformation. Changing a person's diet (without doing testing) is all that some need to do to improve their symptoms—even if government health authorities don't acknowledge this treatment modality.

Testimonies abound on the power of nutrition to heal this disorder, and studies also corroborate that diet plays a role.

One published in 2010 in the Journal of Attention Disorders found that a standard American diet may be associated with ADHD, after following 2,868 children from birth to 14 years of age. None of the children who followed a healthy diet were diagnosed with ADHD.

Most Americans skimp in the grocery store and pay for it later. Price and convenience trump nutrition. Purchasing decisions are heavily influenced by what's on sale rather than what's nutrient-dense and free of additives and hyper-processed ingredients.

Healthier foods come from healthier plants, animals, and mushrooms, rather than those sprayed with toxic chemicals or kept in crowded barns, devoid of sunlight and open air.

"It's not something everyone buys into. They think supplements are a scam, and food should be as cheap as possible," Burne said. "Animal proteins and fats are really important to build your hormones and neurotransmitters."

She uses a food diary app and blood sugar data with her clients. She's a fan of a high-protein, high-fat approach with lots of vegetables because it stabilizes moods and improves energy and focus.

"That had the biggest impact on my symptoms," Burne said. "Before I changed my diet, I was like a radio station not quite tuned into the right frequency. Now, I'm fully tuned in."

Hussey, the functional medicine practitioner in Ottawa, said that food sensitivities, sometimes unknown, can cause inflammation that aggravates ADHD symptoms. Simply taking wheat/gluten and dairy out of a diet can often change behavior and mood within a week.

Where medicine looks to find ways to stop undesired symptoms, changing diet removes the trigger for various symptoms. Some of the digestion issues suffered by ADHD patients stem from digestion issues in infancy, including diarrhea, colic, and early allergies.

"Suppressing symptoms, especially with medicine, is only going to cause more symptoms on top of things. You may end up developing comorbid conditions," Hussey said.

In the long run, it's cheaper to find the root cause, both for the patient and taxpayers.

Correcting Microbiome Imbalance

The body depends on a host of beneficial microbes, called the microbiome, that live largely in the gut.

Dysbiosis, an unbalanced microbiome, can also be a problem for those suffering from ADHD. This occurs when too many good bacteria have been killed off because of factors that include antibiotic use, stress, smoking, lack of sleep, drinking alcohol, an unbalanced diet, heavy metal exposure, toxins such as pesticides, or lack of exercise.

Hussey does a timeline with clients that goes all the way back to birth, piecing together their delivery, whether they were breastfed or formula fed, and if they had digestive issues as an infant. He's also on the hunt for early childhood trauma and a family history of trauma. All of these can provide vital clues to a person's current health status.

Unnecessary antibiotic use, especially early in life, can put children at risk. A study of 14,572 children found that 70 percent received at least one antibiotic prescription in the first two years of life that was associated with ADHD and other illnesses. The research, published in January 2021 in Mayo Clinic Proceedings, determined that more antibiotics increased the chances of having even more conditions.

Researchers are also looking at the role of propionic acid on the microbiome and



Make sure your child is getting enough quality sleep. This is an essential first step to ensure a clear and healthy mind.

on metabolism. The propionic acid theory suggests that an imbalance of gut bacteria increases the production of propionic acid, a short-chain fatty acid that can change metabolic and immune pathways, gene expression, and synaptic plasticity.

These are all factors in ADHD and autism spectrum disorders.

"At this stage, it is not so far-fetched to say that Western society has altered human microbial populations, which in turn may be altering human behavior and culture," Dr. Derrick MacFabe writes in a 2013 article in Global Advances in Health and Medicine.

Probiotic and prebiotic use show promise for correcting imbalances, but there's still a lot of unknowns as to what strains of bacteria are effective in which circumstances. Additionally, nutrient absorption can be impacted by microbiome, making supplements a potential remedy. However, the exact supplements will vary from one person to another.

Do Vaccines Play a Role?

Mainstream medical websites are adamant that vaccines and ADHD are unrelated. But while a direct relationship may be less apparent (and with scant research to suggest it), there's significant research connecting the effectiveness of vaccines with the gut microbiome.

Both Hussey and Burne consider vaccines alongside toxic exposures, such as to ingredients in processed foods, lead, mercury, and harmful chemicals, to all play a role. The exact role these play in the human body is an area of concern for many functional medicine practitioners.

When he does a client's history, Hussey always asks about vaccine schedules and how they may have intersected with other events.

"You can't really do much about it because it's already happened. It's definitely something I ask about," he said. "There are things in vaccines that can trigger your genes."

What Hussey is referring to is an epigenetic response. Unlike genes, epigenetic changes are temporary. They affect how your body reads DNA, which is your permanent genetics.

Genetic Debate

It's largely accepted that ADHD has a genetic component, as there are patterns in families, but the exact mechanism isn't known. It's more likely that epigenetics is the factor that holds the most promise for treatment, and it's often the heart of root-cause exploration.

Robert Melillo, the author of "Disconnected Kids" and creator of the Brain Balance programs, argues in his book that it's



Food can play a pervasive role in our mental health and affect conditions like ADHD, depression, anxiety, and more.

The causes of ADHD may not be well understood, but there are many studies connecting the neurological condition and other factors, such as biome depletion, environmental stimulus, injury, and genetics.

5%

Adult population with ADHD in 2013.

10%

Adult population with ADHD in 2018.

An ADHD Checklist

This checklist comes from Epidemic Answers, a nonprofit organization focused on reversing the childhood epidemics of autism, ADHD, asthma, allergies, and more.

- Ensure that your child is getting adequate sleep, movement, and hydration.
- Eliminate processed foods and consider eliminating added sugar, gluten, and dairy.
- Include plenty of good fats.
- Remove vegetable oils.
- Include high-quality protein at every meal.
- Consider digestive aids.
- Clean up toxins in your home.
- Consider lab workups.
- Add fermented food and probiotics daily.
- Use herbs, essential oils, and supplements under practitioner guidance.
- Detoxify.
- Use a myofunctional dentist or orthodontist.
- Consider using a network of specialists. See website for list.
- Use sensory therapies and tools.

impossible for ADHD to be purely genetic. "Genetic problems don't explode on the scene like this," he writes. "The rise has just been too fast and too specific."

Epigenetics, on the other hand, explains how the environmental influences of modern life can impact gene expression. Under the microscope of consideration, Melillo argues, should be nutrition, screen usage, parental interaction/absent parenting, obesity, stress (mother and child), birth, sleep, and past injuries and illnesses.

"Disconnected Children," published in 2009, takes issue with the fact that in the previous 30 years the obesity rate doubled in children between the ages of 2 and 5, and tripled in children between the ages of 6 and 11.

"Not coincidentally, we have also seen the sharpest increase in the percentage of children with severe behavioral problems, poor socialization skills, learning disabilities, attention problems, and children on Ritalin and other powerful psychiatric drugs," Melillo writes.

Outside influences, Hussey said, also include the lack of time spent outdoors, and the impact of stress—and lack of stress management—on mitochondrial dysfunction.

"I always cringe when I hear the old rhetoric that it's 'probably genetic,'" Burne said.

She once took a mother of one of her son's classmates aside to suggest that her child's extreme hyperactivity might be linked to diet. Burne had watched the boy going to the bus stop with Pop-Tarts every morning. Once the family worked to clean up the boy's diet, he was like a completely different kid.

Epigenetics can explain why some people react to influences while others in the same set of circumstances don't. Factoring in lifestyle will often help those suffering from unwanted effects of ADHD and other neurological disorders to free themselves from the burden of unwanted behavior. It's a highly individualized journey of healing that can take time.

"We put our money where it's most important to us," Burne said. "You can improve your quality of life and get in balance. I've seen kids taken off the spectrum."

Amy Denney is an award-winning journalist, certified Holy Yoga instructor and light therapy specialist. She works with clients looking for natural, side-effect free solutions to pain and stress.



Fear and doubt can cripple us in our pursuit of meaningful goals, so it's essential to learn how to deal with them.

MONKEY BUSINESS IMAGES/SHUTTERSTOCK

Strong Grandparent-Child Relationships Boost Health for Both

Grandkids can help grandparents stay mentally sharp, and lower their risk of Alzheimer’s and other cognitive disorders

ZRINKA PETERS

Whether you had a strong and loving relationship with your own grandparents or not, it’s worth nurturing those relationships with your own children or grandchildren whenever possible. Evidence is mounting that close grandparent-grandchild relationships can help to improve physical and mental health on both sides.

One of the most painful results of the COVID-related isolation policies of the past couple of years has been the disruption of certain important family relationships, including those between grandparents and their grandchildren.

Grandparents often play an important but sometimes undervalued role in the lives of their grandchildren, providing stability, support, and a tangible link to the family’s history. Think of the beloved family recipe, photo album, story, or tradition that has been passed down through the generations.

William Sieben, a Minnesota-based mental health therapist, said: “There is something incredibly healing about the telling and retelling—reprocessing—of stories. When parents and grandparents can interact in a process of storytelling alongside the child, inclusion and authenticity emerges.”

Today’s grandparents, who generally live longer than those of previous generations, often go even further, helping with child care as well as giving financial support. And in times of trouble or uncertainty, grandparents can provide a stabilizing and comforting presence for their grandchildren.

When researchers from the University of Hamburg asked students aged 7 to 10 about their experiences, feelings, and behaviors during the COVID-19 pandemic, those children who didn’t see their grandparents during the first year of restrictions reported more stress, a lower sense of well-being, and a higher risk perception

regarding COVID-19 infection. A study from the UK, which was published in the February 2009 issue of the Journal of Family Psychology, surveyed more than 1,500 youth between the ages of 11 and 16 and found that youth with a high level of grandparent involvement in their lives had significantly fewer emotional and behavioral problems than their less-supported peers.

Interestingly, however, the benefits go both ways. Grandparents who have positive, regular involvement in their grandchildren’s lives regularly report less depression, and some research shows that these relationships can help grandma and grandpa stay mentally sharp, as well as lower the risk of developing Alzheimer’s disease and other cognitive disorders.

Grandparents who are involved in their grandkids’ lives may also benefit physically. Playing with children, attending sports events or recitals, or going to the playground or aquarium together supplies extra physical exercise as well as social interaction. There’s even evidence that helping care for grandchildren may lead to a longer life for the grandparent.

However, there are some limits on how much care is too much. While a moderate amount of involvement seems to positively boost mental and emotional health, heavy involvement (such as taking over full-time child care duties) may have a detrimental effect.

And although what’s meant by “moderate” involvement can vary widely from person to person according to circumstances, an Australian study found that those grandmothers who spent at least one day per week with their grandchildren showed the most benefits, while those who spent five days per week or more with their grandkids benefited significantly less or not at all.

Grandparents who have taken over the life-altering role of raising their grandchildren



Youth with a high level of grandparent involvement in their lives had significantly fewer emotional and behavioral problems than their less-supported peers.

also face unique and often difficult challenges. Today’s families face plenty of complicating factors that can include divorce or separation, addiction, interpersonal conflict, and geographical distance.

In cases where the relationship between grandparent and adult child has been broken or strained, it’s possible that allowing a relationship between grandparent and grandchild could have a therapeutic effect on all involved.

Sieben noted: “Watching grandparents interact with grandkids—which is often done in a more healthy way than they parented their own kids—teaches and heals the parent’s own hurt or confusion from childhood. It can promote a reconciliation of sorts, thereby allowing the parent to be more emotionally available to their child.”

When it’s possible to have healthy grandparent-grandchild relationships, it’s worth nurturing these important connections for the benefit of all.

To find the studies mentioned in this article, please see the article online at TheEpochTimes.com

Zrinka Peters has been writing professionally for more than a decade. She holds a BA in English Literature from Simon Fraser University in Canada and has been published in a wide variety of print and online publications, including Health Digest, Parent.com, Today’s Catholic Teacher, and Education.com

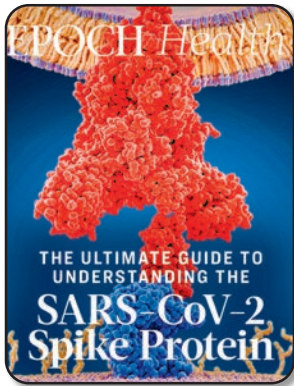
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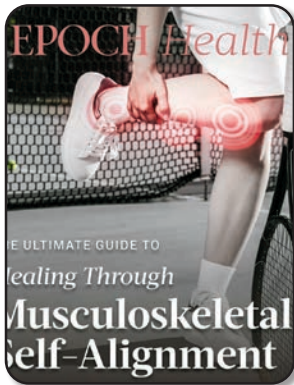
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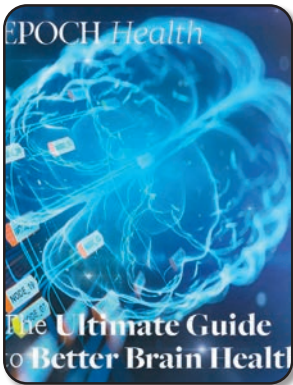
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