

# THE EPOCH TIMES

# MIND &

# BODY

CAVAN IMAGES/GETTYIMAGES

DAWID ROJEK/  
SHUTTERSTOCK



Food corporations use formulations of fat, salt, and sugar to make their products irresistible.

## Engineered for Addiction

Why everyday pleasures now ensnare us—and how to get free

JANO TANTONGCO

When we think of addiction, gritty images of drug use, gambling, or self-destructive binging on guilty pleasures all come to mind. However, as our culture has grown increasingly commodified, addiction has gone from a fringe affliction to an almost-invisible, everyday condition. As pleasure-seeking is taken to new heights, it becomes harder to imagine the days of analog culture before endless scrolling and apps built to satisfy any desire on demand.

In our secularized culture, there are few limits on pursuing pleasure. The assumption is that maximizing the quantity and quality of pleasure will boost human happiness. When we consider that, despite the explosion of material culture, many of us are increasingly depressed and anxious, it begs the question of whether we're on the right path.

Most people won't admit they have issues with impulse control when it comes to apparently innocuous pleasures. It's relatively easy to pinpoint the problems with chemical addictions. Alcohol, drugs, and tobacco are obvious in their addictive potential and how they can ruin lives.

What about the less apparent addictive behaviors?

Recent data shows that Americans spend an average of four hours per day on mobile devices, and roughly 70 percent of that time is spent on social, photo, and video apps such as Facebook and YouTube. The top three pornography sites in the world receive a combined 5.8 billion website hits each month. Almost 60 percent of the calories that Americans consume come from ultra-processed foods.

Continued on **Page 6**

FANATIC STUDIO/GARY WATERS/  
SCIENCE PHOTO LIBRARY/GETTY IMAGES

5.8  
BILLION

The top three pornography sites in the world receive a combined 5.8 billion website hits each month.

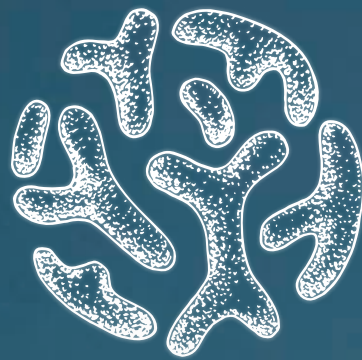


## MICROBIOME

At least **70 percent** of the immune system resides in the gut microbiome.

## COVID-19: A Wakeup Call for Our Dying Microbiome

The interplay between protective bacteria, invading viruses has taken center stage



AMY DENNEY

**O**ur microbiome is dying. This essential collection of bacteria, fungi, and viruses that live in our body and on our skin is disappearing. Herbicides such as glyphosate are partly to blame, but special attention must be paid to certain medical interventions, research suggests. Enough warning signs have aris-

en that researchers are raising the alarm to fix, protect, and preserve the human microbiome—the flora made up of symbiotic microorganisms such as bacteria, viruses, and fungi that live on the skin and in the body. At least 70 percent of the immune system resides in the gut microbiome.

“Paying attention to the microbiome is crucial moving forward because it is disappearing. It’s disappearing because the diversity is

disappearing,” Dr. Sabine Hazan told The Epoch Times.

Hazan is the founder and CEO of ProgenaBiome, a genetic sequencing research laboratory that, in the company’s words, is trying to “crack the genetic code of a trillion bacteria, fungi and viruses that live in our gut.” She’s a specialist in gastroenterology, internal medicine, and hepatology.

Continued on **Page 4**



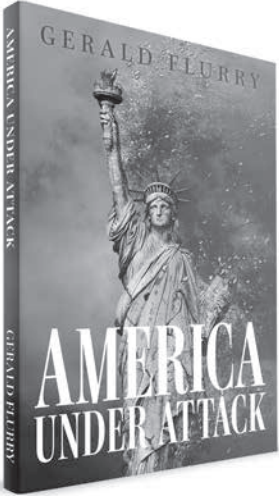
Understanding the role of the microbiome and vaccine immune response could be used to develop better treatments, including vaccines.



## ESSENTIAL DIVERSITY

A diversity of bacteria in the microbiome is important to our overall health and there is much we can do to help or hinder it.






# ONLY

this book explains it

AmericaUnderAttack.com

**American history. Family. Faith. Purpose. Hope.** Someone or something is ripping it apart, from the inside. Who or what can possibly affect so many aspects of American life so powerfully? There is only one *possible* answer. Request your copy, free of any cost or follow-up, of *America Under Attack*. Updated toll-free number: **888-810-8063**






## NEW YEAR SPECIALS!

**SAVE UP TO 80%**


USE PROMO CODE **EPOCH99**






# A CLEAN SPACE TO SPEND YOUR TIME

A clean digital world free from violent, erotic, criminal, or harmful content. A new platform to learn, to share, to be entertained, and to be inspired.



EXPLORE TODAY

## GanJingWorld.com





### Drinking alcohol and smoking are major risk factors for esophageal cancer, especially in Western populations.

**WATCH THE HOT DRINKS**

Researchers have found thermal irritation, burning essentially, is a common risk factor for cancer of the esophagus.

# Esophageal Cancer, A Silent Killer

5 ways to prevent one of the least studied and most deadly cancers

YUWEI ZHANG

While esophageal cancer is the eighth most common cancer worldwide and the sixth leading cause of cancer-related deaths, it's one of the least studied cancers.

It sounds counterintuitive. However, there are many reasons why there's a lack of study, including this cancer's aggressive nature, poor survival rate, and the great differences in how it presents across countries and even between sexes.

Esophageal cancer isn't as common in the United States. However, a 2022 analysis presented at a conference found that from 2012 to 2019, the rate of esophageal cancer for people ages 45 to 64 almost doubled, based on 5 million people's data in Florida.

Esophageal Cancer Is 1 of the Least Studied Common Cancers, 3 Reasons

Reviewing articles published in the New England Journal of Medicine, the world's

leading medical journal, reveals studies on esophageal cancer are far fewer than those on lung cancer.

There are three main reasons for this lack of research.

#### 1. Incidence Rates Are Relatively Low in the United States

The majority of esophageal cancer cases are outside of the United States. Esophageal cancer makes up only about 1 percent of cancer cases in the United States.

The National Institutes of Health is the world's largest public funder of biomedical research. However, because esophageal cancer is so uncommon in the United States, it's difficult to secure funding from institutions like the National Institutes of Health to research it.

Also, because there aren't many esophageal cancer patients in the United States, there's less motivation for pharmaceutical companies to develop new drugs targeting esophageal cancer.

#### 2. Presents Differently Between Sexes and Among Races, Root Causes Unknown

Most esophageal cancers can be classi-

PAUL VYANT/GETTY IMAGES

fied as one of two types: adenocarcinoma or squamous cell carcinoma.

Squamous cell carcinoma is the predominant histological type worldwide. This form mainly occurs in the "Asian Esophageal Cancer Belt," which includes China.

However, in regions like the United States, Australia, the UK, and Western Europe, adenocarcinoma incidence is higher.

Similar to other cancer types, esophageal cancer exhibits sex disparities in occurrence. The incidence of esophageal adenocarcinoma is about nine times higher in men than in women. Sex is known to be an independent prognostic marker for squamous cell carcinoma but not for adenocarcinoma, with survival rates being higher in women.

Esophageal cancer affects races differently, as well. While nonwhite patients were more likely to develop squamous cell cancer or a tumor in the middle esophagus, white patients were more likely to develop adenocarcinoma or a tumor in the lower esophagus. The root causes for these differences are still unknown.

Esophageal cancer is very complicated and differs across sex, race, region, and socioeconomic status. Thus, as the number of patients in the United States is limited and with so many factors to consider, it's hard to get statistically significant results.

#### 3. High Death Rate

On average, according to a paper published in the World Journal of Gastroenterology, about 40 to 45 percent of patients die within a year after diagnosis, so it's hard to recruit patients for studies if they're too sick. This contributes to a limited number of eligible patients.

#### Can Esophageal Cancer Be Identified Early?

The deadline of cancer depends on when it's found. If esophageal cancer is found while it's still localized, the patient has a 46 percent chance of survival for five more

years. If it's found while it's regional, that chance drops to 26 percent, and if found while distant, only 5 percent of patients will survive five more years.

Localized means that the cancer is growing only in the esophagus. Regional means that it has spread to nearby lymph nodes or tissues. Distant means that it has spread to organs or lymph nodes away from the main tumor.

Unfortunately, in the earliest stages when it's easiest to treat, esophageal cancer has very few symptoms. Therefore, it's called a silent killer.

Can screening be done? In the United States, screening for esophageal cancer isn't recommended, partially because the incidence is low; therefore, for society overall, it isn't cost-effective at lowering risk.

#### Will There Be a Sharp Increase in Esophageal Cancer in the US?

The researchers who presented their findings at the 2022 Digestive Disease Week conference argue that more middle-aged persons should be checked for esophageal cancer in light of their study, as esophageal cancer may be increasing among middle-aged people.

That being said, the study's findings should be analyzed with caution, as the study only included adults residing in Florida, meaning it isn't wholly representative of the population of the United States. For instance, the increase might be due to Florida's growing population (it has grown by 14.6 percent in the last decade and growth accelerated during the pandemic). Florida's late-night eating habits may also influence the increase; Miami is a late-night eating town compared to the rest of the country. More on this later.

#### What Are Common Risk Factors of Esophageal Cancer?

As mentioned, nearly half of the patients die within a year once they're diagnosed—which is why prevention is very important.

Smoking, alcohol, obesity, drinking very hot tea, red meat consumption, poor oral health, low intake of fresh fruit and vegetables, and low socioeconomic status have all been associated with a higher risk of esophageal cancer, according to the World Journal of Gastroenterology paper.

#### Takeaway

According to the study using electronic health records in Florida, esophageal cancer is on the rise among middle-aged Americans. Since this is a deadly cancer that's hard to diagnose early, be aware of any early signs, such as difficulty swallowing (dysphagia), weight loss without known reasons, chest pain, or pressure or burning in your esophagus. If you experience these symptoms, talk to your doctors as early as you can.

The most important thing you can do today is to have a healthy lifestyle and a positive outlook, get rid of bad habits, and manage stress to ensure you have a healthy, well-functioning immune system.

*Yuwei Zhang, M.D., Ph.D., MPH, MBA, has 20 years of experience in oncology and health care, including work for providers, payers, and pharma companies. Her paper on esophageal cancer is one of the top ten most cited papers in the field. She regularly gives talks at universities, has been invited to review manuscripts for top-tier medical journals, and has supported successful launches of top-performing drugs with expertise in lifecycle management, data strategy, and digital innovation.*

## 5 WAYS TO PREVENT ESOPHAGEAL CANCER

There are a few things that you can do now to lower your chance of developing esophageal cancer.



#### 1. Avoid Overly Hot Foods and Liquids

Different people have different eating habits. I hear discussions about why Chinese people like drinking hot water. It can be relaxing and soothing. However, drinking very hot beverages may be associated with esophageal cancer risk.



Thermal irritation has long been known to be a risk factor. In the 1930s, after reviewing clinical records of 771 cases of esophageal cancer, New York physician W.L. Watson wrote that "thermal irritation is probably the most constant factor predisposing to the cancer of the esophagus." This prevalence could explain why a large proportion of all cases of esophageal cancer affects populations in which drinking tea, coffee, or maté, or eating hot foods is common.

Decades later, this conclusion is supported by multiple studies. More recently, the World Health Organization, a 2018 Chinese study, and a 2019 Iranian study all hinted at the connection.

It should be noted that some studies used a temperature greater than which most people would normally drink liquids. Still, drink liquids at a reasonable temperature.

#### 2. Beware of Barrett's Esophagus

One of my studies on esophageal cancer started with a patient with a family history of esophageal cancer. He originally had Barrett's esophagus and later developed esophageal cancer.



Barrett's esophagus—which usually results from acid reflux—is recognized as a risk factor for esophageal cancer. Acid reflux damages the esophagus, resulting in the lining thickening and turning red. Between 5 and 8 percent of persons with acid reflux develop cancer.

The sole indicator still effective for determining whether people are at an elevated risk of developing cancer is the presence of precancerous cells (dysplasia) in Barrett's esophagus.

But don't worry. The diagnosis of Barrett's esophagus shouldn't be a reason for alarm. If it coincides with high-grade dysplasia, your doctor might recommend a minimally invasive esophagectomy.

Furthermore, recent research has shown that under the right conditions, Barrett's esophagus can be made to regress after endoscopic ablative therapy.

#### 3. Avoid Eating Late

When you eat late at night and then lie down, the contents of your stomach press harder against the lower esophageal sphincter. This can trigger gastroesophageal reflux disease or acid reflux. Some ways to avoid this include:



- Waiting 2 to 3 hours after eating to go to bed.
- Not snacking late at night.
- Eating larger meals earlier in the day. Try to make your last meal small.

Many people love to have late-night dinners and drinks, especially while on vacation. Although having to restrain yourself from delicious food at night might be hard, it's an effective way to control your weight and prevent other diseases beyond esophageal cancer.

#### 4. Avoid Smoking and Alcohol

Drinking alcohol and smoking are major risk factors for esophageal cancer, especially in Western populations, as established by many retrospective studies.



The observed association between smoking and adenocarcinoma risk is weaker than that for squamous cell carcinoma, while the effect of alcohol on adenocarcinoma is uncertain.

Notably, any level of alcohol consumption increases esophageal cancer risk. The more a person drinks, the higher their risk. Compared to no alcohol consumption, heavy drinking leads to a five-fold increased risk.

#### 5. Boost Your Immune System

Before I started my research in gastrointestinal cancer, I worked at a Chinese medicine hospital and heard a story from my supervisor about his friend, who happened to be my previous neighbor. He had developed esophageal cancer at a young age and was hopeless. He then took ginseng and had a fever for days. He lost consciousness and after he woke up, he was cancer free.



Ginseng is known to strengthen the immune system. But while my anecdote sounds like a fairy tale, I did find some studies that showed there is mounting evidence that ginseng has anticancer effects.

I'm not encouraging readers to take ginseng to prevent esophageal cancer without consulting Chinese medicine doctors. Plus, different ginseng has different effects.

## Can a Salt Inhaler Help Your Asthma?

This ancient remedy for respiratory ailments may be worth a try

ZRINKA PETERS

Asthma affects more than 25 million people in the United States, and that number is rising every year. Although there is no known cure for asthma, and the condition is normally managed long-term with prescription medications, there are some simple diet and lifestyle steps that may help reduce the frequency and severity of asthma attacks. These include identifying possible trigger allergens and getting

adequate omega-3 fatty acids.

One lesser-known tool in the armory of potential asthma aid is a simple salt inhaler (or "salt pipe")—a small and inexpensive device through which you breathe air that is infused with microscopic salt particles. Salt therapy—also known as halotherapy—has been shown in several studies to improve lung function in those suffering from mild to moderate asthma, as well as other respiratory conditions.

Inhaling salty air to improve respiratory health is not a new idea. Physicians from past ages prescribed trips to the seaside to relieve a host of ailments. Scientific interest in the health benefits of salty air was sparked in the mid-1800s when Feliks Boczkowski, a Polish doctor, observed that men working in salt mines had fewer respiratory problems than those working in other types of mines.

About a century later, during World War II, Karl Hermann Spannagel, a German doctor, observed that patients who hid in salt caves to avoid bombing experienced improved respiratory health. Therapeutic salt rooms appeared soon after in several European countries and have since made their way to the United States. They are believed to relieve respiratory problems

and common skin conditions like eczema and strengthen the immune system.

Researchers acknowledge that salt has antibacterial and anti-inflammatory effects, but they aren't sure about just how it affects asthma patients. The American Lung Association suggests that salt may thin mucus in the airways of asthma patients, making it easier to expectorate.

Research on salt's alleviation of asthma symptoms is limited, and hard data are sparse, but anecdotal evidence is growing. For those suffering from the effects of chronic asthma, using a salt inhaler as a complement to a standard asthma management plan may be beneficial. Patient testimony suggests it could improve respiratory function and quality of life, and in some cases reduce dependence on asthma medications.

Halotherapy is increasingly recognized as a viable option that can complement standard treatment. Kurt Stradman, a functional diagnostic nutrition practitioner, told The Epoch Times: "Salt inhalers are very beneficial at improving respiratory health. When tiny salt particles are inhaled in a controlled environment like with a salt inhaler, these salt particles draw in moisture—in this case, mucus from the lining of the lungs. This can effectively help alleviate respiratory symptoms naturally. Salt

therapy can be beneficial for both acute and chronic respiratory conditions."

Since Dr. Oz first touted the respiratory health benefits of salt inhalers on his TV show, multiple studies on salt therapy have produced some encouraging results. A review of 13 studies related to halotherapy published in the March 2022 edition of Alternative Therapies in Health and Medicine concluded that the therapy "has been found to have a positive effect on patients suffering from chronic respiratory diseases, improving mucociliary elimination and lung function."

A comprehensive review of 18 studies examining the effect of halotherapy on adult and child asthma patients was published in the Nov. 22, 2021, edition of the journal Healthcare. It consistently found halotherapy to have positive therapeutic effects, which included improved mucociliary clearance (the ability to clear mucus from the respiratory airways), and reduced occurrence of nighttime asthma attacks.

"All studies seem to sustain the overall positive effects of halotherapy as adjuvant therapy on asthma patients with no reported adverse events," the authors wrote. "Halotherapy is a crucial natural ally in asthma, but further evidence-based studies on larger populations are needed."



SHUTTERSTOCK/ARTISTBYNINA

Tiny salt particles inhaled with the help of a salt inhaler can draw in moisture, like mucus, from the lining of the lungs.



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

Proponents of halotherapy report that it's a very safe natural treatment, with no significant side effects other than the possibility of a sore throat resulting from prolonged exposure. Still, available studies related to halotherapy are limited in number and duration, with no available data on potential long-term effects.

It's important to note that a salt inhaler is not a replacement for asthma medications, which have well-documented effectiveness and are essential to asthma management for millions of people. Rather, it's possible that halotherapy could help prevent or alleviate chronic asthma symptoms, leading to reduced dependence on medications—and that would be a win for both patient and doctor.

Stradman added, "I feel like it's a safe option for most anyone, but it's always important to check with your healthcare provider before starting just to be sure."

*Zrinka Peters is a freelance writer focusing on health, wellness, and education topics. She has a BA in English Literature from Simon Fraser University in Canada and has been published in a wide variety of print and online publications including Health Digest, Parent.com, Today's Catholic Teacher, and Education.com*





MICROBIOME



## ENERGY SOURCE

There's evidence that healthy gut bacteria play an important role in the production of adenosine triphosphate, which is the energy source our cells run on.

ALL IMAGES BY SHUTTERSTOCK

# COVID-19: A Wakeup Call for Our Dying Microbiome

Continued from Page 1

"The microbiome is trillions of microbes that once you've killed them, it's very difficult to regrow what you've killed," she said.

Of particular concern to her is Bifidobacterium, a genus of anaerobic bacteria that are among the first microbes to populate the human gastrointestinal tract in infants. They're foundational to immunity and are believed to have many health-promoting properties such as metabolic processes that ward off infection by synthesizing vitamins, strengthening the intestinal barrier, stimulating hormones, and keeping inflammation at bay. The good news is that they're fairly hardy and adaptable; the bad news is that they can be depleted rapidly—something illustrated on a mass scale with COVID-19.

Three years of study have revealed that COVID-19 is diminishing our healthy gut bacteria, which play an important role in battling viral attacks on the body, but the full extent of damage is unclear and recovery is unknown. Early evidence from one of Hazan's studies suggests messenger RNA vaccines are also reducing bifidobacteria, adding to a growing list of health risks associated with the controversial technology.

Because the microbiome is a relatively new health frontier, some contextual clues are yet missing. What is known based on studies that compare the microbiome in industrial versus rural communities is that our gut flora is largely determined by our environment and choices. As Americans, we've modified our lifestyles with more processed diets, sedentary jobs, sanitation, alcohol, and medication, and our gut has responded with more disease and illness. COVID-19 amounted to pouring gasoline on a fire.

Just before the pandemic, Drs. Erica Sonnenberg and Justin Sonnenberg (both from Stanford University) published an article suggesting that the industrialized world may be "harboring a microbial community ... incompatible with our human biology."

"Rapid modernization, including medical practices and dietary changes, is causing progressive deterioration of the microbiota, and we hypothesize that this may contribute to various diseases prevalent in industrialized societies," they wrote in a 2019 opinion piece in Nature Reviews Microbiology.

Excessively killing off microbes creates a deficit of the good ones, yielding more of

Hazan believes an awakening is inevitable due to the alarming speed of microbiome death that will spur many doctors to begin rapidly looking for solutions. She's optimistic those who understand the severity will collaborate to accelerate the speed of science, just as they did in sifting through past studies and learning in emergent situations that ivermectin could prevent death and hospitalization in the early days of the pandemic.

"We have the technology now to look at the microbiome. There's no more excuses to go blind on this," she said. "This is the beginning of science that's telling us to stop what we're doing, the microbiome is getting killed."

### The Role of Bifidobacterium

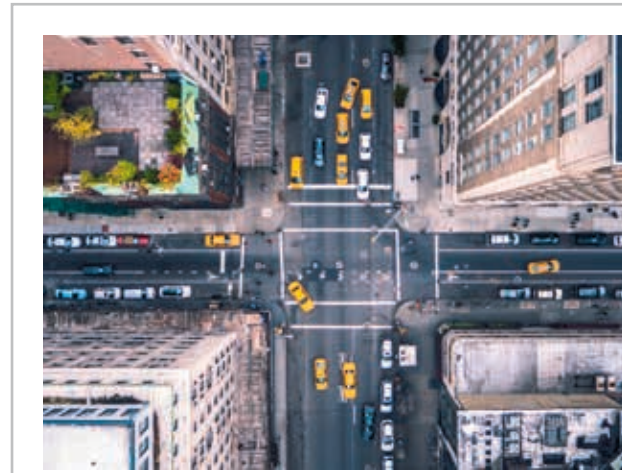
How much bifidobacteria you have in your intestine is a wellness barometer of sorts. Flora begin to populate your gut at birth, and a blueprint emerges that determines much of lifelong immunity. As you age, the natural die-off of microbes is inevitable.

Clues about the microbiome's role in health have existed long before knowledge of molecular mechanisms of key players like bifidobacteria, which were first discovered in 1899 in the feces of breastfed infants. For instance, an immediate connection was made between the gut and antibiotic use when it became available for the masses around World War II.

"Those who took it had indigestion and malnutrition. At that time, there was no possibility to see what bacteria was there. There are many things that destroy them. Antibiotics is one of them," Dr. Adonis Sfera, a psychiatrist at Patton State Hospital with expertise in epigenetics and neuroscience, told The Epoch Times.

Most medical organizations have since advised against the overuse of antibiotics, recognizing prevalent misuse for infections that resolve on their own. But despite increasingly common warnings that our microbial connection is essential and being jeopardized by common agricultural and medical practices, the messaging hasn't made an impact. A survey of doctors discovered that more than 70 percent said they would treat asymptomatic patients with antibiotics based solely on a urine test, which goes against long-held medical guidelines.

Excessively killing off microbes creates a deficit of the good ones, yielding more of



## ENVIRONMENT A FACTOR

What is known based on studies that compare the microbiome in industrial versus rural communities is that our gut flora is largely determined by our environment and choices.

our internal landscape to more virulent strains of pathogenic bacteria—superbugs—that are resistant to antibiotics and do more damage to the microbiome. The health status of the host can mean the difference between life and death when a pathogen invades, which is why protecting bifidobacteria could play a key role in preserving health.

As specific tests, like genome sequencing of stool samples, become more accessible, we gain broader insight on the interface of the human "bacterial organ." Hence, we are gaining a more precise perspective on bifidobacteria.

Some pertinent highlights about this bacteria include:

- Its abundance decreases as age and body mass index go up.
- There's evidence that it plays an important role in the production of adenosine triphosphate, which is the energy source our cells run on and which also plays a role in immunity.
- Bifidobacteria has a role in maintaining a strong barrier in the intestinal epithelium cells, protecting the rest of the body from a bacterial invasion.
- It has anti-inflammatory properties, according to an animal study of inflammatory bowel disease that showed bifidobacteria reduced proinflammatory cytokines and restored intestinal barrier integrity.
- Preterm babies have less bifidobacteria, and breastfed infants have more than formula-fed babies.
- Lower bifidobacteria levels were found in children with asthma at age 4.

- The severity of SARS-CoV-2 infections was associated with a decreased level of bifidobacteria. Many studies point to the gut microbiota composition correlating to levels of cytokines and inflammatory markers in COVID-19.

### Could Bifidobacteria Help With COVID-19?

Despite the studies, it's unclear if the microbiome prior to infection influenced the course of the disease or if the disease itself is changing the makeup of gut microbiota. Still, it opens up the possibility that Bifidobacteria could be used to prevent and even treat patients.

Many studies featuring the probiotic—available as a supplement and also found in fermented foods like yogurt—have vital takeaways that could help doctors and individuals take responsibility for better health.

For instance, in one study, bifidobacteria probiotics decreased the duration of respiratory symptoms caused by the common cold as well as days with fever. Meanwhile, intestinal dysbiosis has been found to lower the effectiveness of vaccines. And patients with COVID-19 have been found to have decreased numbers of bifidobacteria and lactobacilli, bacteria that are part of a



Research reveals the COVID-19 virus is diminishing our healthy gut bacteria, which play an important role in battling viral attacks on the body.

genus of aerotolerant anaerobes.

In November 2021, a study published in the International Journal of Immunopathology and Pharmacology reported that 44 patients with moderate to severe COVID-19 infections who were given supplements with bifidobacteria had reduced mortality and a shorter hospital stay.

It's widely hypothesized that COVID-19's role in dysbiotic microbiomes could contribute to immune-related health problems over the long term. The disrupted microbial ecology and impaired host immunity can lead to opportunistic fungi including candida overtaking the reassembly of the gut microbiome, according to a research review published in October 2021 in Genomics, Proteomics & Bioinformatics.

Individual colon microbiome analysis could be used as a tool to predict vulnerability to severe infection and reduce the COVID-19 death rate, suggested Hazan and other researchers in an April 2022 BMJ Open Gastroenterology study. The researchers hypothesized that low bifidobacteria is a susceptibility marker for symptomatic COVID-19.

"While it is undeniable that bacteria aid in the antiviral response to certain vi-

ruses, they are also, without a doubt, used as a way of entry by them. This makes it complicated to define the role of the microbiota as a friend or foe in this context," according to a description in a 2017 review in Frontiers in Microbiology.

### Why It Matters Now

In addition to contributing to more virulent diseases, the death of the microbiome can have consequences for a plethora of diseases and quality of life.

One of the roles bifidobacteria play in the gut is to interact with intestinal epithelial cells to protect the gut barrier, Sfera said. If that mucosal environment is compromised, bacteria and other microbes can get into circulation in the blood, tissues, and brain.

"They are immunologically tolerated in the gut, which means the host immune system does not attack them. When they translocate, it's a different story," Sfera said.

Inflammation occurs when proteins and bacteria are displaced in the brain for those that suffer from Alzheimer's and Parkinson's diseases, not to mention autism and cancer.

Hazan said everyone—not just doctors—has a part to play in microbiome health. Reducing pesticide use, eating clean food, limiting antibiotics, lowering alcohol consumption, and educating one another about the dangers of losing one's microbiome are all important.

"Everything we put on the planet affects us," she said. "Survival of the human species is going to depend on how fast it replenishes the planet and humanity of our microbiome. We all have a job."

## 10 Herbs That Help Boost Immunity: Current Studies

Research has revealed that these herbs—some of which you already have—can give you an edge on the flu and the common cold

### GEORGE CITRONER

The immune system is complex and protects the body from infection and disease, but stress, lack of sleep, poor nutrition, and other factors can wear down our natural defenses.

Let's look at 10 natural and easily obtained herbs that can boost immunity as we push through the last months of winter cold.

### Are Immune-Boosting Herbal Supplements Safe to Use?

It's important to get herbal supplements from a reputable brand. "Echinacea and most herbal products are extremely variable," Dr. Nima Majlesi, director of medical toxicology at Staten Island University Hospital, told The Epoch Times. He added that the labeling of products in health food stores can be incorrect due to a lack of FDA regulation.

People with allergic reactions to the contents of these supplements should avoid them.

"The fallacy of 'it's natural so it's safe' is truly concerning, and we need to change the way we think about this," Majlesi said.

Many drugs are based on natural compounds, and those compounds could have toxicity and potential for adverse effects just like prescription or over-the-counter drugs, he noted. But overall, "these products are generally very safe, especially if taken for a short duration," Majlesi said.

Majlesi advises that you discuss whether a product is safe with your health care providers, especially if you have medical issues or take medications daily. If they feel it is safe, and if you want to try to improve your symptoms, consider a short course during specific times at recommended doses.



Herbs with medicinal properties can be found all around us.

ALL PHOTOS BY SHUTTERSTOCK

### 1. Ashwagandha

Ashwagandha is a small woody plant native to India and North Africa that is used in Ayurvedic medicine. A clinical trial found that five participants who took six milliliters of ashwagandha root extract twice daily for four days showed significant increases in immune cell activity.

A randomized, double-blind, placebo-controlled trial found that ashwagandha extract significantly improved the immune profile of healthy subjects by modulating their innate and adaptive immune systems.

Researchers concluded that ashwagandha could be used to boost the immune system in people at risk for infection and during "widespread infections."

### 2. Holy Basil

Different from common basil, holy basil is native to India and is a component of Ayurvedic medicine. Research found that holy basil inhibited the growth of multidrug-resistant bacteria that include Staphylococcus, Enterococcus, and Pseudomonas.

A different randomized controlled trial confirmed that holy basil boosted crucial immune factors in the participants' blood.

### 3. Black Pepper

One of the most common spices in everyday cooking, black pepper has also shown promise in fighting cancer.

A study confirmed that black pepper extract significantly enhances the cytotoxic activity of natural killer cells, and the study strongly suggested that the extract can exert immunomodulatory and anti-tumor action that can promote the maintenance of a healthy immune system.

Another in vitro study found that the active ingredient in pepper, piperine, boosts the immune system to slow the replication of breast, prostate, and colon cancer cells and could induce cancer cell death.

### 4. Cinnamon

Cinnamon is a powerful antibacterial and antifungal spice that can help the immune system fight off infection. This aromatic spice can also relieve symptoms of autoimmune disorders.

One study found that cinnamon offers significant relief of rheumatoid arthritis and multiple sclerosis symptoms, and another found that cinnamon and its ingredients can help treat COVID-19 infection

### 5. Rosemary

Rosemary contains rosmarinic acid, which has been shown to modulate the immune response to have anti-allergy and decongestant properties. In a study with 29 participants, those given rosmarinic acid had decreased amounts of immune cells in nasal mucus and reduced nasal congestion.

A review of studies concluded that rosemary has significant antimicrobial, anti-inflammatory, antioxidant, and neuroprotective properties.

### 6. Echinacea

Echinacea refers to a group of flowering plants belonging to the daisy family. There are different species, but Echinacea purpurea is the most common.

A review of 16 studies found that echinacea was more effective than a placebo in preventing and treating upper respiratory infections.

Another review, which looked at 14 studies, found that echinacea reduced the odds of catching a cold by almost 60 percent and decreased the symptom duration by nearly 1.1/2 days.

### 7. Black Elderberry

Black elderberry, also called Sambucus nigra, refers to several varieties of the sambucus tree, which has clusters of white flowers and black or blue-black berries.

A placebo-controlled, double-blind study of 312 plane travelers concluded that those who took elderberry supplements had significantly reduced cold duration and severity compared with passengers given a placebo instead.

A review of studies concluded that rosemary has significant antimicrobial, anti-inflammatory, antioxidant, and neuroprotective properties.

A systematic review of studies from 2018 found that black elderberry supplements were effective in treating the symptoms of upper respiratory infection.

### 8. Black Cumin Seeds

Black cumin seeds, also called black caraway, have a long history of therapeutic use.

A study identified compounds in black cumin seeds that can positively affect immune signaling pathways, showing that the herb could be used as a dietary supplement to activate immune responses.

A comprehensive review concluded that because of a compound called thymoquinone, black cumin seed promotes immunity and cell survival, acts as an antioxidant, and can lessen the side effects of certain drugs.

### 9. Garlic

Used as both a spice and food for thousands of years, garlic has been found by researchers to offer a broad range of health benefits, especially as an immune system booster.

A systematic review of studies found that garlic appears to enhance immune function by stimulating certain immune cell types, including macrophages, lymphocytes, and natural killer cells.

Another randomized controlled trial looked for evidence that aged garlic extract could boost human immune function against respiratory infection. While the number of study participants who caught a cold or flu wasn't significantly different, researchers found that the garlic group experienced a reduction in the number of cold and flu symptoms and in the number of work or school days missed.

**One of the most common spices in everyday cooking, black pepper has also shown promise in fighting cancer.**

### 10. Astragalus

Astragalus, also called huangqi, is a root used in ancient Chinese medicine to strengthen and regulate the immune system. It has been used to alleviate many conditions, including respiratory infection, hay fever, asthma, and chronic kidney disease.

A systematic review of studies found that astragalus regulates immune function, promotes the proliferation of immune cells, stimulates the release of cytokines (which control the growth of immune cells), and influences the secretion of immunoglobulin (antibodies) and conduction of immune signals.

The National Institutes of Health (NIH) reported that astragalus "may be safe when used orally and appropriately" and that doses up to 60 grams daily for up to four months have been used without reported adverse effects. Possible but uncommon side effects include rash, itching, nasal symptoms, and stomach discomfort.

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



# Engineered for Addiction

Continued from Page 1

The oft-heard expression regarding managing addiction is “all things in moderation.” But when “all things” are engineered and marketed for maximum addictive potential, is this the best approach? Behavioral addictions can more easily fly under the radar when it comes to these “softer” substances. Is it really different from external substances when the drug is internal—like the neurotransmitter dopamine?

**When ‘More’ Becomes ‘Never Enough’**  
Dr. Daniel Lieberman, a clinical professor at George Washington University, discusses the role of dopamine in behavior and addiction in his book “The Molecule of More.”

“There are few things that feel better than getting a hit of dopamine. It’s what we feel when we’re about to eat a wonderful meal, or we get some good news, or we win a competition. And that good feeling motivates us to get it again and again and again,” he told The Epoch Times.

The double-edged sword of dopamine, according to Lieberman, is that it orients us toward the future. Its job is to drive us toward behavior that will support survival. Dopamine also propels us to maximize future resources.

“It’s looking out for our genes, getting them to survive and reproduce,” he said. “Dopamine is about making the future better, but its role is very, very specific. It’s only focused on the future. It does not process things that occur in the present moment. And so as soon as something goes from the future, the present dopamine shuts down.”

The capacity for addiction today lies in the disconnect between our hardwired biology and so-called supernormal stimuli: modern consumer products and

**Behavioral addictions can more easily fly under the radar when it comes to these ‘softer’ substances.**

Activities and foods that trigger the release of dopamine can become difficult to resist.

Social media companies hire psychologists to help create compulsive behavior in users.

High-calorie junk foods can trigger a maladaptive release of dopamine.



MARIA KORNEVA/GETTY IMAGES

services such as processed food, social media, and pornography that act on these reward pathways to trigger powerful compulsive urges.

“Once an activity triggers dopamine once, it becomes sticky, and eventually we can lose control over our behavior,” Lieberman said. “Now, the people who write code for social media, they know this. In fact, they hire psychologists who are experts in compulsive behavior in order to try to trigger compulsive behaviors in their customers. You know, most of these things that we use in maladaptive ways don’t cost us anything.”

But, as the saying goes, “If you’re not paying for the product, then you are the product.”

But not all of these addictive products are free—or optional. Among these supernormal stimuli is something we simply can’t go without: food.

## We Are What We (Over)Eat

When Pulitzer Prize-winning journalist Michael Moss began his investigation into the food industry, he was asked by a British tabloid reporter if he thought processed food was as addictive as hard drugs.

“It seemed totally ludicrous to me to compare Twinkies with cocaine,” Moss told The Epoch Times.

In his first book, “Salt Sugar Fat: How the Food Giants Hooked Us,” published in 2013, he uncovered how the food industry manufactured its products for maximum “bliss.”

“They use chemists to manipulate the

formulas to make them as attractive as possible. They use experimental psychologists to get in our heads and figure out what emotional buttons to push in us that will get us to eat even when we’re not hungry,” Moss said. “They use lots of strategic marketing in the grocery store in order to get us to sort of drop our guard and shop impulsively rather than stick to a shopping list, which again, is another symptom of a substance being addictive.”

And yet, he says he initially avoided using the term “addiction” to describe what was happening. But, as he continued his investigations and published his 2021 follow-up book, “Hooked: Food, Free Will, and How the Food Giants Exploit Our Addictions,” he concluded that dependence on processed food could indeed become a full-blown addiction. And, in some instances, it can be even more insidious than drugs.

A foundational component of addictions is how they can become implanted in our memory. Moss pointed out that while memories tethered to drugs typically take root in our teenage years, food-related memories form in our earliest years. This is why corporations such as Coca-Cola Co. weave together marketing narratives around the ballpark and the dinner table.

“The memories begin earlier, and they get associated with joyful moments in our life, more than drug memories or tobacco memories,” he said.

Another aspect that can make processed food as, or even more, addicting than drugs is the speed at which we can consume them. Moss said that Nora Volkow, director of the National Institute on Drug Abuse, discovered that one thing that made cocaine so addictive was how fast it reached the brain. Moss noted that this is why addicts will make the jump from snorting cocaine to smoking crack, since the latter hits the brain much faster.

“[Processed foods] are packaged to allow us to rip open those packages really fast and get to the food without delay, which is exciting to the brain. And then the very refined nature of the salt, sugar, fat, which has the ability to reach the brain much quicker,” Moss said.

He concluded that food corporations exploit our instinctual drives related to food in order to make their products irresistible to the average consumer.

## Knocking Out Addiction

Ed Latimore, a former professional boxer turned content creator and best-selling author, battled alcohol and pornography addiction in his 20s. Growing up in public housing in Pittsburgh, he struggled with poverty,

hunger, and violence but, for the most part, stayed out of trouble.

He won a lottery to attend a high school in a different neighborhood of Pittsburgh than where he lived. He was exposed to a new atmosphere and a new group of students. By the time he graduated, he had grown resentful of his mother for the dangerous and turbulent life he endured growing up, culminating in a swirl of emotions that helped push him into alcoholism.

“I was drinking because of my environment; I didn’t like who I was. I didn’t feel capable. I felt this was a way for me to fit in. ... It was a way for me to open up my personality. And that makes it easy because it does that. ... But, it does it at a steep cost,” Latimore told The Epoch Times.

Meanwhile, he also grappled with dependence on pornography.

“Porn hijacks your natural inclination. ... Porn is ‘safe.’ Going out and talking to a girl is not,” Latimore said. “You get rejected, you waste time, she might not look the way you want her to look. In fact, she probably won’t. It’s very easy to fall into that.”

He was also a burgeoning amateur boxer. He realized his addictions were holding him back. In January 2013, he enlisted in the National Guard to develop his employable skills and earn money for college. In the same month, he had his first professional fight.

After facing long-term sobriety in basic training, he decided to put down the bottle for good. Concurrently, Latimore wrote routinely, held down a job, completed his bachelor’s degree in physics, and spent quality time with his girlfriend. All this came together to leave little room for aimless socializing or indulging.

“I replaced what I was doing for fun with a purpose. I stopped just killing time, and it was real time being put in,” he said. “You don’t have time to go out when you have a purpose. ... I would rather get my degree and [I had] boxing. And then, everything else supported it. ... These were vital components.”

Ultimately, Latimore said forging a purpose can replace the need he sought to fill with addictions. He stressed that this new purpose needs to demand time and energy from us to be fulfilling, but it must be in a different domain from that of a given addiction. For example, if you’re hooked on porn, aiming to be a professional gamer won’t work, nor will a recovering alcoholic find much success in becoming a nightclub DJ.

“You have got to figure out what you’re looking for and really be ruthless about getting that. ... I call my sobriety a habit,” he said. “I spent time building that up.”

Latimore routinely shares his story of overcoming dependence. He also coaches others on how to finally quit. Regarding everyday addictions, he sees modern supernormal stimuli as so prevalent that it can be difficult to put up barriers.

“I believe you can get a person to stop almost anything. But, if that thing is ubiquitous, if it is everywhere, if it is easy to get, they don’t even have a chance to build up the discipline,” he said. “It’s a hyper-experience, and you’ve got to recalibrate to life.”



Cooking your own food makes it easier to resist unhealthy snacks.



Most religions offer a vital form of social support that helps us reach for higher aspirations rather than give in to lower cravings.

ANASTASIA STIAHALO/GETTY IMAGES



Religious believers tend to suffer less anxiety and depression, both of which are major risk factors for addiction.

## The Illusion of Control

Whether we’re addicted to social media, pornography, or food, freedom begins with divesting ourselves of illusions.

“There’s this illusion that we are in control inside of our heads, and nothing could be farther from the truth,” Lieberman said. “So the first step is to accept that other people have the ability to profoundly manipulate your thoughts and your behaviors. The second step is to pay attention to when you’re doing things that make you either unhappy or physically ill.”

It can be dizzying to comb through the possibility of pleasures that may reel us in, but a simple barometer lies in whether a product or service is marketed as “convenient.”

“These adversarial companies are constantly telling us ... life can be easy. You know, Amazon’s gonna deliver you that package by drones. You don’t have to wait 24 hours. Everything is about making things easy, easy, easy. And we lose our ability to make sacrifices and do hard things the more we indulge in easy,” Lieberman said.

It takes up to

**12 MONTHS**  
for cravings to go away,

but

**30 DAYS**

is long enough to begin to feel positive changes that can motivate people to stick with their lifestyle change.

# The Pros and Cons of the Lowest-Tier Doctors

Most doctors are treating patients once the disease is well-progressed, but this low-tier medicine has consequences

JINGDUAN YANG

In Chinese history, there was a saying, “The lowest-tier doctors treat diseases, the middle tier treats people, and the upper tier treats the country.”

Today, let’s talk about the pros and cons of how lower-tier doctors treat diseases. In this context, when these doctors are involved, they are treating the later stages of the disease—the most discernible state—and in some cases, the disease has reached its most urgent condition. According to traditional

Chinese medicine, if the condition is urgent, the doctor will treat just the surface or the symptoms. And if the condition is not yet at the final stage, the doctor will spend his or her efforts on treating the hidden symptoms and finding their root cause.

With the symptoms of the disease fully exposed—whether it is fever, pain, dizziness, diarrhea, bleeding, loss of consciousness, or convulsions—all will inevitably bring patients suffering and sometimes threaten lives. It is at this stage that the doctor’s priority is to relieve symptoms and pain and save lives in a timely manner. Lower-tier doctors are thus of utmost importance as they need to manage all the resulting emergencies or the advanced stage of the disease.

Today’s large hospitals, with advanced equipment, precise treatment methods, and a wide variety of medicines, are mostly for the purpose of relieving or trying to cure diseases—and they all belong to lower-tier medical treatment. This kind of treatment has a huge impact on human survival. But at the same time, it has limitations, because it only treats diseases that already exhibit symptoms.

For example, for tumors, surgery is often the first treatment to be considered. If surgical resection is not possible or complete

removal is beyond reach, radiotherapy will be used to try to shrink or eradicate it. When all of the above fails, chemotherapy is applied to kill the tumor cells.

Surgery, radiotherapy, and chemotherapy are basically the three main methods of modern medicine to treat tumors. These methods may be effective, but they may lead to the spread of tumors or lead to a decline in immune function—allowing tumors to return. Because of this, patients may simply die of complications resulting from such treatments. All in all, this kind of treatment is to treat the symptoms of cancer, without going into the cause of it, and how the recovery can be conducted, and how to ensure that cancer will not recur, all of which are within the scope of the middle-tier doctors.

## Public Health Policies: Medical Treatment Over Prevention

National medical policies put all the energy and financial resources on the treatment of the symptoms of diseases (the lower tier), neglecting to emphasize prevention and treating the root cause of diseases, resulting in a situation where there are more and more patients needing care and more and more diseases to be treated.

Two approaches are much talked about

in the treatment of diseases—one is drug therapy, and the other is surgical physical intervention therapy. Drug therapy itself brings many side effects, such as uncontrollable and unpredictable adverse reactions. We clinicians often see that patients start with one drug, and gradually take two, or three—using one drug to counteract the side effects of another.

It is very common for many patients in the United States to take more than a dozen or more medicines after they reach a certain age. As a result, the expenditure on medical care is very significant, with more and more people needing to be employed in the medical system—but the general health status of the average American is getting worse.

The United States should be the most advanced country in medical technology in the world, and it should be at the forefront in terms of the “lower tier” medical treatment. However, the health status of Americans only ranks in the 10s, or sometimes 30th in the world. An important reason for this is the emphasis on lower medicine for the treatment of illnesses and not enough emphasis on middle medicine for the treatment of people or upper medicine for the treatment of the country.

## 100,000 Americans Die Each Year From Adverse Drug Reactions

To cite two simple figures, about 2 million to 3 million people in the United States go to the emergency ward due to adverse drug reactions every year, and 100,000 of them die from such adverse reactions every year, which has become the fourth leading cause of death in the United States.

The adverse drug reaction here does not mean taking the wrong medicine, nor taking a large amount of it, or being prescribed the wrong medicine, but simply the patient, unfortunately, had an idiosyncratic reaction. So, from this, we can see the risk of drug treatment. In terms of surgical physical intervention therapy, according to statistics, there are 40 operations per week performed in the wrong place of the body, which does not include medical accidents caused by various reasons in hospitals—all together they lead to 90,000 to 100,000 deaths every year.

So some of the consequences of the lower-tier medicine that treat the disease at the later stage are also very serious. In future articles, we will also introduce the importance of the other two tiers of medicine, the middle-tier medicine that treats people, and the upper-tier medicine that treats the country.

**According to traditional Chinese medicine, if the condition is urgent, the doctor will treat just the surface or the symptoms.**



JOHN PANELLA/SHUTTERSTOCK

Advanced equipment in hospitals is mainly used in lower-tier medical treatments that address symptoms rather than causes.

*Dr. Jingduan Yang is a faculty member at the University of Arizona’s Center for Integrative Medicine, former assistant professor of psychiatry, and director of the Oriental Medicine and Acupuncture Program at the Jefferson-Myrna Brind Center for Integrative Medicine at Thomas Jefferson University. He completed a research fellowship in clinical psychopharmacology at Oxford University, residency training in psychiatry at Thomas Jefferson University in Philadelphia, and a Bravewell Fellowship in integrative medicine at the University of Arizona. You can find out more about Dr. Yang at his website [www.YangInstitute.com](http://www.YangInstitute.com)*

About 2 million to 3 million people in the United States go to the emergency ward due to adverse drug reactions every year.



MASKOT/GETTY IMAGES





Our desire to over consume is often driven by feelings of greed, boredom, vanity, or emptiness that are easily manipulated.

# Our Desires Are Being Manipulated

The grand deceptions of consumer society can only be escaped with a clear intention

JOSHUA BECKER

I often ask myself an important question: Why aren't more people attracted to a minimalist life? Given all the benefits of owning just what we need, why would anyone choose to own a whole bunch of stuff they don't?

I don't ask the question with an air of superiority, pride, or morality. For me, it's a personal question I continue to wrestle with.

I didn't discover minimalism until my mid-30s. While living on a lower middle-class income, I still managed to acquire rooms full of stuff that wasn't needed. This became abundantly clear when my neighbor introduced me to minimalism and my family of four began to minimize the possessions in our home.

Dropping off our first van-load of stuff at Goodwill felt amazing. Taking the second load of clutter to the Salvation Army felt wonderful. So did the third.

But while dropping off a fourth load of things I didn't need at our local donation center, I started to ask myself some serious questions, starting with "Why in the world did I have four van-loads of things in my house that I didn't need? Why did I buy all of this?"

**Why Do We Buy Stuff We Don't Need?**

The more I dove into my heart and soul-searched for an answer, the less I enjoyed what I found. Selfishness, greed, jealousy, desire to impress, and fear (just to name a few) became apparent to me as unhealthy motivations that compelled me to acquire and consume.

These innate human desires, I realize

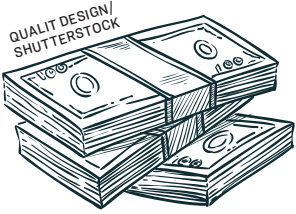
now, are something each of us must work to recognize and overcome. They're more prevalent in our lives than we realize (or like to admit).

But we aren't entirely to blame. The external world conspires against us.

In one of the most well-known descriptions of modern society's fixation on consumption, Paul Mazur of Lehman Brothers wrote in the Harvard Business Review in 1927: "We must shift America from a needs to a desires culture. People must be trained to desire, to want new things even before the old had been entirely consumed. We must shape a new mentality in America. Man's desires must overshadow his needs."

And thus began a new era in advertising—one that would seek to manipulate

**Beware of destination addiction—the belief that happiness will be realized in your next purchase.**



**Our money is only as valuable as what we choose to spend it on.**

## How to Stay in Control

Overcoming manipulation takes constant vigilance. But here are some important steps we can take to accomplish that:

- 1. Recognize there are selfish motivations around us.** Not every company and not every advertisement is out for our good. Some are just there for profit.
- 2. Work to see the manipulation.** The emphasis in advertising has moved away from fact-based proclamations to creating associations in the mind of the viewer. Most advertisements appeal to our subconscious desires (status, sex, prestige, happiness, appearance, self-esteem, identity, or reputation) and fears (loneliness, security, weaknesses, uncertainty). Be aware of their strategy so you won't be fooled by it.
- 3. Remember that happiness can't be purchased.** Beware of destination addiction—the belief that happiness will be realized in your next purchase. The dopamine rush from a new purchase is immediately fleeting. Happiness is a decision available to all of us; it isn't for sale on Amazon.
- 4. Respect the finite nature of our lives.** All of life is finite—including our time, our

the masses not by providing goods required for life or happiness, but by manipulating their desires.

Everything from cars and clothes to cigarettes and appliances became status symbols. And 100 years later, the manipulation continues.

During the recent Super Bowl, as just one example, we were told a fashion app could make us feel rich, a software company could turn us into a rockstar, a vehicle purchase could save the environment, and a can of potato chips could connect us with others.

In each and every case, we're being "trained to desire more than we need" because it makes them money.

My grandfather was born in 1921 and died in December 2020 at the age of 99. He was 6 years old when business leaders began intentionally shifting their strategy.

But I'm 48, born in 1974, which means I've lived my entire life under this manipulation! And likely, you have as well.

We've never known anything different than a world where business leaders, Wall Street tycoons, politicians, and now tech giants control the airwaves and the culture we live in.

We've come to expect that this way of life is normal and how life is supposed to be lived.

This is just what life is—desiring and buying more than we need. Right?

Like a fish who doesn't notice the water surrounding it, we don't even notice the level of corporate manipulation and its impact around us. It's cooked into the soup we're all swimming in.

But make no mistake. We're being deceived. We're being sold promises that retailers and manufacturers can never deliver on. Their external manipulation appeals to our internal insecurity and compels us to pursue, purchase, and accumulate more than we need.

So how do we overcome this manipulation?

I wish there was an easy answer, but I've found that not to be the case.

*Joshua Becker is the founder and editor of Becoming Minimalist, where he inspires others to live more by owning less.*

money, and our energy. Because of this, learning where to place our attention and affection is incredibly important.

**5. Buy things for their usefulness, not their status.** Purchase items for their ability to meet your needs, not their ability to impress your neighbor.

Apply this principle everywhere; your house, your car, and your clothes are all great places to start. You don't have to live like everyone else. In fact, you'll probably be happier if you don't.

**6. Remind ourselves that there are greater pursuits in life.** There are always greater things we can do with our money than buy stuff we don't need. We can help others, solve problems, and make a difference in the world. Our money is only as valuable as what we choose to spend it on. Spend it wisely.

**7. Ground our minds.** For me, this is one of the reasons meditation and devotion are so important in my life. Being intentional about the purpose of life helps us overcome the manipulation of the world around us. Maybe that's one of the reasons it's so popular in both faith-based and non-faith-based worldviews.

The only exit from the influence of marketers and a consumerist society is to actually exit—to decide that enough is enough and that the relentless pursuit of possessions will never lead to an intentional life. The first step is to be intentional in overcoming it.



# Protecting Yourself in the Face of a Chemical Disaster

The Ohio train derailment gives an extreme example of why you and your loved ones need well-functioning detox pathways

ASHLEY TURNER

The Ohio train crash on Feb. 3 highlights an essential fact of modern life that we all need to be prepared for: Our world runs, in large part, on toxic chemicals that we may inevitably be exposed to, either through the intentional use of everyday products or accidental exposures such as the derailed train that was carrying a variety of chemical products to Conway, Pennsylvania, from Madison, Illinois.

People living in the area surrounding East Palestine, Ohio, where about 50 cars derailed, are now contending with hazardous materials including vinyl chloride, butyl acrylate, ethylene glycol monobutyl ether, ethylhexyl acrylate, and isobutylene.

*Continued on Page 10*

**If you were knowingly exposed to hazardous materials or want to proactively support your body, there are various ways to support the body in a holistic way.**



MICHAEL SWENSEN/GETTY IMAGES



**(Top Left)** A black plume rises over East Palestine, Ohio, as a result of a controlled detonation of a portion of the derailed Norfolk Southern trains, on Feb. 6, 2023.

**(Above)** Petroleum based chemicals contaminate Leslie Run creek in East Palestine, Ohio, on Feb. 20, 2023, following a train derailment.

**(Left)** A man sits at his kitchen table in Darlington, Penn., on Feb. 17, 2023. Many residents claim that no air quality or water testing has been done since the derailment.

## 9 Things You Need to Know About Paxlovid

A deep dive into this oral antiviral pill for COVID-19 reveals promise and problems

YUHONG DONG

Do you know when Paxlovid should be used to treat COVID-19? Are you aware of the reasons for the mixed results of its phase two and phase three clinical trial data compared with its real-life studies? Do you know what the most significant concern about Paxlovid is for its future application in treating COVID-19? Reputed as a so-called "game-changer" oral antiviral pill to treat COVID-19, Paxlovid can prevent hospitalization and death in people

who are at high risk of severe COVID-19. However, you should know that the research findings on Paxlovid are not always what they seem to be.

What follows is a balanced, unbiased review related to Paxlovid's development history, clinical trial and real-world effectiveness data, and the drug's advantages and limitations. We will also clarify the connection between oral antivirals and human immunity.

*Continued on Page 12*



### Summary of Key Facts

Paxlovid is an oral antiviral pill to treat COVID-19.

- 1.** Paxlovid is not yet approved by the FDA.
- 2.** The drug should be used soon after viral infection.
- 3.** Natural immunity influences the success of Paxlovid and other antivirals.
- 4.** Paxlovid doesn't work in younger patients.
- 5.** In a real-world study, the drug showed limited effectiveness.
- 6.** Finding "treatable" patients has proven challenging.
- 7.** Drug resistance is a major concern.
- 8.** Another major concern is Paxlovid's interaction with other drugs.
- 9.** Its clinical trial reported 89 percent efficacy with side effects of dysgeusia and diarrhea.

THE EPOCH TIMES

The Book You've Been Waiting For ... **"An eye-opening and sobering read on where we find ourselves today and how we arrived here."**  
— B. Miller

## HOW THE SPECTER OF COMMUNISM IS RULING OUR WORLD

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

**ORDER NOW!**



**SPECIAL OFFER**  
**50% OFF**  
NOW \$18 \$36  
+S&H

*"Makes a very clear case against communism and explains how it rules every aspect of life worldwide. A must read if you want to understand the world we live in."*  
— Jason E.

**EpochShop.com**

THE EPOCH TIMES



**Care about health? So do we.**

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

**ReadEpoch.com**

\*digital subscription



ALL PHOTOS BY SHUTTERSTOCK



Ying and Yang by Sandra Kuck

Original artworks, canvas wraps, and prints of Award-winning oil paintings now available at

[InspiredOriginal.Org/Store](https://InspiredOriginal.Org/Store)

INSPIRED  
ORIGINAL

INTRODUCING

*My Pillow* 2.0



BUY ONE  
GET ONE  
FREE!

w/ promo code

W/ PROMO CODE

EPOCH99

## Behind the Subscription


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

Learn more at

[EpochSubscription.com](https://EpochSubscription.com)

THE EPOCH TIMES  
TRUTH AND TRADITION

Protecting Yourself  
in the Face of a  
Chemical Disaster



Sweating helps the body eliminate toxins, whether that sweat arises from exercise or 20 minutes in a sauna.

Continued from Page 9

At this point, it's important that three things happen: that the chemicals are cleaned up, that long-term monitoring ensures the health effects linked to the spill are recognized and treated, and that those now exposed do everything they can to help their body contend with the chemical soup that has crashed into their local environment.

The chemicals that leaked are used to make PVC, rubber, paint, and other chemical-based products. Millions of gallons of hazardous chemicals were spilled as a result of this crash. Reports of chemical residues are being found hundreds of miles from the incident. People are finding dead pets, chickens, and fish in local waterways. Some have experienced symptoms of acute chemical exposure. Vinyl chloride is a known carcinogen and has been associated with liver can-

cer. It's of particular concern when it burns because it decomposes to gases that include hydrogen chloride, carbon monoxide, carbon dioxide, and phosgene.

The Ohio Emergency Management Agency created a controlled explosion by releasing and burning the chemicals in an attempt to control the hazardous materials. Exposure to these gases can produce damaging reactive oxygen species, particularly hydroxyl radicals that wreak havoc on the body and impair mitochondrial function.

From a health perspective, even people living far beyond Ohio should be concerned about this incident and should support their bodies from the incident. It's difficult to know the various toxic compounds that were released into the air, water, and soil in these areas and how far these residues will carry by wind and water.

These chemicals are hazardous to



Milk thistle can reduce oxidative stress and free radical damage.

## Vitamin D's Anticancer Effects

Researchers have linked higher vitamin D levels with reduced risk of melanoma and other cancers

GEORGE CITRONER

Interest in the sunshine vitamin exploded during the COVID-19 pandemic because of its immunity-boosting effects. A new study found that regularly taking vitamin D supplements is linked to a significant reduction in melanoma risk.

Researchers also discovered that people who regularly took vitamin D supplements also had reduced risk of other kinds of skin cancer.

The new study was conducted under the North-Savo Skin Cancer Program in Finland and included 498 adult patients estimated to have an increased skin cancer risk for:

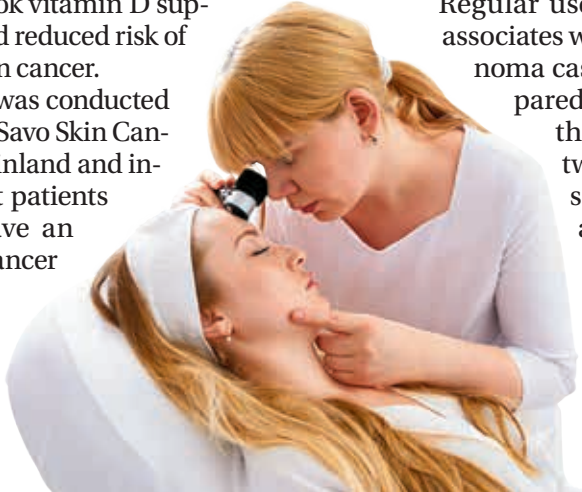
- Basal cell carcinoma
- Squamous cell carcinoma

- Melanoma

Serum calcidiol levels, a measure of vitamin D in the blood, were analyzed in about half of the patients and were found to correspond to the patients' self-reported intake of vitamin D supplements. A key finding was that among regular vitamin D users, there were lower percentages of participants with a history of past or present melanoma—only 18 percent compared to 32 percent in those who didn't take vitamin D supplements.

When researchers looked at other types of skin cancer, just 62 percent of regular supplement users had a history of the disease, compared to nearly 75 percent of non-users.

"Regular use of vitamin D associates with fewer melanoma cases, when compared to non-use, but the causality between them is obscure," the study authors wrote. Dr. Adam



35%  
of U.S. adults  
are vitamin D  
deficient.

ALL IMAGES BY SHUTTERSTOCK

### Signs of Acute Chemical Exposure

- Tearing eyes
- Burning of the eyes, nose, throat, chest, and/or skin
- Headache
- Sweating
- Blurred vision
- Stomach aches
- Vomiting
- Diarrhea
- Difficulty breathing

- Coughing
- Wheezing
- Feeling faint or weak
- Inebriation

If you were knowingly exposed to hazardous materials or want to proactively support your body, there are various ways to support the body in a holistic way. None of this should be taken as direct medical advice; please check with your preferred provider to help you understand what strategies are right for you and your loved ones.

human health and can be absorbed through our lungs, digestive tracts, and skin. The extent of possible risk depends on the concentrations of contaminants and the length of exposure. Keep in mind, even low levels of exposure to toxic compounds can cause cancer, hinder the immune system, fuel inflammation, disrupt endocrine function, and damage the brain.

#### Antioxidants

Supplementing with antioxidants is important for helping to scavenge damaging free radicals. Glutathione is known as the body's master antioxidant and is naturally produced within the body. Supplementing with a liposomal form is generally best absorbed.

N-acetyl cysteine (NAC) is a precursor to glutathione and is sometimes better tolerated. Pyrroloquinoline quinone (PQQ) is also an excellent antioxidant to neutralize hydroxyl radicals.

#### Support the Liver

The liver is one of the primary detoxification organs, and certain supplements can help it do its job. Calcium d-glucarate helps facilitate phase two detoxification in the liver called glucuronidation. Milk thistle can reduce oxidative stress and free radical damage in the liver. As a bonus, these supplements also help the liver detox estrogens appropriately and foster healthy cholesterol levels.

#### Open Pathways of Elimination

In addition to the liver, making sure the body's other pathways of elimination, such as the colon, kidneys, skin, lungs, lymphatic system, and glymphatic system are functioning well helps safely rid the body of toxins.

If these pathways aren't functioning, it will be difficult for the body to safely detox because there will be no place for the toxins to go. Some ways to open up drainage pathways are:

- Hydrating with clean water and mineral-rich beverages to flush the kidneys
- Breathing through the nose with the diaphragm maximizes the oxygen delivered to the body
- Exposing yourself to the morning sun as these drainage pathways are connected with your circadian rhythm

- Consuming a clean, mineral-rich diet with plenty of fiber
- Ensuring at least one to three daily bowel movements
- Using coffee enemas to up-regulate glutathione production and cleanse the liver and bile ducts
- Encouraging lymph flow through the body through dry skin brushing, lymphatic massage, rebounding, and exercise
- Castor oil packs over the liver, intestines, and/or colon
- Managing stress



A quality air purifier can remove airborne particles as small as 0.003 microns in size.

#### Binding Agents

Taking systemic binding agents such as humic and fulvic acids, micronized zeolite clinoptilolite, bentonite clay, and charcoal are effective in detoxifying hazardous materials such as vinyl chloride, dioxins, phosgene gas, benzenes, phthalates, plastics, and so forth. The substances can bind to toxic compounds and help the body expel them.

#### Support Your Barriers

Barrier integrity is crucial for safeguarding the body from toxins. It's important to support the gut, brain, and lung barriers when exposed to toxins.

- Gut: L-glutamine, deglycyrrhizinated Licorice, aloe, marshmallow root, slippery elm, curcumin, prebiotics, and probiotics all strengthen the integrity of the intestinal barrier.
- Brain: Having a blood-brain barrier dysfunction, or "leaky brain," is associated with intestinal hyperpermeability or "leaky gut," so it's wise to bolster both. Resveratrol, curcumin, omega 3 fatty acids, B vitamins, vitamin D, magnesium, and sulforaphane that are found in cruciferous vegetables can aid blood-brain barrier integrity.

### It's important to support the gut, brain, and lung barriers when exposed to toxins.

A quality air purifier can remove airborne particles as small as 0.003 microns in size.



It's prudent to filter your water with activated carbon, whether it comes from the tap or well.

### The liver is one of the primary detoxification organs, and certain supplements can help it do its job.

- Lung: Similar to a leaky gut and leaky brain, the delicate lining of the lungs can also become permeable. This happens when microscopic holes in the lungs allow inhaled particles to penetrate the lung tissue itself, making their way into the body cavity and causing an immune response. Nebulizing proper forms of glutathione along with taking immune-modulating compounds such as curcumin, resveratrol, omega-3 fatty acids, and maintaining proper vitamin D levels are important for adequate support.

#### Air Purification

Make sure you have a quality air purifier in your home environment to remove airborne particles as small as 0.003 microns in size. Change your HVAC system filter and air purifier filters on a regular basis. Additionally, if you live near one of these train crashes, it would be advisable to leave town until it's safe to return.

#### Water Purification

All water in your environment must be filtered with activated carbon treatment whether it comes from the tap or well. This includes drinking water and water for bathing. There are filters that can be attached to shower and bath spigots to ensure bathing water is safe. For more information about your local water, you can get it tested locally or use a service such as mytapscore.com.

#### Food

It's difficult to know how these chemical exposures will affect the food supply in the long term due to contaminated soils. In the short term, don't eat fresh eggs, produce, or other foods directly exposed to toxins.

#### Sweat

Sweating helps the body eliminate toxins of various kinds. If you can afford a sauna, get one and use it frequently while replenishing electrolytes. Aim for 15 to 20 minutes of deep abdominal sweating. You can also achieve therapeutic sweating by raising your internal body temp with physical activity or appropriate sun exposure.

Since we don't know what the long-term effects of this widespread toxin exposure will be, be wise and prudent, advocating for yourself and your loved ones!

*Dr. Ashley Turner is a traditionally trained naturopath and board-certified doctor of holistic health for Restorative Wellness Center. As an expert in functional medicine, Turner is the author of the gut-healing guide "Restorative Kitchen" and "Restorative Traditions," a cookbook comprised of non-inflammatory holiday recipes.*

Starr, an oncologist at Staten Island University Hospital, part of Northwell Health in New York, told The Epoch Times that there are several possible reasons vitamin D could have an anti-melanoma effect.

"[Reasons could include] modulation of the immune system and [vitamin D's] antioxidant effects," he said. "Additionally, the relationship between vitamin D metabolism and sunlight exposure, plus melanoma and sunlight exposure may have some interplay."

Research shows that vitamin D also reduces inflammation associated with increased cancer risk, has antitumor properties, and even improves the effectiveness of some anticancer therapies.

Vitamin D is known to help our bodies absorb and retain calcium and phosphorus, which are crucial for healthy bones. Many organs and tissues have receptors for vitamin D, suggesting that this nutrient plays important roles beyond bone health.



#### Sun Exposure, Necessary for Vitamin D, Also Cancer Risk

Vitamin D is both a vitamin found in food and a hormone our bodies produce when exposed to sunlight.

While exposing our skin to sunlight is among the best ways to get vitamin D, natural ultraviolet light is also a risk factor for melanomas and nonmelanoma skin cancer.

Periodic sun exposure and being sunburned during childhood and adolescence are also associated with increased melanoma risk, especially for fair-skinned people with blond or red hair. Treatment for

melanoma is limited to surgical removal, as the condition has a low response rate to chemotherapy.

However, about 35 percent of U.S. adults are vitamin D deficient, and the American Osteopathic Association blames sunscreen use (used by many to prevent skin cancer) as the culprit.

"People are spending less time outside and, when they do go out, they're typically wearing sunscreen, which essentially nullifies the body's ability to produce vitamin D," Dr. Kim Pfothauer, a board-certified osteopathic family physician and assistant professor at Touro University, said in a statement.

The solution is moderation; spend five to 30 minutes in mid-day sun twice per week, depending on your geographic location and skin pigmentation (lighter skin makes more vitamin D than darker skin). Pfothauer said it's important to forget the sunscreen during these sessions because SPF 15 or higher can decrease vitamin D production by up to 99 percent.

"You don't need to go sunbathing at the beach to get the benefits," Pfothauer said. "A simple walk with arms and legs exposed is enough for most people."



#### Vitamin D Supplementation Upper Limit for Healthy People

When taking vitamin D supplements, there's an optimal daily dose, and taking more than that could adversely affect our health.

Starr cautioned that vitamin D requirements depend on a person's baseline vitamin D level and whether they have a malabsorption condition.

"Therefore, the amount one should take if they want to supplement should be discussed with their physician," he said.

For healthy adults with normal absorption, the National Institutes of Health recommends a maximum of 4,000 international units (IU) per day for adults 19 years and older.

The amount of supplementation that's too much is still unclear, but there's evidence that taking 60,000 IU per day for several months could be toxic.

### Vitamin D is both a vitamin found in food and a hormone our bodies produce when exposed to sunlight.

The main risk of too much vitamin D is a condition called hypercalcemia (too much calcium in the blood), which can lead to various neurological symptoms. "[Symptoms of hypercalcemia include] confusion, fatigue, coma, as well as bone pain, weakness, stomach pain, nausea, constipation, increased urination, kidney problems, among many others," Starr said.



#### Vitamin D Could Protect Against Other Cancers

Regarding the Finnish study, Starr said it's interesting but still insufficient evidence to recommend taking vitamin D to prevent melanoma because that study had too many confounding factors.

"For example, patients who take vitamin D might also be more likely to wear sunscreen, and that might be what actually accounts for the difference," he said. "The authors did a statistical analysis to try to eliminate these biases, but the history of these kinds of studies [shows] that a clinical trial, or a forward-looking prospective study, is really needed to definitively say that vitamin D might lower the risk of melanoma."

But this is only one of many studies in recent years that finds an association between vitamin D levels and cancer risk.

Research published in 2018 that looked at data from about 13,000 people found that not taking enough vitamin D could increase our risk of colorectal cancer by up to 31 percent.

Another study found that prostate cancer cells responded to vitamin D with decreases in proliferation, invasiveness, and metastasis (spreading in the body).

Not all the research showed a prevention benefit, but scientists still observed a potentially life-saving effect. A recent meta-analysis of randomized controlled trials concluded that vitamin D supplementation significantly reduced total cancer mortality, although it failed to reduce total cancer incidence.

Harvard Health recommends that healthy-weight people at risk for developing cancer because of lifestyle or family history of cancer take daily vitamin D supplements starting at about age 50.



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





Paxlovid is not indicated for patients who require hospitalization due to severe or critical COVID-19 infection.



Paxlovid's problematic interactions with drugs that are CYP3A inducers can trigger antiviral resistance.



ALL IMAGES BY SHUTTERSTOCK

# 9 Things You Need to Know About Paxlovid

Continued from Page 1

Pfizer's Paxlovid contains two active ingredients. The first is nirmatrelvir (PF-07321332), a protease inhibitor that interrupts the viral replication cycle.

Protease helps the virus break down proteins so they can be used for various functions, including replication. The action of viral protease is like a pair of scissors in the hands of a tailor. The protease can cut the long synthesized viral protein (like a piece of cloth) into various fragments with different functions. The virus will combine these protein fragments into a complete virus particle.

When the protease of the virus is inhibited, the virus is not able to replicate successfully; thus, protease is often the target of pharmaceutical therapies.

The other active ingredient of Paxlovid is ritonavir, a protease inhibitor used to treat HIV that can help slow down the metabolism or breakdown of nirmatrelvir, thus maintaining nirmatrelvir's effective concentrations.

**1 Paxlovid Is Not Yet Approved by the FDA**  
On Dec. 22, 2021, the FDA issued an emergency use authorization (EUA) for Paxlovid (nirmatrelvir tablets co-packaged with ritonavir tablets) to treat mild-to-moderate COVID-19.

On June 30, 2022, Pfizer filed a new drug application with the FDA, seeking approval for Paxlovid. As of today, however, it hasn't been approved by the FDA for the treatment of COVID-19.

**2 Paxlovid Should Be Used Soon After Virus Infection**  
A group of researchers, mainly from Pfizer Worldwide Research, published an article in Science on Nov. 2, 2021, about the discovery and characterization of Paxlovid. In vitro antiviral

activity of Paxlovid has been evaluated in multiple cellular models. In vitro testing showed that Paxlovid demonstrated potent antiviral activity against SARS-CoV-2, MERS-CoV, and other similar coronaviruses.

However, the researchers noted that Paxlovid should be given very soon after a subject is infected with COVID-19.

When given to mice as early as four hours after infection with SARS-CoV-2, a 300 or 1,000 mg/kg treatment of Paxlovid was effective in reducing the SARS-CoV-2 viral load in the lungs.

This means Paxlovid should be taken as early as possible after infection with the virus. That is also the rationale for the inclusion criteria: Only patients within five days of symptom onset were recruited in phase two and phase three clinical trials. If the viral infection is in a late stage and the illness is more severe, Paxlovid may not be as helpful.

It's worth mentioning that the start time of giving Paxlovid treatment, four hours after the virus infected animals, was even shorter than another antiviral, molnupiravir, which was dosed at 12 hours and 36 hours after infection in animals.

**3 Clinical Trial: 89 Percent Efficacy With Side Effects of Dysgeusia and Diarrhea**  
The findings of a phase two/phase three double-blind, randomized, controlled trial supported by Pfizer were published on Feb. 16, 2022, in the New England Journal of Medicine.

The trial involved 2,246 symptomatic, unvaccinated, non-hospitalized adult patients who were at high risk for developing severe COVID-19 symptoms, and symptom onset was no more than five days. They were randomly selected to receive either Paxlovid (300 mg nirmatrelvir and 100 mg ritonavir) with other standard care or a placebo with other traditional medicine twice a day for five days.

The final analysis, involving 1,379 patients, showed that when administered less than five days after symptom onset, Paxlovid reduced the risk of COVID-19-related hospitalization or death by 89 percent compared with the placebo group.

The main side effects observed with Paxlovid were dysgeusia (a taste disorder, 5.6 percent versus 0.3 percent in the control group) and diarrhea (3.1 percent versus 1.6 percent). This indicates potential side effects on the neurological and gastrointestinal systems.

Again, consistent with the development concept of this drug and aligned with its animal data, the drug has to be taken at an early stage of infection. Most patients (66.3 percent) received the first dose of the trial drug or placebo within three days of the onset of symptoms.

In the real world, not many patients can take the drug in the first days after onset, especially during the common Omicron era, as many patients may believe their symptoms were caused by the common cold and be unaware of having contracted COVID-19.

**4 Paxlovid Doesn't Work in Younger Patients**  
A large-scale observational, retrospective cohort study involving more than 100,000 subjects conducted in Israel during the Omicron-surge phase was published in the New England Journal of Medicine on Sept. 1, 2022.

This study was based on data obtained from a large health care organization covering approximately 52 percent of the Israeli population.

The research took place while the Omicron variant was dominant; the study period started on Jan. 9, 2022, and ended on March 31, 2022.

Researchers found that among patients 65 years of age or older, Paxlovid can lower the risk of hospitalization by 73 percent and reduce the risk of death by 79 percent. There was, however, no evidence of benefit to 40- to 64-year-old adults.

**5 Finding "Treatable" Patients Has Proven Challenging**  
We may wonder why Paxlovid works in elderly patients but not in the younger group of people in the Israel study.

Paxlovid has a narrow treatment window (five days after symptom onset) and a relatively short treatment period (five days only). Phase two and three trials are

conducted in a selected group of patients in a controlled study setting. However, real-life studies may not be able to replicate the same criteria as phase two and phase three trials do—all this results in limitations for the clinical application of Paxlovid and mixed efficacy data.

First, the drug has to be taken by a patient as early as possible after SARS-CoV-2 infection. This is evident from the administration timings in the studies of the drug, and it makes sense because of the drug's mechanism of action. It's also common sense that earlier treatment produces a better outcome.

However, it has been reported by a Johns Hopkins study that the "gold standard" COVID-19 PCR test has false negative rates ranging from 20 to 66 percent. The false negative rate of the SARS-CoV-2 PCR test is much higher during earlier infection days than later. It can be up to 100 percent on the first day and down to 20 percent on the eighth day of exposure (typically the third day of symptoms).

A systematic review of 34 studies enrolling 12,057 COVID-19-confirmed cases revealed that up to 54 percent of COVID-19 patients have an initial false-negative RT-PCR result.

This causes an issue: On the one hand, we have to start treatment; on the other, the high false-negative rate hampers early Paxlovid application in the maximal patient population.

Paxlovid is not indicated for treating COVID-19 patients who require hospitalization due to severe or critical COVID-19 diseases. Based on previous clinical trial data, none of those trials were conducted in severe COVID-19 patients, so it's essential to bear this point in mind.

Furthermore, Paxlovid is not indicated for mild-to-moderate COVID-19 patients. Patients must present a high risk of progressing to severe diseases because of factors including but not limited to older age and underlying medical conditions of cancer, diabetes, chronic lung diseases, or chronic kidney diseases.

**6 In a Real-World Study, Paxlovid Has Shown Limited Effectiveness**

In October 2022, Hong Kong University researchers compared the clinical effectiveness of two oral antiviral drugs, Paxlovid and molnupiravir, among Hong Kong residents. The researchers' observational study was published in The Lancet.

soluble dietary fiber beta-glucan, insoluble dietary fiber, vitamin B, and more. Dietary fiber is beneficial to the body and helps to relieve constipation and reduce weight. The beta-glucan in barley can inhibit the rise of postprandial blood glucose levels, reduce cholesterol levels, and feed the intestinal bacteria, thus regulating the intestinal environment and improving the coordinated movement of muscles in the stomach that moves food through the intestines.

**Health and Longevity**  
Improving the intestinal environment is not only a matter of correcting constipation—maintaining good intestinal gut microbiota also plays an important role in overall health. Japan ranks among the countries with the highest life expectancies in the world. More specifically, the number of centenarians in Kyotango city is three times more than that in Kyoto Prefecture. According to the Kyotango government statistics, there are 124 centenarian citizens as of Sept. 1, 2022, and 237 centenarians among every 100,000 people—3.3 times higher than the national level in the rest of Japan.

Professor Yui Naito of the Kyoto Prefecture

Between Feb. 26 and Jun. 26, 2022, among the 1,074,856 non-hospitalized patients infected with Omicron, 6,464 were treated with Paxlovid and 5,383 with molnupiravir. The molnupiravir group older patients, and more unvaccinated ones, than the Paxlovid group.

It's worth noting that these two antivirals were not compared directly in this study, but each was compared with its control group with matching patient conditions.

Paxlovid reduced the mortality rate by 66 percent versus the control, while molnupiravir lowered the mortality rate by 24 percent versus its own control.

Molnupiravir did not lower hospitalization rate; Paxlovid lowered the hospitalization rate by 24 percent.

Both drugs lowered in-hospital disease progression by 43 percent.

These rates don't look as good as Paxlovid's phase two and phase three clinical trial data. One of the most likely reasons is how well the narrow treatment window of the drug has been followed.

**7 Drug Resistance Is a Major Concern**  
Antiviral treatments are often associated with the development of drug-resistant viruses. There is a well-known saying in the antiviral community: "No antiviral, no resistance."

A virus is a cunning microorganism. When you add pressure to its replication cycle, a virus will typically find a way to detour by mutating and will manage to survive. This is the primary mechanism of antiviral resistance.

There are already quite a few lab research studies indicating that SARS-CoV-2 could mutate to bypass the drug target, reducing the efficacy of the drug in actual clinical usage, as reported by Science in June 2022.

In this sense, Paxlovid is no different from other antivirals.

Researchers reported that nirmatrelvir remained effective in multiple variants of SARS-CoV-2, including Alpha, Beta, Delta, Gamma, Lambda, and Omicron, as well as the original strain, but this does not mean that the drug will be effective against future variants of the virus.

Two research groups have independently shown that SARS-CoV-2 quickly gains the ability to avoid nirmatrelvir's attack.

One study led by Belgian virologist Dirk Jochmans found that after a dozen rounds of nirmatrelvir treatment, SARS-CoV-2 developed three mutations—at positions 50, 166, and 167 of the critical protease Mpro—that reduced the virus's susceptibility to nirmatrelvir twentyfold.

Judith Margarete Gottwein led a study at the University of Copenhagen that spotted resistance-conferring mutations at similar positions 50 and 166 in Mpro, conferring eightyfold reduced susceptibility to nirmatrelvir.

What's more shocking is the fact that two of the mutations (166 and 167) flagged in Jochmans's study were already reported to be circulating in people, according to a preprint of research findings by United States scientists posted on May 30, 2022.

As a result of this concern, patients using Paxlovid should be regularly monitored for antiviral resistance, especially when signs of rebound or reinfection appear.



## WHEN TO TAKE PAXLOVID

Paxlovid should be taken within five days of symptom onset if it is going to have a meaningful effect on the course of a COVID-19 infection.

## EFFICACY OF PAXLOVID

Researchers found that among patients 65 years of age or older, Paxlovid can lower the risk of hospitalization by

**73%** and reduce the risk of death by **79%.**



## TARGET PATIENTS

Paxlovid has a narrow treatment window and specific target patient. The drug can have a meaningful effect on older patients if taken immediately after symptom onset, but researchers found no benefit to 40- to 64-year-old patients.

## 8 Another Major Concern Is Paxlovid's Interaction With Other Drugs

CYP3A breaks down Paxlovid. CYP3A is one of the most important enzymes in our liver and digestive tract, and it plays a significant role in breaking down the drug.

Potent CYP3A inducers will reduce the drug exposure of Paxlovid, resulting in loss of response to Paxlovid treatment and increased risks of drug resistance.

Paxlovid is contraindicated with a long list of drugs that are CYP3A inducers, partially due to the concern of potential antiviral resistance.

CYP3A inducers include glucocorticoids, rifampin, carbamazepine, phenobarbital, and phenytoin. A list of contraindicated drugs is available on the FDA's website. Patients must be made aware of these potentially risky interactions before they take Paxlovid.

## 9 Natural Immunity Influences the Success of Paxlovid and Other Antivirals

Even though we applaud the efforts by the pharmaceutical industry to develop antivirals, we should not forget these limitations. Furthermore, a well-functioning immune system is necessary for an antiviral drug to exert its effect.

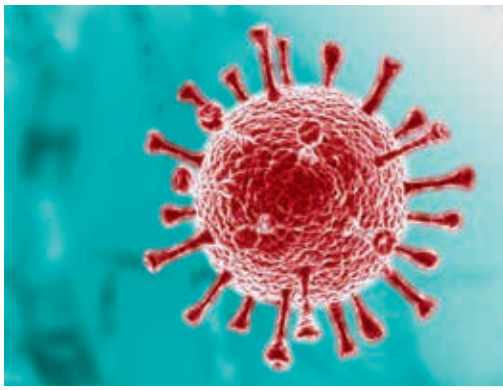
The main merit of antiviral drugs is that when the body's immune system is not strong enough, external drugs can temporarily inhibit the replication of the virus, giving our natural defense system some time to recover to its full strength.

Meanwhile, we shouldn't neglect the ability of our bodies to produce antiviral substances. Interferon, for example, is produced by many immune cells (white blood cells, NK, NKT, and T cells). As the name implies, through "interference," it achieves antiviral effects. Interferon is like a commander, giving instructions to coordinate various cells and signaling pathways to work together to fight a virus.

Natural immunity is an endogenous antiviral force in our body, like a joint force ready to fight against invading pathogens. If we are mindful enough to nourish our immunity in peaceful times, the defense mechanisms will work well when "war" breaks out.

In summary, we should calmly view the strengths and limitations of antiviral drugs. On the one hand, we expect antiviral drugs to work well; on the other hand, we must enhance our immune system's power to resist the virus in a more natural, systematic, dynamic, and resourceful manner.

*Yuhong Dong, M.D., Ph.D., is a senior medical columnist for The Epoch Times. She is a former senior medical scientific expert and pharmacovigilance leader at Novartis Headquarters in Switzerland, and was a Novartis award winner for four years. She has preclinical research experience in virology, immunology, oncology, neurology, and ophthalmology, and also has clinical experience in infectious disease and internal medicine. She earned her M.D. and a doctorate in infectious diseases at Beijing University in China.*



Doxycycline's effects may arise from its anti-inflammatory and cell-protective properties.

# Common Antibiotic Effective Against COVID-19: Study

Doxycycline helps COVID-19 patients avoid ICU and lowers mortality, find researchers

BILL PAN

A new clinical trial has found that doxycycline, a widely available antibiotic, can help prevent already hospitalized COVID-19 patients from worsening to the point that they need intensive care.

Sold in the United States under brand names such as Acticlate, Vibramycin, and Oracea, doxycycline has been widely used to treat pneumonia caused by bacteria. It's also used to treat and prevent anthrax, a serious skin and lung infection notoriously associated with biological warfare.

To investigate whether doxycycline is effective in preventing COVID-19 from progressing into a severe state, an international team of scientists conducted a trial at six hospitals across India from November 2020 to May 2021. A total of 387 patients participated, of whom 228 were enrolled from mid-March to early May 2021, during the second COVID-19 peak in India.

The participants, ranging in age from 40 to 90, were randomized to receive a 14-day treatment with either standard of care (SoC) only or doxycycline in addition to standard of care. Overall, 183 patients in this trial were treated with SoC plus doxycycline.

**A new clinical trial has found that doxycycline, a widely available antibiotic, can help prevent already hospitalized COVID-19 patients from worsening to the point that they need intensive care.**

By the end of the study, 34 of the 204 patients (16.7 percent) in the SoC-only group developed COVID-19 symptoms deemed severe enough to require critical care in the ICU, compared to 12 of 183 patients (6.6 percent) in the doxycycline group.

Researchers also reported the death of 39 of 387 participants (10.1 percent) during the trial. Among the dead were 22 of 204 patients (10.8 percent) who received only SoC, as well as 17 of 183 patients (9.3 percent) who received SoC plus doxycycline.

No serious adverse events related to doxycycline were observed in the trial, and there were no cases of discontinuations of doxycycline or SoC due to adverse events, according to the study.

"The main reasons for selecting doxycycline for this trial were its pleiotropic, anti-inflammatory and anti-microbial effects, robust safety profile and low cost," the scientists explained in their paper, published on Jan. 23 in open-access journal PLOS One.

"Approved in 1967, doxycycline shows minimal side effects, and is also safe in patients with severely impaired renal function. The safety and tolerability in the current trial were excellent, with not a single patient stopping treatment because of an adverse event. Therefore, we conclude that the benefit/risk ratio of doxycycline in this population is highly positive."

While doxycycline is mostly used to kill bacteria, scientists said the benefits of treating COVID-19 patients with doxycycline likely don't have anything to do with that aspect.

"The beneficial effects of doxycycline observed in this study may have been related to its anti-inflammatory, anti-oxidative, and cell-protective properties," they wrote.

Known side effects of doxycycline include nausea, vomiting, diarrhea, and loss of appetite. More serious side effects include headache, blistering, and swelling in the face.

# Barley: A Super Grain for Constipation

Research reveals this ancient grain has significant health benefits and can reduce stomach fat

ELLEN WAN

The nutritional value of barley has attracted attention in recent years as research has revealed its medical and dietary benefits. For instance, many studies have shown that barley can improve the intestinal environment, relieve constipation, and reduce visceral body fat.

Visceral fat is stored in the abdominal cavity but it can also build up in the arteries. Because it's so close to the liver, stomach, intestines, and other organs, it's known to increase the risk of serious health problems. In 2007, research from Japan showed that barley could reduce visceral body and low-density lipoprotein cholesterol. Forty-four

hypercholesterolemic Japanese men with a body mass index above 22 kg/m2 (weight in kilograms and height in meters squared) were randomly assigned to two groups.

The test group consumed rice mixed with barley, and the placebo group consumed rice without barley for 12 weeks. The results show that compared with the placebo group, the visceral body fat and low-density lipoprotein cholesterol were reduced in the test group.

A second type of barley, called glutinous barley, also is beneficial to health, as revealed by research conducted by the Western Japan Research Center. The research was published in the Journal of Physiological Anthropology in 2017.

Per guidelines from the research team, caregivers in a retirement home provided elderly residents with rice mixed with glutinous barley as a staple food for five months.

The research found that among the 28 elderly on the diet, whose average age was 89, 14 who suffered from constipation increased their number of bowel movements signifi-

cantly, with a monthly increased average of 9.2 times to 12.1 times indicating that sufficient dietary fiber intake, such as that provided by the barley, could ease the elderly's constipation. Also, the use of laxatives was reduced remarkably.

**Many studies have shown that barley can improve the intestinal environment, relieve constipation, and reduce visceral body fat.**

As a bonus, the elderly study participants enjoyed eating glutinous barley more than other high-fiber foods, such as nonglutinous barley and mushrooms.

Barley is rich in carbohydrates, protein,



Dietary fiber can help to relieve constipation and reduce weight.

Barley is rich in soluble dietary fiber beta-glucan, insoluble dietary fiber, and more.







Motivational interviewing is a well-researched therapy used to give a helpful push toward healthy change.

# Inspiration for Positive Change: A Look at Motivational Interviewing

CONAN MILNER

Motivation is the will to change. But for many of us, the well often runs dry. Everyone may have a fleeting notion to learn a new skill or break an old habit, but motivation is the dividing line between those who follow through and those who don't. It's always easier to let things slide, kick the can down the road, or just resign yourself to the idea that it isn't worth the effort. Whatever the excuse, we're all occasionally haunted by the thought of how life might improve if we were somehow able to find that elusive will to change. For those who struggle to find the motivation they need to make the changes they want, one method may help. It's designed

to define your goals, identify the things that keep you from reaching them, and reveal the direction you need to follow through. It's called motivational interviewing. It's a collaborative, evidence-based strategy developed by mental health experts that has shown to inspire the will to change.

### Evidence of Effectiveness

A 2005 meta-analysis of motivational interviewing is published in the British Journal of General Practice. Out of 72 randomized controlled trials evaluating motivational interviewing, researchers concluded that it "had a significant and clinically relevant effect in approximately three out of four studies."

The most research and success with the technique is found where motivational in-

terviewing first began—in the treatment of substance abuse. But it has also performed well in a number of other situations where people want or need to make a change. Researchers have seen promising results with criminal reform, school-based motivation, and motivation for diet and exercise changes to improve chronic health conditions.

It has also been shown to address anger management issues, and even to help improve sports performance.

It's a safe and versatile technique, that can even be combined with other treatments for greater effect. A 2017 meta-analysis looking at motivational interviewing in conjunction with cognitive behavioral therapy for anxiety disorders found that this combination "has the potential to improve treatment initiation and engagement, as well as clinical outcomes."

### A Spirit of Empathy

Motivation comes from within, but we often look to other people to get ourselves going. It may be someone who can provide an inspiring example we can follow or one who can give us a pep talk to spark our drive and confidence. Whatever the influence—other people can give us a push—but it's up to us to make it happen.

Motivational interviewing also functions as a "push," but one towards a different direction. Instead of offering up inspiring words or an example to follow, a motivational interviewer starts from the premise that the insight you require for change lies within you. The goal of the interview is to find it.

The seed of this idea was inspired by Carl Rogers, a psychologist who pioneered "client-centered therapy" in the 1950s. In the early 1980s, William Miller, a profes-

sor of psychology and psychiatry at The University of New Mexico, began to cultivate this approach even further. Miller was curious about what inspired people to change. So he studied how people with drinking problems managed to turn their lives around.

Back then, the predominant method for counselors helping patients struggling with substance abuse favored a more confrontational approach. Addicts were to be lectured at length on how their habits were hurting themselves and the people around them. This tactic applied all the classic tools of persuasion—logic, reason, and facts—with the aim of convincing someone to change.

Miller's research, however, found that patients didn't generally respond very well to this strategy. He concluded that a lack of information and awareness wasn't the issue. Addicts were all too aware of the statistics and circumstances they faced. They merely lacked the motivation to change their ways.

In several experiments evaluating what kind of therapeutic approach reliably fosters change, Miller found that the application of empathy—listening and responding to someone with a compassionate ear—consistently won out. Instead of forcing someone to confront the cold hard truth, a counselor who led with empathy allowed clients to relax, let his or her guard down, and freely evaluate the feelings and expectations that were holding them back.

As Miller conducted more studies looking at what worked and what didn't, he began to piece together what he called motivational interviewing. Miller's method aimed to get the patient to voice what they wanted to change, why, and how they might make it happen.

In the 1990s, Miller continued to refine his empathy-based interview format with the help of Stephen Rollnick, a clinical psychologist, and professor at Cardiff University in Wales. The development and details of their method are outlined in several journal articles, and their book "Motivational Interviewing: Helping People Change."

### How It Works

A motivational interview basically works like any other interview. It's conducted in an exchange of questions and answers. But there is a particular spirit and focus that sets it apart.

In a 2019 interview, Rollnick describes the process as "empathy with a purpose."

"I've realized that motivational interviewing is simply a form of guiding that is really familiar to all of us, through our work as parents, coaches, and teachers. It emphasizes additional skills, particularly the use of empathic listening that appears to make all the difference," Rollnick said.

There are several factors to consider when conducting a motivational interview, but the general attitude to carry is one of support, affirmation, and nonjudgment. This technique expressly avoids advice and argument and focuses on questions that can elicit genuine and thoughtful answers.

The counselor conducting the interview must listen closely, and reflect back what they hear in order to help an individual gain clarity

about the things they may wish to change. The interviewer aims to avoid leading questions but instead acts as a kind of sounding board for the interviewee.

Miller and Rollnick say this approach helps people to find a workable strategy for changing themselves.

### Tackling Ambivalence

Since the goal of motivational interviewing is to get people to open up, sessions involve open-ended questions. Examples could include: "What are your goals?" "What would you like to change about yourself?" or "How do your habits affect your life?" The questions steer towards a discussion of what change might look like and how you might accomplish it. Miller and Rollnick call it "change talk."

However, along the way, change talk usually breaks down, and "sustain talk" takes over. Sustain talk is when someone makes all their favorite excuses for why they should keep their old habits and resist change.

Both types of talk are expected throughout the interviewing process. Based on the responses, the interviewer navigates the conversation within what Miller and Rollnick describe as the five steps on the change ladder.

At the lowest rung, you have no intention to change—or total resistance. Then comes ambivalence (where you're not quite sure if you want to change or not). Next, you see the possibility for change. Then you climb to a commitment, and at the top, you reach action—where the desired change takes effect.

These steps give the counselor conducting the interview some bearing in terms of where a person is at in their process to change. Change talk is encouraged, but thoughts of resistance and sustain talk also get a voice. This allows doubts and excuses a chance to be heard and leads to strategizing about how these factors could be addressed.

The further up you go on the ladder of change, the more you're committed to change. But Miller and Rollnick say people may step back into ambivalence again and again. That's because ambivalence is part of the dance of self-improvement.

It's that place where you can see some of the advantages that might come from changing, but where you also realize what you'll have to sacrifice and suffer for on the way there.

Ambivalence may also occur when you lack the confidence in yourself to leap, and fear that your feeble attempts will only end up in failure.

Expressions of ambivalence may seem like you're losing ground, but Miller and Rollnick say they're a necessary part of the process. As people explore the pros and cons out loud, their priorities become more clear and so does their commitment to a new path.

### Limitations and Considerations

Motivational interviewing is a safe, well-researched treatment that may provide a much-needed push for many. But it's also important to consider some of its limitations.

A 2018 review of motivational interviewing studies published online in the Cambridge University Press reveals that, in some trials,

Since the goal of motivational interviewing is to get people to open up, sessions involve open-ended questions.

OUT OF 72

randomized controlled trials evaluating motivational interviewing, researchers concluded that it "had a significant and clinically relevant effect in approximately three out of four studies."

the technique only shows modest benefits compared to other treatments, and its effect may begin to wane months after the sessions end. The technique is also shown to be less effective with adolescents.

Some research has shown that it works best with individuals who are stuck or totally unmotivated. People who are already working towards change going in don't seem to get as much out of it. Perhaps it's because these individuals already start with some clarity on the fundamental issues that the technique aims to uncover.

For those who can benefit from a motivational interview, consider that both parties reflect on the success of a session.

A good interview is more than asking a few questions. The ability to empathize and listen takes practice, and therapists who specialize in motivational interviewing have had lots of it. However, this technique has been carefully refined over decades, and there is an abundance of literature available that make it accessible to virtually anyone.

Miller and Rollnick encourage coaches, teachers, and parents to all employ motivational interviewing when needed. The basic requirements are a genuine desire to help, and the patience to guide someone to their own inner answers.

Keep in mind that your relationships with the people you might attempt to interview may make this job more challenging. What makes a motivational interview work is the capacity of the interviewer to guide the conversation without trying to fix things, judge, or bicker when resistance comes up.

To get a feel for the right attitude, consider a conversation using the OARS approach. The acronym comes from the four communication aims of motivational interviewing: open-ended questions, affirmations, reflective listening, and summarizations.

Asking questions with genuine interest is important, but the last three steps require close listening. This is necessary to understand where someone is coming from, and what they're trying to say. The interviewer must routinely reflect back what he or she hears throughout the process so that goals become clear, and the solutions to attaining them become more concrete. The combined efforts of OARS are what draw people out and keep them focused on finding the answers they need.

## How Motivational Interviewing Works

1. Guiding
2. Open-ended questions
3. Listening closely (empathic listening)
4. No leading questions
5. Reflection

## Drink Oolong Tea for Longevity, Weight Loss, and More

Research has linked this little-known tea and one of its compounds with several important health benefits



ALL PHOTOS BY SHUTTERSTOCK

10% to 70%

Oolong's 10% to 70% oxidation gives the tea a softer, woodier flavor that is both delicious and light.

JENNIFER MARGULIS & JOE WANG

In 2021, a team of 12 scientists published a remarkable study in the peer-reviewed science journal Aging. The study details how a randomized controlled clinical trial of 43 healthy adult men, who were all between the ages of 50 and 72, found that making evidence-based lifestyle changes could actually reduce biological age.

The test group participated in a treatment program that included guidance on eating habits, sleep routines, exercise, and relaxation, as well as supplementation with probiotics (healthy microbes for the gut) and phytonutrients (compounds found in plants believed to be beneficial to human health). The control group received no intervention.

After eight weeks, the researchers took saliva samples to measure the participants' health. They found that the group that made the diet and lifestyle changes had healthier DNA. In fact, those in the treatment group appeared to reverse their own aging by upward of three years.

### 3 Cups of Oolong a Day

If this research is correct—and can be replicated in a longer experiment with both male and female participants—it would be smart for anyone interested in living a long healthy life to adopt some of the health habits of the treatment group.

Drinking three cups of oolong tea was among the health practices given to the treatment group.

Dr. Kara Fitzgerald, one of the co-authors of the study, is also a naturopath based in Connecticut and author of the 2022 book

"Younger You: Reduce Your Bio Age and Live Longer, Better." In an article on her website, she explained that oolong tea contains a plant compound called EGCG, or epigallocatechin gallate. EGCG has been found to help protect against Alzheimer's, cancer, heart disease, high blood pressure, insulin resistance, and obesity.

### What Is Oolong, Anyway?

Oolong, which means "black dragon" in Chinese, is a tea from China, and it is especially popular in Taiwan. Tea is made from the plant *Camellia sinensis*. Depending on how the plant is processed, it can become green, white, yellow, oolong, black, or pu'er tea.

Green, white, and yellow teas are processed with sun-drying and heating, without oxidizing the leaves.

Black tea, on the other hand, is fully oxidized. This oxidation process happens before the tea leaves are processed.

Oolong tea is only partially oxidized, by between 10 and 70 percent. The partial oxidation is what gives the tea a softer, woodier flavor that is both delicious and light.

Some oolongs are so lightly oxidized that they seem like green tea, albeit more melon; oolongs that are mostly oxidized have a warm, muted flavor.

Though every variety is different, many oolong teas contain less caffeine than black teas.

### Health Benefits of Oolong Tea

There are many health benefits to drinking oolong tea daily. In fact, an 11-page review article published in May 2022 in the peer-reviewed journal Food Science and Human

Wellness found that oolong teas have antioxidant, anti-inflammatory, anti-cancer, antibiotic, and anti-obesity properties.

But that's not all. It has also been found to improve the gut microbiome and protect the heart and liver.

"In spite of its popularity in Asian countries, studies on health promoting effects of oolong tea and its characteristic compounds ... have attracted limited attention as compared to the knowledge of preventative and therapeutic effects of green and black teas," the article reads.

Most of the studies compiled in the review were controlled laboratory experiments on rodents; however, broad benefits on human health have been observed in several other studies as well.

### Beneficial Compounds

These health benefits are likely due to a spectrum of important compounds in tea called theasinsensins. The word "theasinsensin" comes from "thea" for tea, and the Latin species name for the tea plant, "sinensis." Theasinsensin A is a natural compound found in oolong tea.

According to 2015 research done on the chemistry and health benefits of oolong tea and theasinsensins, the different processing methods for the tea plant change these molecules in different ways, giving tea types like green, black, and oolong different biochemical effects.

Theasinsensins help stabilize your blood sugar (which is an anti-diabetic effect) and may help the body recover more quickly from vigorous exercise.

### Heart Health Benefits?

Oolong tea also contains GABA, another beneficial compound, and theanine. These substances complement the caffeine, so

people who drink oolong tend to feel calm, clear-headed alertness instead of the jittery energy that comes with drinking coffee.

Realizing the benefits of GABA (and finding a market for GABA-enriched foods in Asia), scientists found a way to multiply the amount of GABA in tea by letting it ferment in nitrogen gas, keeping oxygen out. These teas are produced in Taiwan and Japan and are very popular in both countries.

A 2019 study investigated the effects of GABA-enriched oolong on heart health and stress levels. Participants' hearts were monitored with EKGs. Participants were also asked about their current feeling of stress and given tests of mental arithmetic as a stressor.

After drinking a cup of freshly prepared oolong tea, half GABA-enriched and half regular, participants' perceived stress levels were significantly lower after GABA-enriched tea, as was their heart rate variability, an important metric of heart health and fitness, especially in response to stress.

### Oolong All Day Long?

This research may give you the impression that oolong tea is good for you anytime, anywhere, and you should be drinking it all day long.

But there are caveats. Try not to drink oolong on an empty stomach. Doing so can make you feel hungry and dizzy, an unpleasant state sometimes called "tea drunk." It's also better not to drink oolong within three or four hours of bedtime. Even with the tea's calming effects, the caffeine can make you jittery and impede your ability to fall asleep.

Also, for the most delicious and comforting tea-drinking experience, enjoy your oolong while it's still warm.

It's easy to read about compounds like GABA and theanine that confer health

Oolong tea also contains GABA, another beneficial compound, and theanine.



Oolong's health benefits likely come from compounds called theasinsensins.

benefits and want to run to the store to buy a supplement. But the process of enjoying a fresh cup of tea—wrapping your hands around a warm mug, breathing in its woody scent, and taking a first sip—is also part of what reduces stress and increases joy.

Jennifer Margulis, Ph.D., is an award-winning journalist and author of "Your Baby, Your Way: Taking Charge of Your Pregnancy, Childbirth, and Parenting Decisions for a Happier, Healthier Family." A Fulbright awardee and mother of four, she has worked on a child survival campaign in West Africa, advocated for an end to child slavery in Pakistan on prime-time TV in France, and taught post-colonial literature to non-traditional students in inner-city Atlanta. Learn more about her at JenniferMargulis.net

Joe Wang, Ph.D., was a molecular biologist with more than 10 years of experience in the vaccine industry. He is now the president of NTD Television Network (Canada), and a columnist for The Epoch Times.

## Popular Oolong Teas

There are many varieties of oolong. Here are a few examples:

**Da Hong Pao (Big Red Robe)** is from China's famous Wuyi Mountain.

**Tie Guan Yin (Iron Goddess of Mercy)** is from Anxi, China, or Muzha, Taiwan.

**Gao Shan Cha (High Mountain Tea)** is from Alishan, Taiwan.

**Dong Fang Mei Ren (Oriental Beauty)** is an oolong with a beautiful name. It was said that Queen Elizabeth II really liked it and that she gave the tea its name.



YUGANOV KONSTANTIN/SHUTTERSTOCK



Non-effort can take many different forms, including meditation forms where you relax your mind and let your thoughts float away like clouds.

LEO BABAUTA

For those of us who find ourselves constantly busy, it's often hard to imagine a more effortless life.

Life is striving, pushing to make things happen, trying to catch up, overcoming inertia, and trying to stay on top of things. An approach called "non-effort" might seem a bit nonsensical.

But if this is you, notice how tense you are most of the day. Your jaw might be sore from clenching, your torso may be tight, or perhaps you are tired from so many activities. Everything might seem like a struggle.

What would it be like if life were more effortless, if you were more relaxed and more trusting in how things would unfold?

Let's explore this and see what might be possible.

To start with, let me tell you who this article is not for. It isn't meant for people who could use a little extra effort. If you find yourself relaxed and feeling spaciousness in your life but feel that you can't be asked to take on hard things, this isn't what you need. You could likely use a little more effort into things, which would require a different approach.

Finding the approach that's right for you is about putting in the "right effort"—not too much, not too little.

**Seeing the Wisdom in Non-Effort**

Non-effort isn't just about making things easier for yourself—though that is a huge benefit. Things do become less of a struggle, but it's about more than that.

Something different emerges when you relax into non-effort. Not only a different kind of result, but a different kind of wisdom.

In the meditation example above, in the first, effortful model, you might actually get much better at single-pointed focus. But in the second, non-effort model, you gain access to a trustful part of yourself that relates to the world in a different way. It sees the beauty in the world just as it is, and understands itself as a part of that living, breathing wonder.

What if we began to cultivate that kind of relationship with life, by relaxing a bit, pushing less, and reclaiming our spot in the flow of life?

**How to Practice Non-Effort**

If you're curious about this approach, or see potential for yourself, you might

wonder how to practice this.

The first step is to notice when you're applying effort. This isn't necessarily wrong, but you might just notice you're experiencing a clench in your stomach, a tight jaw, a furrowed brow, or general tension. What fear is driving this? Could you just be with the experience of the fear?

Next, pause, breathe for a moment, and relax your body. Let yourself open in the moment, to whatever is there: your emotions, your fears, your thoughts, or your wanting to get this done and over with.

Then see what might emerge from the place of non-effort. What changes when you relax, breathe deeply, and trust that something will emerge? Often, it's an idea or some heartfelt clarity about the direction you want to go in.

Then trust that. Let it emerge and unfold. You might take action from there, but let it be action from a relaxed but devoted place.

It will take practice. And let that practice be non-effortful—simply relax and let yourself flow into it again, and again.

Leo Babauta is the author of six books and the writer of Zen Habits, a blog with over 2 million subscribers. Visit [ZenHabits.net](http://ZenHabits.net)

What Non-Effort Looks Like

It's hard to describe what non-effort is because it's an absence. That's like trying to describe emptiness—it's definition is about what isn't there.

So let's take a couple of examples of what non-effort might look like ...

- Meditation:** Effortful meditation is putting a lot of energy into keeping your focus on one spot, getting frustrated with yourself when you wander from that, sweating bullets as you try to do it right. Non-effort meditation is sitting in a relaxed way, paying attention to what's happening in the moment, noticing when your attention wanders to thoughts, noticing the thoughts for a moment with the curiosity of watching a cloud float by, but then returning easily to the present moment. It's not zero effort, but it's much more effortless.
- Writing:** Non-effort is letting yourself take a walk and notice what comes up for you as something to write about, and trusting that. Then sitting in a quiet space without distractions and letting your words bubble up on that topic. Sometimes nothing comes, so you sit still for a moment and breath until something comes. Then you let it flow from your fingertips. It isn't zero effort, but it isn't super tensed with effort.
- Projects:** You invite others to work on the project, set up the structure, and then show up together. It can be like play. Then you set up something to do between meetings, and another meeting in the near future. Each step along the way, you can bring play and creativity. You make effortless decisions by choosing from the heart and trusting yourself. The project starts to grow like a joyfully tended garden.

These are not how non-effort has to look. They're examples of how it could look. In truth, it looks however it looks when you practice, even including some effort.

Become an Expert on Your Own Health

INCLUDED IN YOUR SUBSCRIPTION


Epoch Health strives to empower our readers to take meaningful ownership of their own well-being. We strive to help our readers become informed consumers of health care services and give readers insight into health traditions that lead to a better lifestyle.

► Check out our Digital Guides for an in-depth look at the latest trends in health.



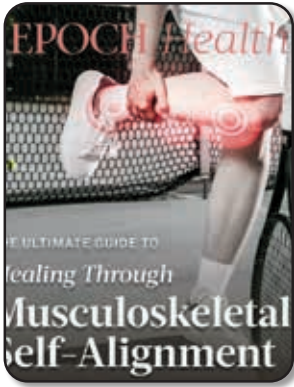
**COVID Vaccine-Induced Diseases & Healing**

The inflammatory and toxic spike protein sometimes causes lasting pathologies, but there are ways to treat this syndrome.



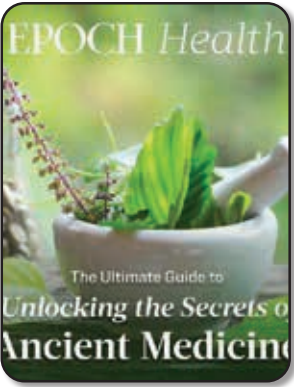
**The Ultimate Guide to Aging With Vitality**

With these mindful habits, it's possible to have more energy and better health even as you age.




**The Ultimate Guide to Healing Through Musculoskeletal Self-Alignment**

Discover simple ways to address muscle and bone pains that you can incorporate into your daily life.



**The Ultimate Guide to Unlocking the Secrets of Ancient Medicine**

Learn about lifestyle changes that can help improve your mental and physical well-being.



For more Epoch Health magazines, visit

EPOCH Health

[TheEpochTimes.com/edition-special-series](http://TheEpochTimes.com/edition-special-series)