

THE EPOCH TIMES

MIND &

BODY

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HEALING HERBS

Cinnamon shows an ability to regulate glucose metabolism in tissues that mimics the effects of insulin.

Can Herbs Help With Blood Sugar Imbalances?

Cinnamon, ginger, and dandelion have regulating effects on blood sugar, research shows

SHERRA VORLEY & ANN CORSON

Blood sugar imbalance has short- and long-term effects on the body. When blood sugar is well-controlled, we have better control over our energy levels, mood, cravings, weight, and overall performance.

In the short term, poorly controlled blood sugar levels can cause brain fog and low energy, and make us feel grumpy. Over time, out-of-control blood sugar can lead to prediabetes, Type II diabetes, and many of the health complications associated with diabetic conditions.

There's a lot of information and lifestyle advice about treating and preventing diabetic conditions. Upon being diagnosed with prediabetes or Type II diabetes, trying to understand this information can be overwhelming. Between testing, monitoring, taking medications, and measuring food intake—and timing it all—there's a lot to manage. It may even be hard to imagine how to carry on with regular life while learning the ins and outs of dealing with this new diagnosis.

Regardless of where we are in managing our blood sugar levels, there are simple, affordable things we can do to help to improve the situation. Whether we're just starting to notice symptoms of high or low blood sugar levels, or we've been managing a diabetes diagnosis for many years, some common herbs and spices can help to keep us in balance.

Multiple studies have shown there are safe, simple, and inexpensive herbs and spices that can help to keep blood sugar balanced. We all need to maintain blood sugar levels or blood glucose levels between 70 milligrams per deciliter and 140 mg/dl. The pancreas produces hormones that regulate blood sugar so that the brain and body receive the right amount of glucose to perform properly. Adding simple, inexpensive herbs and spices can support the function of organs, the digestive system, and the pancreas.

Symptoms of Blood Sugar Imbalance

Blood sugar imbalance can be either high blood glucose levels known as hyperglycemia or low blood glucose levels known as hypoglycemia. While each of us may experience these sensations a little differently, common symptoms include headaches, blurred vision, weakness, fatigue, irritability, and brain fog. Other telltale signs of hyperglycemia are increased thirst and frequent urination.



Dandelion has anti-diabetic properties and bioactive compounds.



Cinnamon has phytochemical compounds that have anti-inflammatory properties.



Ginger has anti-cancer, anti-clotting, anti-oxidative, and anti-inflammatory actions.

Continued on Page 2

SEASONAL ADJUSTMENTS

How the Darker Days Downshift Your Metabolism and Mood

Understanding your connection to the shift in seasons can help you adapt and avoid the winter blues



Winter is a great time to look inside, reflect, and journal.

ZRINKA PETERS

Along with pretty rust-colored leaves and pumpkin spice lattes, there's another, less-celebrated hallmark of the fall season—the onset of a mental and emotional slump known as seasonal affective disorder.

Known also by its very appropriate acronym, SAD, this disorder can sometimes be severe enough to significantly disrupt day-to-day functioning.

As temperatures steadily fall and sunset times continue their relentless backward march toward winter solstice, an estimated 10 million Americans, according to Boston University School of Medicine, will suffer

symptoms associated with major depression, which could include feeling hopeless or worthless, having low energy and motivation, feeling depressed most of the time, experiencing weight gain, withdrawing from social activities, and having trouble sleeping.

While these symptoms are characteristic of major depression in general, what distinguishes SAD is the seasonal nature of the depression. In most cases, it begins, predictably, with the loss of daylight in the fall, lasts throughout the late fall and winter months, and resolves itself in the springtime with increased amounts of daylight.

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CANDYRETRIEVER/SHUTTERSTOCK

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SHEN YUN'S STREAMING PLATFORM



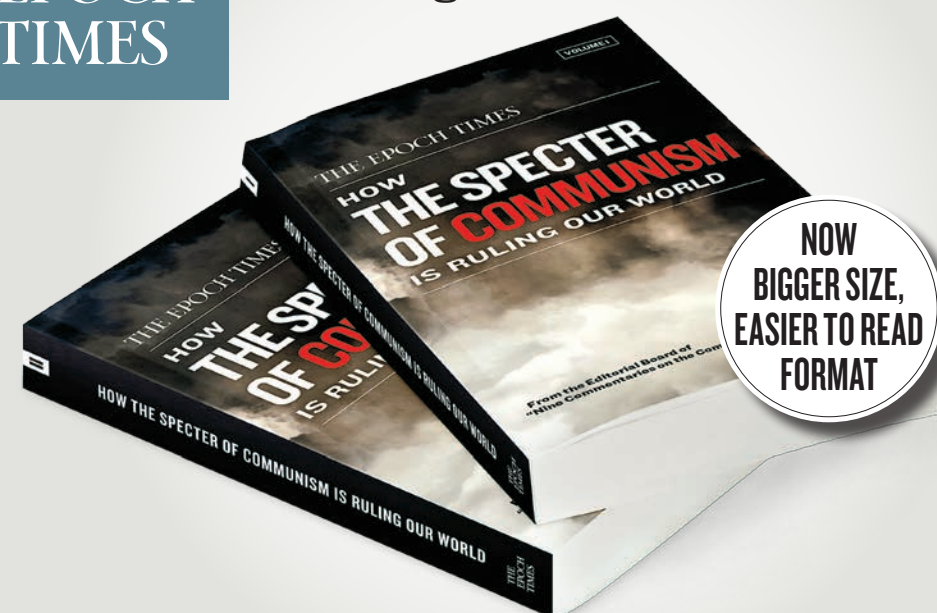
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HEALING HERBS

Can Herbs Help With Blood Sugar Imbalances?

Cinnamon, ginger, and dandelion
have regulating effects on blood sugar,
research shows



Every part of the
dandelion—roots to
flower—is edible and
nutritious.

Plant-Based Medicines

to Treat Blood Sugar Imbalance



Cinnamon

Cinnamon is a useful and delicious
culinary spice that comes from the bark
of cinnamon trees. Most of us probably
have cinnamon in the spice cupboard,
even though we may not use it regularly.

Warm and sweet, cinnamon is
sometimes associated with holiday
baking. It can easily be incorporated into
the diet by simply sprinkling it on foods,
adding it to beverages, or mixing it into
spreads such as honey or jam.

It has been used medicinally for
thousands of years and is known
in some circles as the healthiest
spice. Over the past 20 years or so,
research into its bioactive compounds
and their effects on blood sugar
levels have demonstrated several
antidiabetic properties. Cinnamon has
phytochemical compounds that have
anti-inflammatory properties. The
polyphenols in cinnamon have shown
antioxidant activity.

Cinnamon Constituents and Healing Activity: Evidence-Based Research

Evidence continues to demonstrate that
cinnamon and its bioactive compounds
and biological activity exert beneficial
effects on blood sugar levels.

Cinnamon shows an ability to regulate
glucose metabolism in tissues that
mimics the effects of insulin. In

assessing the research, 16 randomized
controlled studies showed that
cinnamon significantly reduced fasting
blood glucose and insulin resistance.

How to Use Cinnamon

With cinnamon, a little goes a long way.
A pinch here and there throughout the
day may be enough to stabilize blood
sugar levels. Cinnamon supplements
are available. It has also shown long-
lasting effects of up to 12 hours.

Including cinnamon in your morning
routine can help to keep your blood
sugar levels stable throughout the day.
A simple pinch in your morning tea
or coffee, a sprinkle on toast, cereal,
or oatmeal, or a dash in a breakfast
smoothie is often enough.

Again, a small amount in the evening
may help to balance blood sugars
overnight. A pinch in an evening
beverage or dusting on some fruit will
not only taste wonderfully warm, but it
may also keep your glucose levels even.

As with all good things, too much over
long periods might be less helpful.
Although a very safe food in low
quantities, avoid taking more than a
teaspoon of cinnamon daily, as high
doses can have negative effects.

Cinnamon, especially Cassia cinnamon,
can act as a blood thinner, so consult
your doctor if you're taking blood
thinner medications.



Ginger

Ginger, or Zingiber officinale, is one of
the most popular and widely consumed
spices in the world.

It grows as a rhizomatous plant in
tropical regions. The bright, hot flavor
of ginger is used in many cuisines and
styles of cooking. Ginger can be found
in most grocery stores and health food
stores as fresh roots and dry powder,
as well as in candied form. Look for
organic ginger products when available.

Historically, ginger has been used as an
herbal medicinal remedy for a variety of
health issues such as vertigo, nausea,
and vomiting. It aids in digestion and
constipation. Ginger also has anti-
cancer, anti-clotting, anti-oxidative,
and anti-inflammatory actions.

The long list of potentially bioactive
substances in ginger has been shown
to possess anti-diabetic activity as
well. The constituents of ginger that are
bioactive phytochemicals are gingerol,
shogaol, zingerone, and paradol. Ginger
also contains volatile oils including
sesquiterpenes, which are known for
combating disease in humans. Some
of the sesquiterpenes in ginger are
beta-bisabolene, zingiberene, and
monoterpenes.

**Ginger Constituents and Healing
Activity: Evidence-Based Research**
Due to the long historical
pharmacological use and extensive
bioactive compounds, ginger

continues to be investigated for its
effects on blood sugar. A study on
ginger conducted in 2015 showed a
significant reduction in fasting blood
sugar and hemoglobin A1c, as well as
other lipid proteins.

The participants received just two
grams per day of a ginger powder
supplement, which is less than half a
teaspoon. With the improvement of
fasting blood sugar and hemoglobin
A1c, the study found that oral
administration of ginger powder
supplements has a role in alleviating
the risk of chronic complications from
diabetes.

How to Use Ginger

Since ginger is delicious and easy
to find, including it in a blood sugar-
friendly routine is inexpensive and safe,
and provides many benefits.

The complementary flavors of ginger
work well in both sweet and savory
dishes.

Fresh ginger pairs beautifully with
garlic, a potent medicinal food as well.
For convenience, a batch of raw, fresh
ginger, with or without garlic, can be
blended in a food processor and stored
in a jar in the freezer. It's then fresh and
ready to add to soups, salad dressings,
pilafs, marinades, smoothies, and
beverages.

Fresh or dried ginger can be added to
a favorite tea for its warm, spicy flavor
and blood sugar-balancing actions.
A soothing warm drink, ginger and
lemon are delicious together served
hot or cold.

Continued from Page 1

5 Gold Nuggets for Maintaining Blood Sugar Balance

Throughout the day, as we consume foods
and beverages, our blood sugar levels
change and adapt to our needs. Keeping
blood sugar in balance allows the body to
perform more efficiently. Although there's
a myriad of information and sometimes
conflicting advice out there about main-
taining blood sugar balance, there are five
universal gold nuggets throughout the in-
formation that appear to be true:

- Stay hydrated.
- Have a good sleep schedule.
- Manage stress appropriately.
- Be physically active.
- Maintain a healthy weight.

Including strategic herbs and spices in
our daily routines can have positive ef-
fects on each of these strategies for blood
sugar control.

Potential Causes of Blood Sugar Imbalance

Some of us may have a predisposition
to blood sugar imbalance or underlying
health conditions that make managing
blood sugar levels more difficult.

Lifestyle, activity, and diet also often
play a large role in the ability to maintain
blood sugar balance. Even the environ-
ment can have a profound effect on our
blood sugar levels.

While not all of these factors are within
our control, every positive step may benefit

blood sugar levels.

Cutting down on fast food or limiting
highly processed foods is something we
can do to help ourselves with blood sugar
control.

Learning ways to manage stress is an-
other example.

Staying active during the day not only
helps control blood sugar levels, but also
contributes to better sleep quality. Better
sleep is known to improve blood sugar
balance.

Adding herbs and spices that promote
blood sugar balance to one's daily routine
is a simple, safe, and affordable tactic that
almost anyone can benefit from.

*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.*

*Dr. Ann Corson obtained her MD degree
from the Perelman School of Medicine at
the University of Pennsylvania in Phila-
delphia in 1982 and is board certified in
family medicine and integrative holistic
medicine. Her solo practice in Philadel-
phia is devoted full time to the treatment
of patients suffering from all forms of
chronic disease. In 2008, Corson joined
Doctors Against Forced Organ Harvest-
ing (DAFOH) to help raise awareness of
China's live forced organ harvesting of
innocent prisoners of conscience, pri-
marily Falun Gong practitioners. Since
2016, she has been the editor-in-chief of
DAFOH's newsletter.*



Dandelion

The long historical use of dandelion
goes back centuries. This medicinal
herb grows from the tropics to cool
highlands and can withstand both
drought and frost.

Dandelion is used within
ethnopharmacology and traditional
folk medicines throughout the
world, including in Europe, Russia,
India, and China. A rich source
of micronutrients, minerals,
and vitamins, dandelion is often
consumed as food. It's wild harvested
and cultivated in many parts of
the world to this day. Currently,
it's predominantly produced in
the eastern European countries of
Bulgaria, Romania, Hungary, and
Poland.

In the search for alternative and
inexpensive medicines for the
tremendous rise in Type II diabetes,
dandelion may provide a compelling
solution.

Rich in a variety of anti-diabetic
properties and bioactive components,
dandelion is also abundant, easy
to grow, and widely available in
several areas around the world. The
pharmacological uses of dandelion
may treat a wide variety of issues.

In balancing blood sugar levels for the
treatment and prevention of Type II
diabetes, the bioactive components
of dandelion are compelling. These
include high quantities of chicoric
acid, taraxasterol, chlorogenic acid,
and sesquiterpene lactones.

Dandelion Constituents and Healing Activity: Evidence-Based Research

A large review of the physiological
effects of dandelion has
demonstrated a series of anti-
diabetic effects.

Along with the nutritive and medicinal
actions of dandelion, the bioactive
components in dandelion have

normalizing effects on blood sugar.
These pharmacological actions
are due to components such as
sesquiterpene lactones, chicoric acid,
taraxasterol, phenols, phenolic acids,
and flavonoids.

Ongoing investigations are
being explored into the potential
mechanisms of these chemical
components and their effects on
blood sugar balance.

How to Use Dandelion

While most of us know dandelion as
a detested turf and garden weed,
each part of the plant has compelling
medicinal uses.

Young leaves in spring are tasty in
salads or used as a cooked green.
Flowers in late spring and summer
are surprisingly fragrant and make a
lovely tea or salad garnish. Roots are
bitter and best harvested in early fall.

Scrub the roots well. They're quite
pleasing when roasted and used in
hot beverages, and are commonly
used as a noncaffeinated coffee
substitute. Alternatively, they can be
chopped and dried for use in herbal
teas or tonics. They can be used
in decoctions, boiled rather than
steeped like tea, to further extract
their medicinal properties.

Harvest dandelions from areas known
to be free of toxins, herbicides, and
pesticides. While this plant may
grow rampantly in lawns, ditches,
fields, and fallow ground, source your
dandelions from clean places. This
will improve the quality of the recipes
you make with dandelion.

If a clean, toxic-free area isn't
available to you, you might source
organic dandelion from health food
stores or online stores. Alternatively,
you might grow your own, as the
plant is incredibly easy to grow, even
in a pot. Provide clean soil free of
toxins. Dandelions grow easily from
seeds. Even a small piece of root will
propagate new dandelion plants.



HEALING HERBAL BLOOD SUGAR BALANCING TONIC

A great way to start the day, this tonic can be made
in small or large quantities. The recipe includes
apple cider vinegar, which also has evidence of
balancing blood sugar levels.

Not only does this recipe incorporate many blood
sugar-balancing herbs and spices, but it's also
hydrating. The inspiration for the recipe is from a
traditional switchel, a refreshing ginger-infused
beverage that helps to replenish electrolytes and
balance blood sugar levels.

We make this blood sugar-balancing tonic by
decocting, or hard-boiling, the spices instead of
simply steeping the ingredients like you would in
making tea. The benefit of boiling the spices is that
it extracts more flavor and beneficial compounds
from the ingredients.

INGREDIENTS

2 cups of high-quality water
1/2 teaspoon dry powdered ginger
1/16 teaspoon dry powdered cinnamon
1/2 teaspoon dry dandelion petals
1/4 teaspoon dry dandelion root
1 tablespoon apple cider vinegar
(to add at the end)

Other optional flavorful healing herbs and
spices to add:

1/4 teaspoon cumin seed
1/4 teaspoon fenugreek
1/4 teaspoon rosemary
1/4 teaspoon thyme

INSTRUCTIONS

Place water and ingredients into a pot on the
stove. Bring to a boil. Turn off the heat. Let sit
for 10 minutes. Strain ingredients. Add 1/2
tablespoon to 1 tablespoon of apple cider vinegar.

Enjoy first thing in the morning or throughout
the day. It may contribute to improved energy,
mood, cravings, weight, and overall performance.

Initially, you may wish to use half a tablespoon
or less of apple cider vinegar, especially if you
don't use this ingredient often. This may be a
surprisingly powerful tonic for some people.
When possible, try this recipe on a quiet day when
you don't need to be out and about. Sensitive
people may want to stay close to a bathroom.
Always consult your medical health team



before commencing new herbal medicines. This
is particularly important if you take medications.
Some herbs may be contraindicated with certain
medications. Talk to a health care professional
about your medications and herbal interactions.

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Could You Be Reacting to Corn?

Corn and its many derivatives are the problematic backbone of the processed food and meat industries

MELISSA DIANE SMITH

The processed food and meat industries are centered around industrially produced corn—and most people are unaware.

Some form of corn is found in nearly every processed food item, whether that be as a sweetener (such as high-fructose corn syrup, dextrose, and sorbitol), a texturizer (such as dextrin and maltodextrin), a grain (as in corn flour, cornmeal, or corn gluten), an alcohol (ethanol), a protein (zein), corn starch, or any of several other derivatives.

Corn serves as feed for most of our meat sources—factory-farmed chickens, pigs, cows, and even farm-raised fish. It's also used to make corn oil, found in cooking oils and margarine, and countless food additives hidden in an endless array of food products.

While the prolific use of corn is testimony to its virtues as a grain, there are many problems that have developed from so much industrially produced corn.

The not well-recognized downsides include food allergy, food intolerance, food addiction, binge-eating, other serious and confusing health issues, and a corn-based agricultural system that consumes a large amount of natural resources but is inefficient at producing healthy food.

Most corn in the food supply also is genetically modified, including a modification so it can be sprayed with higher amounts of glyphosate, a problematic herbicide.

Corn is heavily subsidized—to the tune of \$16 billion from 1995 to 2020, according to Department of Agriculture data compiled by the Environmental Working Group.

Annual corn subsidies have risen in recent years, according to data compiled by the Agricultural Fairness Alliance (AFA).

"In 2020, corn growers received at least \$9 billion in taxpayer supports through bailouts, commodity protection programs, disaster relief, conservation programs, subsidized crop insurance, and trade disruption compensation payments," a report by AFA states.

Different Types of Reaction to Corn

Although few people realize it, many types of lesser well-known adverse reactions to corn can occur. The only type that conventional allergists look for is a true food allergy.

True Food Allergy

A true food allergy to corn, in which the body releases immunoglobulin E (IgE) antibodies, can cause dramatic symptoms such as hives, skin rashes, asthma, or labored breathing to quickly develop.

A 2008 double-blind, placebo-controlled study, published in the journal *Clinical and Experimental Allergy*, found that corn is a cause of IgE allergic reactions to foods in adults and children, and that the majority of patients in the study developed their allergy to corn as adults.

An editorial in the same journal issue explained that corn has been reported to cause severe allergic reactions, including anaphylaxis, particularly in areas where corn is commonly eaten, such as southern Europe and Mexico.



Food Intolerance

Food intolerance, sometimes called food sensitivity, is an adverse reaction to food in which there is no involvement of the immune system. According to the Cleveland Clinic, a food intolerance affects your digestive system and occurs when your digestive system can't break down certain foods. People with this condition develop gas, diarrhea, and other digestive problems.

While the Cleveland Clinic and other sources make the presence or absence of any immune response the defining difference between a food allergy and a food intolerance, other sources are less definitive.

According to a 2013 editorial in the *Indian Journal of Allergy, Asthma, and Immunology*, intolerance to food can result from enzyme defects, direct irritant effects, or from toxins present in food. Usually, the symptoms are of a more chronic nature and may include gastrointestinal tract (abdominal cramp, nausea, diarrhea, constipation, and irritable bowel syndrome), but can include skin (rashes, urticaria, dermatitis, and eczema) and respiratory tract (nasal congestion, sinusitis, and asthma). There's some evidence for the use of food-specific immunoglobulin G (IgG) (an antibody associated with an immune response) levels as a guide to identify food intolerance.

Corn is ubiquitous in our food supply.

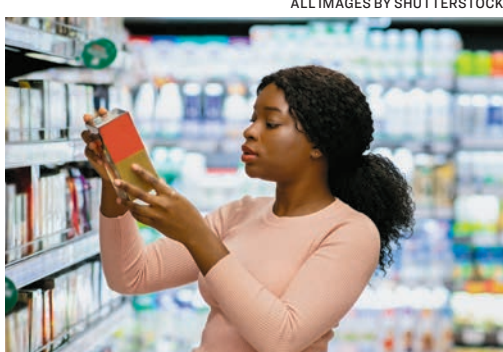
In one study of 71 patients with allergic symptoms lacking laboratory evidence of allergy, 62 percent of them tested positive for IgG antibodies against corn. The study revealed that females are more prone to develop food intolerance than males, and many people with this condition go undiagnosed.

Food Addiction and Binge-Eating

Some people crave and binge-eat corn. A likely reason this occurs is because corn is a high-calorie, high-carbohydrate, high-glycemic (blood sugar-spiking) food that can cause blood sugar highs followed by blood sugar lows that can lead to cravings, at least in some people.

Another possible reason might be because of a not well-understood phenomenon called

Some form of corn is found in nearly every processed food item.



Corn often shows up in processed food as some form of added sugar, like high-fructose corn syrup, dextrose, glucose, corn syrup, and more.



Corn serves as feed for most of our meat sources—factory-farmed chickens, pigs, cows, and even farm-raised fish.

toms. Her doctor recommended that she remove all corn from her diet. It was difficult to do, but when she did, most of her symptoms went away, some fairly quickly.

A few years before I read Shetterly's article in 2013, I had a client who suffered from multi-system symptoms and had been diagnosed with Eosinophilia-Myalgia Syndrome, a systemic immune condition characterized by high levels of eosinophils. I recommended that she remove GM organisms (GMO) and all corn from her diet, and within just a few months of doing this, her eosinophil counts reached normal levels for the first time in almost 20 years.

She experienced so many different health improvements, including remarkable improvements in allergies and asthma and normalization of heart disease risk factors, that within a year she saved \$7,000 in medical expenses from the previous year! That client's success story was so powerful, it prompted me to write my book "Going Against GMOs."

Unhealthy for Us and the Environment

The U.S. corn system is inefficient at feeding the American people a diverse and nutritious diet essential for long-term health.

In a 2013 article reprinted in *Scientific American*, Jonathan Foley, the founding director of the Institute on the Environment at the University of Minnesota, wrote that corn uses more land than any other U.S. crop and uses large amounts of other natural resources such as water. It's also highly vulnerable to disaster, disease, and pests, as are all massively grown monoculture crops.

I summed it up this way in "Going Against GMOs":

"It's time to understand that the American corn system has created a mess in more ways than one for us. If we take a stand and as much as possible avoid mass-produced sources of even non-GMO corn, including corn-fed meat sources, we emphatically say no to the corn-centered agricultural system that is making us sick."

Basics to Avoiding Corn

If you're ready to challenge yourself to stay away from any product that contains corn and see if it makes a difference in how you feel—or if you already know you have a corn allergy, corn intolerance, corn addiction, excess weight, or blood-sugar-related health problems—understand that strictly avoiding corn isn't as easy as it sounds. It goes far beyond steering clear of obvious sources such as popcorn, corn on the cob, corn chips, corn tortillas, or tamales.

Corn is ubiquitous in our food supply. Its derivatives (for example, cornstarch, corn meal, corn bran, corn oil, corn syrup, citric acid, dextrose, fructose, xylitol, and xanthan gum) are used in so many ways that corn is found in products you would never suspect, such as deli meat, regular and gluten-free baked goods, crackers, candy, chewing gum, condiments, sauces, salad dressings, and nutritional supplements.

The Food Allergen Labeling and Consumer Protection Act requires food manufacturers to label products that include the top eight food allergens: milk; eggs; peanuts; soybeans; wheat; tree nuts; fish; and shellfish. However, it doesn't list corn as an allergen that needs to be labeled.

That means avoiding corn is even more difficult than staying away from other food allergens. It requires a high degree of knowledge and often some detective work.

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SEASONAL ADJUSTMENTS

How the Darker Days Downshift Your Metabolism and Mood

Understanding your connection to the shift in seasons can help you adapt and avoid the winter blues

Continued from Page 1

And while SAD is a serious condition that often results in a clinical diagnosis, millions more experience a milder version of it, known simply as the "winter blues."

Scientists haven't identified a single cause of SAD, but several theories exist on just what could be causing the spiral into depression. It's possible that a single factor or combination of factors could contribute to the development of SAD.

Some research indicates that serotonin, a brain chemical and neurotransmitter that's long been understood to work as a mood stabilizer, may play an important role in SAD. A review published in 2013 in the *European Review for Medical and Pharmacological Sciences*, titled "Role of Serotonin in Seasonal Affective Disorder," concluded that people with SAD have lower levels of serotonin activity than those of the healthy population, and that a "decrease in the level of serotonin directly intensifies this disorder."

Other studies indicate that exposure to sunlight plays an important role in regulating serotonin production, with levels rising and falling along with increased or decreased exposure to bright sunlight, respectively. This has led to speculation that, in those with SAD, this regulation doesn't function properly, contributing to lower serotonin levels.

These particular theories have become somewhat more controversial in recent months after a large systematic review published in the *Molecular Psychiatry* raised significant doubts about the serotonin theory of depression, suggesting more complex factors are involved.

Nonetheless, scientists find quantitative factors helpful in understanding what is happening in the brain and body and have looked at other biochemical elements as well.

For instance, people who suffer from SAD may also produce too much of the sleep-regulating hormone melatonin. According to the Cleveland Clinic, melatonin is naturally produced by the brain's pineal gland in response to light and darkness, increasing production in low light and decreasing it during times of bright daylight.

People suffering from depression are often low in vitamin D.

In those with SAD, melatonin production, which normally increases over the dark winter months, may rise to abnormally high levels, causing excessive tiredness and low energy. It's thought that high levels of melatonin, combined with low levels of serotonin, may work together to disrupt the body's normal circadian rhythms, making it difficult to adjust to seasonal changes in day length.

People suffering from depression are also often low in vitamin D, and researchers speculate that there may be a significant association between the two.

Along with dietary sources of vitamin D, the body produces vitamin D when the skin (without sunscreen) is exposed to sunshine. Since hours of sunlight are greatly reduced during the winter months, and those already struggling with depression may be even less inclined to spend time outdoors, the problem of vitamin D deficiency may be exacerbated.

Also, vitamin D plays a role in promoting serotonin production, so it's plausible that a falling level of vitamin D, which is particularly common in those suffering from SAD, could further aggravate the effects of low serotonin activity.

It's worth noting that the shift to sedentary indoor lifestyles has contributed to a significant reduction in sun exposure, which can reduce vitamin D levels, disrupt circadian rhythms and melatonin production, and affect serotonin activity.

One more possible cause of SAD may be that some people carry a biological, or genetic, predisposition to the disorder.

Dr. Norman Rosenthal, a psychiatrist, scientist, and author of the best-seller "Winter Blues," who first described SAD in the 1980s, told *The Epoch Times* that there may be a genetic component.

"It's common for people with SAD to have relatives who also experience similar symp-



One way to combat the winter blues is to get as much sunlight as possible, especially in the morning.

tom," he said. "Various studies have looked at what are known as candidate genes, which means genes that control various brain processes suspected as being involved in mood regulation. Some of these studies have shown abnormalities in SAD patients compared to healthy controls."

"The conservative position at this time is that SAD probably has a genetic basis, but its exact nature has yet to be fully understood."

Women between the ages of 20 and 40 tend to experience SAD at far higher rates than men of the same age—four times as often—leading to speculation that there may be a significant link between the dominant female hormones estrogen and progesterone, and a susceptibility to seasonal depression.

Rosenthal cited findings that suggest the cyclical pattern of estrogen and progesterone secretion over a woman's lifetime

could play a role. "We have observed that when girls enter puberty, they begin to show a greater tendency to develop mood changes with the seasons. This hasn't been found when boys enter puberty," he said.

"On the other side of the fertility cycle, after the menopause, the women appear to be less susceptible to seasonal mood changes. These observational findings

suggest that the cyclical secretion of estrogen and progesterone during the fertile phase of development in women contributes to their tendency to experience seasonal changes and behavior, which, in some cases, may present as the symptoms of SAD."

It's important to note that even though researchers are unclear on exactly what may cause SAD symptoms, human beings have likely always experienced seasonal shifts in mood and behavior to some degree.

According to the Cleveland Clinic, between 10 percent and 20 percent of U.S. adults may experience the winter blues, leaving them feeling down in the dumps for a while. It's when the change in mood, outlook, and be-

havior is severe and debilitating that there's a real cause for concern.

Practices to Counter Seasonal Depression

For those suffering under the heavy weight of SAD, or even just feeling down once gray skies and shorter days become the norm, there are several interventions that can help.

Increase Your Exposure to Bright Light

Since SAD is directly related to a decreased exposure to light, it makes sense that the first remedy of choice is to purposefully increase exposure to bright light. We normally think of SAD as being due mainly to decreased daylight hours, but any major shift toward light deprivation can have a depressing impact.

Moving from a sun-drenched state, such as Florida, to Vermont, for example, or from a light-filled home to a darker one, or even from an office with large windows to a basement room can all have an effect. Making your living environment lighter and brighter is a start. Moving your desk or chair next to a window, painting with lighter colors, and using more lamps or other indoor lighting can help. Spend some time outdoors on bright days, even when it's cold.

When that's not enough, try light therapy using a light box or dawn simulator. Pioneered by Rosenthal in the 1980s, light therapy has been successfully used to treat SAD ever since.

This therapy involves sitting in front of a light box for a set amount of time (usually between 20 and 90 minutes, first thing in the morning). The light emitted is designed to mimic outdoor light and is about 20 times more intense than ordinary indoor light, while filtering out most UV light.

This exposure to bright light is thought to inhibit the release of melatonin, according to a study published in *Sleep Medicine Clinics* in 2015.

In general, you want sunlight in the morning and day and to avoid blue light at night so that you can maintain healthy melatonin production.

Healthy Lifestyle Habits

Exercise is well known for its ability to reduce anxiety, improve sleep, and trigger a release in the body of "feel-good" chemicals called endorphins. These benefits are all helpful in treating depression. According to Harvard Health, exercise works just as well as taking antidepressant medication for some people, making it a potentially powerful help.

Also, because people suffering from depression often crave sweet and starchy carbohydrates, opting for healthy, well-balanced meals that include lean protein, vegetables, and complex carbohydrates can help stabilize blood sugar and energy levels.

Spend Time With Others

Researchers from Massachusetts General Hospital identified social connections as being the single most protective factor against depression.

Whether through walks, volunteer work, meeting for tea, or a shared club or activity, spending time with other people can help lift the feelings of loneliness and isolation that often accompany depression. Conversation with other positive people can help to shift the focus away from negative thoughts and put things into perspective.

Talk Therapy (Cognitive Behavior Therapy)

For serious depression, seeking help from a mental health professional may be prudent. Cognitive behavior therapy, in which a therapist helps to break down and identify negative thought patterns and challenge them, has been found to be effective not only in helping current depression, but even in reducing the risk of relapse into depression in subsequent years.

"Cognitive behavior therapy, researched by Kelly Rohan at the University of Vermont, has shown that helping people with SAD work on their automatic negative thoughts and self-defeating behaviors can have a powerfully positive effect," Rosenthal noted.

While several different therapies for SAD, including antidepressants, have been found to be helpful in treating its depressive symptoms, SAD is a condition that likely has multiple contributing factors and is best helped using several different approaches.

"In my experience, the best results in treating people with SAD come from combining different methods of treatment," Rosenthal said.

The good news is that, for people suffering from SAD, help is certainly available.

An Ancient Chinese View of Winter Mood Changes

Winter mood shifts are a reflection of the interconnection between human beings and nature, according to traditional Chinese culture.

In the traditional Chinese calendar, the year is broken up into 24 solar terms of about two weeks each. This calendar system is used to help people align with the season and live a harmonious life.

The single largest division this calendar draws in the year is between a year period comprising the warmer time of the year, and a yin period comprising the cooler part of the year.

The yang energy of the warmer months is expansive. This is the time to grow, socialize, and work. The yin energy of the cooler months is recessive. It's the time to recede, introspect, and rest.

This perspective informs habits and helps people to understand what they need at different times of the year. For instance, under the guidance of this calendar, January is a terrible time for any resolution requiring an expanse of energy, like taking up a new gym habit. That kind of resolution should be saved for the spring, when the Earth is awakening and you can ride the wave of growing energy naturally occurring at that time.

January is, however, a great time for resolutions that require introspection and self-discovery. The quiet, inward nature of the season lends itself to calm reflection.

It's possible that those who suffer depression during the winter months, beyond being affected by the lack of sunlight and social activity of the warmer months, are also being compelled to look inward and resolve issues that may more easily escape their attention at other times of the year.

That isn't to negate any of the other views or issues that come with SAD, simply to offer that winter is naturally a time to draw inward and tend to your inner world.

Zrinka Peters has been writing professionally for more than a decade. She holds a degree 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

4 Tips for Steering Clear of Corn

It takes time to learn to be a corn-savvy shopper, but following general guidelines is a good first step. Try these four tips:



Stay away from processed foods whenever possible. This is, by far, the most important guideline to follow. Choose fresh fruits and vegetables, and unprocessed nuts, seeds, and beans.

Avoid conventional eggs, chicken, beef, and pork from animals that have been fed corn. Instead, seek out 100 percent grass-fed and grass-finished meat,

pasture-raised eggs, and wild-caught fish.

Learn the potential corn derivatives to avoid. Get up to speed on the long list of potential hidden sources of corn on food ingredient lists by visiting corn allergy websites and learning common corn derivatives.

Narrow down choices of products by looking for those labeled 'corn-free' or 'paleo.' Foods with these terms on labels shouldn't contain any corn, but be cautious. There are no regulatory definitions for these terms, and people at food companies who create the labels sometimes don't know all the hidden ingredients that contain corn. Use your judgment when evaluating the ingredients. If you're in doubt, directly call or write to companies asking about the sources of their ingredients.

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In Chinese medical theory, when qi gets stuck, it can lead to disease, therefore, we want to keep qi moving.

The Often Ignored and Essential Power of the Breath

How we breathe can determine how we think, feel, and heal—for better or worse

EMMA SUTTIE

As a mother of two small children who have almost unlimited energy, I regularly use the phrase “take a deep breath” with them when emotions run high. Last week, I received a note from my 5-year-old’s teacher explaining that my daughter had comforted one of her classmates who was upset, by sitting with her and helping her to take some deep breaths, just like she does at home.

As human beings, we seem to instinctively know that breath is much more than simply filling and emptying our lungs. And for a good reason, as throughout history, ancient traditions have used the power of the breath for everything from maintaining health to cultivating wisdom.

Why We Breathe

Jack Feldman, professor of neurobiology at the University of California–Los Angeles, and world expert in the science of respiration, breaks down the mechanics of breathing. He explains that when we inhale, we take oxygen into the lungs, which is needed and used for the body’s metabolic processes. We then produce carbon dioxide, which must be eliminated for the body to function optimally. Feldman says that carbon dioxide (CO₂) affects the acid-base (pH) levels in the blood. The body must regulate pH levels because all living cells are very sensitive to this balance.

CO₂ is a metabolic byproduct of aerobic cellular metabolism. When CO₂ levels build up in the blood, it can lead to hypercapnia, causing symptoms of respiratory failure, coma, and even death. Oxygen is needed by the entire body, especially the brain. The brain can only survive without oxygen for about four minutes without sustaining permanent damage, and death can occur as soon as four to six minutes later.

Essentially, our bodies need a constant supply of oxygen and a way to continuously eliminate carbon dioxide. Breathing—inhalating and exhaling through the lungs—accomplishes this perfectly in a healthy person. It’s a beautiful system, and although science knows a lot, according to Feldman, there’s still much about respiration that we don’t understand.

The Benefits of Deep Breathing

With the growing popularity of practices such as yoga and meditation in recent decades, science has been looking more closely at the physiological and psychological benefits of different breathing techniques. A growing body of evidence indicates that breathing techniques can

improve various health concerns, from anxiety to insomnia.

Reduces Stress by Calming the Sympathetic Nervous System

A study published in the journal *Neurological Sciences* in 2017 set out to see if deep breathing exercises could improve mood and lower stress in a group of university students. Participants were split into two groups: One did an anti-stress protocol for 90 minutes once a week for 10 weeks, and the control group spent the same amount of time each week without practicing any protocol.

Both psychological stress and physiological stress were measured. Psychological stress was measured using two self-reported evaluations (a measurement of psychological stress and a profile of mood state), and physiological stress was measured by monitoring heart rates and testing cortisol (a stress hormone) levels in the saliva.

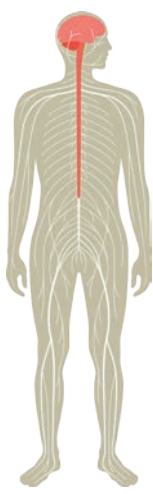
The study showed a significant improvement in stress symptoms between the beginning and the end of the study. The use of the protocols reduced “tension anxiety” (anxiety that manifests psychologically and physically) and fatigue. Overall, the study concluded that a deep breathing technique could elicit an improvement to both psychological and physical stress, as well as to mood and perceived stress. These improvements weren’t observed in the control group.

Decreases Inflammatory Response

A breakthrough study published in the *Journal Proceedings of the National Academy of Sciences*, published in 2014, discovered something that science thought wasn’t possible.

The study found that, through practicing techniques learned in a short-term training program that included breathing techniques, meditation, and exposure

Breathing techniques can improve various health concerns, from anxiety to insomnia.



Deep breaths can trigger a shift in the autonomic nervous system.



One of the best ways you can help someone feeling overwhelmed or upset is to encourage them to take a few deep breaths.

to cold, participants were able to voluntarily influence their sympathetic nervous system as well as their immune systems. The volunteers practicing the techniques showed profound increases in the release of epinephrine, which led to increased production of anti-inflammatory agents. The participants were then given *E. coli* (a bacteria) intravenously, and although they did experience some flu-like symptoms, they were less pronounced and of shorter duration than those in the control group. These results demonstrate that by activating the sympathetic nervous system, the participants were able to decrease their immune response.

Another study published in the *Journal of Psychosomatic Medicine* in May this year had the same results when looking into whether breathing exercises and exposure to cold could affect the body’s inflammatory response. The study measured inflammation by giving the volunteers endotoxins (bacteria) intravenously, then measuring their blood epinephrine levels.

The results showed that the breathing exercises practiced by the participants significantly decreased the body’s inflammatory response. When cold exposure was added to the breathing technique, the decrease in inflammation was even more pronounced.

The study concluded that once trained in both breathing and exposure to cold training techniques, participants could voluntarily activate the sympathetic nervous system (responsible for our “fight or flight” response to perceived danger), decreasing the inflammatory response and alleviating symptoms of endotoxemia. Endotoxins are present inside bacterial cells and are released when they die. This release makes them capable of getting into the bloodstream, where they can make us sick.

The autonomic nervous system and the innate immune system (our first line of defense) have long been viewed as systems that operate automatically and can’t be deliberately influenced. The above studies demonstrate that by practicing certain techniques, the sympathetic nervous system and the immune system can be affected intentionally. These findings have broad implications for the treatment of certain conditions, especially autoimmune diseases in which the body’s immune system attacks healthy cells, and are characterized by excessive and often uncontrolled inflammation.

Ancient Insights on Breathing for Health

Using the breath to heal illnesses, boost health, and aid in spiritual pursuits isn’t new and goes back millennia to cultures the world over. Below are only two ex-

amples of the many traditions with well-developed systems that have harnessed the power of the breath.

Pranayama

Pranayama, or yogic breathing, is a vital component of yoga, a 3,000-year-old spiritual and ascetic discipline. Yoga combines physical postures, or “asanas,” with breathing techniques, or pranayama. The word “prana” comes from Sanskrit and roughly translates to the “breath of life” or “vital energy,” much like the “qi” of Chinese medicine. “Ayama” can be translated as expansion, regulation, or control. Pranayama is a way to alter your breathing to achieve health and well-being.

Although pranayama uses various breathing techniques, it tends to focus on four main aspects—inhalation (Puraka), exhalation (Recaka), internal breath retention (Antah kumbhaka), and external breath retention (Bahih kumbhaka).

Studies have shown that pranayama has numerous health benefits such as stress relief, improved cardiovascular function, improved respiratory function, and enhanced cognition.

Chinese Philosophy and Medicine

In Chinese medicine, breathing techniques have been used to maintain health, heal illness, and cultivate the body’s energy (qi), and as a spiritual aid for thousands of years. Deep, slow breathing from the diaphragm is an ancient practice in Chinese medicine and Eastern religions such as Buddhism and Taoism.

The ancient Taoists practiced embryonic breathing, or tai hsi, which they believed was able to “reactivate” the electromagnetic circuitry associated with the type of primordial breathing that babies experience in their mother’s womb.

In Eastern medicine, the breath is vital to a healthy body and mind. The breath is one way we bring vital energy, or qi, into the body. Qi has no exact equivalent in Western culture but is often loosely translated as “life force” or “vital energy.” You can think of it as the animating energy of life. An inaccurate but perhaps helpful description is to think of it as the deeper force behind the electrical charges constantly moving through the body and chemical energies that our body creates from food and breath.

In the Eastern view, qi is necessary for all living things and is the energy needed to power our movements, thoughts, and all our biological processes. Qi also needs to keep moving freely for us to stay healthy. If it slows down or gets blocked or “stuck,” it can cause problems and lead to disease.

Learning how to use deep breathing can help people of all ages when faced with the daily stressors of life.



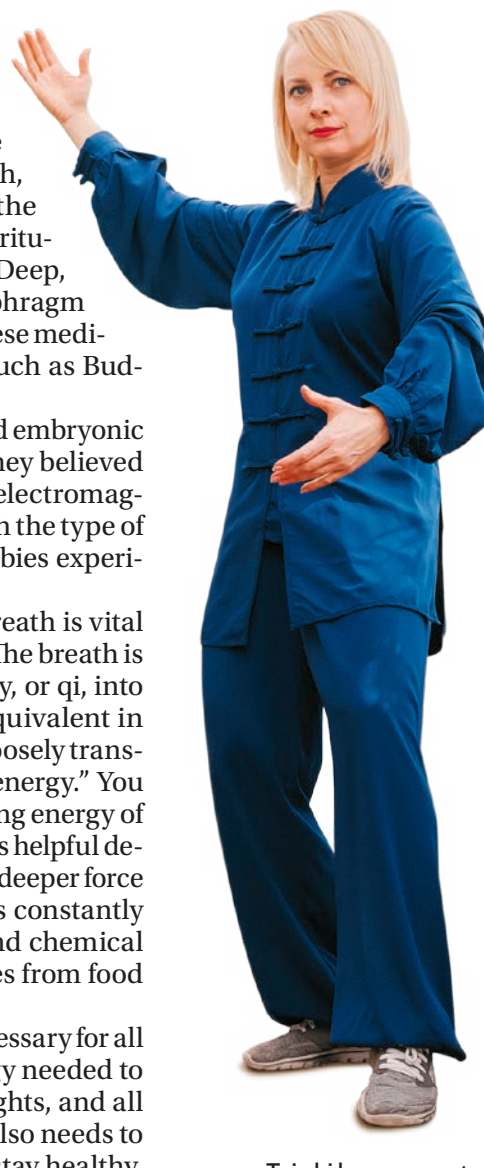
Ancient traditions have used the power of the breath for everything from maintaining health to cultivating wisdom.

One way to describe this vital concept is to use the analogy of blood flow, or circulation. The circulatory system is an extensive network that carries blood, oxygen, and nutrients throughout the body, nourishing organs and tissues. If the flow of blood is reduced, the body would experience symptoms of poor circulation such as tingling, numbness, and pain because it isn’t getting the nutrients it needs to function properly. The brain would get less oxygen, and thinking and cognition would be impaired. A blockage in the blood flow would be catastrophic, as is seen with strokes.

In a similar way, qi circulates throughout the body and is vital to all physical and many mental processes. Qi must keep moving for us to remain healthy. In Chinese medical theory, when qi gets stuck, it can lead to disease; therefore, we want to keep qi moving. Chinese medicine has many ways we can keep our qi flowing freely, such as moving our bodies (tai chi and qi gong) and many breathing exercises.

One of the simplest and most potent is the deep breathing exercise below. Breathing deep into the abdomen allows our tissues, organs, and cells to get more oxygen. It shifts the autonomic nervous system into parasympathetic nervous system dominance, characterized by rest, relaxation, decreased breathing and heart rate, and increased digestion (sometimes called the “rest and digest” state). When the parasympathetic system is active, we have an open, trusting attitude toward others and the world, and we feel calm and at peace.

The jobs of the parasympathetic nervous system are to maintain homeostasis while the body is at rest and to repair any damage present from a bout of sympathetic response to a stressful situation or perceived danger. Actively placing yourself in



Tai chi keeps energy flowing with movement and breathing exercises.



Some types of yoga include specific breathing poses.

parasympathetic dominance is especially helpful, as many of us spend a good deal of time in the fight or flight state of sympathetic nervous system dominance.

In a study in the journal *Focus* from 2019, participants improved their physical and mental well-being by using tai chi and qi gong. In these practices, breathing is a vital component. The study also showed that both tai chi and qi gong had beneficial effects on psychological well-being. They reduced symptoms of anxiety and depression by enhancing nonreactivity to aversive thoughts and impulses.

A study published in the *International Journal of Yoga* in 2020 demonstrated that decreased, slow, regular breathing (from 14 breaths per minute to 10 breaths per minute) reduced blood pressure, lengthened pulse transit time, and increased cardiorespiratory coherence. These results indicate a shift toward parasympathetic dominance and positive emotional states.

Techniques to Reduce Stress, Improve Health

There are many helpful breathing techniques that can enhance performance and improve health. I have chosen two here to give you an example of something you can try on your own.

One thing to keep in mind with breathing techniques is that many of us have been breathing into our upper chests—a very shallow type of breathing—for a long time. A good way to begin is to visualize your breathing occurring much lower, in your abdomen. This proper breathing will initially feel strange, but if you persist and take it slowly, you will eventually “train” your body back to a more natural type of breathing.

Children do this deep, diaphragmatic breathing instinctively, but we tend to drift away from it with all the stresses of our modern, hectic lifestyles. The result is that this shallow breathing offers our organs and tissues (especially our brains) much less oxygen than we could be getting if we were breathing more deeply. Deep breathing also helps us to remain equanimous and better deal with the stresses of life.

Deep Breathing

This technique works best when practiced lying down when you first begin to learn it. Once you have become more comfortable with it, you can practice it sitting up. The goal is to start breathing into your abdomen, aided by placing a hand there, focusing on the rising and falling of your stomach as you breathe. The hand on the chest should stay still, helping to eliminate shallow, upper chest breathing.

1. Lie on your back and place one hand (palm down) on your upper chest, the other on your belly, below the navel.
2. Breathe in through the nose, as slowly and fully as feels comfortable. Focus on breathing into your abdomen, filling your belly with air, the hand on your stomach rising while keeping the chest still.
3. Exhale through the mouth slowly and fully until there’s no air left.
4. Repeat for a count of 10.

If you’re anxious or stressed, increase the count to 20 or 30 repetitions.

Remember, if you aren’t used to this deeper, diaphragmatic breathing, it will feel strange and may be difficult at first. With practice and patience, it will get easier, and you will reap the health benefits of breathing more deeply.

Box Breathing

This simple exercise can help when you’re feeling overwhelmed, having a hard time falling asleep, or just needing to take a break.

1. Find a comfortable position, sitting, lying, or standing.
2. Inhale through your nose as slowly as is comfortable for a count of four seconds.
3. Hold your breath for a count of four.
4. Exhale through your mouth for a count of four.
5. Hold for a count of four.
6. Repeat 10 times or as many times as you need to feel calm and more centered.

Final Thoughts

A deep breath is how we enter the world; an exhale is how we leave it. It seems no wonder, then, that the breath, the punctuation points that begin and end a life, could be more influential than we’d previously thought and may hold secrets we have yet to discover.

Emma Suttie is an acupuncture physician and founder of Chinese Medicine Living—a website dedicated to sharing how to use traditional wisdom to live a healthy lifestyle in the modern world. She is a lover of the natural world, martial arts, and a good cup of tea.



Making a decision—even the wrong one—is a way to learn something.

WISE HABITS

The Power of Commitment

Magic happens when you escape indecision and devote yourself

LEO BABAUTA

People I've been coaching lately have been stuck in indecision about what purpose they should pursue. At this kind of crossroads, we can become plagued by doubt.

And that makes sense: If you're not sure what your purpose is, then going after a single choice can feel really uncertain. How do I know if this is the thing? What if I suck at it? What if I fail? What if I make the wrong choice?

But getting stuck in this kind of doubt and indecision is often much worse than making a single choice and failing at it. If you fail at something, at least you gave it a shot, and you learned something valuable. You practiced taking action. You practiced working with fear. You empowered that choice, and now you can empower the next one.

If you're stuck in inaction and doubt, you often just feel crappy about yourself. You get zero results staying in this kind of false safety. So making a choice to pursue a single purpose—even if you're unsure about it—can be one of the most powerful things that we can do.

It can get us ridiculously big results, just from making that choice to devote ourselves to one thing. It's the most effective action you can take.

The Effects of Being Stuck

Although it makes complete sense to be afraid of making the wrong choice and hence wasting time or money or looking like an idiot and being judged by others if we fail, staying stuck guarantees bad results:

- Indecision can have us waffling back and forth between various options, which means that we're giving only partial effort to each option, if that. We'll get crummy results from this partial effort.
- Doubt can mean that we make zero decisions and take zero action. We'll get crummy results from this, of course. Not starting that nonprofit means that you help zero

people. Not creating your art means that you'll never express yourself fully, never improve, and never light people up.

- Not pursuing a path means that we don't learn anything. This might be the biggest downside of them all—taking action is a way to learn, both about how to pursue this particular purpose and about whether this is the right purpose for us. If you pursue the path of teaching music, you'll learn much more about teaching music than you would by doing nothing. For instance, if you have fun in the process, you might learn that teaching music feels like your calling.

Making a choice to pursue a single purpose—even if you're unsure about it—can be one of the most powerful things we can do.

- All of this leaves us disappointed in ourselves. And this might be the worst part of all. We feel terrible about ourselves for being stuck and not pursuing a path that feels meaningful. Sometimes people will resign themselves to this and say that they're content with it, but in my experience, they're actually feeling bad about themselves for being resigned.

This leaves us with a few key lessons:

1. Inaction and indecision is a choice. It's often much worse than making a bad choice.
2. There's rarely an entirely wrong choice. Making a decision is a way to learn something, so even if it turns out that the choice you made isn't right for you, you can only learn that by making that choice and taking action.

3. Our biggest fear is often that people will judge us for trying to do something we're not good at. This assumes that people actually care about what life choices we make. Most people don't, and we let ourselves be controlled by our imagination of what their opinions are. So it's often better to assume that no one's opinion but your own matters in this kind of choice.

The Results of Single-Minded Devotion

Let's contrast those kinds of results with what happens if we pursue a single purpose with full devotion.

Pick a single path to pursue (for a while, at least), and you'll find that:

- You'll learn a lot about the craft. If you wanted to make craft jewelry, by pursuing it wholeheartedly, you'll get much better at making jewelry. You'll learn about tools, materials, methods, what people like, and how to express yourself.
- You'll learn a lot about yourself. You'll learn what lights you up, what makes your heart sing, what struggles you still have to learn about, what you don't know, and what you love. You'll learn about whether this is what you're called to do if you listen to your heart as you do it.
- You'll learn about dealing with doubt, struggles, and fear. These are necessary lessons for pursuing any calling.
- You learn about taking action and single-minded focus.
- The results you get from this action and focus are incredible—if you're creating art, you'll create more than ever before. If you're producing movies or writing code, you'll have a greater output and better quality than you could ever hope for otherwise.

- You'll help way more people.
- You'll feel so much better about yourself through taking action than you would otherwise.
- You'll have more mental energy. By no longer waffling in indecision, you'll free up mental energy that's wasted in trying to decide. The cost of constant indecision on our mental health and energy is often unnoticed and incalculable.

I'm not here to pretend that choosing one path and pursuing it with all of your heart is perfect and never difficult.

Of course, it can be hard and scary. But not pursuing one path is also hard and scary. And the wholehearted pursuit of purpose has so much more possibility available.

Taking the Leap of Faith

So how do we choose a purpose to pursue when we're not sure?

You remove certainty as a condition for action.

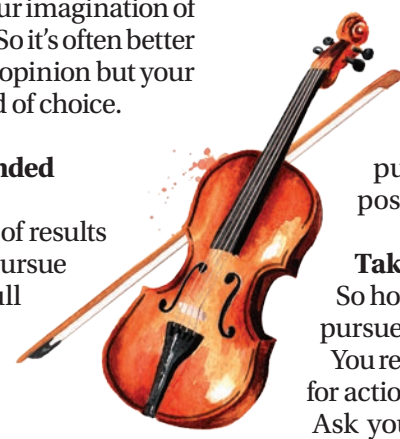
Ask your heart what your calling might be. What makes your heart sing?

What have you always been afraid to pursue but secretly wondered if it's your thing? What possibilities have you shut down? What have you been waffling about?

Whatever answers come up, write them down. Look at the list, sit with it, and give yourself space to actually feel in your heart what you're being called to do. Give yourself a one-week deadline to sit with it. At the end of the week, feel in your heart what's calling you the strongest. Then trust that.

Commit. You'll have doubts and fears—commit anyway. Tell someone what you're going to do, and commit for a period of time. Let's say a year, or six months if a year feels impossible. If even that feels too much, you could commit for three months, but commit. Take a leap of faith. This is required. Ask yourself how you would pursue it if you knew for certain. Then give yourself completely to this purpose, as if your life depended on it.

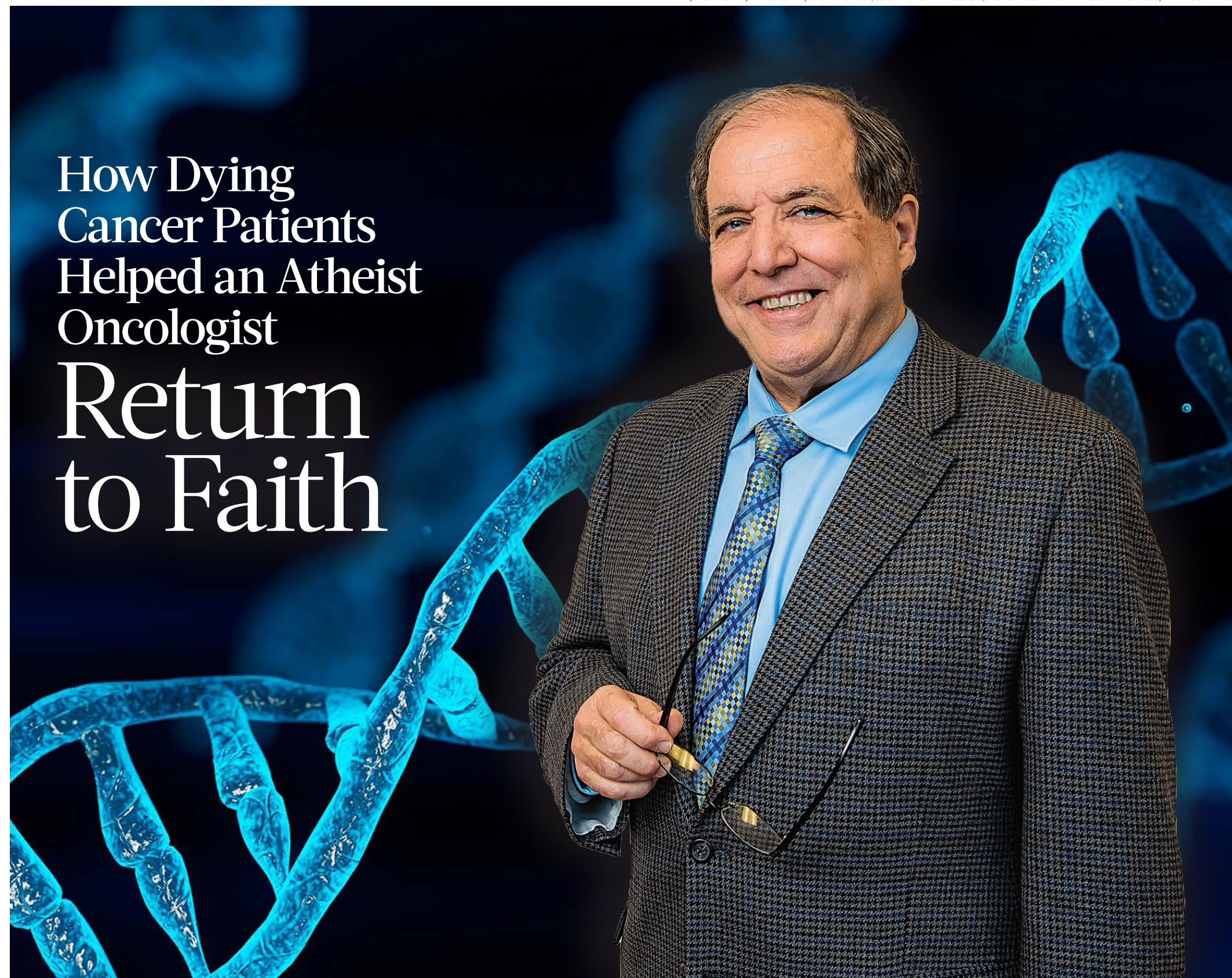
Leo Babauta is the author of six books and the writer of Zen Habits, a blog with over 2 million subscribers. Visit ZenHabits.net



Exploring a new creative pursuit can help you learn more about yourself and the things that bring you joy.

DARIA USTUGOVA/
SHUTTERSTOCK

How Dying Cancer Patients Helped an Atheist Oncologist Return to Faith



Dr. Stephen Iacoboni had long since lost his faith but the very different ways some patients died showed him a powerful truth

MARINA ZHANG

Dr. Stephen Iacoboni is part of the baby boomer generation. Born in 1952, he came of age during the 1960s when the country was living in the bubble of the ideal American Dream.

"I was raised as a Roman Catholic and I was very faithful," said Iacoboni, "but there are some inherent contradictions with Christianity, and when you're young and idealistic, you don't understand that humans are imperfect, and so you blame them for things that are just part of being a frail human with faults."

Iacoboni's disillusionment came in the early '70s, when the societal problems festering in America's inner cities rose to the surface with civil rights protests and anti-war movements against the Vietnam War.

"I was raised to be patriotic and believed that everyone was equal; I became a young adult and [realized that] people of color don't have the same rights and [we're] slaughtering innocent people in Southeast Asia [in the Vietnam War]," Iacoboni told The Epoch Times during a phone call.

The United States withdrew from Vietnam once the casualties were too much for the country to bear.

In the aftermath of the lost war, Christians, who mostly held conservative views, were blamed for the anti-communist policies that led to the United States' eight-year intervention in the Vietnam War that led to mounting casualties, traumatized veterans, and stories of brutal killings of Vietnamese civilians by the U.S. military.

Continued on Page 12

On his own spiritual journey and while looking for answers, Iacoboni was drawn to Pavel's grace and strength.

Do You Have Adult ADHD?

If this sounds like you, you can adapt and thrive—without drugs

AMY DENNEY

José Schrijver was 28 when she suffered severe emotional burnout and finally had to face her suspected reality. The root of her struggles was attention-deficit disorder (ADD), and she was asked to do what she dreaded most—to take medication.

"I didn't want to use medication, but they wouldn't treat me if I didn't try," she said. "I was desperate for treatment at that time, so I tried medication for a year."

Schrijver initially also received group therapy and personal coaching. She tried at least six types of pharmaceuticals. She appreciated her improved ability to focus,



In a different, healthy environment, people with ADHD thrive. I see that in myself, but also in others.'

José Schrijver, ADHD blogger



For adults with ADHD, finding a support group of people with a similar experience can provide a profound sense of relief.

but was tormented by side effects such as weight loss, an elevated heart rate, extremely dry skin, blood in her stool, and even blackouts.

"I lost all my spontaneity, creativity, and enthusiasm. I'm very sensitive. My liver got damaged, too. My body was clearly reject-

ing the pharmaceuticals," she said. "When I told my doctor I'd found some research about vitamins and minerals that might help, she told me that she isn't allowed to talk about that with me.

Continued on Page 14

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THE EPOCH TIMES



Having green juice instead of lunch or dinner can work well as part of an intermittent fasting program to aid in weight loss.

FOOD AS MEDICINE

Green Juice Versus Green Smoothie

These 2 drinks have different health and weight loss benefits

JOEL FUHRMAN

Whether you're a fan of a crisp, refreshing green juice or a velvety vegetable smoothie, here's what you need to know about these two delicious, health-supporting beverages.

Both green juices and green smoothies are an easy—and tasty—part of a Nutritarian diet, which is based on eating nutrient-rich plant foods. But while either will help you ramp up your intake of raw leafy greens and other veggies, there are a few things to remember:

1. Don't go overboard on the fruit.
2. Do be aware of calorie density (more on this later).
3. Don't substitute them for your daily main dish salad.

Supporting Satiety and Healthy Blood Glucose Levels

Whether you call it a blended salad or a green smoothie, this mix of leafy greens, fruit, and nuts and/or seeds is an excellent, portable morning meal. It contains all the fiber from the greens and fruit, as well as fat from the nuts or seeds to keep you full and limit the rise in blood glucose from the fruit.

On the other hand, a vegetable juice with a small amount of fruit, depending on size, may be as calorie-dense as the smoothie but won't be a satisfying meal on its own. For this reason, if you have a substantial amount of weight to lose, I wouldn't recommend juicing too often (in addition to your meals) because it will likely add too many extra calories without the feeling of satiety. This can compromise your weight loss efforts.

Whether you're making a smoothie or a juice, remember to put the focus on the vegetables, not the fruit, to limit calorie density and glycemic effects.

Intermittent Fasting

If you do have weight to lose, a green juice can be used in place of a meal as part of an intermittent fasting program that reduces calorie intake dramatically a few days per week. A juice provides a rich source of nutrients in place of lunch or dinner on low-calorie days, and a smoothie works as a satiating, greens-and-berries-packed breakfast.

Even if you don't have weight to lose, episodic restriction of calories to extend the overnight fasting period enhances the body's ability to heal and repair. The body has natural detoxification and repair mechanisms that kick in when we're in the fasting state. Occasionally replacing dinner with a vegetable juice is a great way to achieve this.

Micronutrient Content and Availability

Blending and juicing both disrupt the mechanical structure of plant cells, which increases the accessibility of many micronutrients. Many beneficial micronutrients—such as carotenoids, polyphenols, and folate—are often bound to structural components or large molecules within the plant cell, such as fiber, proteins, and starches.

Processing, heating, and chewing break down these cellular structures and increase the availability of the bound micronutrients. However, many may not be accessible for our absorption by chewing alone. Blending increases our likelihood of absorbing these nutrients. Some micronutrients—those that are bound to fiber within the plant

cell—may be removed with the fiber by juicing and therefore be more available via blending than juicing.

With green vegetable-based smoothies, you're adding nuts or seeds as a healthful fat source. Although blending alone increases the accessibility of carotenoids, since the presence of fats is known to increase carotenoid absorption from leafy greens, it's likely that nuts and seeds in a smoothie could increase absorption further.

Green juices pack in extra nutrients using a quantity of vegetables that would be difficult to eat in one sitting or even in a smoothie. You can get two pounds of vegetables into one glass of juice. This lets you quickly increase the level of phytochemicals in your tissues or simply increase your intake of carotenoids, isothiocyanates, and other beneficial phytochemicals.

For those who have nutrient absorption problems, gastrointestinal conditions, or other medical conditions, vegetable juices (especially cruciferous vegetables) are often useful as a supplement to a healthful diet, providing additional beneficial nutrients to promote healing. For people with gastrointestinal issues, juicing can be a good way to rest the digestive system while maintaining a high intake of these beneficial nutrients.

Guidelines for Juicing and Blending:

- A green smoothie can be a meal substitute, while a vegetable juice is better viewed as a supplement to add extra leafy-green-derived nutrients to a healthful diet.
- Limit smoothies and green juices to one per day
- It's important to chew some vegetables every day, so eat a raw salad daily.
- Juices should be made up of one-third green cruciferous vegetables (such as kale, collards, and/or bok choy), one-third non-cruciferous green vegetables (such as lettuce, cucumber, and/or celery), and one-third high-antioxidant flavonoid vegetables (carrots, beets).
- Having a green juice occasionally instead of dinner can help you practice episodic caloric restriction and increase the body's time in heal and repair mode.
- Maximize the nutritional value and limit the glycemic effects of both smoothies and juices by using mostly leafy greens and other vegetables and adding only a small amount of fruit for flavor (such as half of a green apple or 1 cup of berries in a juice).
- Don't juice spinach, parsley, or Swiss chard because of their oxalic acid content (which limits calcium absorption).

Joel Fuhrman, M.D. is a board-certified family physician, seven-time New York Times best-selling author and internationally recognized expert on nutrition and natural healing. He specializes in preventing and reversing disease through nutritional methods.



Green smoothies with a variety of fruits, nuts, and/or seeds can work as a nutrient-dense and filling breakfast.

FOOD AS MEDICINE

Broccoli Compound May Boost Cognitive Function

Sulforaphane may improve mood and prevent cancer even as it protects the heart, brain, and gut

JOSEPH MERCOLA

Food has a profound effect on your health—whether to prevent disease or reverse the negative effects of disease and illness. For example, decades of research have revealed the powerful effect that broccoli and other cruciferous vegetables have on several common health issues. Research has found that sulforaphane, one of broccoli's claims to fame, is responsible for improving cognitive function and mood in older adults.

Other cruciferous vegetables include Brussels sprouts, cauliflower, cabbage, collards, kale, and bok choy. Broccoli has decades of research behind it showing that it's a valuable, health-promoting food. While several compounds have demonstrated positive effects on health, one of the most widely studied is sulforaphane. The compound may be best known for its cancer-fighting properties.

For example, studies have shown that sulforaphane supports normal cell function and division while triggering apoptosis (programmed cell death) in cancers of the colon, liver, prostate, and breasts, as well as tobacco-induced lung cancer. While sulforaphane is helpful in the prevention of cancer, data also show it may also help to treat breast cancer.

Sulforaphane also increases enzymes in your liver that help destroy cancer-causing chemicals you may consume or be exposed to in your environment. This compound has even been called "one of the most powerful anticarcinogens found in food."

Research has also shown that it boosts detoxification of environmental toxins, and helps to prevent or treat high blood pressure, heart disease, Alzheimer's disease, autism, and even schizophrenia.

Older Adults Experience Better Cognitive Function and Mood

The featured Japanese study was published in *Frontiers in Aging Neuroscience*. The researchers used 12 weeks of supplementation and found that the participants experienced greater processing speed and a reduction in negative mood as compared to the group that received a placebo.

Researchers began with the premise from past studies showing sulforaphane with cognitive training had a positive effect on cognitive function. They sought to investigate whether consuming sulforaphane could improve cognitive performance and mood in older adults.

They used a 12-week, double-blind, randomized controlled trial in which 144 adults—73 men and 71 women—with an average age of 66.82 years were assigned to either a placebo group or a group that received sulforaphane supplementation.

The intervention group took 30 milligrams of glucoraphanin daily, which is converted to sulforaphane in the body. The researchers measured cognitive function, mood states, and serum and urine biomarkers at baseline and at the conclusion of the intervention.

The group that took the sulforaphane supplementation exhibited an improvement in cognitive processing speed and a reduction in negative mood. Additionally, the intervention group had a higher sulforaphane N-acetyl L-cysteine urine level, indicating they had consumed the glucoraphanin capsules. There were no other significant biomarkers of oxidative stress, neuroplasticity, or inflammation.

The health benefits from eating cruciferous vegetables are linked to glucosinolates, 16 which are plant chemicals that are metabolized into isothiocyanates, including sulforaphane. Broccoli contains an enzyme called myrosinase that helps to break down glucosinolates into erucin or sulforaphane. The researchers concluded:

"Although we did not find any significant changes in antioxidant response, neural plasticity, or the neuroinflammation blood parameter, these results indicate that nutrition interventions using SFN [sulforaphane] can have positive effects on cognitive functioning and mood in healthy older adults."

Sulforaphane's Effect on the Heart, Leaky Gut, and Obesity

Research data have shown that sulforaphane can help lower the risk of cardiovascular disease and reduce high blood pressure in an animal model. In one animal study, researchers sought to evaluate the efficacy of sulforaphane in the lab. Past data using exogenous antioxidants weren't conclusive, which led the researchers to theorize that inducing endogenous antioxidant activities could have a promising cardioprotective effect.

Their theory was confirmed in the lab by demonstrating a reduction in intracellular reactive oxygen species production, which has a pathogenic response on the myocardium triggering damage and dysfunction. The antioxidant and anti-inflammatory properties of sulforaphane may be related to the activation of the Nrf2 pathway that acts as a defense mechanism against oxidative stress.

Another animal study identified yet another benefit from broccoli: a healthy gut. Researchers from Penn State demonstrated that broccoli may help in the treatment of colitis and leaky gut syndrome when they discovered that broccoli contains a compound called indolocarbazole (ICZ). This compound helps to catalyze a healthy balance of bacteria and supports the immune system.

Researchers swapped out 15 percent of the animal's diet for raw broccoli, which is equal to about 3 1/2 cups of broccoli each day for a human. While that is quite a bit of broccoli, researchers say you can get an equivalent amount from one cup of Brussels sprouts, as this vegetable contains three times the amount of ICZ as broccoli.

Animal research has also suggested that sulforaphane can be used as a weight management tool. Mice that were fed a high fat diet with sulforaphane gained weight at a rate 15 percent slower than those getting the same diet without sulforaphane supplementation.

They also gained 20 percent less visceral fat. This fat collects around your internal organs and is particularly hazardous to your health. The researchers believe two different mechanisms were behind the results:

- Sulforaphane was found to speed up tissue browning. Brown fat is a beneficial type of body fat that helps you stay slim. It's a heat-generating type of fat that burns energy rather than storing it.
- Sulforaphane also decreased gut bacteria on the Desulfovibrionaceae family. These bacteria are known to produce toxins that contribute to metabolic endotoxemia and obesity.

Sulforaphane can help lower the risk of cardiovascular disease and reduce high blood pressure.



Cruciferous vegetables like broccoli and Brussels sprouts are full of sulforaphane—a compound known for its anticarcinogenic and mood-boosting properties.



Mustard seeds, which contain myrosinase, can boost the benefits of sulforaphane in broccoli and other cruciferous vegetables.

Broccoli should be steamed for no more than four minutes to increase the available sulforaphane content.

Easy-to-Grow Sprouts Are a Concentrated Form of Nutrients

It has been my experience that it's always better to get your nutrients from food as opposed to supplements whenever possible. However, there are times when it's impractical or nearly impossible to achieve a therapeutic dose from food alone. You can get meaningful amounts of sulforaphane and diindolylmethane, or DIM, from eating broccoli, but it could be difficult to consistently eat enough to reach a therapeutic dose.

A superior alternative to a supplement is broccoli sprouts, which are far more potent than whole broccoli and allow you to eat less in terms of quantity. In a 1997 article submitted to *Science Daily* by Johns Hopkins Medical Institutions, the late Dr. Paul Talalay, then-professor of pharmacology at Johns Hopkins and researcher who launched the field of chemoprotection, wrote, "Three-day-old broccoli sprouts consistently contain 20 to 50 times the amount of chemoprotective compounds found in mature broccoli heads, and may offer a simple, dietary means of chemically reducing cancer risk."

You can have a ready supply of cancer-fighting nutrients by growing sprouts at home. It's quite easy, it can be done indoors, and you don't need a lot of space. Although sprouts are small, they're packed with enzymes, vitamins, minerals, and antioxidants that protect against free radical damage. When I first started sprouting seeds, I used Ball canning jars, but I've since switched to growing them in potting soil.

Sprouts grown in Ball jars need to be rinsed several times a day to prevent mold growth, and it's a hassle to keep them draining in the sink and taking up space. You would also need dozens of jars to get the same amount as in just one flat tray. When sprouts are grown in soil, they can be harvested in about a week, and one pound of seeds will produce more than 10 pounds of sprouts.

Sprouts can be added to salads, sandwiches, vegetable juice, or smoothies. You can also boost the benefits of sulforaphane in broccoli and other cruciferous vegetables by pairing them with a myrosinase-containing food. This is the enzyme that converts the precursor glucoraphanin to sulforaphane. Foods that contain myrosinase include daikon radishes, arugula, and mustard seeds.

Ideally, broccoli should be steamed for no more than four minutes to increase the available sulforaphane content. This eliminates a heat-sensitive, sulfur-grabbing protein that inactivates sulforaphane, while retaining the myrosinase in the broccoli. Without myrosinase, your body can't absorb sulforaphane.

If you opt for boiling, blanch the broccoli for no more than 30 seconds and then immerse it immediately in cold water to stop the cooking process. If you prefer raw food, you'll get the most sulforaphane and nutrients from broccoli sprouts rather than mature broccoli.

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

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

One of broccoli's most-studied compounds continues to reveal intriguing benefits.

How Dying Cancer Patients Helped an Atheist Oncologist Return to Faith

While some scientists view human beings as little more than biochemical machines, people of faith find human life far more precious.



Continued from Page 9

While Christians faced attacks in the public forum for pushing the war agenda, modern science was spouting exciting new discoveries, framed in narratives that denied the existence of a higher being.

"Science of the '60s and '70s had come out and said, 'Well, we have solved the riddle of life: the riddle of life is divisible to biochemistry, that everything that you do, every thought that you have, every emotion that you have, is based on the DNA and you're just a chemical machine.'"

From the late '50s to '70s, discoveries in DNA molecular biology exploded.

In 1953, James Watson and Francis Crick found that the DNA's structure was a double helical structure. Jérôme Lejeune demonstrated in 1959 that diseases are genetic with a study showing that Down syndrome is attributed to being born with an extra chromosome 21 in every cell.

By 1965, the first transfer RNA (tRNA) was sequenced and it was discovered that RNA sequences in sets of three corresponded to specific amino acids that link together to form proteins.

"I was a chemist at the time and ... I was young and well educated and stupid, meaning I wasn't wise. I wasn't able to see the fallacy in that argument, and the argument went all the way to saying that there is no reason to believe in the God of Abraham."

Iacoboni was given a book in medical school that shaped his younger years and influenced many medical students of that time. The book was "Chance and Necessity," written by biochemist Jacques Monod, a Nobel laureate and atheist.

Monod shared the award with François Jacob and André Lwoff in 1968. The three of them proved that information carried in the DNA is translated into proteins by means of a messenger, which we now know as messenger RNA (mRNA).

They also showed, using lac operon (required for the transport and metabolism of lactose) from *Escherichia coli*, that whether the actions of enzymes (proteins that speed up chemical reactions) were activated or suppressed was self-regulated by the DNA.

Monod used this finding to solidify his argument that biomolecular actions are controlled solely by our DNA and, therefore, there was no higher entity.

Despite the debunking of his argument more than 30 years later by another atheist scientist with the discovery of epigenetics,

Monod's argument against the existence of God persisted, and the legacy of despair he left for man remained.

"The ancient covenant is in pieces," Monod wrote, "man knows at last that he is alone in the universe's unfeeling immensity, out of which he emerged only by chance. His destiny is nowhere spelled out, nor is his duty. The kingdom above or the darkness below; it is for him to choose."

As an impressionable young adult at the time, Iacoboni took Monod's arguments as fact. Disillusioned about the world, the anti-religion narrative from both politics and science made sense to him.

"Because 'Christians are hypocrites,' said Iacoboni, "their religion is based on a fairy tale about something that happened a long time ago, and now we have proof in science that there is no God."

For Iacoboni at the time, it was easy and probably more comfortable letting go of God than believing in something the respected seniors in sciences were wholeheartedly denying.

"When you're 20 years old, it's not that hard to let go of God because believing in God requires certain constraints."

"[The '70s was] the time of free love. There was birth control ... Everyone was looking for change."

However, Iacoboni would soon find that his departure from faith in his early 20s would end up requiring a long and emotional road back to where it all began.

Coming Back to Faith by Treating Cancer Patients

"In the first decade of the 21st century, somewhere around 2000 to 2010, I very slowly came around [and returned to faith]."

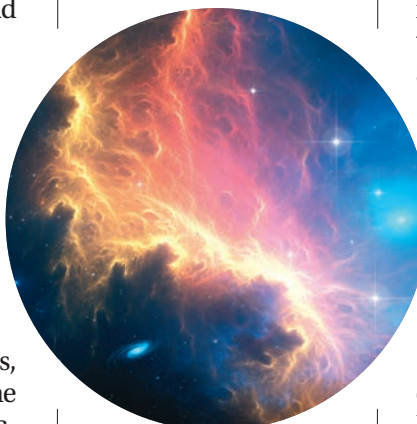
Iacoboni's book "The Undying Soul," published in 2010, told of his emotional journey back to faith as he treated cancer patients, documenting his very first patients while he was still a fellow, to when he became a practicing specializing oncologist.

Iacoboni practiced his fellowship at MD Anderson, which remains to this day, a world-renowned university-based teaching hospital, and one of the premier cancer research facilities in the world.

"I belonged at Anderson—philosophically, I mean. As a young, atheist intellectual, fresh out of med school and full of hubris, I chose oncology because I wanted to prove that science and logic could triumph over anything—even cancer," Iacoboni wrote in his book.

“My patients who would not allow themselves to have faith were very, very tormented on their deathbed.”

Dr. Stephen Iacoboni, oncologist and author



Many people find it impossible to disregard the likelihood that there is a higher power involved in the creation of the universe.

JURIK PETER/SHUTTERSTOCK

However, he would soon realize, starting with the very first patient he treated at Anderson, that more often than not, modern science couldn't stop the cancer from leaching away his patients' lives.

Even worse, Iacoboni soon realized that while treating patients was difficult, he also had to face another challenge he was ill-prepared to deal with. His patients wanted more than a physician, they wanted an emotional healer and guide; they wanted him to help them face their deaths.

"Being an atheist, of course, I had no answers."

"[As the] atheist doctor dealing with patients who are largely agnostic, the dying is very hard on everybody," Iacoboni said. "My patients who would not allow themselves to have faith were very, very tormented on their deathbed."

This reality agonized Iacoboni. He knew something was missing and, in the middle of his career, began searching for answers to help his patients on the emotional journey.

Things started changing for him once he started practicing in a small rural town, a place where almost all of his patients belonged to a faith.

The first patient who led him on his journey back to faith was a man from Ukraine named Pavel. Pavel was a simple farmer. He tended the livestock and crops near the Chernobyl nuclear reactor in Ukraine. When the Chernobyl disaster happened in 1986, the radiation turned his tomatoes yellow, green beans red, and his wheat shriveled up.

Yet Pavel's wife and the other women ground the grains into flour for bread and they ate the strangely colored vegetables.

Pavel and his family had no choice. They either ate what they planted or they starved. It wasn't surprising that Pavel developed radiation-induced leukemia from the contaminated food he ate.

Pavel's local hospital in Ukraine was unequipped to treat his cancer, but he had Russian relatives in Washington. After his relatives told Pavel's story at their church, the church passed it to the state and their congressman, who was Tom Foley—at the time the speaker of the House. Foley secured compassionate dispensation and a passport for Pavel and he was then flown into Washington for treatment.

Iacoboni was Pavel's doctor, and though his family could provide no money for his treatment, knowing all of the sacrifices made to bring the man to his office, Iacoboni was determined to do all that he could to help Pavel.

coboni support them in their denial of death, Pavel didn't.

"His optimism never felt forced in any way. When his dying body sagged, and his energy began to ebb, he didn't fight it. He just let it happen," he wrote in his book.

Eventually, the final days came for Pavel and Iacoboni had to hospitalize him. Iacoboni was amazed to find that Pavel was smiling, comforting his friends and relatives, even on his deathbed.

It was hard for Iacoboni to communicate with Pavel, given their language barrier, so he stayed with Pavel through the final three or four hours by the bedside trying to understand this small simple man so full of grace and strength.

"During that vigil I observed for the very first time in my career the rare and overwhelming beauty of a spiritually contented death," he wrote.

Contrary to all the patients Iacoboni had treated during the past 15 years, Pavel chose to die naturally without sedatives.

This allowed Iacoboni to stay emotionally connected to Pavel to the end. Pavel kept his eyes open, and Iacoboni watched him intently.

Then in the final minutes, Pavel's gaze changed, it looked "unworldly"—a look of serenity and selflessness Iacoboni had never seen before.

At first, Iacoboni thought that Pavel was becoming comatose, but his pulse was going strong and breathing unlabored.

Then Pavel's "unworldly" expression changed slightly, and just enough to startle Iacoboni with the conviction that he was being watched by another sentient entity.

"Someone other than Pavel the man—his ego or his persona. But who...or what...could it be?" Iacoboni asked in his book.

The truth seemed to be leaping out at him, yet it was difficult for him to accept it.

Iacoboni stared and held his breath. He did not know how long it took him before he relaxed and finally admitted. He wrote:

"Yes my friend, I see...it..."

"...I see your soul."

"In that moment of epiphany, of recognition and actualization...Pavel let go. His eyes closed, his breathing stopped and the room fell still."

That night, Iacoboni learned with conviction an answer to the question that was haunting him after each death of his patients.

"Never again would I wonder if there was something more."

Pavel was the first important piece in Iacoboni's journey back to faith.

Telos: How Science Proves the Existence of a Designer

In 2010, Iacoboni began working on his book "TELOS: The Scientific Basis for a Life of Purpose." The book was finally published in 2022.

He expected if he had spent all his time writing the book, "Telos" would have taken him six months, but as a practicing oncologist, it took him 10 years.

While Iacoboni returned to faith emotionally—as documented in "The Undying Soul"—he was also researching intellectually, trying to understand why what he was taught was in complete opposition to what he was experiencing.

He soon found that the science he had a firm belief in was flawed and missing key evidence for its theories, even though the theories were touted as fact.

Throughout the book, he follows the theories of life from various great philosophers and scientists including Aristotle, Isaac Newton, Charles Darwin, and many more until the readers come to an understanding of the present day.

Pioneers of modern science, including Monod and Bertrand Russell, all argued that life was accidental and that humans were alone in the world with no higher entity.

"Man is the product of causes which had no prevision of the end they were achieving; his origin, his hopes, his loves and his beliefs, are but the outcome of accidental co-location of atoms," Russell wrote.

Though these arguments made believers of their doctrine feel liberated, they also led them to the "unyielding despair" Russell faced, just as many of Iacoboni's early patients experienced.

For, if their bodies and lives were accidental happenings, it eliminated their sense of purpose, the point of living.

"The infamous atheist Bertrand Russell said in a similar tone at a young age, 'I considered suicide, which I would have done, but for the fact that I found mathematics to be so very interesting,'" Iacoboni wrote.

Contrary to what he was taught, Iacoboni observed nature and noticed life to be brimming with purpose and intention.

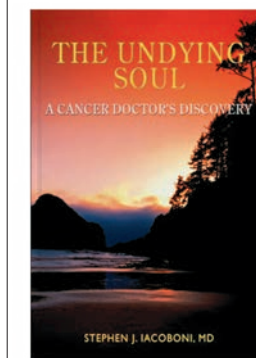
It was full of telos, meaning end or an ultimate purpose.

"The best example of this [purpose-driven life] in the world is the emperor penguins. They walk 60 miles on ice to get food and they fill up their stomachs and they walk 60 miles back and regurgitate the food for the chick," Iacoboni said.

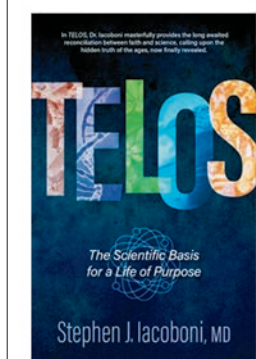
"Why do they do that? Why doesn't this penguin say 'I'm not walking 60 miles to feed

“Never again would I wonder if there was something more.”

Dr. Stephen Iacoboni, oncologist and author



"The Undying Soul: A Cancer Doctor's Discovery" (2010) by Dr. Stephen J. Iacoboni.



"Telos: The Scientific Basis for a Life of Purpose" (2022) by Dr. Stephen J. Iacoboni.

some stupid chick. I'm just going to fill myself up and then I'm going to relax, they don't do that."

Not only do emperor penguins endure this physical labor to feed their young, Iacoboni's book also showed that they have an innate understanding of thermodynamics in incubation:

"Emperor penguins, which huddle together in an Antarctic blizzard, each one rotating in their turn from the center to the other rim of the circle and back again, sharing the cold and shielding each other in the most hostile environment on earth. Nobody trained the penguin to perform this complex maneuver or explained to them that by cooperating in this way, they would be better able to survive than if they just went it alone. The indwelling knowledge to act with such purpose was already inside them, inherent in their behavior."

Their inherent drive to rear their young significantly surpasses their natural desire to survive. This understanding of their own physique and how they should function came completely innate to them.

Iacoboni gave many examples of these innate drives in his book and argues that they are "designed" into the organism.

When we design something, we imbue it with a specific purpose and intention, and seeing that life is filled with a natural drive that surpasses survival alone, Iacoboni argued that there must be a higher designer, regardless of whether we can see this individual or not.

"If you walk down the beach ... and you find a sandcastle and nobody is around. You would have to ask yourself the question, what is this thing doing here? Did the sand, the wind, and the water make this thing? Self organized with blind forces? Or did someone with a designing intellect put it together?" Iacoboni asked.

"Those are the only two possibilities right? And I don't think there's hardly anybody who's not impaired who would say, 'The sand and the wind built a sandcastle.' They would say, 'No, some dad and his kids built a sandcastle, they played and they went home.'"

That is the same mindset Iacoboni established in the way he looks at life. Though we may not see the dad and the children building the sandcastle, we see the intellect and design in the temporary sandy construction, and in living beings, Iacoboni can see the design and intelligence, too.

"Organisms are about organization," Iacoboni wrote. Even the very etymology of the word organism is rooted in order and design.

A 'Call to Arms'

TELOS is a "call to arms," Iacoboni said. It isn't simply an exercise, nor a read, but rather the recognition that a higher creator exists. Faithless individuals are doomed to the same misery and chaos experienced by Monod, Russell, and other atheist scientists cited in his book.

"I'm not interested in naming God, I'm not a theologian," Iacoboni said.

"I only want you to believe in a supreme designer and understand that there's a greater purpose that permeates life and that you need to get in touch with if you want to have a life worth living."



Contrary to what he was taught, Iacoboni observed nature and noticed life to be brimming with purpose and intention.

Adult ADHD is frequently misdiagnosed as major depressive disorder, especially among women and children.



ALL PHOTOS BY SHUTTERSTOCK

Do You Have Adult ADHD?

Continued from Page 9

That was the moment when I decided to stop the consults and to go and find my own way." Schrijver began a blog, *WanderingMinds*, world, to share her journey of looking for alternative and holistic remedies.

Once considered childhood disorders, it isn't uncommon for adults to be diagnosed with ADD or attention-deficit/hyperactivity disorder (ADHD). At certain intervals of life—particularly in transitions such as leaving home for college, moving, changing jobs, or retiring, or even at times of high stress—a person is more likely to be diagnosed with the disorder or to have a flare-up of symptoms.

ADHD is a complicated medical diagnosis, often made by a behavioral health expert such as a psychiatrist, but sometimes by a primary care physician. Adults diagnosed with ADHD often recognize similar patterns in themselves at the time their child receives a diagnosis. Symptoms, especially for women, are often dismissed or mistaken as anxiety or depression.

Both ADHD and anxiety disorder overlap with symptoms of restlessness, distractibility, excessive worry, and sleeping troubles, according to ADDitude, an online resource of expert advice and research for caregivers and adults with ADHD. Symptoms of depression, a mood disorder that causes sustained periods of unprovoked sadness, irritability, and fatigue, are also common with ADHD.

ADHD is a lifelong neurological disorder that impairs executive function, attention, and self-control. All three are separate, and yet they can often be found existing together. As many as 80 percent of adults with ADHD have one or more coexisting conditions, according to the Chesapeake Center in Maryland, which specializes in ADD and ADHD. Such conditions include sleeping and eating disorders, dyslexia, and oppositional defiant disorder.

Informal online quizzes and tests might be able to indicate the probability of adult ADHD, but it's important to get a full assessment by professionals. Chesapeake is among the behavioral health centers that have de-

veloped a thorough online assessment based on current research supporting the validity of virtual tools.

Kathleen Nadeau, founder and clinical director of The Chesapeake Center, said that stimulant medications can be useful in many cases of ADHD. But even when they work well, they aren't a cure. That's why it's often useful to have a team that involves a behavioral health practitioner.

"My job is to teach the myriad of ways to improve cognitive function. There's no one simple thing you can do," Nadeau said. "You need to change your lifestyle anyway. It's really important."

Nadeau, author of a dozen books on ADHD, including many on adult ADHD, is passionate about directing her patients to support systems and strategies in all seasons of life.

Seasons of Change

New situations offer a large number of distractions. This is most evident when young adults leave home to attend college and when older adults retire.

"I find times of transition are particularly challenging for people with ADHD," Nadeau said. "We function best when we have adequate structure and support."

High school life is very structured, and students with ADHD—whether they are diagnosed yet or not—often aren't ready for life outside the home. Parents in European countries, Nadeau said, tend not to send their children as far away for college as those in the United States do.

In fact, she often recommends that her ADHD patients stay close to home until they're 20 years old and focus first on learning basic adult skills. If they do, they will see benefits, she said.

"They have a much better brain. They're able to organize their thoughts," Nadeau said. "A lot of kids don't think this is a very sexy solution. I am a huge fan of community college."

On the other end of the adult spectrum, seniors with ADHD aren't very good at initiating or planning in social situations. Often, an undiagnosed retiree can easily get stuck

Both ADHD and anxiety disorder overlap with symptoms of restlessness, distractibility, excessive worry and trouble sleeping.

without the routine of work or taking care of children.

Nadeau points to communities such as The Villages in central Florida, which are organized like year-round camps for seniors, as model examples of the support services older adults with ADHD might need. The Villages incorporate health and wellness, entertainment, recreation, shopping, and dining into the community lifestyle. There's live music available every night and a catalog of activities.

"It's the ultimate in staying connected," Nadeau said. "I often use that as an example of what would be an ADHD-friendly environment."

In a regular community, it might mean plugging into a church, community center, or volunteer opportunity to add structure to life.

"What so many people with ADD struggle with is a blank slate," she said. "They have no idea what they're supposed to do day to day. Very often, there are co-existing issues such as depression or social anxiety."

Why Get a Diagnosis?

Nadeau is commonly asked if it makes sense for older adults to pursue a diagnosis, and her answer is a resounding "yes." Implementing support and structure can improve quality of life and even lengthen life expectancy.

"Being an adult with ADHD makes you 1 1/2 times more likely to develop Alzheimer's disease. Both are worsened by an unhealthy lifestyle," she said.

Getting a diagnosis can help an adult with ADHD to:

- Receive cognitive behavioral therapy or support group therapy,
- Rethink their self-image,
- Heal from past regrets,
- Learn better coping skills and strategies, and
- Get appropriate help with diet, supplements, and/or medications.

Research by Russell Barkley has found that not diagnosing and treating ADHD in children can lower life expectancy by nine to 13 years. Fourteen different health factors were analyzed, including nutrition, exercise, and tobacco/alcohol use.

"Exercise, nutrition, stress management, exposure to nature, sleep—all of these have



Dance.



Yoga, tai chi, and qi gong.

significant impacts on ADHD," Nadeau said. "We need to get back to the way we used to live."

"We know there's a real vitamin D deficiency in kids because they're not out in sunlight. There's an obesity epidemic in kids because they're not outside moving."

Schrijver said that despite being against medication, she's grateful for having tried it because it allowed her to experience how "normal" people feel and to finish her bachelor's degree. Now, she's learning how to support the self-healing abilities of her body from a holistic perspective.

"I also believe it's better to change our environment, instead of trying to change ourselves to 'fit in.' Everybody is different, and the world would benefit if those differences would be respected and even encouraged," she said.

"Now, we want everybody to be the same. We have to sit still in school, stick to the assignment, have a career, and buy a big house. But this life path isn't for everyone. And why should it be?"

Nutrition as a Solution

Schrijver discovered that her ADHD symptoms worsen when eating foods with gluten and dairy.

Inflammatory foods—which are prevalent in the standard American diet consisting of industrial seed oils, processed sugar, and refined carbohydrates—can contribute to brain inflammation. Other causes of inflammation include poor gut health, diabetes and high blood sugar, high digital media use, stress, infections, and toxins.

Nadeau suggests eating less red meat and significantly fewer high-glycemic (insulin-spiking) foods.

"It's not a dreadfully complicated diet. It just makes such a huge difference," she said. "I think our lifestyle has become hugely less healthy over the past two generations. Kids never stayed inside, filling themselves with junk food and sitting behind screens."

But, Nadeau suggested, the brain has tremendous plasticity, and pivoting to a healthy life later can still have a dramatic effect on focus and other symptoms.

Schrijver has reduced her caffeine consumption to one cup of coffee a day, and she avoids processed sugar because she doesn't like how it affects her brain.

She has also taken a variety of supplements that have changed over the years. Currently, she takes vegan omega-3, magnesium, chlorella, and ashwagandha.

Structure and Support

There are dozens of strategies to help with time management, life management, and coping with symptoms. But one vital key is to find or build a supportive community.

Nadeau, who has written hundreds of articles on ADHD for her website and others, advised in one article to avoid friendships with people who have perfectionist expectations, and instead to gravitate toward those who appreciate you without judging you for shortcomings.

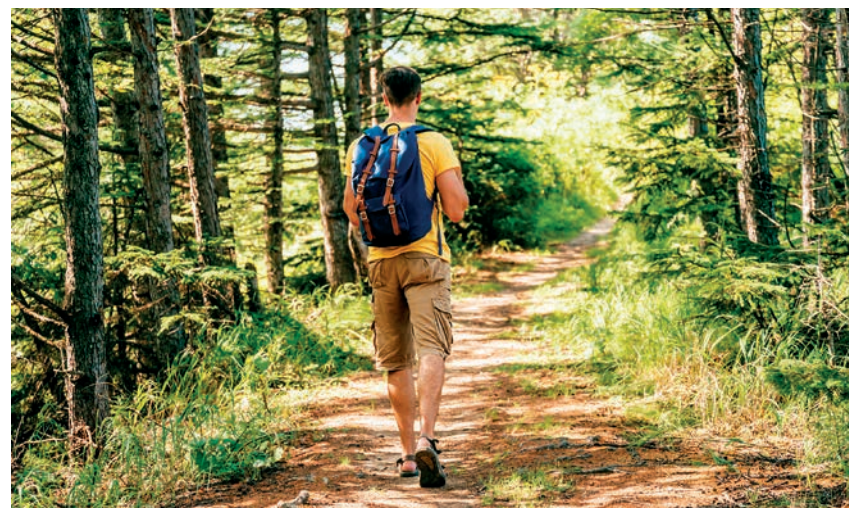
"Joining a women's ADHD support group can be the beginning of finding this kind of friendship," she wrote. "Often, in a support group, women with ADHD report that it's the first time in their life that they have been in a group of women that truly understand and appreciate their struggles."

It can be particularly challenging to navigate social situations for women and girls, because their diagnoses are more likely to be missed for years and discovered in adulthood.

"My friends in high school used to be very annoyed with me when I found out I had an appointment with two people at the same time, or when I was late—again—because I lost my keys, phone, or bag," Schrijver said. "I've learned to manage this better, and my friendships are very good now."

Another strategy Schrijver uses is calming her nervous system—both during an overwhelming moment and as a regular practice. "Being self-employed helps a lot," Schrijver said. "I can manage my own time and follow my own rhythm, instead of being pushed by a boss."

Nadeau also recommends academic coaches and tutors. Chesapeake Center also offers coaching for parents of children with ADHD.



Few things are as immediately soothing as the experience of nature. Time in nature can calm the mind and reduce ADHD symptoms.



Unhealthy foods can contribute to brain inflammation and ADHD symptoms. Eat lots of vegetables to decrease inflammation.

Schrijver admitted that her relationship with her mom was complicated because it was hard for her mom to understand her and her needs.

"She cried when I got diagnosed and apologized for not knowing," she said. "As a child, it's important that parents understand us, listen to us, and give us space to regulate ourselves. Now, the relationship with my parents is very good."

Nadeau said it's wise to develop a sense of humor while coming up with strategies. She joked about how she has six distinct thoughts and ideas while pouring her morning cup of coffee.

"There are real advantages to having brains that are popping with ideas," she said.

The Power of Nature

There's a growing body of research on the power of the outdoors to restore focus. Researchers have looked at the effects of a wide range of nature experiences, Nadeau said, everything from photos of nature, to potted plants, to walking in the woods for a day.

"The more you're exposed to nature, the less your ADHD symptoms are," she said.

Forerunners of the environmental restoration movement, Stephen and Rachel Kaplan from the University of Michigan, called it "attention restoration theory." They were involved in research dating back to the 1960s that showed that even small doses of nature—for instance, a window with an outdoor view—can reduce unwanted symptoms.

Among some findings, spending time outside can:

- Improve short-term memory,
- Reduce stress levels,
- Improve job and life satisfaction,
- Boost mood,
- Improve attention span, and
- Reduce physical and emotional pain.

Schrijver goes on walks in forests and parks to help reset her nervous system. She's also building a life around the freedom to travel and enjoy nature as she wishes.

"At the moment, I'm living in a self-built campervan," she said. "I value freedom, health, love, and connection, and I don't care about possessions and prestige."

This allows her to stay focused on being healthy and happy. Her long-term dream is to buy land for a place of healing that involves community connecting with one another and the earth.

"In a different, healthy environment, people with ADHD thrive. I see that in myself, but also in others," Schrijver said.

"For example, I met a mom with her daughter in France a few months ago who are both

autistic and with ADHD. They were struggling big time in society. A few years ago, they stepped out of the rat race and are now creating a beautiful retreat center in rural France. They're happy and healthy, and they're making the world a little better by taking care of nature, each other, and all the people who cross their paths."

Schrijver likes to remind her readers that neurodiversity is needed and shouldn't be repressed, because those with ADHD—she calls them "wandering minds"—bring creative value to the world.

Rethinking ADHD

In less than a decade, the majority of people with ADHD will be adults—not children. A 2019 study in *Psychiatry* found that four times as many adults than children were diagnosed with ADHD between 2007 and 2016.

ADHD is a public health concern, Nadeau said, and there needs to be a revelation in the workplace. She would like managers to begin to realize the assets of a person with ADHD, including the ability to hyperfocus and to be creative problem-solvers.

"I've seen our understanding of it evolve and change," she said. "It's not a catastrophic disorder. It's not something you either have or you don't have. It exists along a continuum. You're going to find at some times of life, your symptoms will be much worse. Stress levels increase ADHD symptoms."

That continuum of symptoms can also be exacerbated by trauma, life transitions, a poor diet with high blood sugar levels, and a sedentary lifestyle. She added that certain brains are naturally more sensitive to stress and more distractible. Those who utilize coping mechanisms experience less symptom prevalence from day to day.

Further complicating adult ADHD diagnosis going forward may be its possible conflation with long-COVID. Confusion between the two could arise as there is evidence that long-COVID symptoms include memory loss and cognitive decline, which may present as confusion or inability to focus. However, long-COVID has also been linked to loss of gray matter in the brain. One large UK study published in *Nature*, involving brain scans before and after COVID diagnosis, showed clear changes in the brain and an unknown factor of reversal.

While ADHD isn't linked to these kinds of brain changes, there are similarities in terms of memory issues and inability to focus. Then there is the question of long-COVID's impact on ADHD itself.

Even though adult ADHD has been recognized since 1995, research continues to emphasize the need for better detection, especially for women whose symptoms are chronically misdiagnosed.

ADDitude reported that major depressive disorder is the most common misdiagnosis of ADHD in both children and adults. On average, patients take 2.6 different antidepressants with no benefits and have a delayed diagnosis by six to seven years.

Nadeau focuses much of her work on those most underserved populations. Her latest book, *Still Distracted After All These Years*, centers on the growing number of ADHD adults who are now retiring.

"Seniors have to be very self-advocating, and many seniors aren't good at that," she said.

Schrijver says she's encouraged by the abundance of resources for the growing neurodivergent population. The Facebook community she started has been growing steadily with people looking for novel, natural solutions.

"Most of them are highly intelligent and want to contribute to the world in a good way," she said. "When I started my journey, little information was available about natural ways to manage ADHD symptoms. I wanted to change this and make it easier for people to take the step and try a different way."

"I wish to inspire people to follow their own path, to make their own choices and to find happiness, balance, and success, on their own terms."

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.

It's better to change our environment, instead of trying to change ourselves to 'fit in.'

José Schrijver, ADHD blogger



Omega-3, magnesium, chlorella, and ashwagandha, may help with ADHD.

80

PERCENT of adults with ADHD have one or more coexisting conditions.

Tips for Finding Balance in the Nervous System

When you're stressed, your sympathetic nervous system is preparing your body to fight, flee, or freeze. To shift into the rest-and-digest state of the parasympathetic nervous system, you need to relax and certain habits, practices, and smells can help.



Meditation and mindfulness.



Breathwork, including Wim Hof techniques.



Dance.



Yoga, tai chi, and qi gong.



Essential oils.



Cold showers.



Grounding techniques, often by walking barefoot outdoors.



Routines.

How Ultra-Processed Foods Cause Disease

Researchers find a lack of nutrients isn't the only concern with these foods

RICHARD HOFFMAN

In countries such as the United Kingdom, United States, and Canada, ultra-processed foods now account for 50 percent or more of calories consumed.

This is concerning, given that these foods have been linked to a number of different health conditions, including a greater risk of obesity and various chronic diseases such as cardiovascular disease and dementia.

Ultra-processed foods are concoctions of various industrial ingredients (such as emulsifiers, thickeners, and artificial flavors), amalgamated into food products by a series of manufacturing processes.

Sugary drinks and many breakfast cereals are ultra-processed foods, as are more recent innovations, such as so-called plant-based burgers, typically made of protein isolates and other chemicals to make the products palatable.

The intense industrial processes used to produce ultra-processed foods destroy the natural structure of the ingredients and strip away many beneficial nutrients such as fiber, vitamins, minerals, and phytochemicals.

Many of us are well aware that ultra-processed foods are harmful to our health. But it's been unclear whether this is simply because these foods are of poor nutritional value. Now, two new studies have shown that poor nutrition may not be enough to explain their health risks.

The Role of Inflammation

The first study, which looked at more than 20,000 healthy Italian adults, found that participants who consumed the highest number of ultra-processed foods had an increased risk of dying prematurely from any cause. The second study, which looked at more than 50,000 U.S. male health professionals, found high consumption of ultra-processed foods was associated with a greater risk of colon cancer.

What's most interesting about these studies is that the health risks from eating a diet

high in ultra-processed foods remained even after they had accounted for the poor nutritional quality of their diets. This suggests that other factors contribute to the harm caused by ultra-processed foods.

It also implies that getting the right nutrients elsewhere in the diet may not be enough to cancel out the risk of disease from consuming ultra-processed foods. Similarly, attempts by the food industry to improve the nutritional value of ultra-processed foods by adding a few more vitamins may be side-stepping a more fundamental problem with these foods.

So what factors may explain why ultra-processed foods are so harmful to our health?

Emulsifiers, thickeners, protein isolates, and other industrial-sounding products are a sign it's an ultra-processed food.

The Italian study found that inflammatory markers, such as a higher white blood cell count, were higher in groups that ate the most ultra-processed foods. Our bodies may trigger an inflammatory response for any number of reasons—for example, if we catch a cold or get cut. The body responds by sending signals to our immune cells (such as white blood cells) to attack any invading pathogens (such as bacteria or viruses).

Usually, our inflammatory response resolves quite quickly, but some people may develop chronic inflammation throughout their bodies. This can cause tissue damage and is involved in many chronic diseases—such as cancer and cardiovascular disease.

Many studies have found that poor diets can increase inflammation in the body and that this is linked to a higher risk of chronic diseases. Given that signs of inflammation



Preparing home-cooked meals using basic, natural ingredients gives you the greatest amount of vitamins and nutrients.

were seen in participants of the Italian study who ate the most ultra-processed foods, this could suggest that inflammation may contribute to why ultra-processed foods increase disease risk. Some food additives common in ultra-processed foods (such as emulsifiers and artificial sweeteners) also increase inflammation in the gut by causing changes to the gut microbiome.

Some researchers have theorized that ultra-processed foods increase inflammation because they are recognized by the body as being foreign—much like invading bacteria. So the body mounts an inflammatory response, which has been dubbed “fast food fever.” As a result, inflammation is increased throughout the body.

Although the U.S. colon cancer study didn't establish if inflammation increased in the men consuming the most ultra-processed foods, inflammation is strongly linked with an increased risk of colon cancer.

Research shows that other mechanisms—such as impaired kidney function and toxins in food packaging—may also explain why ultra-processed foods cause so many dangerous health problems.

Since inflammatory responses are hard-wired in our bodies, the best way to prevent this from happening is to avoid eating ultra-processed foods. Some plant-based diets high in natural, unprocessed foods (such as

the Mediterranean diet) have also been shown to be anti-inflammatory. This may also explain why plant-based diets free from ultra-processed foods can help to ward off chronic diseases. It currently isn't known to what extent an anti-inflammatory diet can help counteract the effects of ultra-processed foods.

Simply reducing your intake of ultra-processed foods may be a challenge. Ultra-processed foods are designed to be hyper-palatable and—together with persuasive marketing—this can make resisting them an enormous challenge for some people.

Ultra-processed foods aren't labeled as such on food packaging. The best way to identify them is by looking at their ingredients. Typically, things such as emulsifiers, thickeners, protein isolates, and other industrial-sounding products are a sign it's an ultra-processed food. Making meals from scratch using natural foods is the best way to avoid the harms of ultra-processed foods.



Richard Hoffman is an associate lecturer of nutritional biochemistry at the University of Hertfordshire in the UK. This article was originally published on The Conversation.

Some food additives common in ultra-processed foods also increase inflammation in the gut by causing changes to the gut microbiome.



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