

# THE EPOCH TIMES

# MIND & BODY

ROZMARINA/BETTY IMAGES

## The Ultimate Guide to KICKING SUGAR

### PART 4 CAN HONEY FIGHT DIABETES?

Studies show honey can improve metabolism and reduce blood sugar.

Honey has unusual and unexpected effects compared to other sugars

300  
There are more than 300 types of honey worldwide.

*In this series, we explore the good and bad sugars and sweeteners, including popular natural ones; uncover the unexpected outcomes of cutting out sugar; and discover the ultimate way to do so.*

Previous Parts:  
TheEpochtim.es/  
KickingSugar



By Flora Zhao

reducing blood sugar levels.

Currently, most health organizations, including the World Health Organization (WHO) and the U.S. Food and Drug Administration (FDA), still classify honey as either free sugar or added sugar. Although honey contains a significant amount of sugar, it differs from regular sugar. Numerous studies and experts have indicated that honey may benefit metabolism, specifically in terms of

**Types of Sugars Found in Honey**  
Honey is a delightful gift from nature. With variations based on the source plants and other factors, there are over 300 types of honey worldwide. In general, honey is made up of about 17 percent water, and 95 to 99 percent of the remaining dry matter is sugar. Among these sugars, the major components are fructose and glucose. On average, 100 grams of honey  
*Continued on Page 4*

HERMANN MUELLER/GETTY IMAGES

## In 2022, Most Drugs Approved Based on a Single Study

Studies find drug approvals less stringent and trial data often unpublished, despite requirements

By Megan Redshaw

The 21st Century Cures Act (Cures Act), signed into law in December 2016, was created to help accelerate medical product development and “bring new innovations and advances” to patients more quickly and efficiently. Yet some



▲ Experts say the FDA isn't enforcing study disclosure requirements.

researchers suggest that the law is being used to bypass the once rigorous and evidence-based standards for new drug approvals, allowing novel drugs to flood the market without adequate data and public transparency. According to a research letter published on Aug. 8 in the Journal of the American Medical Association Network Open (JAMA), 24 of the 37 drugs approved in 2022 by the U.S. Food and Drug Administration (FDA) were based on a single study, with only four drugs having more than three studies to sup-  
*Continued on Page 7*



# EMF

## The Invisible Hazard

### PART 6 THE RISE OF SMALL CELLS

New wireless networks are being built by deploying small cells in greater density and new laws may give telecoms ultimate control over where

*In this series, we explore the health effects of electromagnetic fields, an omnipresent radiation created by technologies ranging from common home electronics to 5G towers.*



Previous Parts:  
TheEpochtim.es/EMF

By Marina Zhang

Andrew Molnar never thought he would be one to get involved in local political activism.

But he and his wife, Marie Molnar, are now leading the action to ensure that both the town and the city of Ithaca, New York, can control where wireless facilities are placed in the municipalities.

It all started four years ago. Mr. and Mrs. Molnar were hiking at the Cornell Plantations, a park at Cornell University, when the couple started experiencing headaches.

"We looked around, and there was this huge new cell tower about 100 yards from us," Mr. Molnar, a Cornell graduate, told The Epoch Times. "We got out of the area, and within about 10 minutes, we both felt totally better again."

The Molnars are just two of the millions of Americans with electromagnetic sensitivity, also known as microwave syndrome.

Individuals with microwave syndrome may develop symptoms such as dizziness, insomnia, pain, and mood and memory problems when exposed to electromagnetic fields (EMFs) from power sources and wireless signals transmitted by phones, cell towers, and emerging small cells.

#### 5G and the Rise of Small Cells

Wireless facilities, especially small cells, have started popping up like mushrooms after rain in both residential and commercial areas.

There are two types of wireless facilities. Cell towers, or macro cells, can reach 300 feet in height, may have more than 20 antennae, and maintain coverage for miles of radius. Small cells, on the other hand, are much more compact, and they relay signals and maintain coverage between a few hundred yards up to about 2 miles.

Small cells are the backbone of the 5G network.

Although their frequencies overlap with 4G, 5G signals generally have a higher upper-frequency, making them less penetrative; therefore, they need antennae at closer proximities to maintain connections.

Small cells were rapidly installed during the 5G rollout. People have discovered them outside their homes, on lamp posts, and on utility poles along the sidewalk.

In 2020, there were more than 417,000 wireless facilities; by the end of 2022, there were about 1.5 million in operation.

Apart from emitting 5G signals, small cells also emit 3G and 4G signals; both are shown to be harmful. This means that people are exposed to denser and stronger wireless radiation, increasing potential health risks.

Numerous papers have documented these signals' adverse health effects on residents.

Retired oncologist Dr. Lennart Hardell from Orebro University Hospital in Sweden has published three case studies involving residents living near newly

installed 5G small cells or base stations.

One of the studies was published in January. Two previously healthy people, a 63-year-old man and a 62-year-old woman, developed symptoms of fatigue, insomnia, tinnitus, distress, skin disorders, and irregular blood pressure after the installation of a 5G small cell on the roof of their apartment.

Dr. Hardell found that after the new base station was installed, the strength of the radiofrequency signals increased.

"Due to the severity of symptoms, the couple left their dwelling and moved to a small office room [with lower radiation strength]. Within a couple of days, most of their symptoms alleviated or disappeared completely," Dr. Hardell wrote.

#### Preventing Redundant Cell Towers

In 2020, telecommunications giant Verizon applied for a master license with the city of Ithaca. If approved, it could apply for permits to install new cell facilities in the adjacent town.

Mr. and Mrs. Molnar had just returned from a trip to Europe in 2019 when they saw people signing a petition to stop the approval. "That's when we heard about it," Mr. Molnar said.

The couple weren't anti-technology, but given their sensitivity to wireless signals, they were concerned.

The petition gained more than 500 signatures, yet few wanted to lead the action to the next step. So the Molnars decided to step up.

Then the COVID-19 pandemic began.

"So we had some extra time, and we just both felt very strongly intuitively that we were being guided to help lead this," Mr. Molnar said.

In preparation, the Molnars started educating themselves on EMFs and consulted lawyers. They spent a month or

two familiarizing themselves with the laws, health concerns, and policies.

#### The Power of Local Governments

As it turns out, the Telecommunications Act of 1996 (TCA) gives local governments considerable power to control the placement of new wireless facilities; they just need to know how to use this power to their advantage.

"The only truly effective means of controlling the number and placement of wireless facilities in a jurisdiction is a well-drafted local zoning ordinance," Andrew Campanelli, a lawyer experienced in handling cell tower opposition cases and TCA-based litigation, told The Epoch Times.

A well-drafted zoning ordinance would detail suitable sites to place the cell towers. These sites are generally advised to be inconspicuous and as far from residential areas as possible. Most importantly, zoning ordinances would also include procedural guidelines that allow the planning board to make decisions without violating the TCA.

The telecommunications companies "know the law, and they also, unfortunately, know that most local governments are clueless," Mr. Campanelli said, "and they take advantage of that."

A well-written zoning ordinance would set forth regulations for the placement of wireless facilities while preventing redundant installations.

One of the procedural requirements of the TCA is that local governments must ask the applicant telecommunications com-



Learning regulations and educating local officials is key to influencing wireless installations.

pany to prove that there's a gap in call service and that the new installations that it's applying for are the least intrusive means to fill that gap.

Most zoning ordinances don't have a procedural guideline that the planning board can follow, so many mistakenly reject an application without addressing this procedural requirement, resulting in the telecommunications company filing a lawsuit within 30 days of the decision. In these instances, the court always rules in the telecommunications company's favor due to the local government's mistake, Mr. Campanelli said.

Several grassroots organizations provide free examples of local ordinances on their websites. However, Mr. Campanelli emphasized that zoning ordinances can't be directly copied because the ordinances may differ substantially depending on the type of land and the municipality.

While some people file for a moratorium or cease-and-desist resolutions, neither would be effective for controlling the placement of cell towers, according to Mr. Campanelli.

Permit applications must be processed within a certain period from the day they are filed, regardless of whether the application is complete. This period of time dedicated to processing the application is called the "shot clock." Both moratorium and cease-and-desist resolutions have no legal authority to stop or delay the shot clock.

#### Updating the Local Ordinance

Mr. and Mrs. Molnar asked their local

government to update its ordinance on wireless facilities.

"I often tell people, if you're really serious about changing things in your town, you have to be the most educated person," Mr. Molnar said. If educated on the issues, an advocate won't be seen as a "wild conspiracy theorist."

In the spring of 2020, the Molnars began reaching out to city councilors and meeting them individually.

Some of the 500 people who signed the petition formed the Ithacans for Responsible Technology, a task force that the Molnars and four other active members led together. Hundreds of people were part of the mailing list and would send in testimonies, voicing their concerns to local officials.

"There is power in numbers. When you have two people contact council members versus 200, it makes a difference," Mr. Molnar said.

At first, none of the councilors believed them. Mr. and Mrs. Molnar tried to get the local media's support to no avail. A Cornell professor also sent emails to the government opposing the Molnars' efforts, further damaging the couple's credibility.

The Molnars responded to the professor via email, refuting his claims, but it seemed like they had hit a wall.

Four months into it, the two had almost decided to give up. But the day after, Mr. Molnar had his first successful conversation with a council member.

The council member called him, and "it totally turned around," Mr. Molnar said. Within the next four or five months, "the dominoes fell."



People who are sensitive to EMF radiation may develop symptoms of fatigue, insomnia, tinnitus, irregular blood pressure, headaches, and more.

#### Upcoming Bills Designed to Strip Local Control

Ithaca has two municipalities, one for the city and one for the town. In 2021, the city of Ithaca updated its zoning ordinance, and the town of Ithaca updated its ordinance in 2023.

Mr. Molnar said that over the years, he and his wife have made friends with the councilors and their staff, which has made keeping track of new wireless facilities much easier. Nonetheless, the two would check in on meeting agendas to review new applications.

"I know lots of towns that tried and haven't gotten things done. So it's not all rosy," Mr. Molnar said. "But I also know there are lots of examples where citizens like us kept pressing and persevering, and they eventually got at least some good things done."

However, new bills may obliterate the painstaking progress that the Molnars have made over the past three years.

About 50 bills are currently being fast-tracked through Congress and to the Senate. Among them, H.R.3557—the American Broadband Deployment Act of 2023—is the most notorious.

It removes local control over cell tower placement, attorney Odette Wilkins told The Epoch Times via email. Ms. Wilkins is leading the action against 5G small cells in New York City.

The bill overrides case laws that require telecommunications carriers to prove a service gap and use the least intrusive means to fill that gap for their wireless installations.

When the TCA was adopted, Congress established "a balancing of interests" of the wireless industry and local governmental protection of residents, Mr. Campanelli said. This balance would be "completely destroyed" by the new bill.

"If that passes, wireless facilities will start popping up on people's front lawns. All over the place," he said, "against their will and without paying them anything."

This article concludes our series.



Wireless networks have stirred public outrage in many places, including Switzerland, which saw nationwide protests in 2019.

## Face Masks Leak Toxic Chemicals: Study

Researchers find some masks expose wearers to chemicals with harmful effects

By Mary Gillis

Some have heralded masks as the gold standard of protective gear against COVID-19. However, they may be causing more problems than expected.

Results from a study published in the Journal of Ecotoxicology and Environmental Safety in May have indicated that masks pose significant risks to wearers because of toxins emitted by the tight-fitting face coverings.

Researchers from South Korea measured the number and concentration of volatile organic compounds (VOC) emitted from several different masks, including cotton masks and KF94 masks—a popular type of disposable mask similar to the N95 mask.

Four types of VOCs were detected in KF94 masks at 22.9 times to 147 times

higher concentrations compared with other masks made of fabrics such as cotton. The total number of VOC particles was 14 times that of cotton masks. In some KF94 masks, numbers reached a threshold high enough to pose a serious risk to human health.

VOCs are substances that have a high vapor pressure at room temperature and are often used and produced in the manufacture of paints, pharmaceuticals, and refrigerants, according to the EPA.

Inhaling them may cause eye, nose, and throat irritation; difficulty breathing; headaches; nausea; damage to the central nervous system and organs; and cancer.

#### VOC Concentrations Worse at Certain Times and Temperatures

Researchers found that VOC concentrations fluctuated depending on environmental temperature and when the KF94 masks were removed from their packaging. When the temperature of the KF94 masks was raised to 104 degrees Fahrenheit (40 degrees Celsius), concentrations increased by 119 percent to 299 percent. The levels decreased by 80 percent 30 minutes after removing the masks from the packaging.

Risks can be mitigated to reduce harm, according to the study authors.

"It is clear that particular attention must be paid to the VOCs associated with the use of KF94 masks [and their] effects on human health," they wrote.

"Based on our findings, we suggest that prior to wearing a KF94 mask, each prod-

uct should be opened and not worn for at least 30 [minutes], thereby reducing total VOC concentrations to levels that will not impair human health."

#### Other Toxins and Mask-Induced Exhaustion Syndrome

One 2022 study also highlighted toxic chemicals found in several masks and a long list of the possible consequences of covering up.

Phthalates are widely used chemicals



Research finds masks can compromise respiratory compensation by interfering with O2-uptake and CO2-release.

that disrupt human endocrine systems and impact human health. While phthalates are said to make masks more versatile and flexible, there's a high price to pay when choosing comfort over safety.

Instead of being chemically bonded to the material, phthalates are used as an additive that can be inhaled, ingested, or absorbed through the skin. Exposure has been found to be detrimental to reproductive and neurological development.

Researchers in China found harmful phthalates in 56 mask samples collected from several countries. According to results from a study published in the Journal of Hazardous Materials, nearly 90 percent of the samples contained potential carcinogens, suggesting that any benefits of masking may be outweighed by the risks unless the types and levels of chemicals are managed to be within safe limits.

A comprehensive review published in Frontiers in Public Health in April found significant negative impacts of both surgical and N95 masks. Adverse effects correlated with mask-wearing included:

- Decreased oxygen saturation.
- Decreased minute ventilation.
- Increased carbon dioxide in the blood.
- Increased heart rate, blood pressure, and skin temperature.
- Higher levels of discomfort.
- Shortness of breath.
- Headaches.
- Acne.
- Skin irritation.
- Dizziness.

"Masks interfered with O2-uptake and CO2-release and compromised respiratory compensation," the review authors wrote. "Outcomes independently validate mask-induced exhaustion syndrome (MIES) and down-stream physiometabolic dysfunctions. MIES can have long-term clinical consequences, especially for

vulnerable groups. So far, several mask-related symptoms may have been misinterpreted as long COVID-19 symptoms. In any case, the possible MIES contrasts with the WHO definition of health."

The study was retracted a month after its publication. The reason given for the retraction was that "the article does not meet the standards of editorial and scientific soundness for Frontiers in Public Health." Further details weren't provided.

#### The Return of Mask Mandates?

The decision to mask up is becoming a hot-button issue across the United States as the nation sees an uptick in COVID-19 cases, the arrival of the new EG.5 variant, and new mask mandates at some schools, hospitals, and companies.

Morris Brown College reinstated its mask mandate on Aug. 20 as a two-week precautionary measure because of an increasing number of cases reported in the Atlanta region. According to the school's official Instagram account, students and faculty were told that they must all mask

up. Faculty members were told that they could unmask if alone in their office.

Several hospital systems have reinstated mask mandates. UMass Memorial Hospital confirmed in a statement last month that it would reimpose masking for staff. It stated that patients and visitors are exempt from the mandate, instituted on Aug. 24.

The Centers for Disease Control and Prevention (CDC) recommends masks in indoor public transportation settings. The agency suggests that people make decisions based on the level of COVID-19 hospital admissions in their county. The CDC also recommends mask-wearing by older adults, the immunocompromised, and anyone more likely to get severely sick from COVID-19.

Mary Elizabeth Gillis is a health reporter and cardiopulmonary specialist with over a decade of experience. After graduating with her doctorate in applied physiology, she earned a master of science degree in journalism from Columbia University



# The Ultimate Guide to KICKING SUGAR

## PART 4 CAN HONEY FIGHT DIABETES?

Honey is a remarkable sweetener with unique and unusual properties

Continued from Page 1

contains approximately 38.5 grams of fructose and 31 grams of glucose.

Notably, 14 percent of the sugars in honey are rare sugars, many of which are formed during the maturation process of honey. These rare sugars are uncommon in nature and are believed to have beneficial health effects.

“Honey should not be categorized as free sugar. It is different,” Tauseef Khan, a research associate in the Department of Nutritional Sciences at the University of Toronto’s Temerty Faculty of Medicine, told The Epoch Times.

Mr. Khan said honey is a “complex mixture of sugars” and that rare sugars, which have unique benefits, aren’t complex carbohydrates but are usually found in the form of monosaccharides or disaccharides. These sugars possess potential metabolic effects, and many also serve as prebiotics.

Compared with regular sugar, honey can lower fasting blood sugar levels, reduce bad cholesterol, and raise good cholesterol.

“Those effects are very surprising; if it was normal sugar, then those effects should not have been there,” Mr. Khan said.

In a statement discussing the discovery that honey can reduce cardiometabolic risk, John Stevenpiper, associate professor of nutritional sciences and medicine at the University of Toronto, said: “The word among public health and nutrition experts has long been that ‘a sugar is a sugar.’

**HONEY CONTAINS 30 TO 40 RARE SUGARS**

which play a role in regulating appetite-related hormones and insulin secretion, ultimately promoting glucose metabolism.

These results show that’s not the case.”

**Sweeter Than Sugar but Has a Lower Glycemic Index**

The glycemic index (GI) of glucose is 100, while sucrose averages about 66 and fructose 24. Because of variations in sugar composition, the GI values of different types of honey fall within the range of 35 to 74, with an average of 60.

Interestingly, because of its high level of fructose, honey is 25 percent sweeter than sugar.

Nevertheless, honey has lower GI values and calorie content than refined sugar.

Fructose has a bad reputation that may be unwarranted. Researchers at the University of Toronto published a study in

The American Journal of Clinical Nutrition reviewing 169 clinical trials related to fructose. The study concluded that naturally occurring fructose found in fruits and honey isn’t likely to contribute to weight gain and may even positively affect weight loss. Another review study published in Molecules indicated that fructose in honey may slow intestinal absorption, prolong gastric emptying, and reduce food intake. Fructose in honey was found to enhance the liver’s metabolic capacity for glucose.

**Honey’s Proven Anti-Diabetic Effects** Using honey as a substitute for refined sugar in one’s diet offers additional benefits.

The blood sugar-lowering and anti-di-

abetic effects of honey have been proven in both animal and human studies.

In a 2008 study, 55 overweight or obese people were divided into two groups, with one group receiving a daily intake of 70 grams of sucrose and the other receiving 70 grams of honey, both for 30 days. The results show that compared with the pre-intervention period, the group consuming honey experienced a 4.2 percent decrease in fasting blood sugar levels and improved insulin resistance. Honey also resulted in a slight reduction in body weight and body fat percentage by 1.3 percent and 1.1 percent, respectively, alongside a 3 percent decrease in total cholesterol, an 11 percent decrease in triglycerides, and a 3.3 percent increase in good cholesterol.

On the other hand, people who received sucrose experienced different changes. Not only did their fasting blood sugar levels rise by 2.2 percent, but their body weight and body fat percentage also increased.

According to a controlled experiment published in 2017, healthy adults who replaced 25 percent of their dietary carbohydrates with honey for eight consecutive days experienced decreased postprandial (post-meal) insulin and blood sugar levels.

In another experiment comparing honey and glucose effects on diabetic and healthy people, healthy subjects were given an equal quantity of honey or glucose. The results revealed that honey intake resulted in significantly smaller fluctuations in blood sugar and insulin levels than glucose consumption. After consuming honey for 15 consecutive days, healthy people experienced an average 6 percent decrease in blood sugar levels compared with before honey consumption. Diabetic patients also exhibited noticeably smaller changes in blood sugar levels when consuming honey instead of glucose.

In a long-term intervention trial conducted in Egypt, 20 participants diagnosed with diabetes drank honey water, prepared by dissolving 50 milliliters (three tablespoons) of honey in water, on an empty stomach twice per day before meals. They consumed an additional 25 milliliters of honey as the sole sweetener in their diets.

During the trial, none of these patients experienced diabetic ketoacidosis or hyperglycemic hyperosmolar state (common symptoms include dry skin or tongue, fruity breath, drowsiness, confusion, difficulty breathing, rapid



Raw honey is more beneficial than honey that has undergone high-temperature processing.

heartbeat, abdominal pain, and vomiting). Long-term consumption of honey led to weight reduction, controlled blood pressure, and improved cardiovascular conditions in all patients.

A 2018 review study published in Oxidative Medicine and Cellular Longevity revealed that honey has beneficial effects on diabetes, a complex disease. Compared with sugar, consuming honey can reduce weight and lower blood sugar levels in healthy people and patients with diabetes. A systematic review and meta-analysis published in Nutrition Reviews in 2022 also affirmed the positive effects of honey on blood sugar and metabolism.

**How Does Honey Control Blood Sugar?**

How can honey lower blood sugar levels, despite being a type of sugar?

Mr. Khan said honey contains 30 to 40 different types of rare sugars, which play a role in regulating appetite-related hormones and insulin secretion, ultimately promoting glucose metabolism.

These rare sugars can help mitigate the effects of fructose and glucose, resulting in lower fasting blood sugar levels and improved blood sugar control. Some of them also serve as food for certain good bacteria, which are beneficial for

gut health, while others have immune-enhancing properties.

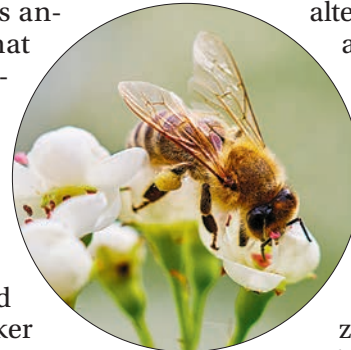
The compounds and flavonoids found in honey possess antioxidant properties that can improve the progression of diabetes caused by oxidative stress and metabolic disorders associated with the condition. Interestingly, the antioxidant capacity of honey is associated with its color, with darker honey having a higher antioxidant value.

The trace elements found in honey, such as zinc and selenium, are also believed to contribute to blood sugar control.

Specific proteins present in honey can activate the body’s innate immune system.

**Why Raw Honey and How Much to Consume**

Mr. Khan said the data suggest that raw honey has more benefits than honey that has undergone high-temperature processing. Those who consume processed honey also experience benefits, “but they might be more muted or less.”



Choosing honey from a single floral source ensures consistency and nutrients.

Raw honey retains more of its beneficial components and bioactivity; the processing of regular honey may alter its composition and bioactivity.

Specifically, honey products undergo a brief heating process during production to reduce moisture and yeast content, but this process also lowers the amount of diastase enzyme in the honey. Diastase plays a role in facilitating the breakdown of starch, thus positively affecting blood sugar and lipid levels.

Heat processing of honey can lead to an increase in a substance known as hydroxymethylfurfural (HMF).

When metabolized in the human body, HMF can convert into a genotoxic compound, diminishing the honey’s beneficial effects.

During heat processing, the beneficial bacteria present in honey are also reduced.

Some of the antioxidant compounds in honey are also lost during heat processing, diminishing honey’s ability to promote metabolism and lower fasting blood sugar levels. A study shows that heat processing can reduce the antioxidant capacity of honey by 33.4 percent.

Mr. Khan emphasized that choosing honey from a single floral source ensures that “the composition of honey will be consistent,” making it easier to derive specific benefits.

He said honey sourced from multiple floral origins may come from different regions, suppliers, or even countries, resulting in significant variations in their rare sugar content. Mixing honey from different sources diminishes its overall benefits. The aforementioned review study from 2022 indicated that, within a healthy dietary pattern, honey from a single floral source, particularly acacia and clover honey, can improve blood sugar control and lipid levels.

According to Mr. Khan’s research, optimal benefits were observed when people consumed roughly two tablespoons, equivalent to about 40 grams, of honey per day as a replacement for sugar.

**NEXT WEEK** Honey’s therapeutic effects can surpass those of some medications.

FOOD AS MEDICINE

## The Exotic Dragon Fruit Has Much to Offer

This intriguing fruit has a delicate taste and noteworthy nutrients

By Sandra Cesca

Dragon fruit derives its name from its bright-red skin covered in green scales, resembling a dragon as depicted in Chinese mythology. Various myths connect the fruit to dragons, including one that says it’s a gift from dragons.

There are several varieties of dragon fruit (Selenicereus undatus, formerly called Hylocereus) that come from the climbing cactus family, grown throughout tropical and subtropical regions. Both sweet and sour exist, but the most popular is the red-skin variety with its sweet white pulp dotted with black crunchy seeds. Other varieties have red or yellow pulp. Sometimes referred to as

pitaya, they have a slightly sweet taste between those of kiwis and pears.

**Benefits**

The high level of antioxidants in dragon fruit is one of its best nutritional characteristics. This makes the fruit anti-inflammatory, and it fights free radical damage in our bodies, which we are experiencing more of today because of environmental and lifestyle factors.

The accumulation of free radicals leads to cellular damage and oxidative stress, leading to accelerated aging and diseases such as cancer, cardiovascular disease, and neurodegenerative disorders such as Parkinson’s and Alzheimer’s.

Betacyanins (red pigment) and betaxanthins (yellow and white pigments) are responsible for the color of dragon fruit pulp. These pigments, called betalains, have antioxidant and anticancer properties.

Flavonoids are phytochemical compounds also found in dragon fruit. Along with the high level of vitamin C in this fruit, flavonoids enhance dragon fruit’s powerful antioxidant action.

**Heart**

Studies show that dragon fruit may help lower LDL cholesterol while improving HDL cholesterol. Dragon fruit peel contains pectin, which studies show may improve cholesterol metabolism and support normal blood pressure.

The tiny black seeds of this fruit are rich in omega-6 and omega-3 fatty acids, which are good for the heart and help lower cholesterol, thus reducing the risks of cardiovascular disease.

The high dietary fiber of dragon fruit is linked with a lower risk of cardiovascular disease.

**Cancer**

Dragon fruit contains lycopene, a carotenoid related to beta-carotene that contributes to its red color. Studies show lycopene plays a significant role in preventing cancer. In combination with dragon fruit’s vitamin C, lycopene can potentially increase anticancer activity by inhibiting the growth and spread of tumor cells, particularly in breast cancer.

**Brain**

Magnesium is an essential mineral for brain health. Dragon fruit contains magnesium, which can help treat depression and boost brain function. Magnesium deficiency is found in neuromuscular and psychiatric conditions.

Dragon fruit’s high iron content, required for hemoglobin and red blood cell production, is also critical for brain oxygenation.

**Diabetes and Weight**

The connection between obesity and diabetes is well documented. The low calories, good fiber, and high water content of dragon fruit mean that it can help manage both of these conditions.

Dragon fruit also has a hypoglycemic property that can help regulate blood glucose levels. One study showed that as the amount of dragon fruit consumed increased, blood sugar levels decreased, suggesting a potential for therapeutic use.

A study using mice on a high-fat diet showed they gained less weight and had reductions in liver fat, insulin resistance, and inflammation when given dragon fruit extract. Another study on mice found that the betacyanins in red dragon fruit reduced insulin resistance and prevented obesity by regulating the growth of beneficial gut bacteria.

**Digestion**

Both the red and yellow dragon fruits are natural laxatives. Their high fiber content helps in stool formation and excretion. The prebiotic oligosaccharides in dragon

fruit help increase good gut bacteria, especially in the colon. These aid digestion and help prevent obesity, cancer, cardiovascular disease, and degenerative conditions.

**Skin**

The skin-nourishing properties of dragon fruit come from its rich antioxidants. These can help treat sunburn, dry skin, and acne. Its vitamin C content assists the growth of collagen and connective tissue, preventing and speeding up the healing of bruises and wounds. Its high water content is suitable for hydrating dry skin.

A face mask made from pulp mixed with yogurt and applied for 20 minutes can help improve skin health. The mashed pulp can ease sunburn and acne.

**Eyes**

Beta-carotene, lycopene, and vitamins A and C are all essential for good eye health. According to the Eye Clinic of London, these compounds improve vision by protecting the cornea and reducing the risk of cataracts and macular degeneration.

**Bones**

Dragon fruit is high in calcium, magnesium, and phosphorus, contributing to stronger bones and good bone health.

**Tips for Eating Dragon Fruit**

Despite its appearance, dragon fruit is very easy to eat.

- Select a ripe, bright fruit with evenly colored skin.
- Use a sharp knife to cut the fruit in half.
- Use a spoon to scrape out the pulp, or peel the skin and slice the pulp.
- Use in any number of ways, including in smoothies, fruit salads, and salsa.

Sandra Cesca is a freelance writer and photographer focusing on holistic health, wellness, organic foods, healthy lifestyle choices, and whole-person medical care. Her background includes allopathic medicine, naturopathy, homeopathy, organic and biodynamic farming, and yoga practices.



▲ Betacyanins (red pulp varieties) and betaxanthins (white pulp varieties) are pigments that give dragon fruit antioxidant and anticancer properties.



# Parasites: An Overlooked and Underestimated Health Threat

Parasitic infections are more common than people realize and can have unusual effects



Nearly

68

MILLION PEOPLE

in the United States are chronically infected with neglected parasitic infections.

Because parasites often reside in the gut, this is also where symptoms are typically found.

By Conan Milner

Imagine a creature so sinister that it can live inside your body for years, eating your blood, tissue, and food. It grows and reproduces, generation after generation. Those creatures are parasites, and they range greatly in size and threat. Some are large and easy to spot, such as ticks. But others are far more insidious and can go unnoticed for years, feasting on you unchecked. Worms and flukes may be squirming around in you right now, but without an understanding of signs, symptoms, or a positive stool test, you may never know. Despite that parasites are often hard to see, people of the ancient world were very familiar with the problem. Old medical texts contain numerous prescriptions and protocols aimed at ridding the body of various types of internal worm infections.

## How Parasites Enter Your Body

Parasites can enter the human body through various means—ingestion of contaminated food or water, insect bites, inhalation of contaminated particles, or contact with animals. The mode of transmission depends on the specific parasite and its life cycle.

## Little Awareness

Today, however, we're much less likely to attribute our symptoms to worms. Part of our blind spot is our modern expectations. We usually think of parasites as exclusively a problem for animals and people living in remote tropical regions. For most of us in developed temperate climates of the 21st century, parasites seem like a rare or nonexistent health concern. Yet we regularly treat our pets and livestock for parasites as a standard practice. So why aren't parasites more of a concern among humans? We may not think much about the possibility, but Ann Louise Gittleman, who holds a doctorate in holistic nutrition and has been a nutritionist for more than 30 years, said she believes we need to pay more attention to parasites.

## 'Unseen Epidemic'

"They're far more prevalent in the United States than you would ever imagine," Ms. Gittleman said. "In fact, studies have shown that 1 in 3 of us may be infected." Approximately 68 million people in the country are chronically infected with neglected parasitic infections, according to the U.S. Centers for

Disease Control and Prevention.

Although parasites predominantly affect tropical developing regions, where as much as two-thirds of the population can be infected, intestinal parasites affect 3.5 billion people globally, according to a study in a 2021 edition of the journal BioMed Research International. However, only 450 million cases have symptoms. Though parasites have faded from public awareness, Ms. Gittleman warned of an "unseen epidemic" decades ago. Her 1991 book, "Guess What Came to Dinner," linked parasites to common health issues.

## The Diverse Health Implications of Parasitic Infections

In 1974, Ms. Gittleman's professor displayed patient samples, showing parasites from microscopic amoebas to foot-long tapeworms. "It made me not eat out in restaurants for at least two years," she said. This experience shaped Ms. Gittleman's belief that parasites underlie diseases beyond just gastrointestinal issues. In her practice, she said she has seen conditions such as fatigue, pain, and depression resolve with antiparasitic cleanses. Parasites are often overlooked by health care practitioners when investigating the cause of symptoms.

"Parasites tend to be the last place they look," Ms. Gittleman added. "It should be the first place."

Different parasites cause different symptoms. Some can lead to skin infections; others can lead to organ damage. Certain blood-borne parasites, such as Plasmodium and hookworms, for example, can lead to anemia due to the loss or destruction of red blood cells. A brain-eating amoeba parasite, known as Naegleria fowleri, can cause serious neurological symptoms, including headaches, confusion, seizures, and even death.

Because parasites often reside in the gut, this is also where symptoms are usually found. Symptoms include diarrhea, abdominal pain, nausea, vomiting, and bloating. Parasites also compete with the host for nutrients, impair the body's ability to properly use proteins, and hinder fat absorption, all of which can lead to malnutrition.

Other conditions Ms. Gittleman has seen linked to parasites are hypoglycemia, arthritic-like aches, obesity, auto-immune issues, and other issues that you might never suspect



Drinking a parasite cleanser of mugwort and wormwood herbs twice a year may help control parasites.



Pumpkin seeds can help purge intestinal parasitic worms due to compounds called "tetracyclic triterpenes."



Garlic is a popular anti-parasitic food due to its sulfur-rich amino acids.



Raw fish is a common source of parasites and best avoided.

per-  
tise  
work-  
ing  
with  
soldiers  
overseas  
during  
World War  
II. In some cases,  
she had to purge pa-  
tients' bowels as many as  
10 times to finally reveal the  
parasites lurking within.

"That's what's missing," Ms. Gittleman said. "We're using random stool samples, and you're not finding them because they're not going high enough into the bowel."

## How to Protect Yourself

Thorough stool tests can reveal the specific parasite, any viral component, mucus membrane health, and potential food allergies or sensitivities. But when it comes to parasites, testing isn't nearly as important as prevention.

Though good lifestyle habits reduce exposure, they don't completely prevent infections. Anti-parasitic drugs used weekly may help in malaria-prone areas. Herbal remedies also treat parasites.

## Cleansing

Ms. Gittleman advocates herbal cleanses to eliminate parasites twice a year. She cites significant results, including clients who recovered from skin conditions, anxiety, insomnia, arthritis, and auto-immune issues.

She often prescribes wormwood, used for centuries in Europe and Asia to treat parasites. Modern research confirms wormwood's efficacy against worms. The related herb mugwort also battles parasites effectively but doesn't taste as good, Ms. Gittleman noted.

Other anti-parasitic herbs include clove and foods such as pumpkin seeds, onions, and garlic. These do taste good, but therapeutic doses may exceed culinary amounts.

## Precautions

It may be what we avoid eating that can have a larger effect on whether we harbor a parasitic infestation. To minimize risk, Ms. Gittleman urges people to wash their produce and cook their meat.

"I can't tell you how many of my clients become well totally when they get off sushi because they're ingesting worms, worm eggs, worm trophozoite cysts, and all kinds of things when they're eating fish that's uncooked," she said. "Fish is much more wormy than meat."

Not everyone has equal susceptibility to parasites though. People with strong stomach acid, digestion, and immunity resist parasites better, according to Ms. Gittleman. The strength of a person's stomach acid can be determined with a diagnostic test called the Heidelberg test. It's typically used to evaluate for conditions such as gastroesophageal reflux disease, to which decreased stomach acid may be a contributing factor. "HCl hydrochloric acid is your first barrier to parasites, better digestive enzymes, and better overall immunity," she added.

# In 2022, Most Drugs Approved Based on a Single Study

Continued from Page 1

"I'm not surprised," David Gortler, a pharmacologist, pharmacist, and FDA reform advocate at the Ethics and Public Policy Center, told The Epoch Times in an email.

As a former senior adviser to the FDA commissioner, Mr. Gortler said he saw the agency grant expedited approval to a medication called aducanumab—used to treat Alzheimer's disease "based on zero positive studies."

"They did the same with other monoclonal antibodies for Alzheimer's disease," he said.

According to the research letter, most of the 413 studies evaluating the 37 drugs approved in 2022 were sponsored by the industry—meaning that they were manufactured, funded, and analyzed by the company producing the product, seeking FDA approval, and standing to benefit financially from the drug.

Of the studies available for analysis, only 25 percent of study results have been made publicly available, with the results of 6 percent of those studies published after the FDA had already approved the drug for use.

Furthermore, researchers found that only 55 percent of studies evaluating drugs in 2022 consisted of randomized clinical trials—the "gold standard" of evidence-based medicine—despite the FDA justifying most approvals based on randomized clinical trial data.

For comparison, only 20 percent of medical products in 2016 were approved based on a single study, and 55 percent were approved based on three or more studies, whereas 65 percent of drugs in 2022 were approved based on a single study, with only 11 percent having three or more studies.

"We believe consumers deserve access to the full range of evidence for the drugs they are considering, not just from the selected studies released to the public," the authors wrote.

The researchers say their results "highlight a trend toward less rigorous standards for novel drug approvals that has evolved over the past few decades" and is consistent with other reports showing a widespread decrease in the number of trials used for drug approvals.

"The authors point to the deterioration of the quality and rigor of the regulatory review and approval of new drugs over time," Sasha Latypova told The Epoch Times in an email.

Ms. Latypova is a retired pharmaceutical industry executive with 25 years of experience in pharmaceutical research and development and co-founder of several organizations that work with pharmaceutical companies to design, execute, collect data, and submit clinical trial data to the FDA.

She says this trend began with a "fast track" designation implemented in 1988 that increased the number of special regulatory programs available by the FDA and decreased the evidentiary requirements for approval. In the 2000s, Ms. Latypova said many blockbuster drugs became generic medicines, which started a "patent cliff" where industry investments began to focus on narrower niches in an effort to get patent exclusivity—which is more profitable for a pharmaceutical company.

"For example, approvals receiving an 'orphan' designation or what is considered rare disease increased to over 50 percent," Ms. Latypova said. "These products are sometimes approved on as little as a single observational study with

fewer than 20 subjects. However, once approved, the drug's price increased \$1 million to \$3 million per treatment and was fully covered by the taxpayer and private insurance—driving the costs of premiums."

Thus, the "regulatory requirements are minimal, but the profits are outsized," she noted.

## FDA Made It Easier for Pharma, Agencies to Cut Corners

The FDA, on its website, states the intent of the Cures Act passed by Congress in December 2016 was to "incorporate the perspectives of patients into the development of drugs, biological products, and devices in FDA's decision-making process" and enhance its ability to "modernize clinical trial designs," including the use of "real world evidence" to speed up the development and review of novel medical products. Those include emergency and preparedness response countermeasures that were used to justify rapid authorization of COVID-19 vaccines.

Allowing the FDA to consider real-world evidence instead of randomized trials previously required under its strict methodological standards used to evaluate the safety and efficacy of a drug relaxed requirements for pharmaceutical companies and opened the door for bias.

## Despite the 2017 rule promising 'aggressive enforcement and stiff penalties,' the NIH and FDA haven't penalized sponsors who haven't followed the requirements.

The Cures Act gave new authority to the FDA to "recruit and retain scientific, technical, and professional experts and it establishes new expedited product development programs" and directed the agency to create one or more intercenter institutes to assist with coordination of activities between the drug, biologics, and device centers to improve the regulation of combination products.

The 312-page act provided \$500 million U.S. tax dollars to help the FDA implement the law over nine years and provided \$6.3 billion in funding, mainly to the National Institutes of Health (NIH), a major funder of American universities and research institutions.

According to the National Center for Health Research (NCHR), the Cures Act dramatically benefits pharmaceutical and medical device companies, lowers the standards for drugs and devices, and makes it difficult for patients and physicians to decide whether to try a new treatment without knowing if it's safe or effective. This may explain why the Act was originated and promoted by major pharmaceutical companies, universities, and other organizations that hired more than 1,455 lobbyists to advance the bill.

The NCHR says the bill has had the following effects:

- Allowed anecdotal, unreliable, and easily manipulated health data to be used to approve new drugs
- Allowed pharmaceutical and device companies to bypass public reporting requirements related to funding and gifts provided to physicians
- Weakened patient safety by lowering the evidentiary standards



▲ The U.S. Food and Drug Administration approved 37 drugs in 2022 but 24 only had a single study.

required to prove a new drug or medical device is safe and effective

- Allowed companies to disseminate potentially inaccurate scientific information not evaluated as part of the FDA approval process, opening the door for widespread use of drugs and treatments not FDA-approved
- Reduced the FDA's authority to regulate electronic health records systems and other medical software, which, if defective, can lead to deaths and permanent harm
- Encourages smaller and shorter-term studies that are less likely to measure product safety and effectiveness for excluded parts of the population who may rely on them

## FDA Isn't Enforcing Reporting Requirements for Clinical Trials

Problems with clinical trial reporting go back to a law passed in 2007 requiring companies, universities, and other institutions to publish most clinical trial data in a federal database so that doctors and patients can determine whether a new product is safe or effective, according to a Science analysis. After trial sponsors failed to follow the law, the NIH and FDA attempted in 2017 to enact a final rule explaining the requirements and penalties for failing to disclose clinical trial results. Yet many sponsors ignored the requirements, and federal officials have done "little or nothing" to enforce the law.

The analysis of more than 4,700 clinical trials that should have been published on the NIH database ClinicalTrials.gov under the 2017 rule showed improved compliance rates of most large pharmaceutical companies and some universities. Yet the performance of many other sponsors, including the NIH, was "lackluster."

ClinicalTrials.gov is an online registry of clinical trials run by the National Library of Medicine at NIH, where researchers, doctors, and patients are supposed to be able to see data on trial outcomes from peer-reviewed publications and then compare results across trials. Yet according to the analysis, thousands of trials are never published, especially when treatments are shown to be ineffective.

The Science analysis shows that roughly 67 percent of studies from 30 of the 184 sponsor organizations with at least five trials failed to report any results on ClinicalTrials.gov, reinforcing the 2022 data published in the JAMA research letter.

Perhaps even more concerning is that these organizations consisting of pharmaceutical companies, universities, and medical centers failed to meet a single deadline. Those considered "habitual violators" didn't report results in 67 percent of their trials and were an average of 268 days late disclosing data past their original deadlines.

These institutions included Harvard University, the University of Minnesota, and Baylor College of Medicine—leading recipients of NIH grants in 2019. Researchers found that The University of Texas MD Anderson Cancer Center and Mayo Clinic both failed to report results on time, or at all, in nearly two-thirds of their clinical trials. Yale University didn't report results in 84 percent of its trials.

The NIH is tasked with reporting results when they sponsor studies done by agency staff or certain grantees, and the top four NIH institute sponsors reported results late or not at all in more than 6 of every 10 trials assessed by Science. The Science analysis found the sponsors violated the reporting law more than 55 percent of the time and identified hundreds of cases where sponsors were credited for reporting results where the results themselves weren't publically posted.

Despite the 2017 rule promising "aggressive enforcement and stiff penalties," the NIH and FDA haven't penalized sponsors who haven't followed the requirements. The FDA in 2019 stated that it wouldn't enforce penalties of up to \$12,103 per day for failing to report a trial's results until the agency issues further guidance on how it'll exercise its power.

The FDA and NIH didn't respond to requests for comment by press time.

Megan Redshaw is an attorney and investigative journalist with a background in political science. She is also a traditional naturopath with additional certifications in nutrition and exercise science.





Surgery claims 8 million lives a year, placing it among the top causes of death.

# What You Need to Know ABOUT SURGERY

## PART 1 WHAT YOUR DOCTOR MAY NOT TELL YOU ABOUT SURGERY

Informed consent improves the experience for patients, families, and doctors while addressing the burdens of surgery

Not every surgery is medically necessary or beneficial. In this series, we'll share how to determine if your surgery is right for you, how to ask the right questions, and what you can do to prepare and recover optimally.

By Amy Denney

A woman who was suffering from gallstones wanted to try a home remedy before considering surgery, but the surgeon “flat out told her that wasn’t going to work.” The encounter happened many years ago as Dr. Jeff Hubbard, then a first-year medical student, observed a mentor

whom he admired respond in a way that was a bit unnerving. “He wasn’t pushy. He was just a little bit condescending,” Dr. Hubbard told The Epoch Times. “I really respect him, but just reflecting on the experience, I realize that—for lack of a better explanation—there’s indoctrination, a training that you go through as a physician that puts you in a mindset that you know everything.” Gallbladders are among a handful of organs that doctors have been taught—and most people have come to agree—are “unnecessary,” meaning that we can live without them. There are about 300,000 cholecystectomies, or gallbladder removal surgeries, performed annually in the United States, at a cost of \$3,167 to \$5,881,

based on Medicare estimates. The example illustrates the complexities surrounding surgery—a rapidly growing medical field mingled with serious risks and complications. It’s hard to quantify how many patients avoid cholecystectomies or other surgeries by delaying them and attempting other remedies, but it’s an area that many agree deserves examination. Critics say there’s too big a push for surgery in situations in which it isn’t warranted. But it’s unlikely that you’ll hear that—or the consequences of choosing surgery—from recommending physicians. Despite warnings for years that the system of surgery is broken and wrought with

questionable, rigid practices, little has changed. The problem invites a shared financial burden through taxes allocated to health care and insurance rates, whether we participate as patients or not. Unnecessary surgery is also a source of potential physical and emotional hardship for patients and their families. Many patients feel unprepared for surgery and can be left feeling confused, regretful, and worse off than before.

**The Expense of Surgery** From a financial standpoint, surgery costs everyone. Tax-funded Medicare spent about half of its budget on surgical care in 2014, according to a 2020 Journal of Surgical Annals analysis. The actual costs exceeded \$120 billion for that year. The analysis pointed out that surgical care accounts for the greatest growth in Medicare payments, and that outpatient surgeries especially represent an area in which the government could recoup costs. “Moving forward, future research should evaluate the extent to which spending on outpatient surgical care is driven by discretionary (versus non-discretionary) procedures. A better understanding of this will aid in the design of interventions to reduce surgery spending,” the authors wrote. Michigan State University and Rutgers University collaborated on research to quantify how much money is wasted

in hospital operating rooms. The findings, published in 2019 in the Journal of Operations Management, revealed that hospitals could save on average \$1,800 per surgery—or nearly \$28 million per hospital annually—by avoiding and reducing unplanned costs.

### Unnecessary surgery is a source of potential physical and emotional hardship for patients and their families.

Some savings could potentially come by way of allowing only apt candidates to be considered. A 2022 JAMA investigation that followed nearly 1,000 community-living adults for a year after major surgeries reported a mortality rate of 13.4 percent. More than 1 in 4 community-living older U.S. adults who were frail and nearly 1 in 3 who had probable dementia died in the year after major surgery. Such practices bring up the issue of informed consent and whether doctors are relaying information about true risks. Rarely does one die during surgery—a fact that appears to convey safety. Contextually, however, adverse events could take weeks or months to resolve—if at all—and 30-day postoperative mortal-

ity is a reality for as many as 4 percent of patients, according to a 2020 article in the Journal of International Surgery.

**Major Cause of Death** In fact, the article makes the argument that the trauma surrounding major surgery should be counted alongside heart disease and cancer as a major cause of death. “An annual global mortality of around 8 million patients places major surgery comparable with the leading causes of death from cardiovascular disease and stroke, cancer and injury,” author Geoffrey P. Dobson wrote. The article highlights studies and statistics regarding surgical risk, including 30-day readmission rates in the United States that range from 5.7 percent to 12 percent. Mr. Dobson also cited research showing that 14.4 percent of patients experience adverse events—one-third of which were preventable—based on a 2013 study of more than 16,000 patients in eight developed countries. “If surgical complications were classified as a pandemic, like HIV/AIDS or [COVID-19], developed countries would work together and devise an immediate action plan and allocate resources to address it,” he wrote. “Seeking to reduce preventable deaths and post-surgical complications would save billions of dollars in health care costs.”

**Unraveling Informed Consent** If these facts about surgery are unfamiliar, it might be because the system doesn’t incentivize informed consent or the time required to explain the realities and complexities of surgery with every patient. As a 2016 World Journal of Surgery editorial stated, “In practice, surgeons do not provide patients with all possible information and leave out perhaps critically relevant information.” In a study of informed consent for high-risk surgery published in the Canadian Journal of Surgery, just 45 percent of discussions met all elements of adequate informed consent, and 23 percent didn’t meet even basic elements. Informed consent is mutually beneficial for patients and surgeons, as the World Journal of Surgery editorial pointed out:

“By explicitly asking patients about their expectations for the procedure (for example, ‘to be rid of pain,’ or ‘to come home to my family’), we may better understand whether the patient’s expectations fall within the scope of possible post-operative outcomes. If we explicitly uncover such expectations, we may avoid a situation in which the patient expects the surgeon to achieve a perhaps unattainable goal, which may lead to patient dissatisfaction.”

Dr. Hubbard said surgeons who reject informed consent send a message that they don’t believe patients are intelligent enough to make decisions. The physician-patient relationship can be very one-directional, Dr. Hubbard said. “It’s one of the only relationships where ... somebody who’s technically a stranger can tell you to do something, and you don’t question it,” he said. “You’re expected to just do it, and if you do ask a bunch of questions, they label you as noncompliant or a troublemaker because you want to make an informed decision.”

**Caring for the Whole Person** Dr. Hubbard moved from conventional medicine into an integrative model af-

ter observing the shortfalls of modern medicine. For example, when something unexpected happens during surgery, surgeons often have the option to pause the surgery and ask patients’ families what they should do, but this rarely happens. Dr. Hubbard suspects that surgeons do what they want in more cases than not, especially if it interrupts their time. Deeper, richer conversations beyond the operation are also valuable—something that Dr. Hubbard said was illuminated as he witnessed uncaring attitudes among health care workers. In one situation, he was returning a black woman to her room and remarked to the surgical nurse that her hair was “jacked up”—unnecessarily and horribly shaved in surgical preparation. He was met with an arrogant response that she should be grateful to have her life and her hair is irrelevant. “A huge part of recovery is how you feel about yourself,” Dr. Hubbard said. “Black women are very particular about their hair. A big head of hair—she worked her whole life for that. She didn’t consent. There was no consideration. These are the types of things I wish could be talked about pre-op. The nurse’s attitude was the biggest problem.”

**Postures of Humility** In a 2017 Pharmacy & Therapeutics article about professional behavior in health care, author Matthew Grissinger wrote that disrespect often indicates an attempt at self-preservation motivated by insecurity, anxiety, depression, aggressiveness, or narcissism. Other reasons can be differences in communication styles, power dynamics, social biases, and current events.

You’re expected to just do it, and if you do ask a bunch of questions, they label you as non-compliant or a troublemaker because you want to make an informed decision.

Dr. Jeffery Hubbard, physician and researcher

Such behavior, Grissinger wrote, contaminates the work environment as well as patient care, causing feelings such as fear, anger, shame, confusion, uncertainty, isolation, and self-doubt. This kind of emotional stress can interfere with healing by creating physical symptoms such as insomnia, nausea, fatigue, and hypertension. Additionally, poor communication skills can also create problems when it comes to surgery and contribute to patient stress and skepticism. Examples include inappropriate tone of voice, body language, word choice, rushing, lack of support services, using inappropriate settings for difficult news, and not involving patients in decision-making. Interestingly, most people don’t associate arrogance with boasting, but more often with dismissive behavior, according to a study published in Plos One in 2017. Affirming the idea, a 2016 study in Patient Education and Counseling found that physician humility is positively associated with patient health positivity.

NEXT WEEK How to talk to a doctor recommending surgery.

## WHAT YOU SHOULD KNOW ABOUT SURGERY

Health care workers who embody humility and honesty, and offer complete information before surgery give patients the opportunity to decide if the operation is the best solution. That sense of surety contributes to the healing process, as 60 percent of adverse events have been blamed on a lack of communication.

Rosia Parrish, a naturopathic doctor, told The Epoch Times that when doctors bring up the possibility of surgery, they may not provide a comprehensive overview of important considerations. Often, it isn’t because of a lack of caring, she said, but time constraints and assumptions about what patients already know.

Ms. Parrish said some aspects of surgery that are unlikely to be addressed but are vital for patient understanding include:

- 1. ALTERNATIVE TREATMENTS** Nonsurgical options—including physical therapy, medications, lifestyle changes, or holistic therapies—could be available. Even a new, lesser-known surgery or medical procedure could be an alternative to an invasive one that’s recommended.
- 2. RISKS AND COMPLICATIONS** In addition to the risks of surgery, there are recovery risks and long-term complications.
- 3. RISK OF ANESTHESIA** Side effects and risks range from minor reactions to more serious complications.
- 4. RECOVERY TIME** The overall recovery timeline can be affected by pain levels, limitations, and rehabilitation that could impact daily life.
- 5. 2ND OPINIONS** Surgery is serious and can warrant getting second and third opinions. Your recommending doctor may not actively encourage you to get a second opinion.
- 6. LONG-TERM EFFECTS** Overall health could be irreversibly affected, including a loss of mobility, function, or the need for further interventions, including drugs and additional surgery.
- 7. COMPLICATIONS AND ADVERSE EFFECTS** An adverse effect that could create new health problems can emerge because of errors, misdiagnoses, inappropriate treatments, or inherent risks in medical intervention, including surgery.
- 8. THE POTENTIAL FOR ADDICTION** Your recovery protocol may include a prescription for painkillers that pose a significant risk for long-term addiction.

# Heartburn Medication May Increase Dementia Risk

Proton pump inhibitors are being overprescribed and putting patients at risk, experts say

By George Citroner

Acid reflux and ulcer drugs could significantly increase the risk of dementia when taken for a long time, new research suggests.

Heartburn meds, such as the familiar proton pump inhibitors (PPIs), are meant to provide relief but may deliver something far more sinister later in life. These acid reflux and ulcer drugs could significantly increase the risk of dementia when taken for a long time, new research suggests. The findings, recently published in Neurology, ring alarm bells for the more than 15 million Americans who have been prescribed PPIs—the most common of which are esomeprazole (Nexium), omeprazole (Prilosec), and lansoprazole (Prevacid)—to treat their chronic gastric woes. The recent rise of

over-the-counter PPIs means millions more Americans are also taking these drugs without a prescription. **Risk Observed Only With Long-Term Use** The study analyzed 5,712 people older than 45 (average age 75) without dementia symptoms. Researchers reviewed medications during study visits and annual phone calls, finding that 1,490 people, or more than a quarter, used PPIs. Participants were split into four groups: nonusers, short-term users (about three years of use), users who

Proton pump inhibitors are linked to cognitive impairment.



took them between 2.8 and 4.4 years, and long-term users (for more than 4.4 years). Over 5.5 years, 10 percent developed dementia. After adjusting for factors such as age, sex, race, blood pressure, and diabetes, use over 4.4 years was linked to a 33 percent higher dementia risk than nonuse. No increased risk was seen with short-term use. Patients should talk to their doctors before changing medications, as stopping abruptly could worsen symptoms, Kamakshi Lakshminarayan, who holds a doctorate in cognitive science and is a co-author of the study,

told The Epoch Times, emphasizing that the study shows an association, not causation. There are several notable limitations of the research. Medication use was self-reported once per year, possibly missing nuances. Also, over-the-counter (OTC) PPI use wasn’t assessed. OTC formulations are often at a lower dose than prescription PPIs, Dr. Henry Jen, who specializes in advanced gastroenterology at Northwell Long Island Jewish Forest Hills in New York and isn’t involved in the study, told The Epoch Times. **But Short-Term Use May Have Risks Too** Adding to evidence of cognitive risks with PPIs, a small 2015 study found that even short-term use may impair function. The research randomly divided 60 volunteers into six groups; five tested

different PPIs (omeprazole, lansoprazole, rabeprazole, pantoprazole, and esomeprazole), and one was a control. All groups took five computerized neuropsychological tests of the Cambridge Neuropsychological Test Automated Battery—once at the beginning and once a week after the end of the study. The findings show “statistically and clinically significant impairment in visual memory, attention, executive function, and working and planning function” among PPI users. “All the PPIs have some exacerbated effects on cognition,” the authors wrote. Although these adverse effects may go unnoticed initially, long term, they may contribute to Alzheimer’s disease development, they said.

**PPIs May Cause Nutrient Deficiency, Affecting Cognition** Antacid drugs can deplete levels of several vitamins and minerals crucial for brain health, including vitamin B12, vitamin C, calcium, iron, and magnesium. “While these risks are considered to be relatively low in the general population, they may be notable in elderly and malnourished patients, as well as those on chronic hemodialysis and concomitant PPI therapy,” the study authors wrote. B-12 supplementation may be effective only if started before neuron damage begins in middle age, according to some research. **Alternatives to PPIs** While some conditions, such as hyper-secret-

ing tumors and Barrett’s esophagus, which is characterized by damage to the esophagus from acid reflux, necessitate PPIs, these drugs are often overprescribed and overused, according to Dr. Jen. “Especially long-term.” Potential health risks could be reduced by constantly reevaluating the need for PPIs and discontinuing them when they’re no longer beneficial, he said. Symptoms can also be minimized by lifestyle changes, including losing weight, avoiding food triggers and late snacking, and elevating the head in bed. “These modifications can often reduce or eliminate the need for PPIs,” Dr. Jen said. Nondrug options include surgery and newer endoscopic procedures such as transoral incisionless fundoplication. This minimally invasive treatment reinforces the muscle between the esophagus and stomach to prevent reflux without surgery.

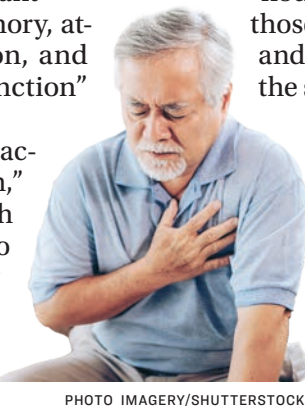


PHOTO:IMAGERY/SHUTTERSTOCK





# 4 Powerful Blood Thinners to Combat Heart Disease

Eat your medicine with these scientifically proven healing foods

Plants contain powerful compounds, many of which are isolated and synthesized to create drugs.

Garlic contains a powerful antioxidant called allicin, which is responsible for its pungent aroma.



By Emma Suttie

Every day, millions of Americans take blood thinners to keep potentially dangerous clots from forming, help prevent heart attacks and stroke, and treat certain types of heart disease. Heart disease is the leading cause of death worldwide and has been the leading cause of death in the United States for more than a century.

Fortunately, nature offers us powerful

medicines—if we know how to use them. Long before conventional medicine, people used plants and herbs to stay healthy and heal from illness. As with any medicine, they must be treated with respect and used with caution.

Many plants, foods, and other natural compounds can help thin the blood naturally. Many of these are well-known and have been used in traditional medicines for centuries. So for those interested in maintaining their heart health or looking for a more natural approach,

let's look at some of nature's most powerful blood thinners.

## A Word of Caution

For anyone taking blood thinners, or any other medications, be sure to speak to a health care practitioner whom you trust if you're interested in introducing any of the natural blood thinners above, as they can interact with other medications. For those interested in prevention and heart health, introduce things slowly and observe your reactions.

## NATTO

Natto is a traditional Japanese breakfast food made from fermented soybeans and has been part of the Japanese diet for hundreds of years. Natto contains a unique enzyme called nattokinase that has powerful anticoagulant properties, making it excellent for lowering blood pressure, improving circulation, and reducing the risks of heart disease and strokes.

Studies using nattokinase have shown its blood clot-dissolving prowess.

A study published in Scientific Reports demonstrated that a single dose of oral nattokinase enhanced fibrinolysis (the breakdown of the fibrin in blood clots)

and anticoagulation (the prevention of blood clot formation) simultaneously via several different pathways.

A review published in Biomarker Insights, "Nattokinase: A Promising Alternative in Prevention and Treatment of Cardiovascular Diseases," stated that the consumption of natto has been linked to a reduction in cardiovascular disease mortality and that recent research has demonstrated that nattokinase has "potent fibrinolytic activity, antihypertensive, anti-atherosclerotic, and lipid-lowering, antiplatelet, and neuroprotective effects."

The review concluded by stating, "In the near future, it is possible that patients with CVD [cardiovascular disease] may need only a single NK [nattokinase] pill to replace multiple drugs administered for the prevention and management of CVD, including tPA [tissue-type plasminogen activator], antihypertensives, statins, aspirin, and warfarin."

To learn more about natto and its health benefits, you can read The Epoch Times article, "Could an Enzyme in a Traditional Japanese Dish Hold the Key to Treating COVID-19?"

capabilities by blocking thrombin—an enzyme that causes blood clotting.

An article published in Experimental & Clinical Cardiology states that the resolution of blood clots after healing is essential, as clots can form at the site of a vascular lesion. This breakdown of clots is accomplished by fibrinolytic drugs, a group of medications such as streptokinase and urokinase that break up blood clots.

The study aimed to compare the ability

of ginkgo biloba extract (from the leaves) to that of the fibrinolytic drug streptokinase to break up blood clots. The results indicated that ginkgo extract had similar effects to streptokinase and could be used as a complement to or substitute for the fibrinolytic drug. The researchers added that the potential side effects of ginkgo should be evaluated in animals, and possible side effects and toxicity should be further studied in humans.



## GARLIC

Garlic has a long list of medicinal benefits and has been used for millennia by people the world over. It boasts antiviral, antibacterial, antifungal, and anti-inflammatory properties, boosts the immune system, and decreases your risk of cancer in addition to its ability to protect against heart disease—especially atherosclerosis, high blood pressure, clotting, and strokes.

Garlic contains a powerful antioxidant called allicin, which is responsible for its pungent aroma. Allicin is released when garlic is chewed, cut, or crushed. Some sources say that once allicin is released, it's active for only about an hour, while others say that it remains active for 2 1/2 days before it loses its potency and all of its healing benefits.

## Reduces Clotting

A comparative study published in Food Science and Biotechnology looked into the antithrombotic (reduces the formation of blood clots) effects of garlic powder in rats and found that over seven days, the garlic powder had anticlotting effects.

Another study, published in the Iranian

Journal of Pediatric Hematology and Oncology, compared garlic pills with the common blood thinner Plavix on bleeding and the blood's ability to clot. The researchers found that clotting was reduced in the subjects who used 1,200 milligrams or 2,400 milligrams of garlic for three weeks and that bleeding time also increased in those receiving the 2,400-milligram garlic pill. The study concluded that because of garlic's demonstrated anticoagulant properties, its use was "highly recommended" as a supplementary treatment to reduce clotting.

A randomized controlled trial published in the Journal of Nutrition evaluated the safety of using an aged garlic extract in addition to oral anticoagulation therapy. Researchers split 52 patients on warfarin therapy into two groups; one group received a placebo and the other group received the aged garlic extract. The treatment (garlic or placebo) was administered at a dose of 5 milliliters (about a teaspoon) twice a day for 12 weeks. The study demonstrated no increased bleeding in the placebo or the garlic group.

Researchers concluded that garlic is relatively safe and poses no serious bleeding risk for patients on warfarin or other anticoagulation therapy when closely monitored by a health professional.

## Reduces Blood Pressure

Garlic is also known to reduce blood pressure.

A systematic review and meta-analysis of 12 trials involving 553 adults with uncontrolled hypertension showed garlic to be effective in reducing both systolic and diastolic blood pressure with effects similar to standard blood pressure medication. This decrease in blood pressure was associated with a 16 percent to 40 percent risk reduction of cardiovascular events, such as heart attack and stroke.

If you want to supercharge garlic's medicinal benefits, try black garlic. Black garlic is regular garlic that has undergone a process of fermentation, exponentially increasing its health benefits. You can read "Black Garlic: The Antioxidant Powerhouse" for more information about black garlic.

## CAYENNE PEPPERS

Cayenne peppers contain salicylates, a group of naturally occurring compounds with anti-inflammatory properties found in some fruits, vegetables, herbs, and spices. Salicylates are used in various products such as aspirin, pain and fever reducers, and anti-inflammatory medications. Salicylates also exhibit antithrombotic and antiplatelet activity, helping to thin the blood.

Cayenne peppers also contain capsaicin, the compound found in peppers (including jalapeño, poblano, serrano, and chili peppers) that gives them their spicy flavor. Capsaicin has various health benefits ranging from potential cancer-management effects to helping to treat diabetes, to relieving pain and supporting weight loss.

A 2019 study investigated whether cayenne pepper had antithrombotic properties after observing that patients with

severe trauma who had Type O blood had a higher death rate (28 percent) compared to those with other blood types (11 percent). Researchers used cayenne pepper (Capsicum annuum) extract to determine if it would have antithrombotic properties and could offer an alternative to costly anticoagulant drugs.

The results showed that the higher the concentration of cayenne pepper extract, the more effective it is as an anticoagulant in Type O-positive human blood samples. Therefore, the researchers concluded that cayenne pepper extract exhibits antithrombotic activity and effectively prevents blood clotting.

John R. Christopher—a naturopath and master herbalist who developed the School of Natural Healing in 1953—famously used cayenne pepper to stop heart attacks.

On his website Herbal Legacy, he wrote that "in 35 years of practice, and working with the people and teaching, I have never on house calls lost one heart attack patient and the reason is, whenever I go in—if they are still breathing—I pour them a cup of cayenne tea (a teaspoon of cayenne in a cup of hot water), and within minutes they are up and around." Christopher states that cayenne is one of the fastest aids that can be given to the heart and that warm tea works faster than tablets, capsules, or cold tea because warm tea opens up the cell structure going directly to the heart. You can visit Dr. Christopher's website to learn more about the different uses of cayenne.

For these reasons, cayenne pepper is often taken in capsule form to improve cardiovascular health and increase circulation.

## INTENTIONAL LIVING

# Obvious Advice About Self Pity That Doesn't Work

And 2 practical, actionable steps that can actually help you get to a better state

By Mike Donghia

Feeling sorry for yourself and can't snap out of it?

Self pity is a trap that many of us fall into at some point in our lives. However, generic advice to simply "think positive" or "focus on the good" just doesn't cut it when it comes to breaking free from this destructive mindset.

What you really need is specific, actionable advice.

And a degree of confidence about what to expect.

The generic advice isn't wrong, exactly, it's just missing key information. Everyone knows the key to overcoming self-pity is gratitude—that's obvious. It's like saying the key to longevity is to lead a long, healthy life.

Too much advice assumes you can readily muster the very thing you need in order to make it work.

## Easier Said Than Done

I had a bout of self-pity recently that was the result of a disagreement with my wife. It's honestly a rare event, and so when it happens, it can catch us both off guard.

I remember wanting to move past it but also wanting to wallow in the fact that I was misunderstood. I also remember thinking through all the obvious advice about how to defeat self-pity, and none of it seemed more appealing than the status quo. It felt like too much work for the payoff.

The obvious advice usually goes something like this:

- Focus on the good things in your life instead of feeling sorry for yourself.
- Create a plan to fix the problems under your control, and stop worrying about everything else.

- Challenge negative thinking by identifying unhelpful thoughts and reframing them.

Not wrong. All great advice. But in the internal struggle of self-pity, these obvious solutions feel impossible.

Why is that?

Self-pity is one of those weird emotions we love and hate. We know it's destructive in the long run, yet in our feelings of insecurity, low self-esteem, disappointment, or frustration, it's sometimes the easiest comfort available.

Dwelling on our problems allows us to justify the emotions we feel. And strangely, feeling sorry for ourselves is sometimes easier than facing the thing that hurt us.

## Real Solutions for Defeating Self-Pity

In my experience, when it comes to really tackling self-pity, there are two key things you need to do: find a side quest and talk with someone about your feelings.

## The Side Quest

Engage your mind in a side quest. When your emotions are running hot, there's pretty much nothing you can do to improve your situation before you calm down. All the best advice in the world will feel impossible.

I don't find it helpful, for example, to think about things I'm grateful for when I'm feeling sorry for myself. My brain knows I'm just trying to trick myself into getting over it, and it easily resists that effort.

The key is to approach the problem indirectly. Get back to emotional neutrality as quickly as possible. How do you do it? The fastest way is to stop thinking about your emotions and become fully absorbed in something else. I suggest a small side quest. Here are my go-to activities:

- 30 minutes of aerobic exercise where my heart rate is between 60 and 70 percent of my max, just enough to break a light sweat.

MARIA KORNEEVA/GETTY IMAGES



Ruminating on our problems gives us time to find a way to justify how we feel.

- Read 30–45 pages from an inspiring or thought-provoking nonfiction book and take notes.

- Create a detailed outline for a new article and then write a 200–300 word introduction.

The point is that all of these activities engage my mind completely and start moving my emotional energy away from self-pity and toward something else. I don't have to convince myself to give up my self-pity completely, only to pause and take on the side quest.

## Talk It Out

Engage in a serious conversation with someone about your feelings. It's absolutely essential that you 1) speak your feelings out loud and 2) do it with someone you can trust. There is something deeply therapeutic about expressing your emotions, putting your chaotic thoughts into actual sentences, and having someone offer you empathy and gentle feedback.

You can do this with anyone you love, even the person who offended/hurt you. Try to do this in a calm, measured way. You're trying to de-escalate your emotions, not stir them up again.

You don't need to have a grand, cohe-

sive theory about why you felt how you did. Just put words to it. Most learning comes through trial and error and repeated practice, not merely dealing with your problems as an abstraction.

Engage in a conversation as soon as possible. The longer you wait, in my experience, the harder it is to pull yourself out.

## Don't Confuse the End and Means

That's it. The first steps to defeating self-pity are to diffuse your hot emotions with a side quest and to engage in conversation with a close friend about how you're feeling.

All the other stuff about "focusing on the good," "creating a plan," and "challenging negative thoughts" are the kinds of things you'll naturally want to do as you come out of self-pity, but unfortunately, they usually aren't the right tools when you're in the heat of battle.

The underrated advice is not to fight your negative emotions directly, but to pursue other activities that help them pass.

*Mike (and his wife, Mollie) blog at This Evergreen Home where they share their experience with living simply, intentionally, and relationally in this modern world. You can follow along by subscribing to their twice-weekly newsletter.*





### A Life-Changing Bestseller



**Z**huan Falun expounds on the profound principles of Truthfulness, Compassion, and Tolerance. It focuses on a long-forgotten term called “cultivation” and the importance of moral character on one’s path to spiritual perfection.

The book is the main text of the spiritual practice Falun Dafa. It was a national bestseller in China in the 1990s, and has since been translated into more than 40 languages. Find out why it has captured the hearts and minds of tens of millions of people in more than 100 countries worldwide.

“What made Falun Gong stand out from other qigong exercises and meditation practices was a moral system—compassion, truthfulness, and forbearance—unmistakably Buddhist in origin.

Arthur Waldron  
LAUDER PROFESSOR, UNIVERSITY OF PENNSYLVANIA

Order Your Copy

Fayuanbooks.com or 845-538-4490





## NTD GLOBAL CHINESE BEAUTY PAGEANT

SEP. 30, 2023  
GRAND FINALS & CORONATION

BUY TICKETS



THE PAC AT PURCHASE  
MISSNTD.ORG

## ENJOY SHEN YUN AT HOME

Stream something spectacular  
with Shen Yun's all-new video platform!





### SHEN YUN ZUO PIN

PAST SHEN YUN PERFORMANCES • ORIGINAL MUSIC  
CONCERTS & OPERAS • MASTERCLASSES • SHORT FILMS

Watch Now

ShenYunZuoPin.com/Watch





I LOVE SHEN YUN  
SHEN YUN COLLECTIONS



## The Spirit of Mulan

Elegance of character. Strength of will.

SHENYUNCOLLECTIONS.COM | 1.800.208.2384

Chest pains may be linked to a malfunction in the mitochondria that provide energy to your cells.

# Healing Mitochondrial Dysfunction After COVID-19

COVID-19 can leave cellular mitochondria struggling to produce energy, affecting the heart, kidneys, brain, and more

By Marina Zhang

The SARS-CoV-2 virus can cause mitochondrial dysfunction in critical organs, including the heart, kidneys, and liver, but doctors have some suggestions to help recover from the damage.

**COVID-Hijacked Mitochondria**  
Mitochondria produce energy in the cells in the form of adenosine triphosphate (ATP). Researchers usually identify a decline in energy output from the mitochondria as mitochondrial dysfunction.

Keshav Singh, a professor specializing in genetics and mitochondrial research at the University of Alabama, has shown in his work that during COVID-19 infection,

the SARS-CoV-2 virus can enter mitochondria and hijack their energy metabolism, impairing mitochondrial energy production.

ATP is produced in a series of steps. The first few steps occur outside the mitochondria and produce only a few molecules of ATP, and the last steps occur inside the mitochondria and produce the most ATP.

Mr. Singh's 2021 study reveals that in immune cells infected with SARS-CoV-2, the genes involved in the later processes of ATP production, known as oxidative phosphorylation, become suppressed. In contrast, the early energy production processes are enhanced.

A Children's Hospital of Philadelphia study further shows that the virus suppressed oxidative phosphorylation in the heart, kidneys, and liver.

**The SARS-CoV-2 virus can enter mitochondria and hijack their energy metabolism, impairing mitochondrial energy production.**

Family physician Dr. Scott Jensen told The Epoch Times that the study findings may explain some of the symptoms and laboratory results in long-COVID and vaccine-injured patients.

“You could have people that begin to have kidney failure; liver function enzymes would be going up, so they would have diminished liver function,” Dr. Jensen said. “People would present with cardiac manifestations.”

“We see that this has happened from the vaccine and from COVID itself. This would be a possible explanation for that.”

Rather than being suppressed, oxidative phosphorylation was promoted in lung tissue. Researchers theorized that this may be because the lung tissues had recovered from the infection.

Continued on Page 16

## Snip Decisions: Vasectomies and the Aftermath

Vasectomies, once thought to be straightforward, are revealing unforeseen emotional and physical tolls on younger men

By Sheramy Tsai

When 30-year-old Jessica and her husband sat down with their doctor to discuss a vasectomy, they were presented with a straightforward narrative. A simple procedure. Minimal recovery. An ideal solution for couples content with their family size.

Yet the reality that unfurled in the weeks post-procedure starkly contrasted with their expectations. Instead of a few days of mild discomfort, Jessica's husband was sidelined with debilitating pain, needing weeks to feel normal.

As Jessica reflects on a dissolved marriage, she can't help but underscore the vasectomy's underestimated impact in its demise. Her story offers a cautionary tale in an era of modern medicine: the risk of underplaying interventions into our body's natural rhythms.

**The Rise of Vasectomies Among Younger Men**  
Across the United States, a distinct shift in men's health care choices has emerged. A recent study by the University of Chicago pinpointed a significant 26 percent increase in vasectomy rates among privately insured men aged 18 to

64, spanning 2014 to 2021.

Digging into the specifics, the data reveal intriguing patterns. Men with three or more children were among those who showed the most substantial growth in vasectomy rates, followed closely by those with two children.

But the most telling figures lie in the age demographics: men without children saw the greatest relative increase at 61 percent, and those aged 18 to 24 followed closely at 36.7 percent. This trend underscores a significant shift in generational attitudes toward family planning among younger men. This trend is complemented by the rise in single men and those with partners younger than 35 opting for the procedure. The shift wasn't limited to urban hubs either, with rural areas across the board—save for the Northeast—showing an even more pronounced uptick.

Continued on Page 17

▲ Vasectomies come in different forms, including the open-ended method (L) and suturing method (R), but no form of vasectomy is easily reversed.

THE EPOCH TIMES



## Care about health? So do we.

Get practical health news for your daily life for just \$1.\*

ReadEpoch.com

\*digital subscription





## The Spirit of Mulan

*Elegance of character. Strength of will.*

SHENYUNCOLLECTIONS.COM | 1.800.208.2384



Test your brain with one of the biggest libraries of crosswords, puzzles, brain games, and sudoku on the web.

Play now at **EpochFun.com**

THE EPOCH TIMES

# EpochFun

# Gut Microbiome May Be Key in Treating Lyme Disease

Chronic Lyme has an effect on the microbiome that can be addressed with personalized treatments, say experts

By Vance Voetberg

Lyme disease cases have tripled in the past 20 years. The disease, caused by bacteria found in certain ticks, leaves individuals with a wide variety of grueling chronic symptoms if not treated immediately.

The burdensome and perplexing nature of Lyme disease has forced doctors to think outside of the box, which, as a result, has spurred great strides toward helping individuals overcome it. Cultivating a thriving gut microbiome is central to treating Lyme disease, according to leading experts.

### The Microbiome Connection

Lyme disease is a vector-borne illness, meaning that it's spread by other organisms rather than through the air or other mediums. The overall health of the person acquiring the disease—and how they respond to it—depends significantly on their gut microbial balance, Julia Greenspan, a licensed naturopathic physician with a specialty in Lyme disease, told The Epoch Times.

The microbiome is a complex community of microbes—including bacteria, fungi, viruses, and other organisms—that live on or inside our bodies. Our body depends on these microbes for several functions, but sometimes unhealthy microbes proliferate or too many of the beneficial microbes die off. This can significantly affect the course of Lyme disease.

"If the microbiome is compromised at the get-go, it will make the symptoms more intense and the ability to treat patients with oral medication more difficult," Ms. Greenspan said.

Historically, chronic Lyme disease has been treated with a wide-ranging set of antibiotics. While effective in treating early-onset cases, it has been documented that they can work

against the body's natural healing mechanisms by causing a microbial imbalance.

Rika Keck, a functional diagnostic nutrition practitioner, is very familiar with the double-edged nature of antibiotics. Her husband, first diagnosed with Lyme disease in 2007, initially had success with antibiotics. He received a 21-day prescription of doxycycline that "made him very ill," but he seemed to recover from the infection, she told The Epoch Times.

Five years later, Mr. Keck found a tick on his waist and tested positive for Lyme disease and another infection called Babesia divergens. "After weeks of antibiotics, he developed severe gastrointestinal disruption, which lasted for three years," Mrs. Keck said.

Mr. Keck continues to have sensitivities to certain foods, digestive challenges, and symptoms from Hashimoto's disease—an autoimmune condition stimulated by his first incidence of Lyme disease.

"It is because of witnessing my husband's Lyme disease journey that I became much more involved in holistic interventions for tick-borne infections," Mrs. Keck said.

### Restoring the Microbiome

Emerging research is dialing a greater understanding of how the disease affects Lyme disease patients' microbiomes.

In a 2020 study published by the American Society for Microbiology, researchers found that patients with chronic Lyme disease have a distinct microbiome signature, allowing for an accurate classification of more than 80 percent of analyzed cases. The report noted that this includes an increase in the bacteria Blautia and a decrease in Bacteroides.

"A patient's immunological landscape plays an important role in the development of [chronic Lyme disease]," the authors concluded.

Noting that as much as 80 percent of immune function stems from the gut microbiome, Darin Ingels, a naturopathic doctor who specializes in treating patients with Lyme disease, said that "targeting the organisms with an-

timicrobials is only part of the overall treatment." The disease often affects the microbiome, as the infection can disrupt the normal microbiome. Mr. Ingels said that Lyme disease treatment, especially with antibiotics, further exacerbates the dysbiosis in the intestinal tract.

Restoring a healthy balance of gut microbes requires eating a clean diet, eliminating processed foods that have been shown to impair microbiota health, and replacing them with nutrient-dense, fiber-rich foods to help support the normal growth of large intestine bacteria.

"Dietary changes are often the most difficult changes to make, but most patients report improved cognitive function, energy levels, less pain in the body, reduced sinus congestion, and improved digestion," Ms. Greenspan said.

Mr. Ingels said that eating fermented foods can also help improve gut health, as they're a natural source of probiotics. "I often add probiotics to help reestablish a healthy microbiome and butyrate, which is an essential nutrient that helps facilitate bacterial growth," he said.

It's important, however, to note that all probiotics aren't created equal, Mr. Ingels said.

"Choosing well-researched, stable strains is important, as many over-the-counter probiotics are dead and do not provide any benefits," he said.

Managing stress is also important, given that stress can hurt the gut microbiome.

Mr. Ingels also uses various herbs—such as cat's claw, Artemisia, Japanese knotweed, Cryptolepis, Houttuynia, and Coptis—to treat many of his patients. "They are clinically effective and don't have the same harmful effects that antibiotics potentially have on damaging your normal bowel flora or mitochondria," he explained.

Daily movement is also an integral factor in both doctors' protocols, given that exercise has been shown to improve gut microbiome health. In a study investigating the effects of resistance training in patients with chronic Lyme disease, researchers found that resistance exercises three times a week for four weeks significantly improved patients' symptoms.



The best way to remove ticks is to grasp the head and pull them off with fine tweezers. Infection is unlikely if found within several hours.



Probiotics from fermented foods support a healthy microbiome and promote the growth of beneficial bacteria that can counteract the effects of Lyme disease.

Learning to tune into cues, or symptoms, can help us develop eating habits that foster a healthy, supportive microbial community.

### Treating the Person, Not the Disease

Treating chronic Lyme disease can take a lot longer than anyone expects.

"Too often, doctors abandon treatment because the patient is not recovering fast enough," Ms. Greenspan said, noting that the words "cure" or "eradicate" might frame the thinking of some physicians.

However, a different approach is needed to overcome the symptoms of chronic Lyme disease.

"It's a very specific medical specialty to understand the nuances of treating this complex chronic illness," Ms. Greenspan told The Epoch Times. For the best results, the healing process requires

using medications synergistically and setting the patient up for success with proper expectations and plenty of encouragement, she said.

Rather than a disease-centered approach, Ms. Greenspan said that it's critical to adapt the treatment plan to each patient's specific needs, given that the disease manifests differently for each patient.

"It's not a straight line for most, but a winding path with pendulum swings pushing you forward, dragging you back, and then the body eventually starts to have more good days," she said.

"Tell patients, you will know you are better when you start to forget you are sick."

## mRNA Vaccines Linked to Reduced Immune Response

Research suggests the COVID-19 mRNA vaccine may contribute to immune deficiency

By Marina Zhang

A recent study on the immune effects of Pfizer's COVID-19 mRNA vaccine has scientists raising concerns about vaccine-acquired immune deficiencies.

Vaccine-acquired immune deficiency syndrome (VAIDS) is a new colloquial term coined by researchers and health practitioners since the COVID-19 vaccine rollout. Although VAIDS isn't recognized as a medical condition, some experts believe that the COVID-19 vaccines may impair or suppress immune responses.

While the new study, published in Frontiers in Immunology, doesn't use the term VAIDS, the researchers recognized "a general decrease in cytokine and chemokine responses" to bacteria, fungi, and non-COVID viruses in children after COVID-19 vaccination.

"Our findings suggest SARS-CoV-2 mRNA vaccination could alter the immune response to other pathogens, which cause both vaccine-preventable and non-vaccine-preventable diseases," the study authors wrote.

"This is particularly relevant in children as they: have extensive exposure

to microbes at daycare, school, and social occasions; are often encountering these microbes for the first time; and receive multiple vaccines as part of routine childhood vaccination schedules."

The researchers from the Murdoch Children's Research Institute and Royal Children's Hospital in Melbourne, Australia, took blood samples from 29 children, both before vaccination and after two Pfizer mRNA doses.

They found that blood samples post-vaccination had a lower cytokine response to non-COVID pathogens compared with the blood taken before vaccination. This reduced immune response was particularly persistent for non-COVID viruses. Blood samples taken at six months showed some children still had low responses for hepatitis B virus proteins and proteins that mimic a viral infection; however, cytokine responses had increased for bacterial exposures.

Immune responses to COVID-19 proteins—including spike proteins and their S1 and S2 subunits—and nucleocapsid proteins remained high after vaccination.

Retsef Levi, a professor specializing



▲ Study results indicate that mRNA COVID-29 vaccination may modify the body's immune response to various pathogens.

in risk management and health systems at the Massachusetts Institute of Technology (MIT), posted on X, formerly known as Twitter, that the study "adds to cumulative evidence suggesting adverse immune alteration" by COVID-19 vaccination. Family physician Dr. Syed Haider and immunologist and computational biologist Jessica Rose have both connected the study's findings to VAIDS.

The study findings suggest "that repeat mRNA vaccine injections could predispose children to both viral and bacterial infections," Dr. Andrew Bostom, a cardiovascular research expert and retired professor of medicine at Brown University, told The Epoch Times in an email.

However, the study arrived at this conclusion by measuring cytokine levels, which is only a surrogate marker for a person's immune response, he said.

Logical and critically warranted follow-up studies would include researching to see if children with reduced cytokine levels developed infections, Dr. Bostom said.

### Challenging the Study Design

Marc Veldhoen, an immunologist specializing in T-cell responses and the head of a laboratory at Instituto de Medicina Molecular in Portugal, challenged the study's findings.

In a thread on X, he highlighted flaws in the study, including the lack of controls—meaning children who weren't vaccinated—to compare against the subject group on their innate immune responses to other pathogens.

"Without a non-vaccinated control group, at least another vaccine control group (to claim specificity), much larger numbers of subjects, and cellular composition data, [the study authors'] conclusion is speculation, and unlikely to hold," Mr. Veldhoen wrote.

### Other Studies Suggest Reduced Immunity After Vaccination

The study is one of many that have suggested a declined immune response after COVID-19 vaccination.

A preprint study of 16 adults who re-

ceived the Pfizer mRNA vaccines had similar findings of a reduced innate immune response in participants exposed to pathogenic fungi. The same paper also found long-term changes in innate immune cells.

The Epoch Times reported on a January study in Germany, which found that multiple mRNA vaccinations induced a "class switch" in the type of antibodies formed against the spike protein and other COVID-19 proteins.

Boosted individuals have increased IgG subclass 4 (IgG4) antibodies, which are less effective than other subtypes of IgG antibodies.

"The development of more IgG4 than usual is unhealthy and riskier for people if they encounter

the real virus later, as COVID-19 can develop into a rather severe disease, especially for people with chronic conditions," Xiaoxu Sean Lin, a professor in the biomedical science department at Fei Tian College, wrote in a previous article in The Epoch Times. "If the body begins to treat the SARS-CoV-2 vaccine like a boy crying wolf, then what if the real virus comes knocking at the door?"

Research from the Cleveland Clinic and the Indiana University School of Medicine also found that COVID-19 vaccinated people were at a higher risk of infection than unvaccinated people who survived a prior COVID-19 infection. The peer-reviewed paper also showed that each successive dose heightened the incidence of infection.

Stephanie Senef, a research scientist at MIT with a doctorate in computer science, was the lead author of a sci-

entific paper in 2022 that discussed the implication of COVID-19 vaccines causing innate immune suppression. This immune suppression may present individuals with a vulnerability to cancer, neurological diseases, and other infectious diseases, she wrote.

Since the COVID-19 vaccine rollouts, there has been an increase in cancers in people younger than 50, and some experts have suggested vaccine triggers. Leprosy cases have also increased, and a relationship to COVID-19 vaccines has been proposed.

A peer-reviewed study in mice also showed that mice injected with the same lipid nanoparticles used in mRNA vaccines had a reduced innate and adaptive immune response. Mice

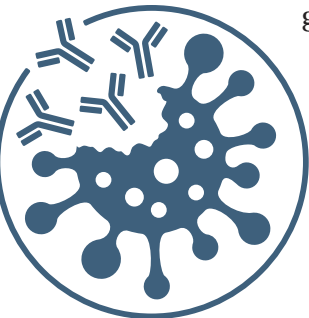
given two doses of lipid nanoparticles had a more persistent suppressed immune response. The mice's offspring also inherited some of the immune suppression.

The innate immune response serves as the first line of defense, while the adaptive—responsible for immunological memory—is the final line of defense.

"We report that pre-exposure to the mRNA-LNP [mRNA lipid nanoparticle] platform has long-term impacts on both innate and adaptive immune responses, with some of these traits even being inherited by the offspring," the study authors wrote.

"Whether multiple pre-exposures lead to an even more drastic inhibition of the adaptive immune responses and how much overlap there is between mouse and human data remains to be determined."

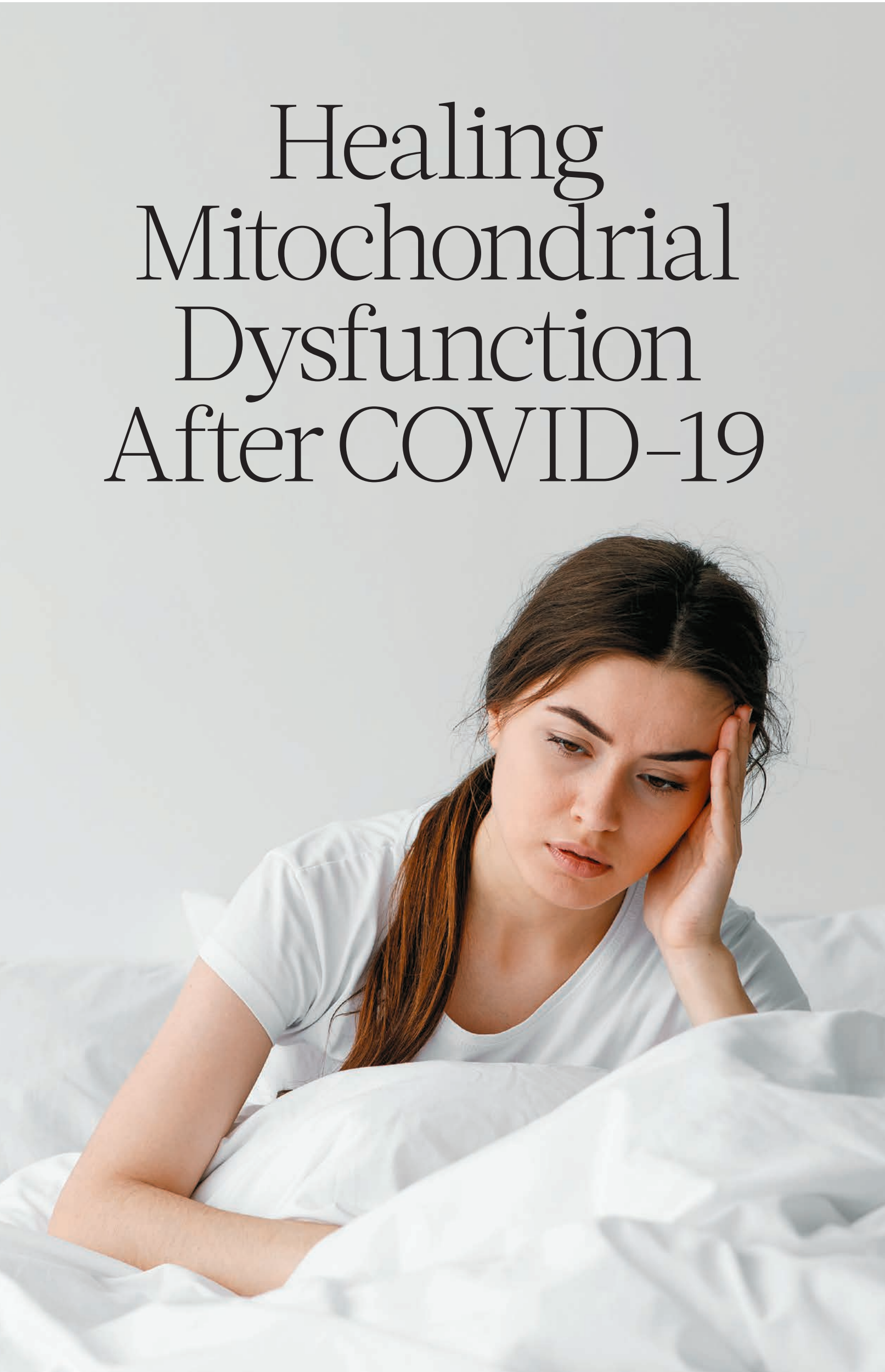
Pfizer didn't respond to a request for comment by press time.



▲ Booster shots provide less effective antibodies that may undermine immune reactions to pathogens like SARS-CoV-2.

DIMITRY KOVALCHUK/SHUTTERSTOCK





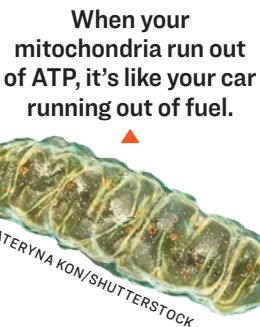
**Mitochondria are the powerhouses of cells, producing energy in the form of adenosine triphosphate (ATP).**

Continued from Page 13

However, Scott Marsland, a nurse practitioner at Leading Edge Clinic, told The Epoch Times that he disagrees. He suggested that patients may experience shortness of breath from microclotting in the lungs, which can occur even with functional mitochondria.

Common Symptoms

Fatigue and brain fog are common symptoms of both long COVID and COVID-19 vaccine injury, and both may be caused by mitochondrial dysfunction. Energy depletion leads to severe fatigue. Brain fog occurs because of a similar mechanism, with reduced ATP



powering the brain. Chest and muscle pains, headaches, and organ dysfunction may all be related. Not having enough ATP is like “not having gasoline in your car as the car runs,” family physician Dr. Jeffrey Nordella explained. Any organ with depleted ATP wouldn’t operate normally. Mitochondrial dysfunction may be detected using a Mitoswab test, which measures the levels of proteins involved in oxidative phosphorylation. Lower levels suggest mitochondrial dysfunction.

Mitochondrial Dysfunction Recovery

Treatment for mitochondrial dysfunction is focused on replenishing nutrients that help mitochondria with their energy production, according to family physician Dr. Miguel Antonatos.

1. Nutrients and Supplements

**QUERCETIN AND RESVERATROL** Dr. Antonatos’s treatment regimen includes quercetin and resveratrol, potent antioxidants that can help with oxidative phosphorylation. Exposures to the SARS-CoV-2 virus and its surface spike proteins can cause oxidative stress to the cellular environment and mitochondria, impairing oxidative phosphorylation. Quercetin and resveratrol also promote mitochondrial growth. Resveratrol has also been suggested to encourage mitophagy, the process during which dysfunctional mitochondria are broken down and recycled to generate new mitochondria.

B-COMPLEX VITAMINS

B-complex proteins are all involved in energy metabolism. To name a few, riboflavin (B2), niacin (B3), and pantothenic acid (B5) are precursors to molecules involved in energy production in the mitochondria, according to Dr. Antonatos.

MELATONIN

Mitochondria produce melatonin. In addition to being a potent antioxidant, melatonin maintains mitochondrial integrity. The hormone has been shown to activate genes involved in mitochondrial production, and it helps maintain the electrochemical balance in the mitochondria.

Melatonin has also been associated with improved ATP production.

TURMERIC

Curcumin, the bioactive molecule in turmeric, is both antioxidizing and anti-inflammatory. It also activates pathways involved in mitochondrial formation, oxidative phosphorylation, and mitophagy.

ALPHA-LIPOIC ACID

Alpha-lipoic acid has anti-inflammatory and antioxidant properties, helping neutralize stress during and after infection.

FASTING

Fasting promotes autophagy, which clears the virus and its spike protein. It also assists in mitochondrial biogenesis and may help reduce oxidative stress.

2. Medication

METHYLENE BLUE

Drs. Jensen and Antonatos suggested low-dose methylene blue to boost mitochondrial function. Research shows that methylene blue donates electrons to the oxidative phosphorylation process, potentially improving the efficiency of ATP production. The therapeutic has



▲ Glasses designed to block the blue light from computer and phone screens only filter only 10 to 25 percent of blue light, research finds.

What Early Research Says

Growing evidence suggests that blue-light lenses don’t help as advertised. One 2020 study involving 24 subjects found little evidence that blue-blocking filters help dry eyes. The conclusion was

compared to non-blue-light filtering lenses,” Laura Downie, an associate professor at the University of Melbourne and the senior author of the review, said in a press statement.

It’s unclear whether the lenses affect vision quality or sleep. No conclusions could be made regarding their effect on longer-term retinal health, she said. “People should be aware of these findings when deciding whether to purchase these spectacle lenses.”

Blue-light blockers filter only 10 to 25 percent of blue light from screens, according to Sumeer Singh, a postdoctoral clinical research fellow at the University of Melbourne and the first author of the study. The blue light from devices is a “thousandth of what we get from natural daylight,” he added.

The review didn’t identify harms beyond discomfort typical of glasses.



▲ Curcumin fights inflammation and acts as an antioxidant. It can also boost cellular processes linked to energy production and cellular cleanup.



▲ Methylene blue may improve ATP production and regulate the electrical balance of the mitochondria.

also been suggested to regulate the electrical balance of the mitochondria, which is critical.

IVERMECTIN

Ivermectin can bind to the COVID-19 virus and its spike protein and promote autophagy, helping clear the virus and its proteins. Ivermectin is also anti-inflammatory and has been shown to improve mitochondrial activity.

LOW-DOSE NALTREXONE

While low-dose naltrexone doesn’t directly contribute to viral clearance or mitochondrial improvement, doctors have found it helpful in reducing inflammation, which can help the body heal.

3. Electromagnetic Field Therapies

Mr. Marsland has also started using pulsed electromagnetic field (PEMF) therapy to treat his long-COVID and vaccine-injured patients, some of whom have already reported dramatic improvements.

“Some patients are two or three days into using the device, and they’ll say, ‘I already have more energy; my muscles are stronger already,’” he said.

The body has electromagnetic fields (EMFs), regions that contain both electrical and magnetic energy. Strong and ionizing electromagnetic fields from ultraviolet light and X-rays can damage the body, while some weaker EMFs can promote health.

Weak EMFs at the right frequency and strength, such as PEMFs, can affect the movement of electrons across cells, which is essential to oxidative phosphorylation.

Several studies have shown that PEMF therapy can change the activity of mitochondria, improving ATP production while enhancing mitochondrial defenses against oxidation.

In 2021, the University of Rochester School of Medicine and Dentistry published a study in Scientific Reports showing that PEMF therapies enhanced mitochondrial activity in bone healing.

In 2022, several scientists in Vienna published a case report on an instance in which a long-COVID patient was successfully treated using a PEMF device.

“Fatigue, work ability, quality of life, and psychological well-being improved clearly over the course of the treatment and showed stable results 6 weeks later,” the authors wrote.

that optimizing screen viewing conditions and managing other ocular factors may more effectively reduce symptoms.

Other 2021 research involving 120 computer users showed that blue-blocking lenses didn’t improve eyestrain symptoms when compared with clear lenses.

Excessive UV light raises cataract and macular degeneration risk. Excess nighttime light also disturbs sleep by suppressing melatonin, which can have adverse side effects, Dr. Daniel Laroché, president of Advanced Eyecare of New York and clinical associate professor of ophthalmology at New York Eye and Ear of Mount Sinai, told The Epoch Times.

“The benefits of UV-blocking lenses are well known,” Dr. Laroché said. But research on blue-light lenses is less robust, he added.

Snip Decisions: Vasectomies and the Aftermath

Continued from Page 13

In recent reports, a notable percentage of younger men have expressed marked satisfaction following their vasectomies, highlighting the added peace of mind and ease it introduces to their family planning. A study further underscores this sentiment, indicating that 27 percent of respondents experienced heightened satisfaction in their sexual lives post-procedure compared to their pre-vasectomy state.

“We are anticipating increased consultations for vasectomy in our clinics,” urologist Omer Raheem, assistant professor of surgery-urology and the study’s senior author, said in a statement. “It is essential for healthcare providers to be aware of these trends and proactively offer vasectomy counseling and services to meet the growing needs of patients.” What’s driving this trend? The motivations remain varied and complex, but what’s clear is that men’s approach to permanent contraception is undergoing a transformative moment.

The Reality Behind Vasectomy Recovery

Vasectomies are often hailed in the medical world as a straightforward procedure—low on pain and with a rapid recovery timeline. Recent research from 2023 seems to support this narrative, noting that the risk of infection after a vasectomy stands at a mere 1 percent among top-tier international vasectomy clinics that employ non-scalpel vasectomy.

However, such statistics can sometimes mask the lived experiences of individuals.

Jessica’s account of her ex-husband’s ordeal following his vasectomy offers a poignant contrast: “After the procedure, my husband took longer to heal than expected. Doctors seem to downplay the recovery time and the amount of pain a vasectomy causes men. My ex-husband was told it would only be a few days and some mild swelling to recover, but he needed a week or two just to feel normal again and longer to heal fully.”

Their experience became a reference point in their circle, with others reaching out to verify if the pain they were experiencing was typical.

Among the complications that some men encounter post-vasectomy is the lesser-known post-vasectomy pain syndrome (PVPS). This condition, recognized by persistent testicular pain lasting more than three months, can manifest immediately after the surgery or surface years

later. This pain, which can range from a dull ache to sharp, debilitating sensations in one or both testicles, isn’t just an inconvenience; for many, it’s an agonizing ordeal that severely compromises their quality of life.

One comprehensive study highlighted that post-vasectomy pain is more prevalent than previously thought, with the traditional scalpel method showing a strikingly increased risk. However, regarding PVPS specifically, about 5 percent of patients are affected, regardless of the surgical technique used.

In addition to post-vasectomy pain, other issues can arise, such as infections, hematoma—when blood forms a clot in the scrotal tissue—sperm granulomas, and excessive swelling.

Emotional Echoes: The Unspoken Aftermath of Vasectomies

The divergence between what’s anticipated and what’s experienced doesn’t just stop at physical discomfort—it also sometimes extends into the emotional realm. The resulting mismatch can strain personal relationships, leaving partners grappling with unforeseen challenges.

Doctors seem to downplay the recovery time and the amount of pain a vasectomy causes men.

Jessica, wife of husband who had a vasectomy

Jessica’s perspective provides a heartfelt window into the intricate tapestry of emotions tied to the vasectomy experience.

“Honestly, the idea that shutting off a normal biological function is simple and easy is misleading,” she said. “It may not be an invasive procedure compared to some surgeries, but a vasectomy is very painful and changes a couple’s attraction to each other.”

Studies have illuminated a connection between vasectomies and a rise in depression rates among certain patients, a trend potentially underreported due to many men not seeking support for these psychological effects. This shift in reproductive status and possible physical complications can plunge men into depressive spells. Initially in support, partners may wrestle with guilt, particularly if the man’s recovery proves more challenging than anticipated.

For many men, undergoing a vases-



◀ The greatest growth in vasectomy rates was seen among men with three or more children.

ectomy leads to a deep sense of diminished masculinity, given the irreversible change to their reproductive capability. Often termed “post-vasectomy regret,” this lingering sentiment emerges when men grapple with remorse, especially if they felt pressured into the procedure or didn’t give it sufficient thought. Such feelings of regret can intensify with shifting life circumstances such as entering a new relationship or facing the tragic loss of a child, events that can radically reshape their views on fatherhood.

Vasectomies: A Choice Best Viewed as Irreversible

Some men approach vasectomies under the presumption of reversibility. Johns Hopkins Medicine pointed out that about 6 percent of men who undergo the procedure eventually desire a reversal. Common reasons for this change of heart include new relationships or the wish to expand their families.

However, Dr. Michael Grant, urologist and co-director of the Men’s Health Center at Dartmouth-Hitchcock Urology, emphasized the importance of viewing vasectomies as a lasting decision.

“Vasectomies may be quick, but reversals are intricate procedures demanding specialized skills, not often covered by insurance, and can cost upwards of \$15,000 out-of-pocket,” he told The Epoch Times. “Even with a successful reversal, which involves undergoing general anesthesia and a lengthy operation, chances of achieving pregnancy range from 30 to 80 percent. It’s imperative for those considering a vasectomy to think of it less as a temporary fix and more as a permanent choice.”

Despite the complexities surrounding reversal, many men who opt for vasectomies remain content with their decision, often citing a sense of relief and freedom from long-term contraceptive concerns.

Navigating the Best Path Forward

While vasectomies are generally successful and beneficial for men seeking permanent contraception, the procedure’s gravity can’t be understated. Dr. Grant underscored the importance of deep reflection and conversation about the potential long-term implications. He noted that the often pays special attention to younger men contemplating this decision, ensuring that they fully consider its lasting implications.

During a recent session, Dr. Grant shared an illustrative case from his practice. He detailed the story of a man who was certain that a vasectomy was the best choice for his family’s trajectory. However, on the day of the procedure, the patient’s wife voiced significant anxieties to the medical team. Her reservations, stemming from deep emotional concerns, prompted Dr. Grant to advise the couple to explore marital counseling before moving forward.

Such real-life accounts underscore the need for thoughtful consideration. Jessica, now 40, shared her reflection on her own journey. A decade removed from her experience, she offered a cautionary perspective.

“In hindsight, it may appear as a straightforward solution, but it isn’t,” she said. “I would encourage couples to postpone such a decision to later stages in life, perhaps in their 40s or 50s. By then, such a step might not even be deemed necessary.”

This collective wisdom reiterates a central point: Patients and their partners must receive a holistic picture of vasectomies, ensuring that they’re thoroughly prepared for the physical and emotional facets of the journey ahead.

Blue-Light Blockers Debunked

Glasses to block blue light may not help, but these other methods can ease eye fatigue

By George Citroner

Is your digital eyestrain destined to persist? Online advertisements for stylish blue-light-blocking glasses promise relief from tired eyes and sleepless nights. But it may be more of a fad than a fix, according to a growing body of research.

Although the efficacy of these specialty lenses is up for discussion, several methods are proven to interrupt the constant focus and help reduce fatigue.

Debunked Claims Regarding Blue-Light Filters

Blue-light-filtering lenses have surged in popularity as a solution to eyestrain and trouble sleeping due to excessive screen time.

A review of 17 randomized trials by the University of Melbourne found little evidence that blue-light-blocking lenses provide short-term benefits for computer-related eyestrain compared with regular lenses. The trials ranged from just five to 156 participants.

“We found there may be no short-term advantages with using blue-light filtering spectacle lenses to reduce eye strain associated with computer use,



MILANZ099/GETTY IMAGES

# Stay Hydrated to Reduce Stroke Risk

Researchers have found a surprising link between water intake and stroke risk



By Dr. Kuo-Pin Wu

Water is more than a thirst-quencher; it also helps the body flush out toxins and aids in weight management. Recent research has even suggested that staying hydrated may be a key factor in longevity and anti-aging. On the other hand, not drinking enough water can lead to elevated serum sodium levels, increasing the risk of chronic conditions such as stroke, heart failure, and cognitive impairment.

What type of water is best for our health, and how can we ensure optimal hydration in our daily lives?

The human body is approximately 60 percent water. Nutrients from foods, such as vitamins and minerals, need to dissolve in water to circulate in the blood and reach various organs. Water also plays a role in improving the body's metabolism and eliminating waste.

Dehydration and insufficient water intake can cause fatigue, anxiety, depression, poor concentration, restless sleep, and breathing difficulties. Moreover, dehydration can lead to the development of many diseases, including chronic inflammation, chronic pain, constipation, high blood pressure, and diabetes. Even obesity caused by overeating may be linked to dehydration. For some patients, the solution to their ailments may be as simple as increasing their water intake.

According to the latest research from the National Institutes of Health, staying hydrated to maintain normal serum sodium levels may be a key factor in promoting longevity and anti-aging. Conversely, elevated serum sodium levels may increase the risk of various chronic diseases.

In a study that tracked 11,255 people for 25 years and excluded participants with high serum sodium levels due to factors such as obesity and medication use, researchers found that even when serum sodium levels were within the normal range of 135 to 146 millimoles/liter (mmol/l), those with higher levels had an increased risk of being biologically older and developing chronic diseases at a younger age.

Serum sodium levels above 142 mmol/l are associated with a 64 percent increased risk of developing chronic diseases such as stroke, heart failure, atrial fibrillation, peripheral vascular disease, chronic lung disease, diabetes, and cognitive impairment.

## Staying Hydrated Can Help Prevent Illnesses

In ancient China, there was a saying, "Food is better than medicine, but water is even better than food."

Water was regarded as the "king of medicines," and almost all traditional Chinese medical texts placed water as the first remedy. For example, in the "Compendium of Materia Medica," the first item listed was water.

And the first chapter of a renowned dietary therapy book called "Recipe of Suixiju," authored by the Qing dynasty physician Wang Shixiong, was also dedicated to water.

Li Shizhen, the renowned author of the "Compendium of Materia Medica," placed great emphasis on the importance of water, calling it the source of many transformations. According to him, there are more than 40 types of water, including rainwater, dew, sweet dew, winter frost, and well water, each with unique healing effects. Water with different properties, such as warm, hot, cool, or cold, can be used to treat various illnesses.

## 4 Keys to Drinking Water

Many people fail to drink enough water. This is largely because people tend to favor milk, fruit juice, and sugary beverages, which are different from water in terms of their effects on the body's functions. They can't effectively replace water and don't provide adequate hydration. Additionally, some people choose to consume coffee, tea, or alcohol in place of water. However, these beverages are strong diuretics and may take away more water from the body and cause dehydration.

Drinking plain water is the best option for maintaining good health, and there are also certain considerations to keep in mind when it comes to drinking water for health purposes.

### 1. Water temperature

The temperature of the water should be around the same as body temperature. Drinking water that is too hot can harm the throat and even lead to oral cancer. On the other hand, water that is too cold can affect blood circulation.

### 2. Timing of water intake

It's recommended to drink more water in the afternoon, between 3 and 5. During this period, the bladder meridian is active, and the body can efficiently use water to aid in metabolism and detoxification. It's also advisable to drink a glass of water two hours before going to bed. During the six to seven hours of sleep, the body does not replenish its water supply. Hydrating before sleep can prevent blood from thickening at night and in the morning, thereby reducing the risk of cardiovascular disease.

Some people have the habit of drinking a large glass of water in the morning. However, this may not be suitable for those with spleen deficiency. If you wish to drink water on an empty stom-

ach in the morning, it's advisable to limit your intake to only 50 ml to nourish the body.

### 3. Boiling water

Traditional Chinese medicine advises against drinking un-boiled water as it can make the body cold and increase the risk of illness.

Water boiled in different containers also has different tastes. Compared with water boiled in stainless steel, cast iron, and pottery kettles, water boiled in a ceramic kettle has a more pleasant taste, characterized by a warm and smooth texture.

### 4. Amount of water to drink

Not everyone has to strictly adhere to drinking eight glasses of water a day. The amount of water one should consume each day is influenced by various factors, such as climate, metabolic rate, gender, age, food intake, type of work, and physical condition. The general recommendation is to drink 6 to 10 cups of water (approximately 250 ml per cup) per day.

Patients who can't urinate normally, such as those with heart or kidney disease or edema, must follow their doctor's instructions and shouldn't drink excessive amounts of water.

## Natural Water Is Better Than Processed Water

In recent years, many brands of processed water have emerged on the market. These manufacturers claim that their products have gone through multiple purification processes and offer various medical benefits. This has made it difficult for consumers to decide which water to purchase. However, the reality is that purified water isn't necessarily better than natural water.

For example, while alkaline ionized water can be beneficial to the human body, consuming it for a prolonged period may be detrimental to one's health. This type of water is cool in nature, making it suitable for people who have a damp-heat constitution or excessive internal heat. However, people with a yang-deficiency or cool constitution may find that drinking alkaline water exacerbates their condition.

Reverse osmosis water, another popular kind, uses reverse osmosis to extract pure water and remove minerals. There is a common misconception that the body's daily



Drinking filtered tap water may be the best option for your health.



Boiling water helps maintain body temperature and reduces the risk of illness.

Dehydration and insufficient water intake can cause fatigue, anxiety, depression, poor concentration, restless sleep, and breathing difficulties.

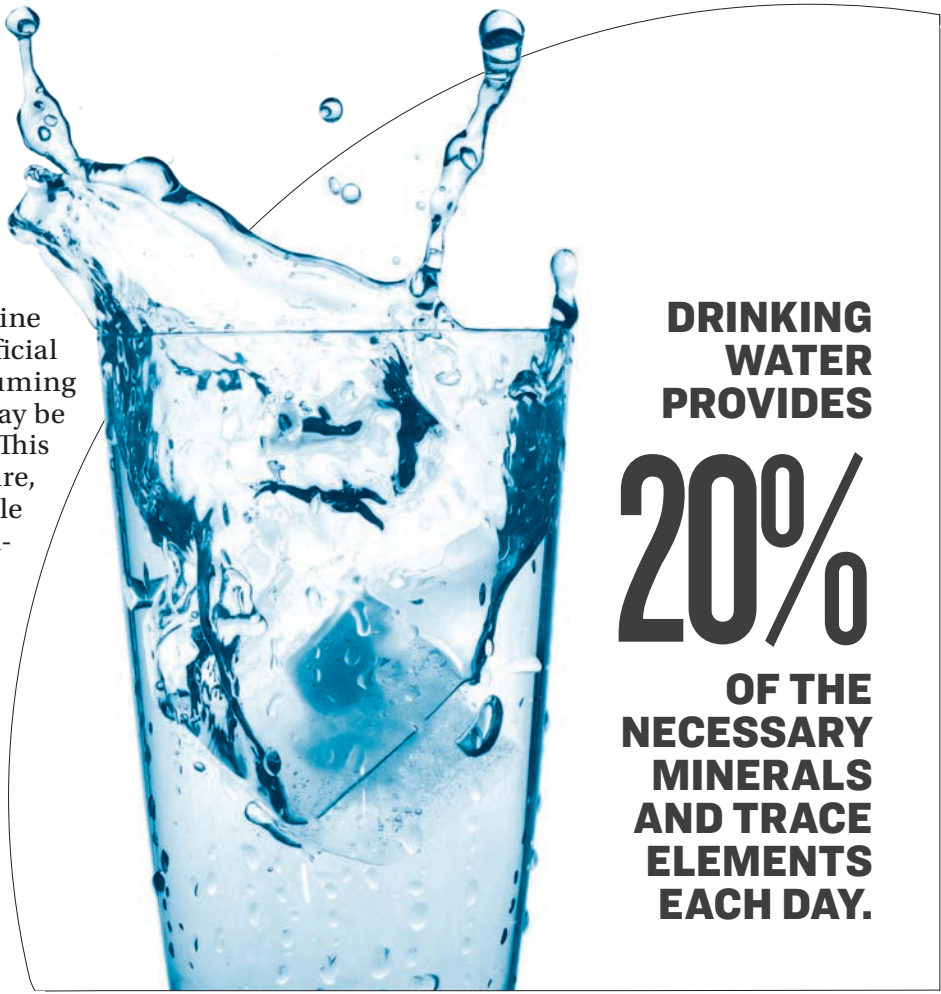
requirement for minerals and trace elements should come from food rather than drinking water. The truth is that drinking water actually provides the body with 20 percent of the necessary minerals and trace elements each day. When pure water enters the body, it can dissolve minerals and trace elements from the bones or other parts of the body, leading to a gradual depletion of these essential nutrients and causing symptoms of kidney qi (vital energy) deficiency.

When drinking these types of purified water, it's important to consider whether they are truly beneficial to the body, rather than blindly trusting the claims made by marketers. As a general rule, any drinking water that isn't in its natural state isn't as helpful to human health in the long run.

In fact, drinking tap water at home is often the best choice for our health. Before consumption, you only need to go through two simple filtration processes: first, using activated carbon to remove odor and impurities, and second, filtering out toxic substances and bacteria. You can also simply let the water sit for a day in a large pitcher to let the chlorine evaporate.

Ultimately, it's best to prioritize simplicity and naturalness when it comes to taking care of our bodies.

Dr. Kuo-pin Wu is the superintendent of Taiwan Xinyi Tang Heart Clinic. In 2008, he started to study traditional Chinese medicine and obtained a bachelor's degree from China Medical University in Taiwan.



ALL IMAGES BY SHUTTERSTOCK UNLESS OTHERWISE NOTED

# 3 Ways to Burn More Fat While Sleeping

Make these changes to your sleep routine to enhance weight loss

By Jessie Zhang

Exercise and a healthy diet can help you to lose weight, but another key to unleashing your body's fat-burning potential is better sleep.

Some real fat-torching happens while you snooze, according to research studies, said chiropractor Mindy Pelz, a fasting and functional health expert.

There are three strategies that you can employ before bedtime to sustain your weight loss efforts and take a positive step toward better overall health.

## How Do You Burn Fat While Sleeping?

Burning fat while sleeping primarily occurs through a combination of factors, including your metabolism and hormones.

### Metabolism

The body's metabolism is responsible for converting the food that you eat into energy. Even when it's at rest, the body requires energy to perform es-

sential functions such as maintaining temperature, digesting food, and sustaining organ functions.

During sleep, the body burns fat stores to power these basic functions.

### Hormones

During sleep, hormone levels fluctuate, and some of them can contribute to fat burning. For example, growth hormone, often referred to as the body's fat-burning hormone, is released in greater quantities during deep sleep. Growth hormone stimulates fat breakdown and encourages the use of fat for energy.

In addition, inadequate sleep can disrupt the balance of the satiety hormone leptin and hunger hormone ghrelin, potentially leading to increased feelings of hunger and reduced feelings of fullness, which can lead to weight gain.

### Insulin Reduction

Sleep improves insulin sensitivity, allowing the body to better use insulin to transport glucose from the blood

into cells rather than storing the excess as fat.

One possibility, according to researchers, is that sleep lowers stress, leading to the reduction of the stress hormones cortisol and norepinephrine, which are associated with insulin resistance.

### Parasympathetic Activation

The parasympathetic system, which controls the body's relaxation response, is activated during sleep, stimulating digestion and metabolic processes such as fat metabolism.

## 3 Tips to Boost Fat Burning

### 1. Don't Eat in the Dark

Some research suggests that there may be benefits to stopping eating a few hours before bedtime when it comes to weight

loss. Melatonin is a hormone produced by the pineal gland in the brain that helps regulate sleep cycles. Melatonin production increases when it's dark in order to promote sleepiness, and decreases when it's

light to help with wakefulness.

"Eat when it's light out because melatonin production is down," Ms. Pelz said, citing a 2022 study published in Cell Metabolism. "When you're eating when it's dark out, your melatonin is going up, so you become more insulin resistant, and your body is not going to be able to make the insulin to drive glucose into the cell.

"That glucose from your meal is going to get stored as fat."

The study's researchers found that late eating increased hunger and altered appetite-regulating hormones; when combined, these changes were predicted to increase the risk of obesity.

A randomized, placebo-controlled trial also found that taking melatonin supplements reduces insulin sensitivity in people with Type 2 diabetes.

"We recommend that patients with Type 2 diabetes limit their use of melatonin in high doses, as reduced insulin sensitivity is central to the pathophysiology of Type 2 diabetes," the authors wrote.

As a general rule, Ms. Pelz recommends that people stop eating at least two hours before bedtime.

Eating your final meal of the day at least three hours prior to going to bed is also recommended by Dr. Joseph Mercola, an osteopathic physician

and bestselling author.

"It's one of the easiest, yet most powerful ways to reduce insulin resistance and shrink your waistline," Dr. Mercola wrote in an article.

### 2. Keep Your Room Cool

Some research suggests that sleeping in a cool room may activate the parasympathetic nervous system. Sometimes called the "rest and digest" system, it regulates functions such as digestion and metabolism, thus helping with fat burning. Parasympathetic activity is switched on when we put ourselves in cool environments, according to research.

"This is like the cold plunges, where you might not have felt that calm when you're in the plunge, but you will feel calmer afterward," Ms. Pelz said. "If it's summertime, take a very cold shower and then get in bed."

Lowering the room temperature to 66 degrees F may potentially lead to burning additional calories overnight, a 2014 study that observed five healthy male adults for four months found. This is because the body works harder to maintain its core temperature.

After being exposed to mild cold for one month, participants experienced a 42 percent increase in brown

fat volume. Brown fat is fundamentally different than white fat. White fat creates obesity, brown fat creates energy and heat. Adults have very little brown fat. Brown fat activates in cold temperatures and helps maintain body temperature by generating heat from burning calories. The study also found a 10 percent rise in metabolic activity.

The increases in brown fat and fat-burning metabolic activity declined during the second month, when room temperature was kept neutral. In the final month, when participants were exposed to warmer temperatures, the effects were completely reversed back to baseline levels. The researchers noted that these changes occurred regardless of any seasonal variations.

### 3. Reduce Stress Before Bed

Entering a relaxed parasympathetic state before bed may help sleep.

One proposed way is to avoid emotionally charged conversations in the evening hours. "We have a rule in my house: No stressful conversations before going to bed. We'll talk about it in the morning," Ms. Pelz said.

Cortisol—the body's stress hormone—can promote fat storage when elevated. During sleep, cortisol levels

naturally decrease, halting this fat-storing effect. High cortisol signals your body to store more energy to power you through the day, resulting in greater fat retention.

One study, published in April 2022, found that after two weeks of minor calorie restriction (10 percent less than their daily energy expenditure), participants who were getting 5 1/2 hours of sleep a night lost 1.3 pounds (0.6 kilograms) of fat, whereas those who slept 8 1/2 hours each night lost 3.1 pounds (1.4 kilograms) of fat.

Another tool to relax before bed is comedy.

Getting into a parasympathetic state means not watching TV before bed, but most people do. If you must, then watch a stand-up comedian, Ms. Pelz said.

"The seriousness of the day is what keeps me in that high-alert beta state, and the minute I laugh, I increase oxytocin and decrease cortisol, sleep a little easier, and get more rest out of my sleep," she said. "When I get more rest out of my sleep, I'm going to burn more fat."

ALL PHOTOS BY SHUTTERSTOCK



Achieving a calm state before bedtime can lower cortisol and promote better sleep.



WISE HABITS

# Letting Go of Heaviness

Moving beyond difficult emotions begins with acknowledging and accepting them

By Leo Babauta

A lot of the people I work with feel a lot of heaviness with regard to their work, finances, relationships, and health.

We're often unaware that we have heaviness about something—but other people can feel it if we talk to them about it. Heaviness comes when things feel really difficult, overwhelming, discouraging, frustrating, or pointless.

If you're feeling heaviness about something, that's OK! You're human, and you're allowed to have heavy emotions. Giving ourselves full permission to feel something is the first step to acknowledging and managing those emotions. It's a powerful way to be.

That said, what if you would like to experience life in a different way? What if you would like to feel more empowered, more inspired, or more purposeful?

This might require you to let go of the heaviness—not because it's bad or wrong, but because it isn't serving you in creating the life you want.

Let's talk about how to let go.

**Your heart is allowed to want to be calm and light.**

**If you're able to recognize the weight of the moment, you can begin to resolve it.**

**Start With Being With Heaviness**

Ironically, it's pretty much impossible to let go of something if we think there's something wrong with it. Disliking something or judging something is putting attention on it and energy into it. It ends up giving that thing more of our mental real estate. And it also ignores the reality that certain feelings and experiences are inevitable and even intrinsic to the human experience.

Fear is a part of who we are as humans, as are emotions such as frustration, disappointment, discouragement, and pointlessness. We try to disown those parts of us because we don't like them and can't be with them. But it's like wishing you didn't have a brain or a heart—pretty hard to get rid of them!

So we start by just letting ourselves be with the emotions that are there when heaviness shows up. Can we allow them to be there? Welcome them? Bring curiosity? What about love? This is shifting how we relate to these heavy emotions.

Only once we've practiced with this and can accept these emotions can we practice creating something different.

**Catch It in the Moment**

It's important to practice noticing the heaviness when it shows up. If you can catch it when it's happening, then you can work with it.

When you first notice heaviness, practice just being with it, bringing curiosity and love to it.

But then, you can decide whether you would like to choose something different. In the moment, if you're aware you're in the heaviness, you can decide whether you would like to let it go and choose



◀ To experience greater joy and lightness in your life, you have to choose it.

something fresh.

We'll talk about that in the next section below, but it's important to remember that it happens in the moment—so catch it when it happens!

**Create Something Different**

If you catch it in the moment, you can choose something different. It isn't that you're going to "improve" yourself or fix the broken thing about you. It's simply that there's something else you want. You can love stormy weather but simply want some sunshine today. Your heart is allowed to want to be calm and light.

Do you want to have more joy, play, and love in your life? More creativity, adventure, and wonder? More generosity, gratitude, and magic?

Choose what you would like, then opt in to it in the moment. It won't come easy, because you're comfortable with the heaviness. It's safe for you. Choosing something else means you have to take actions that aren't what you would normally do. If you want more adventure, you have to actually opt in to adventure and take action in the face of your fear. What adventure doesn't have fear?

Make a list of what you might do if you were to commit to your new way of being. And then start to take those actions.

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



## How Your Epoch Times Subscription Saves You Money

**Y**ou can't put a price on truth. But we also know that it can be challenging to balance a budget in today's economy, which is why your Epoch Times subscription gives you more than just the truth.

Live a happier, healthier lifestyle. Epoch Health gives you the latest in health sciences and well-being to help

you live a fuller, happier life.

Cut down on streaming services and movie rentals. In Epoch Cinema, we've curated movies that follow our motto of Truth and Tradition.

Access content across all mediums. Your subscription includes news shows, podcasts, premium weekly magazines, documentaries, and

more—at the same quality you expect from The Epoch Times.

All these benefits are included in your subscription today.

It's our way of thanking you for continuing to support the truth in a time when money is tight—not everyone can afford to, but if none of us do, a nation without truth will cost us all.



**HEALTH**  
TheEpochTimes.com/  
edition-special-series



**EPOCHCASTS**  
TheEpochTimes.com/  
EpochCasts



**DOCUMENTARY**  
EpochTV.com



**CINEMA**  
EpochCinema.com



**PREMIUM**  
TheEpochTimes.com/  
editions



**ARTICLES and MORE**  
TheEpochTimes.com

