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THE EPOCH TIMES

MIND & BODY

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Life is difficult and those who endure the hardship are strengthened by it.

The Power of Perseverance

Failure is a passing thing for those who get up and try again

TATIANA DENNING

per·se·ver·ance [pur-suh-**veer**-uhns]: continued effort to do or achieve something despite difficulties, failure, or opposition: the action or condition or an instance of persevering: steadfastness

Perseverance. It's not something we're really taught, and sometimes we're not even sure we have it—until we're called upon to dig deep and find it.

For me, one of those times was during my medical training. Before starting medical school, I knew it would be tough, but little did I know just how tough. Between medical school, internship, and residency, I endured things that I would have previously said I could not.

Training required sacrificing time with family, having long days, and late nights—and even nights with no sleep at all. It required learning and regurgitating massive amounts of information with a sleep-deprived brain, working while having pneumonia so as not to burden others with my responsibilities, being humiliated and yelled at by residents and attendings, and being threatened by patients "who knew people."

Training in inner-city Philadelphia meant that murders, stabbings, robberies, and drug overdoses were the norm. There was even a bombing at the 7-11 down the street. Security had to frequently be called to deal with a belligerent patient, or walk us to our cars when our shifts were over.

Most days during internship, I was too busy to even take a two-minute bathroom break, let alone stop for food or water. With the motto of "see one, do one, teach one,"

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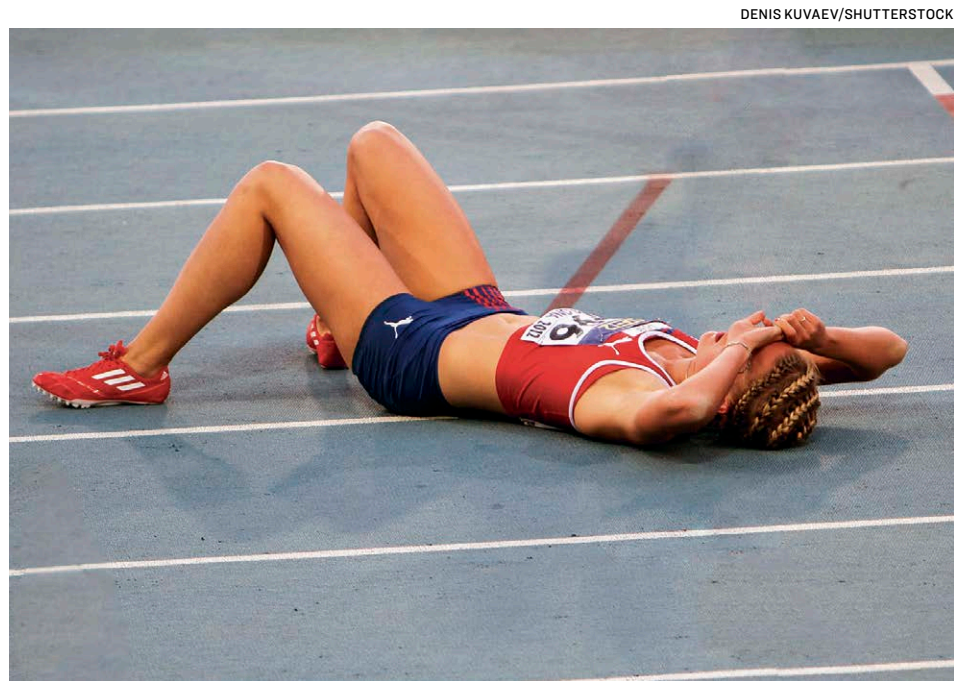

A loss is temporary and often instructive for those who rise and strive again.

Scientific Debate Over Lockdown Measures

Confronting COVID-19 while maintaining public trust has proven difficult and divisive

MARY LONG/SHUTTERSTOCK

CONAN MILNER

In March 2020, officials called for a lockdown across most of the country due to COVID-19. Schools closed, businesses were shuttered, and public life came to a screeching halt.

The initial plan was "15 days to slow the spread," but this timeline eventually stretched into several weeks, and then months. Now, several states and major cities are locking down again, forcing a culture and economy already starved for social interaction to stay separated indefinitely.

The stated goal of these restrictive measures is to contain a potentially lethal illness until the threat of COVID-19 is eradicated. But there are painful side effects to this strategy: suicide and mental health problems, drug overdoses, domestic abuse, the destruction of small businesses, unemployment, hunger, and poverty.

Yet medical experts and policymakers say, despite the pain we've endured so far, even greater sacrifice is necessary, as the constant rise in COVID-19 case numbers confirm.

In Michigan, for example, Gov. Gretchen Whitmer explained that her recent order to shut down the state for the month of December was due to concern from medical advisers who forecast that Michigan would see 100 deaths per day by Christmas.

"We are already sadly above that mark, and that means our progress is fragile and we cannot let up yet," Whitmer said in a press conference.

Despite the suffering and growing pushback against such measures, lawmakers say science and the opinions of top medical experts guides their orders. Lockdowns, while painful, are necessary for the public good.

But many health experts promote a radically different path.

The Great Barrington Declaration, for example, expresses "grave concerns about the damaging physical and mental health

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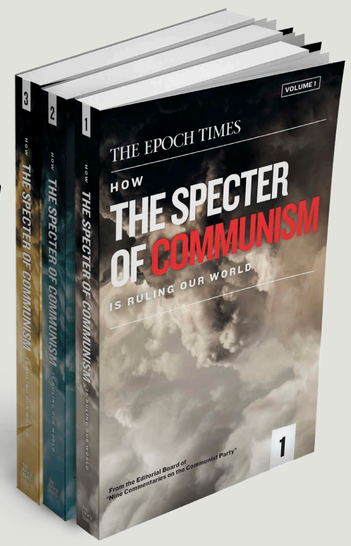

HOW THE
SPECTER OF COMMUNISM
IS RULING OUR WORLD

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

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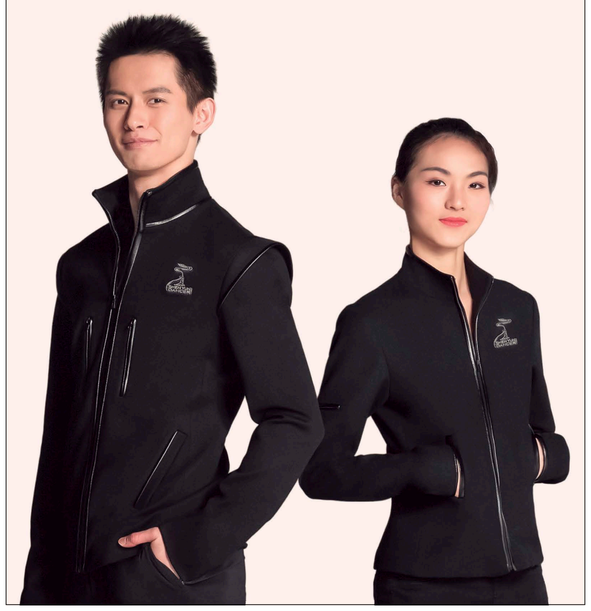

Scientific Debate Over Lockdown Measures

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impacts of the prevailing COVID-19 policies." Written by medical experts from Stanford, Harvard, and Oxford, it is signed by 12,785 public health scientists, and 38,463 medical practitioners.

Lockdown advocates maintain that stay-at-home orders save lives, but the Declaration argues that these policies are "producing devastating effects on short and long-term public health." According to this group of public health experts, keeping socially restrictive measures in place "will cause irreparable damage, with the underprivileged disproportionately harmed."

Against the Herd

Instead of lockdowns, the Great Barrington Declaration advocates for a return to life as normal, before masks were seen outside an operating room and people were able to gather with less than six feet between them. Their aim is something called "herd immunity." The idea is that if enough healthy people catch the virus, they can develop an immunity to it, and pass these acquired antibodies to the weaker members of humanity's herd. Public health experts behind the Declaration say their plan would give healthy people their lives back, and would actually protect those at highest risk.

Lockdowns save some lives at the expense of others.

"The most compassionate approach that balances the risks and benefits of reaching herd immunity, is to allow those who are at minimal risk of death to live their lives normally to build up immunity to the virus through natural infection, while better protecting those who are at highest risk," states the Declaration. "We call this Focused Protection."

So why don't more policymakers consider the recommendations of these experts and scientists? One reason is censorship. All throughout the pandemic, numerous doctors and scientists have come forward with insights and evidence that challenge the conventional approach. However, social media has routinely censored or scrubbed much of the public testimony. Once viral videos are now impossible to find.

Tech companies say they silence the stray crackpots who spew false claims about COVID-19 in order to prevent "imminent physical harm." But what if some of these renegade ideas have merit, and what if the number of experts behind them is considerable?

Scientific journals add to the confusion. In October, an open letter published in The Lancet speaks of a "scientific consensus on the COVID-19 pandemic." This supposed consensus views the herd immunity idea as a "dangerous fallacy unsupported by scientific evidence," and insists the only way forward is to keep up the restrictions.

"We cannot afford distractions that undermine an effective response; it is essential that we act urgently based on the evidence," states the Lancet letter.

However, herd immunity supporters can point to real world evidence that lessening restrictions may actually be healthier for society overall. Sweden was credited early on with keeping case numbers low despite avoiding lockdown rules that have decimated personal and national economies in other countries.

Another example is South Dakota. In a letter published on December 7 in the Wall Street Journal, South Dakota Gov. Kristi Noem explains that, although she's been labeled "reckless," the COVID case numbers in her state have been much lower than in several states that enforced socially restrictive measures.

"The state hasn't issued lockdowns or mask mandates. We haven't shut down businesses or closed churches," writes Noem. "In fact, our state has never even defined what an 'essential business' is. That isn't the government's role."

Florida Gov. Ron DeSantis is even blunter. In a November 30 press conference, he said his state would see no lockdowns, fines, school closures, or mask mandates like those pushed in other states.

"I don't think they work," DeSantis said.

Of course, such decisions seem dangerous to some experts. In an article published in The Lancet on October 24 by the journal's editor-in-chief, Dr. Richard Horton, Sweden's strategy isn't as successful as the herd immunity crowd suggests. Horton says that, due to Sweden's no lockdown policy, deaths in care homes have been especially severe, and outbreaks in hospitals are common.

"Herd immunity has not been achieved. Infections are rising once again," Horton wrote. "And many Swedish scientists believe that too many citizens have needlessly died from a policy that didn't take the consequences of COVID-19 seriously."

Horton says he understands the allure of a herd immunity approach in a population struggling with quarantine-fatigue. But he warns that governments who take this road will face higher infection rates, and overwhelmed hospitals.

Horton also worries that the promotion of strategies that stray from conventional measures puts the public's delicate trust at risk.

"Scientists are no longer seen as providing impartial, independent advice to government," Horton writes. "They are seen as being responsible for crashing economies, driving up unemployment, and ruining livelihoods."

Follow the Science?

So how do you find the truth among conflicting perspectives and the systematic censorship of dissenting voices? Health experts and policymakers give lip service to science, but does another force have an even greater influence?

A November 2020 editorial from the British Medical Journal blames policymakers for selecting only the studies that suit their plans and suppressing the ones that don't. Researchers write that, all over the world, "people, policies, and procurement are being corrupted by political and commercial agendas."

"Politicians often claim to follow the science, but that is a misleading oversimplification. Science is rarely absolute," researchers wrote. "Politicisation of science was enthusiastically deployed by some of history's worst autocrats and dictators, and it is now regrettably commonplace in democracies."

The BMJ article points to specific examples of corruption in the UK's pandemic response, but it says a similar corrupting force can be found all over the world.

"Government appointees are able to ignore or cherry-pick science ... and indulge in anti-competitive practices that favor their own products and those of friends and associates," states the article.

Lockdowns are but one bone of contention in the conventional COVID response. Another is treatment: specifically with the drug hydroxychloroquine. Soon after President Donald Trump highlighted doctors using it to treat COVID-19, a number of medical experts came forward to discredit it.

The backlash was widely promoted, but much of it proved false. However, suppression of hydroxychloroquine (HCQ) as a treatment for COVID-19 has persisted.

Despite some states and hospitals banning or restricting the use of HCQ, many doctors still consider the drug to be a key weapon in the fight against COVID-19. One is Dr. Peter McCullough, a clinical cardiologist and professor at the Texas A&M School of Medicine. McCullough published guidance on early treatment of COVID-19 in the American Journal of Medicine in July 2020 as part of a U.S./Italian collaboration. He says a hydroxychloroquine cocktail is his primary treatment.

Despite some states and hospitals banning or restricting the use of HCQ, many doctors still consider the drug to be a key weapon in the fight against COVID-19.

And he's hardly alone. In a November 30 interview with Australia's SKYNews, McCullough said that HCQ is "the most widely used therapeutic to treat COVID-19 in the world, hands down."

"It's been on the market for 65 years. I've prescribed it for 30 years for systemic lupus, rheumatoid arthritis, and to treat and prevent malaria. It's a very safe and effective medication. In India and Greece, it's in their guidelines to use it first line," McCullough said.

But health officials urge caution for what some believe to be an unproven and potentially dangerous treatment. The American Medical Association (AMA) has instructed doctors to stop prescribing HCQ for COVID. On October 30, a proposal was submitted to the AMA to rescind its demand with evidence that the help HCQ provides far outweighs any risk. But the Association rejected the proposal.

McCullough believes there has never really been any controversy about whether hydroxychloroquine works. The controversy is in the public policy that guides its use. He says that although the medicine is widely prescribed for COVID-19 all over the world, in certain countries—such as the United States, Canada, U.K, and Australia—patients suffer because doctors are discouraged from prescribing any home treatment.

"The public health approach is just about wearing masks, staying at home, sheltering in place, and waiting for a vaccine. It must be part of the master plan. But for people who get sick, it obviously doesn't work." McCullough said. "So the population is now so hungry for a vaccine just to move on. But the means don't justify the ends in my view."

The BMJ article takes no position on lockdowns, and it expresses concern that hydroxychloroquine was "hastily approved" in the U.S. But it carries a warning that resonates with much of our understanding and policy COVID-19: when good science is suppressed for political or financial gain, people die.

"COVID-19 has unleashed state corruption on a grand scale, and it is harmful to public health," states the BMJ article. "Politicians and industry are responsible for this opportunistic embezzlement. So too are scientists and health experts. The pandemic has revealed how the medical-political complex can be manipulated in an emergency—a time when it is even more important to safeguard science."

MENTATDGT/SHUTTERSTOCK

As lockdown measures loom, scientific debate continues about their worth but a wall of censorship keeps much of that debate hidden from the public.

Antibiotics Risks in Cold and Flu Season

Too often, these drugs are over-proscribed, making them all but useless and potentially harmful

JAMES DICKINSON, RANJANI SOMAYAJI & SAMIHA TAREK AH MOHSEN

Antibiotics are over-prescribed in the United States, Canada, and worldwide, often for infections that do not need their help, particularly respiratory conditions. While these unnecessary prescriptions may contribute to the development of resistant bacteria, there is another reason to be cautious about antibiotics: Direct harms caused by these drugs.

Our group—a family physician, an infectious disease specialist, and a health sciences student—has published a review of the evidence about adverse effects of antibiotics commonly used in the community. Even though two of us are experienced physicians, and knew about many problems with drugs, we were surprised by the frequency and severity of some of these effects.

Gut Reactions, Allergies, and Skin Rashes

The review showed that for many antibiotics, over 10 percent of patients get gut reactions, such as stomach pain, discomfort, or diarrhea. This is particularly common in children given antibiotics for ear and throat infections.

Every antibiotic causes allergic reactions in some people. A few allergic reactions cause swelling of the mouth and airways, needing immediate treatment with adrenalin and other drugs.

Other allergic reactions are just a skin rash, but this is often very irritating, and in some, it may progress to cause severe blistering. Such severe reactions can be caused by sulfonamide drugs, often used to treat urinary tract infections. In Canada, a medication combining the antibiotic trimethoprim and a sulfa drug is often used for this purpose. However, using trimethoprim alone—a common practice in Europe—reduces the risk of allergic reactions.

TATYANA AZAROVA/SHUTTERSTOCK

Over-proscribing antibiotics contributes to superbugs that are hard to treat and those taking them suffer a long list of unnecessary side-effects.

Most coughs and colds, sinusitis, influenza, and even COVID-19 are viral infections that the immune system will overcome.

A severe skin rash occurs in as many as one-third of people given amoxicillin for infectious mononucleosis (glandular fever), a common cause of sore throat in adolescents and young adults. This looks just like an allergy, so these people may be told they are allergic, which prevents the use of penicillins even when they would be the best drug to use. A skin test can show that it is not an allergy, in which case penicillins may be used in the future.

In rare cases, antibiotics cause other serious reactions, including some that are fatal. They can cause serious damage to the lungs, liver, kidneys, nerves, and joints. For example quinolones, a common group of antibiotics (the most well-known is ciprofloxacin), can cause ruptured tendons and damage to nerves that cause tingling and numbness. Minocycline, often used to treat acne, can cause dark pigmentation of the face, as well as neurological effects.

Benefits vs. Risks

With antibiotics, the likelihood of benefit must be balanced against the chance of harm they may cause. When someone has a serious infection, it is worth taking the risk of harm to gain the benefits of a cure. But for a mild infection that the immune system will defeat by itself, there is no benefit from the antibiotic, only a chance of harm. So a prescription for antibiotics can be worse than useless.

Antibiotics are among our most commonly used drugs. However, they should not be thought of as necessary to cure any infection. For most infections, they only help to tip the balance in favor of our immune system.

Antibiotics work on bacterial infections such as pneumonia or cellulitis, and these illnesses improve faster with the right antibiotic.

But most coughs and colds, sinusitis, influenza, and even COVID-19 are viral infections that the immune system will overcome. While some bacteria may be present, they are not the cause, so there is no value in taking an antibiotic. They do not shorten these infections, nor do they reduce their severity, but they could produce adverse effects that only make matters worse. For coughs and colds, it's better to seek advice from a physician or pharmacist about treatments that reduce fever, aches, and pains, and coughs, while the immune system does its job.

During the fall and winter respiratory infection season, both prescribers and patients must remember how harmful these drugs can be. Antibiotic use should be minimized, and used only when there is a good reason. They must be chosen carefully, and when prescribed, they should be taken for the minimum effective time. So rather than visiting a doctor asking for antibiotics, ask whether one could help, and what other treatments will soothe symptoms and reduce the misery.

Using antibiotics cautiously not only means decreasing the risk of allergic reactions or other harms but also decreasing the risk of bacterial resistance. That means that when an antibiotic is really needed, the appropriate drug will be safe and effective.

James Dickinson is a professor of family medicine at the University of Calgary in Canada, Ranjani Somayaji is an assistant professor in the department of medicine at the University of Calgary, and Samiha Tarek Ah Mohsen is a research assistant at the department of critical care medicine at the University of Calgary. This article was first published on The Conversation.

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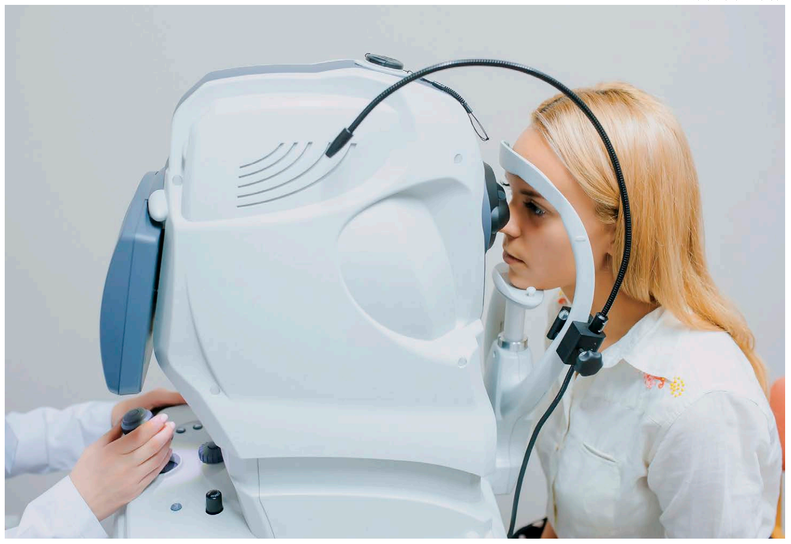

Optical coherence tomography (OCT) gives a more precise and detailed view of microvessels and capillaries than an MRI because of the wavelength of light it uses.

Tests to Assess Your Risk for Disease

Your biochemistry can tell you when it's time to act–before disease stikes

JOSEPH MERCOLA

Allopathic medicine, the common form of medicine most people use today, moves into gear when a person reaches a state of illness.

But most illness comes on gradually, from a host of factors often connected to diet and lifestyle. For many of these forms of illness, early testing can reveal nutritional and biochemical markers that researchers have linked to various diseases.

One of the most accessible ways to immediately assess aspects of your inner health is through the eye, which is uniquely transparent and available for cheap, effective visual inspection.

Thomas Lewis, author of "The End of Alzheimer's: The Brain and Beyond," is a microbiologist with a Ph.D. from MIT. He's done a lot of work on diagnostic testing and how retinal assessment and other laboratory tests can be used to classify your risk factors for chronic disease and COVID-19.

The Eye–Brain Connection

As just one example, glaucoma and Alzheimer's disease are often linked together, with glaucoma occurring first, as they did in Lewis' father's case. His dad developed glaucoma several years before he developed Alzheimer's.

Lewis goes so far as to refer to glaucoma as "Alzheimer's disease of the eye," and Alzheimer's as "glaucoma of the brain." Similarly, cataracts are a manifestation of your innate immune response against acute and chronic infection. If you are, say, 50 years old and you have early nuclear cataracts, it's a bad sign, as it indicates chronic infection.

The infection is what's causing this unfolded protein response to slowly matriculate in the lens of the eye. According to Lewis, "If you have an early cataract, that's a bad sign for longevity. Most people with cataracts die of some vascular event fairly young."

A Window Into Your Overall Health

Lewis explains the general theory for using the eye as a biomarker for systemic disease:

"When you look at disease, in the allopathic system, you're either healthy or you're sick. But we really lie on a continuum of health. I say we live on four different continuums, determinants of health, lifestyle, risks, things like that. For physiological health, we measure blood, stool, and urine …"

"For pathology, which is largely ignored, we do ultrasounds, MRIs and CT scans that assess tissue changes. The eye happens to be particularly good at that because the eye is transparent, and the methodology used to measure the eye is low-cost and non-invasive but highly precise and accurate.

> **When you look at disease, in the allopathic system, you're either healthy or you're sick. But we really lie on a continuum of health.**
>
> *Dr. Thomas Lewis, author*

Vitamin D, available from the sun and some foods, improves the activity of neutrophils, white blood cells that fight bacteria.

For example, optical coherence tomography (OCT) is much more precise at looking at microvessels, capillaries, compared to MRI because the wavelength of light they use to create the interference is a much shorter wave length. In other words, it gives much more detail than an MRI."

OCT is a type of tomography that uses safe, nonionizing light waves. At a cash price of about $50, it's also an affordable diagnostic tool that can tell you a lot about what's going on in your body.

Because the eye is transparent, OCT allows you to see all the microvessels, and whatever is happening in this carotid tissue—the vasculature in your eye—is also happening in the rest of your body, as the carotid is the most vascular tissue in your entire body.

"Whereas the brain uses 10 times more oxygen than most tissue on a per mass basis, the retina, which is constantly converting photons to electrons, uses even more oxygen on a per mass basis. If you're vulnerable, the eye is potentially a canary for that vulnerability," Lewis explains.

"That's why we use this test. It's so simple to see if there are life risks that are translating into physiological risk and then changing into pathological risks. When you're changing into pathological risk, a bad ending is getting closer because you have tissue damage, basically."

The COVID Connection

Many common lab tests can also tell you a lot about your health and the state of your immune system. When COVID-19 broke out, Chinese researchers reported patients had elevated ferritin and erythrocyte sedimentation (SED) rate, among other things. Lewis compared the COVID-19 lab panels with the work he'd been doing for the past 15 years, and found they matched up nicely.

"It's not about treating COVID-19, it's about measuring how full your vessel is toward these markers that create the cytokine storm, high inflammation, and kill you, and try to modulate that," Lewis says.

"Why does the Z-Pak treat COVID-19? It doesn't. It treats bacterial infection, but we all have a subclinical bacterial infectious burden, and that burden is taking up immune system bandwidth, which makes you less able to fight something as virial as COVID-19. That's why Z-Pak works."

"There's nothing really special about COVID-19 and our immune response because our immune response is innate and adaptive. It's [about] being able to more accurately measure your immune compromised status. And almost everything we measure is reversible through very simple processes, supplementation, lifestyle activities, treating the infection, treating the pre-existing virus."

Understanding Cytokines

One of the most lethal aspects of COVID-19 is the cytokine or bradykinin storm that can develop. A cytokine is a short-lived signaling protein that has regulatory properties on nearby cells. It could be beneficial or it could be detrimental. It could be pro-inflammatory, or it could be anti-inflammatory.

So, it's not so much that cytokines are bad—they're absolutely necessary and you'd be dead in a few heartbeats without them—but when they get out of control, they can kill you. That's what's known as a cytokine storm. It is one of the reasons why vitamin D works so well; it aborts most cytokine storms by modulating your immune response.

Risk Score Versus Diagnosis

What the retinal assessment and various lab assays can do is identify a brewing problem, which can then be addressed using strategies such as nutritional supplementation and lifestyle changes.

"For the average person, knowing where you are on that continuum would be extraordinarily valuable," Lewis says, "and that's the testing we're doing and trying to promote more broadly."

The key, however, is not to be within the "normal" reference ranges for disease markers, examples of which include fibrinogen, D-dimer, SED rate, or C-reactive protein. What Lewis focuses on is the point at which there's a statistical increase in early mortality.

"That sets a completely different set of normal ranges for biomarkers, which is what we use. These ranges are much tighter compared to normal reference ranges, so you are amplifying the signal your body is projecting about your health. We're not diagnosing people, we're risk scoring people," he explains.

Helpful Lab Tests

Screening tests that can help assess the state of your health and immune system include:

1-25 Dihydroxy vitamin D: This is the activated form of vitamin D. Vitamin D increases antimicrobial peptides (AMPs) and improves the activity of neutrophils (white blood cells that fight bacteria).

RBC magnesium: Magnesium is an important cofactor for the activation of vitamin D. Taking magnesium can actually reduce the amount of oral vitamin D you require to optimize your vitamin D level.

Neutrophil to lymphocyte ratio (NLR): This marker alone determines prognosis in most solid tumor cancers. Neutrophils go up when there's a bacterial infection, while lymphocytes are suppressed by viruses. As explained by Lewis, "The NLR is sort of an amplified barometer for your stealth infectious burden. The absolute count should be 1.5 or below." Anything above 55 percent neutrophils is indicative of a chronic, likely bacterial, infection.

Red blood cell distribution width (RDW): Red blood cells are born small and die large. If your RDW is wide, you likely have plaques and inflamed carotid arteries. Above 16 or 17, RDW could be a sign of anemia, but between 12.5 and 16, it's a pure sign of inflammation.

C-reactive protein: A marker of inflammation. This should be 0.6 or below.

Fibrinogen: As a signaling molecule for tissue repair, fibrinogen is a good marker for how well your body is able to repair itself. If your fibrinogen is between 150 and 285, your repair and recovery is probably meeting or outpacing wear and tear, allowing you to properly heal and recover.

Above 285, you are probably deteriorating more rapidly than you're repairing. Fibrinogen is also a clotting factor marker, so in COVID-19 and sepsis, for example, high fibrinogen is indicative of a cytokine storm. Pre-cytokine storm levels are also indicative of several chronic diseases, including heart attack and cancer.

Ferritin: Ferritin is an iron transport protein that becomes elevated in COVID-19 and other serious illnesses. Iron catalyzes growth of bacterial pathogens. Typically, when your blood cells are under attack by a pathogen, your body responds by hiding the iron from the antigen (the infection) in the ferritin protein, thereby resulting in anemia (low iron) and high ferritin.

If you have elevated ferritin, the iron may not be available to the pathogen, but it is still available to the cells of your body. Iron is a powerful oxidant stressor that will radically increase oxidized species, reactive oxygen species, and reactive nitrogen species, which activates the NRLP3 inflammasome and radically increases inflammatory mediators and cytokines. The solution for high ferritin is to donate blood. If your ferritin is above 100, consider giving blood periodically.

Fasting insulin: Insulin resistance is a foundational contributor to most chronic diseases and significantly increases your risk of complications and death from SARS-CoV-2 infection. Fasting glucose is also a useful test that you can easily do at home.

Uric acid: Uric acid is a multifactorial inflammatory marker. It also helps protect against hypoxia.

Homocysteine: Homocysteine is a vascular toxin associated with heart disease that is influenced by your vitamin B levels. "LabCorp keeps changing their reference normals, and now they're as high as 17. But the Framingham's study shows that with a baseline of 9, every five points higher homocysteine leads to a 40 percent increase in dementia because it's vascular toxicity," explains Lewis.

> **Illness often incubates in the body for a very long time before suddenly manifesting.**

SED rate: The SED rate is a measurement of how fast your red blood cells settle in a test tube. Red blood cells have a repulsive charge on the outside of their membranes (zeta potential) that allows them to remain buoyant. When this repulsive charge is lacking, they settle faster.

As explained by Lewis:"SED rate is a surrogate for how good your electrical system is working, which I then use as a surrogate for your gut and how well it's doing at digesting and making minerals bioavailable, because it's the sodium potassium pump that drives the electric potential of cells, among other minerals."

Ideally, if your zeta potential is good and high, your SED rate should be close to zero. The lower, the better. The higher your SED rate, the worse off you are, as this means the "battery" of your red blood cells are discharged, which will result in systemic problems and overall low energy levels. Typically, your SED rate will improve once you start to heal and rebalance your gut.

Managing Your Expectations

Your primary care doctor can order any and all of these lab tests for you. However, they may not be able to thoroughly guide your treatment based on your results, which is what Lewis and his team specialize in.

While most health problems can be successfully addressed with nutritional and other lifestyle changes, it's important to manage your expectations of how long it's going to take.

"I have a very simple explanation to set expectations up," explains Lewis. "If it took you 10 years to get into something chronic, it's going to take you at least 10 months to get out of it. And that's with diligence, consistency, and the proper treatment." Lewis notes that society has taught us instant gratification, but treating disease doesn't work that way. Illness often incubates in the body for a very long time before suddenly manifesting. Recovering from a disease state is a similar process. "It takes you a long time to move the needle and start feeling better. Then all of a sudden, you reach that inflection point and you feel better."

"Everything in nature, including health, it's a long linear relationship to get to where you want to be … When people understand that and buy into that concept, then they can stay the course and we can actually make them better. It's not an overnight thing."

More Information

You can connect with Lewis and his team at HealthRevivalPartners.com and sign up for a biomarker panel or get the guidance you need to address whatever problems you may be having. For more information about the eye-brain connection and what your eye health can tell you about your Alzheimer's risk, which we touched on at the beginning of this interview, see RealHealthClinics.com.

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

TRADITIONAL CHINESE MEDICINE

Lessons on Healthy Alignment With Winter

The season of dormancy is a time to reset before the expansiveness of spring

LYNN JAFFEE

We've just passed winter solstice, with many people celebrating the passing of the shortest day and light slowly returning to our world in incrementally longer days. There's an element of triumph associated with the solstice—we made it through the darkest days of the year. What's often missed is that these cold, dark days are an important component in sustaining our health and the health of all living things.

Right now in Minnesota, the landscape looks dead. The trees are devoid of leaves and the fields are crispy and brown with dried leaves, grasses, and wildflowers of last summer. However, the trees and grasses aren't dead but are in a kind of suspended animation. Yes, their leaves are gone, but there's still life in the roots and core of each plant. This dormant period is a time for plants to stop growing for a while, take a rest, and conserve energy so they can leaf out again in the spring.

Trees and plants aren't the only living things that go dormant in the winter. Many animals, such as bears, skunks, raccoons, reptiles, and even insects hibernate in the winter. Their body temperature cools down and their heart rate and respiration slow, all as a way to survive the cold and protect their energy stores until the warmer weather returns.

In Chinese theory, each season is associated with an energetic task that's hardwired into the DNA of plants and animals. And knowing the task for each season is a key to good health, but also keeps you in touch with the natural world. For example, spring is a time of expansiveness. Birds migrate north to nest, hibernating animals become active again, the sap starts running in trees and they being to sprout leaves. Summer is active with nesting, mating, and raising young. In the fall, animals look for an abundance of food to provide energy for the coming winter. And the seasonal task of winter is dormancy; to slow down, store energy, and regenerate in the coming spring.

While animals know this instinctively, we humans also feel these seasonal tasks, but our signals are somewhat muted, perhaps because we've lived indoors for thousands of years. But the pull of the seasons is deep in our DNA. It's found in the urge to go outside to run and play on the first warm days of spring. It's found in the bright activity of summer, and it's found during the fall harvest when we gravitate toward heartier fare of winter squash, root vegetables, soups, and stews.

This brings us to winter. I've been bemoaning the couple extra pounds my scale says I've gained in the last month or so. I feel just a little bit guilty for staying in bed later in the morning or shuffling off to take a nap some afternoons. And even though I get outdoors every day, I struggle to want to go outside and walk the hiking paths and trails that I so loved during the summer. Rationally, I know that this is what my body is supposed to do during the coldest and darkest days of winter—to practice dormancy. I will just say "okay "to the extra carbs that somehow end up on my dinner plate, and I'll indulge in a few holiday sweets. I'll try to be okay with weighing a little more and sleeping a little longer because this is what's expected of winter.

The lesson of winter is this: You're meant to slow down, build up a little energy, and take the time to restore your health. The extra energy that you build up during winter helps to keep you warm, fuel your metabolism, and support your immune system. So allow yourself to eat heavier meals, be okay with an extra pound or two, get a little extra sleep, and know that this is what your body needs during the winter.

Lynn Jaffee is a licensed acupuncturist and the author of "Simple Steps: The Chinese Way to Better Health." This article was originally published on AcupunctureTwinCities.com

PERFECTLAB/SHUTTERSTOCK

Winter is a time to slow down and rest. That often comes with a few extra pounds you should be ready to burn off when spring returns.

FPG/HULTON ARCHIVE/GETTY IMAGES

The Power of Perseverance

Failure is a passing thing for those who get up and try again

Continued from Page 1

I had to learn, on the spot, how to inject, poke and prod patients by day, while by night, I had to learn, with only one other equally scared intern, how to manage a floor full of ill patients. My program was known to be hardcore, and this was part of being "thrown into the fire," as they called it.

While going through it all, there were times when I questioned if I could make it. But I didn't let my mind think too much on it. I just did what I had to do.

Looking back, I'm not even sure how I did it. The important thing is, somehow, I did.

I don't attribute it to being intelligent or book-smart, to being savvy or having common sense, nor to any special gift.

I attribute it to perseverance.

Hard work helps us treasure what we accomplish.

MARK KOLBE/GETTY IMAGES

What Perseverance Is Not

Psychologist Angela Duckworth, professor at the University of Pennsylvania and author of "Grit: The Power of Passion and Perseverance," likens perseverance to grit.

Grit, she says, is "passion and perseverance for long-term goals."

Let's first consider what perseverance, or grit, is not. Duckworth says, "Grit isn't talent. Grit isn't luck. Grit isn't how intensely, for the moment, you want something."

It is not impulsivity, nor laziness or complacency, and it is not being afraid of failure or rejection. It is not being stopped by uncertainty or what you don't know, and it is not being hampered by hardship.

What Perseverance Is

It's said that perseverance is one of the greatest attributes a person can possess.

In fact, religions tout its virtue. The Bible says "And not only that, but we also glory in tribulations, knowing that tribulation produces perseverance; and perseverance, character; and character, hope" (Romans 5:3-4), while Buddha declared, "Endurance is one of the most difficult disciplines, but it is to the one who endures that the final victory comes."

Perseverance, or grit, implies a certain ruggedness, a mental toughness, an ability to suffer and endure the most difficult of hardships. It's the ability to get up, brush yourself off, and find a path forward, despite what the naysayers may say, and even what our own minds may say.

Perseverance is trusting in the face of uncertainty and seemingly insurmountable odds. It is a belief that sometimes defies logic and reason—a lesson Jedi Master Yoda teaches young Luke Skywalker in the iconic Star Wars movie "The Empire Strikes Back."

To demonstrate the error in Luke's thinking, Yoda telekinetically lifts Luke's starship from a murky swamp. Luke, who believed his ship was hopelessly lost, exclaims, "I don't believe it!"

"That is why you fail," replies Yoda.

It's Good for Your Health

Not only does perseverance help us achieve our goals, but it also improves our health.

A study published in the Journal of Abnormal Psychology, which followed thousands of Americans over an eighteen-year period, found that those who had higher levels of perseverance and optimism had less depression and anxiety than their counterparts.

Nur Hani Zainal, lead author of the study told Science Daily, "Perseverance cultivates a sense of purposefulness that can create resilience against or decrease current levels of major depressive disorder, generalized anxiety disorder, and panic disorder." Zainal went on to say, "Our findings suggest that people can improve their mental health by raising or maintaining high levels of tenacity, resilience, and optimism."

Perseverance can also help us stick to healthy routines, like eating a good diet or exercising. And while even those who are determined may fall off track, they pick themselves up and get back to it.

People who are determined are also more likely to push through pain or other challenging health problems and still achieve their goals.

Drawing Inspiration From Others

We learn the skill of perseverance through practicing it and through watching others demonstrate determined behavior.

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(Above)
George Washington was known for his dogged determination to see the American experiment succeed.

(Left)
A strong moral compass can give us the conviction we need to persevere in the face of hardship.

That which requires stress and struggle is often the most satisfying.

FPG/ARCHIVE PHOTOS/GETTY IMAGES

Thomas Edison (1847–1931) described each failure as a step to success.

In fact, the best way to instill persistence in our children may be to model it ourselves. A study in Science, looking at 15-month-old infants discovered, "seeing just two examples of an adult working hard to achieve her goals can lead infants to work harder at a novel task relative to infants who see an adult succeed effortlessly."

Not only can we draw inspiration to persevere from direct observation, but we can also draw it from the stories of others.

For example, Henry Ford experienced multiple failed business attempts, resulting in five bankruptcies, before finally finding success with the Ford Motor Company, while Thomas Edison failed over 10,000 times before finally inventing the lightbulb.

Of course, in Edison's view, he had not failed 10,000 times, but rather proven 10,000 ways his invention would not work, before finally discovering the one that would. He viewed his numerous attempts as stepping-stones, famously saying, "Many of life's failures are people who did not realize how close they were to success when they gave up."

President Abraham Lincoln showed undaunted perseverance during his lifetime, losing elections eight times before becoming president of the United States. The Biblical figure Job went from prosperity to suffering unimaginable hardships, which he endured thanks only to his unwavering faith and perseverance. And I recently wrote an Epoch Times article on family friend Larry Cluff, who has shown tremendous determination in the face of living with brain cancer.

Our first president, George Washington, was known for uncommon valor and his dogged determination to see the American experiment succeed. The Revolutionary War was marked by setbacks on and off the field, but his tireless efforts to train and lead the Continental Army led to success over what was commonly held to be the superior forces of Great Britain.

Even nature offers lessons in perseverance, whether it be the slow drip of mineral-rich water over the centuries to form stalagmites and stalactites, the emergence of a sprout of pale green grass after a forest fire, or the slow formation of a diamond from a piece of coal, due to nothing more than pressure, and time.

In the words of our 30th president, Calvin Coolidge, "Nothing in the world can take the place of persistence...Persistence and determination alone are omnipotent. The slogan 'press on' has solved, and always will solve, the problems of the human race."

We should never become trapped in discouragement.

Putting It Into Practice

They say what doesn't kill you makes you stronger.

When we persevere, we develop the capacity to face and endure life's challenges. Like all things, the more we do it, the better we get.

So what are some ways we can strengthen our perseverance?

First, we should know our core values. By having a strong moral compass, composed of honesty, integrity, and ethical behavior, we will be filled with the conviction needed to help persevere in the face of hardship. When our starting point is upright, we can better develop an uncompromising resolve and ability to look at the big picture, always reminding ourselves of what matters most.

Next, take action, even if it's just a small step. We can then use small victories, as well as past successes, to strengthen our resolve.

It's also important not to overthink things. I know I've sometimes suffered from "analysis paralysis," something which can lead to our minds defeating us. Remember, we don't have to believe everything we think. If our thoughts aren't aligning with who we want to be, we should work to eliminate and replace them.

Being consistent and keeping a schedule also helps, rather than doing things only when we feel motivated. This requires self-control and resisting temptation, despite what we may think we want in the moment.

We must also face our fears, and push through them. While our first instinct may be to run away, how will we ever learn to overcome fear if we strive to avoid it? Staying optimistic in the face of fear and hardship, while learning from the negative and working to improve ourselves, is also important. This is where self-reflection is critical.

One thing we should never do is become trapped in discouragement. We must manage our frustrations and worries, and control our thoughts and actions. It's also important that we take responsibility for our actions, otherwise, we'll feel detached, rather than truly invested, making perseverance impossible.

Reflecting Back and Looking Ahead

Though I didn't realize it at the time, my hardships taught me not only how to persevere, but that I can persevere. As difficult as things may get, I'm grateful for the lessons. My hardships have tempered me, strengthened me, and helped mold me into a better person.

I draw inspiration from the founders of our great nation, who endured incredible hardship and exhibited tremendous perseverance. They held an unshakable belief in their cause—because theirs was a cause based on not only strong moral convictions, but a deeply held faith in our country and, more importantly, our Creator.

May we each show the same courage and unwavering determination to do what is right and hold on even when we think we cannot. May we never lose hope—even in the face of overwhelming difficulties.

As we enter a new year and reflect upon where we would like to improve, making perseverance a regular part of our lives would serve us well, and make for a great New Year's resolution.

Let us end with some inspiration from a bit of Rudyard Kipling's poem full of wisdom, "If" -

"If you can force your heart and nerve and sinew, To serve your turn long after they are gone, And so hold on when there is nothing in you, Except the Will which says to them: 'Hold on!'"

That's perseverance.

Tatiana Denning, D.O. is a preventive family medicine physician and owner of Simpura Weight Loss and Wellness. She believes in empowering her patients with the knowledge and skills necessary to maintain and improve their own health through weight management, healthy habits, and disease prevention.

The Discomfort of Happiness

We often sacrifice long-term contentment for short-term comforts

JAY HARRINGTON

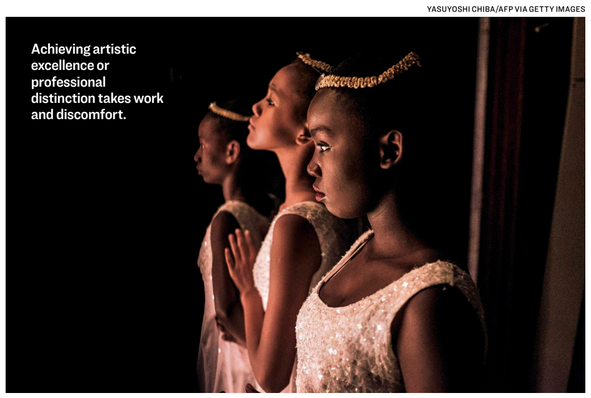
I recently finished the first draft of a new book I'm writing. Almost every moment spent writing this book, like the previous ones I've written, has been tedious and arduous. It wasn't enjoyable. But completing the draft made me happy.

The same goes for every race I've run. Every challenging project I've completed. Every difficult conversation I've had. I didn't really enjoy doing any of these things. But I'm happy for having done them.

Conversely, I've spent hours binge watching television. I've eaten way too much food in one sitting. I've scrolled endlessly through social media. Doing these things gave me comfort in the moment, but merely satisfying my impulses in this way has rarely brought me happiness.

There is a difference between comfort, on the one hand, and happiness on the other.

YASUYOSHI CHIBA/AFP VIA GETTY IMAGES



Achieving artistic excellence or professional distinction takes work and discomfort.

What these experiences of mine illustrate—and I'm sure you've had similar ones—is that there is a difference between comfort, on the one hand, and happiness on the other.

That which brings us comfort in the moment often erodes our contentment over the long term. That which requires stress and struggle is often the most satisfying. It's the paradox of happiness.

Case in point: You may have seen on our website, on social media, or in our newsletter that my wife Heather was in the midst of a 12-day "Painting the Season" painting challenge. From December 1–12, Heather is creating a new painting every day that captures the spirit of the holiday season in northern Michigan.

Heather enjoys painting. But painting every day, at a high level of quality, is a real grind. To complete her challenge, at the same time she is home-schooling our kids and working her full-time job as creative director in our marketing agency, she has been waking up early every day to paint, often before 5 a.m.

She has been stressed. She is tired. On more than one occasion, she has questioned her decision to keep up this frenetic pace.

But with each day that passes, with another painting under her belt, her satisfaction grows. Her skills improve. Her confidence builds. Slowly but surely, she is taking steps to accomplish her goals and move closer to her long-term vision. In short, she's grinding, but she's happy—even if her moment-to-moment experiences aren't pleasurable, or even comfortable.

The actions we take that we think will make us happy because they bring us momentary pleasure often don't, and vice versa. The same goes for the material things we desire.

As humans, we are always chasing rainbows. We want something—be it a new wardrobe, better golf clubs, or a bigger house—but shortly after getting it, we want something different. We experience a quick buzz and then adapt to our circumstances. That which is new becomes the new normal, and we want more. We keep chasing happiness, but save for a fleeting grasp, we never grab hold of it.

This phenomenon is called "hedonic adaptation" or "set-point theory." Hedonic adaptation is a term coined by psychologists Brickman and Campbell in the 1970s to explain our tendency as human beings to chase a happier life, only to return back to our original emotional baseline or "set point" after getting what we want. We run on a hedonic treadmill and get nowhere, despite exerting massive effort along the way.

LIGHTFIELD STUDIOS/SHUTTERSTOCK

We live in a time of endless available comforts that rob us of true contentment.

A belief that "bigger and better" leads to a happier life often results in less happiness—another paradox. We work really hard because we want more. We obtain more, and the shine soon wears off. So we work harder, in pursuit of even more, and become less happy as a result. The beat goes on.

When pursuing happiness, we must learn to enjoy the journey, and not merely fixate on the destination, of life's events and experiences. We must stop clinging to the idea that there is any one thing, person, or job in this world, should we finally attain it, that will bring us lasting happiness.

In his book "Happier," Harvard lecturer Tal Ben-Shahar describes the "arrival fallacy," which is a corollary to the concept of hedonic adaptation. He describes the arrival fallacy as: "The false belief that reaching a valued destination can sustain happiness."

He goes on to say: "Attaining lasting happiness requires that we enjoy the journey on our way toward a destination we deem valuable. Happiness is not about making it to the peak of the mountain nor is it about climbing aimlessly around the mountain; happiness is the experience of climbing toward the peak."

In this sense, ambition, itself, is not a bad thing. But it can become problematic when we allow the unending pursuit of growth and acquisition to inhibit our pursuit of happiness. Both ambitions—happiness and growth—can coexist, but only in balance.

The balance that must be struck is a tricky one. An ambitious life can and should be an exciting, satisfying, and happy life. But it requires a clear understanding of what the aim of ambition is. To me, and according to the happiness research, the target is clear: a life of meaning and purpose, not one spent seeking momentary pleasures and material possessions.

A meaningful life, where one's energy, attention, and ambition is directed toward what really matters, is a flourishing life. "What really matters" is wholly different for each of us, but we all have some purpose we were meant to serve. The strife and struggle of life can help us discover that purpose. The work we put in leaves us with a deeper sense of meaning. The discomfort of doing hard things is what makes us happy. Happiness is found in the pursuit.

Jay Harrington is an author, lawyer-turned-entrepreneur, and runs a northern Michigan-inspired lifestyle brand called Life and Whim. He lives with his wife and three young girls in a small town and writes about living a purposeful, outdoor-oriented life.

How a Stint With COVID Changed My Perspective

A common experience of COVID-19 gives reason to move forward with more hope and less fear

ALL PHOTOS BY SHUTTERSTOCK

Television news focuses on new infection numbers, creating a heightened sense of risk.

ANNIE HOLMQUIST

WebMD reports, 80 percent of COVID cases are mild and unlikely to end in a trip to the ER.

I was stricken with COVID last month.

You probably expect me to now explain how awful it was, how I laid around in bed, suffering in agony, and was nearly carted off to the hospital. But that would be a lie.

The real story? I had some congestion, did lots of sneezing, and was quite fatigued. I pressed through it though, continuing to work from home, and would have simply thought I had an unusual, but mild, cold had I not been alerted to potential exposure and then tested positive.

Standing on the other side of COVID, I'm thankful to have had it for several reasons. As I've mentioned these reasons to others, I've seen them suddenly encouraged, for they are not often heard in our fearmongering news cycle.

The first reason is obvious: I had COVID and lived to tell about it.

Listening to the media, one would think that a positive COVID test is at the very least a guaranteed ticket to the hospital. But such is not the case, for as WebMD reports, 80 percent of COVID cases are mild and unlikely to end in a trip to the ER. Hospital stays also appear to be much shorter than they were in the early months of the virus.

While the virus was long-lasting, it wasn't even the worst cold I've ever had. I find that others who have had the virus underwent similar experiences, namely, the virus wasn't fun, but it wasn't as bad as what one might expect. Unfortunately, such anecdotes are not sensational enough to be covered by the media. And the good news? I may be naturally vaccinated for up to six months with the antibodies from the virus!

The second reason I'm glad I got COVID is that I learned a few interesting things about treatment options. When first diagnosed, a nurse called me up, confirmed I had the virus, and then basically told me to just sit tight and fight it out.

Having COVID enabled me to ditch the great fear of the unknown.

> **Freedom had been hunted round the globe; reason was considered as rebellion; and the slavery of fear had made men afraid to think.**
>
> *Thomas Paine*

A doctor friend of mine, however, gave a different story. Having left the overbearing medical system to set up his own private office several years ago so he could be free to actually practice medicine, this doctor was free to try other treatment routes. He treated a relative of mine, who is in one of the higher risk categories, with a steroid and several other treatments, noting that the earlier a patient is treated for COVID symptoms, the better chance the patient has of recovering before the virus escalates to a severe level.

These treatments worked well for my relative, and apparently have worked well for other patients of this doctor. Last I heard, he had yet to lose or hospitalize a COVID patient. This revelation has me asking whether we could have saved many lives through simple treatments prescribed early on, rather than sitting around, twiddling our thumbs waiting for the vaccine, which has now arrived on the scene but may take a while to distribute.

Finally, having COVID enabled me to ditch the great fear of the unknown. As mentioned earlier, everyone seems to think that a COVID diagnosis is the kiss of death, landing them in the hospital or on the growing lists of COVID fatalities.

Yet the fatality rate really isn't all that bad for a large portion of the population. "At least 99.95 percent of people under 70 survive infection; that figure is only 95 percent for 70 and older," The Wall Street Journal reports. Why are we so afraid of this virus if the chances of survival are so high?

Fear is infecting more Americans than the virus. For months we have sat in our homes, shied away from others, and listened carefully to the diktats of "experts" who tell us exactly what to do to prevent the virus' spread.

The trouble is, they don't have any clearer view of reality than we do, and often they seem to deliberately overlook statistics like those above. In all likelihood, they, too, are giving into fears of what the virus could do to them, not only in terms of their personal health, but also in terms of their careers.

I'm not denying that the virus can be dangerous—it is. I happen to know two older adults who sadly passed away from COVID just as I was forming the idea for this article, so I'm not oblivious or callous to the ravages of the disease.

What I am denying, however, is the need to live in a fearful, bunker mentality. Such a mode of living is not healthy for anyone, especially not Americans, who are supposed to be living in a free, self-governing society. Thomas Paine, in "The Rights of Man," described our time well when he wrote, "Freedom had been hunted round the globe; reason was considered as rebellion; and the slavery of fear had made men afraid to think."

Paine's prescription for such fear, however, is truth. "But such is the irresistible nature of truth, that all it asks,—and all it wants,—is the liberty of appearing."

That is why I present you with some tidbits of truth that I learned from my stint with COVID, hoping that like me, you too will take heart and press forward into the next year with more hope and less fear.

Annie Holmquist is the editor of Intellectual Takeout. When not writing or editing, she enjoys reading, gardening, and time with family and friends.

WAVEBREAKMEDIA/SHUTTERSTOCK

MINDSET MATTERS

What Forgiveness Really Is

When 'letting it go' and 'burying the hatchet' fail, what works?

There's no right way to find or live forgiveness; any path to and version of it will do.

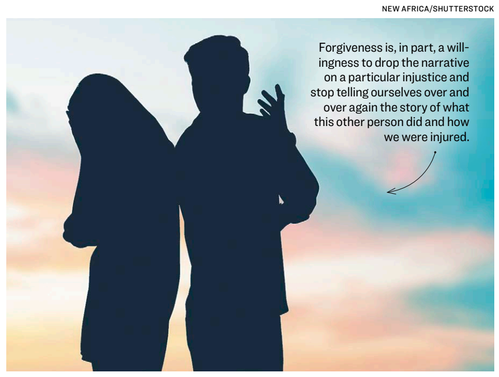
Forgiveness asks us to stop looking at the other person and resolve ourselves to the fact that the past is the past.

We often hear that forgiveness is an act of kindness for ourselves, that if forgiveness benefits the one we are forgiving, that's an added benefit. And yet one of the obstacles we face in forgiving someone is that we do not wish them well and, in fact, we want them to suffer because of what they did.

The idea that the other person could feel better due to our forgiveness is challenging and precisely what we want to prevent.

We imagine that not forgiving them is a form of punishment, a way of being in control of a situation that we didn't feel we had control over. At a primal level, we imagine that not forgiving is a form of wound care, proof that our suffering still exists and forever matters. Not forgiving is a way of validating and honoring our own hurt.

NEW AFRICA/SHUTTERSTOCK



We especially believe this when the one we believe hurt us won't take responsibility for their actions or claim they did nothing wrong.

Not forgiving becomes a way of holding on to our rightness—remaining justified in our version of the truth and maintaining our sense of having been treated unjustly.

Our lack of forgiveness, as we imagine it, continues to prove the other person wrong. This legitimizes our pain. Indeed, it is the validity of our suffering that we are trying—often desperately—to confirm and have confirmed.

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POSITIVE AGING

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An optimistic outlook does more than lift the spirit, it helps heal the body

MARILYN MURRAY WILLISON

Sixty-five years ago, Dr. Norman Vincent Peale revolutionized the publishing world with his enormously popular book "The Power of Positive Thinking." Fifty-one years later, the equally popular book and video "The Secret" proposed the same argument: that focusing on the things that we want (i.e., being positive or optimistic) can pay big dividends.

Some people have interpreted this attitude as meaning that tangible material items (a bigger home, a new car, etc.) will come their way if they just focus on that object long enough and hard enough. But new studies indicate that the major benefit of thinking positively has less to do with our assets than our immune system.

Judith T. Moskowitz, a professor of medical social sciences at Northwestern University's Feinberg School of Medicine, is being hailed as the scientific patron saint of positivity. She has helped train patients who are coping with a variety of physical challenges to focus on a set of eight skills to create and maintain positive emotion. Years earlier, she and her colleagues at the University of California–San Francisco found that using these skills helped newly diagnosed HIV patients combat their infection more effectively.

As most of us know, it's no easy task to remain calm, feel happy, and experience satisfaction while coping with a health crisis. But Moskowitz and her colleagues encouraged their patients in both San Francisco and Chicago to study and retain at least three of the following eight skills, and to practice one or more of them every single day.

- List a personal strength and how you have used it.
- Practice mindfulness. Focus on the here and now.
- Recognize and practice small acts of kindness on a daily basis.
- Start a daily gratitude journal.
- Set an attainable goal and note your progress.
- Write down a minor stress in your life, and list ways to think of it positively.
- Recognize at least one positive episode or occurrence every day.
- Savor that event. Then, either log it in your private journal or tell someone else about it.

Moskowitz was gratified to discover that people with AIDS, Type 2 diabetes, and other chronic illnesses seemed to live longer if they demonstrated positive emotions. Obviously, the next step was to see whether others could be taught skills that would trigger positive emotions. According to Jane E. Brody of The New York Times, Moskowitz is not the only physician who believes that positivity has healing powers.

In Dallas, Dr. Wendy Schlessel Harpham has written several books designed to help people who are coping with cancer. Three decades ago, she was a practicing internist when diagnosed with non-Hodgkin lymphoma, a cancer of the immune system. Over the next 15 years, she dealt with eight relapses of her cancer, but she has now been in remission for more than a decade. Harpham makes sure to:

- Do something good for someone else every day.
- Keep a daily gratitude journal.
- Surround herself with supportive people who lift her spirits.
- Watch funny, inspiring, or elevating movies.

A positive view of aging can have a beneficial impact on both health outcomes and longevity.

In one of her books, "Happiness in a Storm: Facing Illness and Embracing Life as a Healthy Survivor," she encourages people who are dealing with cancer, diabetes, heart disease, or any prolonged illness to do all they can to overcome their disease and live life to the fullest. Harpham opens our eyes to the opportunities for happiness in life despite medical problems, and even because of illness.

Becca Levy and Avni Bavishi of the Yale School of Public Health published a study in the Journal of Gerontology that demonstrated the benefits of an upbeat outlook on life. They found that a positive view of aging can have a beneficial impact on both health outcomes and longevity. The bottom line is that being positive tends to lower blood pressure, reduce incidents of heart disease, contribute to better weight control, and have a positive effect on blood sugar levels.

Even if you tend to pessimistically see the glass as half empty, I can't help but feel that these findings are really something to smile about.

Marilyn Murray Willison has had a varied career as a six-time nonfiction author, columnist, motivational speaker, and journalist in both the UK and the U.S. She is the author of The Self-Empowered Woman blog and the award-winning memoir "One Woman, Four Decades, Eight Wishes." She can be reached at marilynwillison.com. To find out more about Marilyn and read her past columns, please visit the Creators Syndicate webpage at creators.com. Copyright 2020 Creators.com

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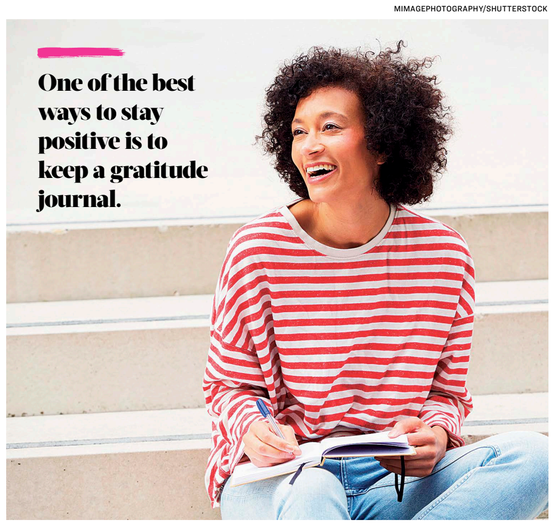


PROSTOCK-STUDIO/SHUTTERSTOCK

MINDSET MATTERS

What Forgiveness Really Is

Continued from ***Page 9***

We think that forgiving the other person implies we are now OK with what they did, or even that what they did is OK on a grander scale. Our perception is that forgiveness announces that what happened is no longer relevant, significant, or alive. It's as if we're allowing the past to be done, and thus to move out of mind and heart, which can feel intolerable.

Perhaps most troubling, however, is that we believe forgiveness lets the other person "off the hook." We equate it with absolution—excusing the other from blame, guilt, or responsibility for what they did. We imagine it sets them free from the burden of suffering that we believe they caused.

And so the question follows: What is forgiveness, and what is it not?

Forgiveness is not saying ...

- You were not hurt by what the other person did.
- Your pain is gone.
- You are back to being the person you were before it happened.
- Life can now pick up where it left off because you feel as if what happened never happened.
- You no longer believe the other person is responsible for causing harm.
- You excuse the other person's behavior.
- You no longer view what happened as important.
- You share the blame for what happened.
- You can forget what happened.

The way many of us view forgiveness is flawed. We say "forgive and forget," but when we forgive, we don't forget.

Forgetting is not an inherent part of forgiving, nor should it be. Neither is "burying the hatchet." When we bury the hatchet, the hatchet is still there, just under a bunch of denial. Buried or not, we still need to find peace with what's happened.

The same holds when we are flippant about forgiveness, encouraging ourselves and others to "just let it go." Forgiveness is not a small affair that we can rationalize, intellectualize, manipulate, or bully ourselves into feeling.

Forgiveness is different for every human being that lives it.

For some, it comes on suddenly, blessedly, without having to think about or try to create it. For others, it's a more deliberate process that requires effort and practice. And for others, it's a permanent destination that, once discovered, never slips away.

But it can also be a feeling that ebbs and flows. There's no right way to find or live forgiveness; any path to and version of it will do. And yet, despite the fact that there are infinite kinds of forgiveness, there are aspects of forgiveness essential to its basic nature.

What Forgiveness Is

Forgiveness is, in part, a willingness to drop the narrative on a particular injustice and stop telling ourselves over and over again the story of what this other person did and how we were injured.

When we need someone else to change in order for us to be OK, we are a prisoner shackled to anger and resentment.

It's a decision to let the past be, to leave it imperfect and not what we wish it had been. Forgiveness means that we stop the "shoulda, coulda, woulda beens" and relinquish the idea that we can create a better past.

Forgiveness also suggests an openness to meeting the current moment with a fresh approach. We are able to be with the other person without our feelings about the past affecting the present. We can respond to what's happening at the moment and not react through the residue of anger and resentment from the past.

When we forgive, we stop employing the present moment to correct, vindicate, validate, or punish the past. We may forever be changed by the past, but are ready to find what's possible right now, with our eyes open and our heart available.

Forgiveness requires us to choose to guide our attention away from the other person, away from what they did or didn't do, or needed to do.

It takes the focus off of them, off of waiting for and wanting them to be different, and moves it toward ourselves, our own experience, and our heart.

Forgiveness means that we lose interest in or simply give up the fight to have the other understand what they've done, or get that we matter.

We stop trying to get compassion or acknowledgment out of the other, stop trying to get them to see and know our pain. Forgiveness means that we lose interest in or simply give up the fight to have the other understand what they've done, or get that we matter.

We stop struggling to get something back from the other and take on the role of our own caring witness. We offer ourselves the compassion that we've tried so hard to get from the other.

True forgiveness means acknowledging that our suffering matters—to us, the one who's lived it—whether or not the other person ever agrees.

We do all of this with or without the other's awareness. Forgiveness is an inside job.

Forgiveness, ultimately, is about freedom. When we need someone else to change in order for us to be OK, we are a prisoner shackled to anger and resentment.

We cling to the hope that we might get the empathy we crave, but with our attention focused outward, we bleed out our own power. We never use our capacity for self-compassion. What we want from the one we can't forgive is, most often, love. Forgiveness is ultimately about choosing to offer ourselves love—and with it, freedom.

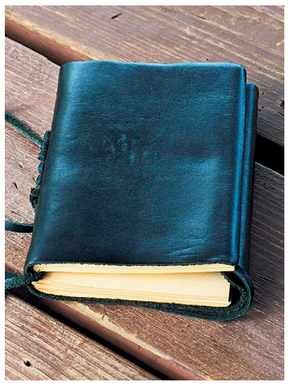
Nancy Colier is a psychotherapist, interfaith minister, author, public speaker, workshop leader, and author of several books on mindfulness and personal growth. She is available for individual psychotherapy, mindfulness training, spiritual counseling, public speaking, and workshops, and also works with clients via Skype around the world. For more information, visit NancyColier.com

WISE HABITS

The Practice of Year-End Reflection

Deepen the lessons of the previous year with a dedicated review

STEPHEN ORSILLO/SHUTTERSTOCK



When I wrote up a journal entry on all of it, I reflected on what this year has been like for me.

LEO BABAUTA

Every year, I like to close the year by reflecting on my past. I find that it deepens my learning, and it makes me more appreciative of the power of a year.

I spent about an hour writing a journal entry on the previous 12 months. It was a great practice. To really reflect on the year, I had to remember everything about it. Here's how I did it:

- I went through my travel history in my Tripit account, making a list of all my trips. You might store your trip information in email or some other place, so you'll probably want to search for your travel-related messages on there.
- I looked through the files on my computer that were created in the last year. On a Mac, you go to the "all my files" view and it's sorted by "date last opened." This gives me an idea of what I might have been working on.
- I reviewed my Amazon orders for 2020. It was interesting to see the different books I've purchased and the different interests (OK, obsessions) I've had over the year.
- I skimmed my credit card statements, looking for any interesting purchases that stood out.
- I looked over journal entries, Google Docs, and notes (using Evernote or Apple's Notes program). This showed me various notes or things I've been working on.

All of this showed me what I've been working on, what I've been obsessed about, what I've been learning, what I've read, where I've gone, and who I spent time with. As I looked over all of this, I took notes if something struck me as noteworthy. You don't have to go through as much data, but it's interesting.

When I wrote up a journal entry on all of it, I reflected on what this year has been like for me. It helped me deepen my learning that seemed sporadic and unconnected until I reflected back on all of it.

This practice helped me to see what I've done over the last year, and it kind of amazes me. I would never have guessed that I'd have done all of that. I didn't plan it, it just ended up being what I was moved to do.

I also was able to see how I've changed over the last 12 months. In small steps, I've become a different person. The Leo from a year ago would want to be friends with me, I think.

I highly recommend this year-end practice, as a way to close out the year and say goodbye to all that you've been through.

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

CASTOR CHOY/SHUTTERSTOCK

The Best Way to Keep Up Is to Slow Down

Our hectic urban lifestyle is devouring our time and energy with little upside

JAY HARRINGTON

Henry was a bright student and attended Harvard, where he studied Greek, Latin, and German. After graduating, he wasn't sure what to do next. After a period of drifting, he founded a school with his brother, but the venture failed a few years later.

He subsequently met a mentor who introduced him to Transcendentalism, an idealistic philosophical and social movement. Henry began to think deeply and write about what it means to live a good life.

Are you living to work, or working to live?

Still a young man, Henry decided to retreat from the city—its noise and distractions—to live and work on land owned by his mentor outside of Concord, Massachusetts.

Henry, as you may have guessed, is Henry David Thoreau. His mentor, Ralph Waldo Emerson. In his masterwork, "Walden," Thoreau describes what led him to pursue a simpler existence:

"I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived."

For Thoreau, to "live" was to live on his own terms, not based on the norms, dictates, and expectations of others. He wasn't interested in "keeping up with the Joneses" of his day. He wrote:

"Why should we be in such desperate haste to succeed, and in such desperate enterprises? If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away."

March to the Beat of Your Own Drummer

When we look back on this time, I believe that one of the cultural shifts that's identified as a silver lining of the COVID-19 pandemic will be that large numbers of people found a drummer that led them in a direction away from the unhealthy norms of today's society. Instead of striving to keep up, they decided to slow down, because they, too, feared not living.

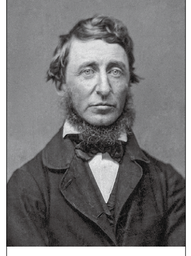
Shifts in mindset are leading to shifts in location. There must be more to the great exodus from big cities to small towns than a desire for more physical space alone. Uprooting oneself and one's family is no small endeavor. Like Thoreau, more people are seeking to live deliberately, having realized that trying to "keep pace with companions" is not the path to a rewarding and enriching life. Today's crisis has served as a catalyst for change.

And change is sorely needed. We have all seen the statistics. Rates of depression, suicide, and drug and alcohol abuse have skyrocketed across many segments of the population in recent years. Societal pressure to keep up can exacerbate individual mental health challenges.

Exhausted, pressured, restless, searching—these are what we feel while running in the rat race.

Few things will improve your quality of life as quickly as getting out of the rat race for more and bigger.

B. D. MAXHAM - NATIONAL PORTRAIT GALLERY



Henry David Thoreau on June 18, 1856.

Rates of depression, suicide, and drug and alcohol abuse have skyrocketed.

How do I know? For years, I was sprinting to keep up with the pack.

What changed? I finally identified what mattered to me and embraced a more minimalist lifestyle, which allowed me to find the space and time necessary to strive for things—and by "things" I mean experiences, relationships, beliefs, and values—that are necessary to cultivate a contented and fulfilled life.

Live a Life That's True to Yourself

Perhaps you're feeling the weight, too. If so, of course you're not alone. We all are these days, to one extent or another. What's required to bring about positive change is slowing down and taking stock. As yourself the following questions.

Are you living to work, or working to live?

Are you sacrificing your time, energy, and relationships now, in hopes of some idyllic retirement in the future that may never materialize?

Are you surrounding yourself with people who lift you up or drag you down?

Do you live in a place that makes you happy?

Are you chasing short-term highs by acquiring more physical things, or are you pursuing new and novel experiences that bring real happiness?

Is it your own desires, or the expectations of others, that are keeping you from making big changes?

Transformation is not easy. I know this from experience. But I can say with certainty that there's only one way off the hedonic treadmill, and it's by taking a leap of faith into a more minimalist, intentional, and purpose-driven lifestyle.

Once you regain your footing, and start following a beat that's uniquely yours, you'll come to realize that everything you were chasing was never going to make you happy. You'll see clearly, perhaps for the first time, that passion for life comes from its simplest pleasures.

Slow down and determine what really matters to you. The only thing worth keeping up with is your own vision of a life well lived.

Jay Harrington is an author, lawyer-turned-entrepreneur, and runs a northern Michigan-inspired lifestyle brand called Life and Whim. He lives with his wife and three young girls in a small town and writes about living a purposeful, outdoor-oriented life.

Decluttering Tips From the Minimalist Home

Use these 7 strategies to create a home that pushes you forward instead of weighing you down

JOSHUA BECKER

Exactly two years ago, "The Minimalist Home" was published.

Since then, the book has sold more than 100,000 copies, has appeared on every major bestseller list, and has been translated into nine different languages. I am so, so grateful for the interest and support it has received.

To celebrate its two-year anniversary, here are seven decluttering tips you can find in the book:

Tip No. 1: Identify the purpose of a room and get rid of anything that doesn't serve that purpose.

The importance of determining a purpose for the rooms in your home cannot be overstated. Once you are clear on what you want each room to accomplish, it becomes easier to decide what stays and what goes. For example: If the purpose of your bedroom is rest, does the television on the dresser promote or detract from that goal?

Tip No. 2: Distinguish between minimizing and organizing.

A minimized home is a home that is first of all purposeful. A room can be tidy or organized and still have too much stuff inside it. Organized clutter is still clutter and you should never organize what you can discard.

Tip No. 3: Simplify walls.

Walls can be overstuffed just like closets and drawers. Often, they are full of outdated objects, dusty knickknacks, or wall hangings purchased only because they color coordinate with the couch. Simplified walls are curated spaces that display images with meaning. They communicate what matters most to you. Less is more when it comes to decorations, too.

Tip No. 4: Start with the easier spaces and move on to harder ones.

The central process of "The Minimalist Home" and the Clutterfree App is that decluttering works best when you start with the easier spaces and build up the skills and confidence to tackle harder spaces later. So take your focus off the garage and attic, and move it to an easier place to start: the living room and bedrooms. Easiest to hardest, starting with the most lived-in areas first.

Tip No. 5: Choose one of three options for every object: remove it, relocate it, leave it.

As you declutter any area in your home, be sure to physically touch every item. If your first thought is, "I have too much stuff to touch every item," then you have too much stuff and need this process even more. Every item you touch can be left, relocated, or removed. Work as hard as you can to put items in that third pile.

Simplified walls are curated spaces that display images with meaning. They communicate what matters most to you. Less is more when it comes to decorations, too.

Tip No. 6: Count the 'clutter cost.'

It can be hard to get rid of things you spent a lot of money on. But keeping things you no longer wear, use, or love has a cost—every object carries a burden as well as a benefit. The burden of clutter is money, time, focus, energy, and space. Keeping an item doesn't make it more useful and clinging to a past mistake won't change the fact that it was a mistake. Count the full cost, consider the benefit-to-burden ratio for everything you intend to keep, and minimize as much as you can.

Tip No. 7: Focus on the gains, not the subtractions.

A minimalist mindset is all about how owning less creates an opportunity to live more. Minimalism isn't about removing things you love. It's about removing the things that distract you from the things you love. It's about living more by owning less. So focus on the benefits and make even more progress than you ever dreamed possible.

If you want more help with your room-by-room, step-by-step declutter process, get a copy of "The Minimalist Home," (you may be able to find a copy at your local library). It has helped people all over the world to declutter their home and refocus their life.

Joshua Becker is an author, public speaker, and the founder and editor of Becoming Minimalist where he inspires others to live more by owning less. Visit BecomingMinimalist.com

ALL PHOTOS BY SHUTTERSTOCK

Arsenic is a naturally occuring mineral; pollution and industrial use has increased the amount of arsenic in our food.

The Effects of Too Much Arsenic in the Diet

Arsenic toxicity is linked to cancer and diabetes and impairs immune function

MICHAEL GREGER

Even at low-level exposure, arsenic is not just a class I carcinogen, but may also impair our immune function and increase our risk of cardiovascular disease and diabetes.

When people hear about arsenic, they think of it as an acute poison, and, indeed, a tiny amount—a hundred milligrams, about one-tenth the weight of a paperclip—could kill you in an hour. But, there is also chronic arsenic poisoning, where even a dose 10,000 times as small can be harmful if you're exposed day-after-day for years at a time as I discuss in my video "The Effects of Too Much Arsenic in the Diet." Chief among the concerns is cancer.

As a class I carcinogen, arsenic is classified at the highest level of things known to cause cancer in humans. Other class I carcinogens are asbestos, cigarette smoke, formaldehyde, plutonium, and processed meat (the consumption of bacon, ham, hot dogs, deli meat, and the like). So, arsenic is pretty bad, to say the least, implicated in tens of thousands—or even hundreds of thousands—of cancer cases worldwide every year.

Of course, cancer is our number-two killer. What about heart disease, our leading cause of death? "Long-term exposure to low to moderate arsenic levels was associated with cardiovascular disease incidence and mortality," meaning heart attacks and strokes.

Arsenic is also considered an immunotoxicant, meaning it's toxic to our immune system. How do we know that? There's a virus called varicella, which is what causes chickenpox the first time we get it. Our immune system is able to stamp it down but not stamp it out. The virus retreats into our nerve cells where it lies in wait for our immune function to dip.

And, when it does, the virus re-emerges and causes a disease called shingles. We've all been exposed to the virus, but only about one in three of us will get shingles because our immune system is able to keep it at bay. However, the virus can slip its muzzle as we get older or immunosuppressed, for instance, if we're given arsenic chemotherapy.

Shingles is a common side effect, because the arsenic drugs not only kill the cancer but also some of our immune cells, too. That's at high doses, though. Might even low doses of arsenic, like the kind we're exposed to in our daily diet, impact our immune function? Researchers tested the levels of arsenic in the urine of thousands of Americans, along with their levels of anti-virus antibodies, and, indeed, they found that the more arsenic the subjects had flowing through their bodies, the lower their defenses.

And, if you're pregnant, arsenic can pass to your baby, possibly increasing the risk of miscarriage or infant mortality, and "may affect an infant's immune development and susceptibility to infections early in life." Indeed, a study out of New Hampshire on infant infections in relation to prenatal arsenic exposure found that the more arsenic the mom was exposed to during pregnancy, the higher the baby's risk of infection during infancy. However, "it's unknown whether arsenic-induced epigenetic changes are transgenerational"—that is, whether changes in gene expression can impact the health of not only your own children but your grandchildren as well. Regardless, arsenic exposure isn't good for mom's health, as it is associated with increased blood pressure.

If you're pregnant, arsenic can pass to your baby.

Arsenic is considered an immunotoxicant, meaning it's toxic to our immune system.

Studies support an association between ingested arsenic and diabetes.

Hold on. If arsenic suppresses immune system function, then, as a silver lining, would we, for example, have fewer allergies, which is a kind of over-reaction of the immune system? Apparently not. Those with higher arsenic levels tend to have higher rates of food allergies, tend not to sleep as well, and tend not to feel as well. When people were asked how they would rate their health, those reporting "excellent" or "very good" tended to have lower levels of arsenic, compared to those who reported their general health condition as "good," "fair," or "poor," who tended to have higher arsenic levels.

What about diabetes? Studies support an association between ingested arsenic and diabetes. Population studies can't prove cause and effect, though.

We know arsenic is a carcinogen. We know it causes cancer. What more do we need to take steps to decrease our exposure?

Michael Greger, M.D., FACLM, is a physician, New York Times bestselling author, and internationally recognized professional speaker on a number of important public health issues. He has lectured at the Conference on World Affairs, the National Institutes of Health, and the International Bird Flu Summit, testified before Congress, appeared on "The Dr. Oz Show" and "The Colbert Report," and was invited as an expert witness in defense of Oprah Winfrey at the infamous "meat defamation" trial. This article was originally published on NutritionFacts.org.

Diagnosed With Diabetes? Pay Attention to Your Heart

Diabetes and prediabetes come with an increased risk of heart disease

MAT LECOMPTE

Type 2 diabetes raises your odds of developing heart disease, so it is imperative to start paying attention to your heart health immediately if you have a diabetes diagnosis. Even those who have prediabetes are at risk and should be focusing on a healthy cardiovascular lifestyle.

Prediabetes is a result of poor blood sugar levels in the body. Unchecked, over time it could become Type 2 diabetes. This elevated blood sugar, which is present in both prediabetes and Type 2 diabetes, can harm blood vessels and the nerves that keep your heart and blood vessels functioning properly. Over time, this can lead to heart disease.

Patients with diabetes often have other conditions that threaten the heart such as high blood pressure, high cholesterol, and obesity. These health problems, collectively known as metabolic syndrome, can boost the likelihood of blood clots as well as cause damage to the arteries in the heart.

"Managing the risk of heart attack and stroke is less about managing diabetes than it is about reducing the risk factors that go along with diabetes," says Matthew Freeby, an assistant clinical professor of medicine and director of the Gonda Diabetes Center at the David Geffen School of Medicine at UCLA.

One of the earliest, most serious, and most common heart problems in those with diabetes is heart failure. Diabetes has been found to worsen heart failure while heart failure can also complicate diabetes treatment.

"We only have so many tools at hand for lowering your blood sugars, and some of these are medications that should not be used if you have heart failure," says Freeby.

Lifestyle Changes

By making some simple lifestyle changes, the risk of heart disease can be reduced, and overall health can be improved. Weight reduction should be the first priority for those looking to reduce their risk. By simply losing 5 to 10 pounds, you can have a positive effect on your heart.

Eating right is also extremely important for those with prediabetes and Type 2 diabetes. By understanding the foods that are harmful and which can increase your health, you can help to manage blood sugar levels improving overall health. Cutting sugar out of the diet is the first place to start when looking at changing eating patterns.

Exercise is often overlooked for those with diabetes, but it is one of the most important aspects of healthy living. By finding an activity that you enjoy, you will want to get up and get moving every day. Don't aim to do too much too soon or you'll risk injury. Focus on simply getting started and slowly increase intensity as you go. This can not only make you feel great, but it will help with weight loss, reduce stress levels, and keep the heart healthy.

Mat Lecompte is a freelance health and wellness journalist. This article was first published on Bel Marra Health.

COEN VAN DE BROEK/UNSPLASH

Find exercise you enjoy doing so you will get up and move.

NAKLEYKA/SHUTTERTOCK

Hyperbaric oxygen sessions are used therapeutically for several conditions but research suggests they could be used far more widely.

Hyperbaric Oxygen Treatment Reverses Signs of Aging

Hyperbaric chambers allow those inside to absorb oxygen directly into the plasma and tissue of the body

JOSEPH MERCOLA

Hyperbaric oxygen treatment may be a practical method for slowing down the hands of time, suggests research from Tel Aviv University and the Shamir Medical Center in Israel published in the journal Aging.

At its foundation, aging represents a progressive loss of physiological capacity due to biological deterioration. This leads to impaired functions and increased vulnerability to diseases, including cancer, heart disease, diabetes, Alzheimer's disease, and others. Hyperbaric oxygen treatment (HBOT), the Aging study suggests, may target two key cellular hallmarks of aging—shortening of telomeres and cellular senescence.

Telomeres are repetitive nucleotide sequences at the end of each chromosome. Sometimes compared to the plastic tip on a shoelace, telomeres help protect DNA by preserving chromosome stability and preventing chromosomes from interacting with neighboring chromosomes.

Cellular senescence is when your cells don't want to grow and divide anymore because of DNA damage, like shortened telomeres.

60 Hyperbaric Oxygen Sessions Slow Down Aging

The research team has been exploring the benefits high-pressure oxygen therapies at different concentrations inside a pressure chamber for years, with studies showing such treatments improved stroke, brain injury, and lowered brain function caused by aging.

The current study looked at hyperbaric oxygen treatment on healthy adults aged 64 and over to determine its effects on the normal aging process at a cellular level.

Thirty-five subjects were exposed to a series of 60 hyperbaric oxygen sessions over a 90-day period. Blood samples, which were analyzed for immune cells, were collected before, during, and after the treatments. Two exciting results were found.

The first was that telomeres at the end of chromosomes grew longer instead of shorter, at a rate of 20 percent to 38 percent depending on the type of cell.

The second was that the amount of senescent cells decreased significantly, by 11 percent to 37 percent depending on cell type.

In a Tel Aviv University news release, study author Dr. Shai Efrati of the university's Sackler School of Medicine, explained:

Evidence suggests telomere length may predict morbidity and mortality.

Burns are one of the common ailments more effectively healed with hyperbaric oxygen treatment.

AFRICA STUDIO/SHUTTERTOCK

"Today telomere shortening is considered the 'Holy Grail' of the biology of aging. Researchers around the world are trying to develop pharmacological and environmental interventions that enable telomere elongation. Our HBOT protocol was able to achieve this, proving that the aging process can in fact be reversed at the basic cellular-molecular level."

Telomeres and Cellular Senescence: Keys to Aging?

Evidence suggests telomere length may predict morbidity and mortality, with shorter telomeres linked to an increased risk of premature death, but the link is controversial.

"This uncertainty is actually due to a kaleidoscope of biological and technical factors, including preanalytical issues (e.g., sample matrix), poor standardization of techniques used for their assessment, and dependence of telomere structure upon genetics, epigenetics, environment and behavioral attitudes, which may be present at a variable extent in various physiological or pathological conditions," researchers wrote in the Annals of Translational Medicine in 2018.

Still, despite the controversy, telomere shortening has been associated with a 23 percent higher risk of all-cause death, along with an increased risk of certain cancers, including glioma, neuroblastoma, ovarian, endometrial, lung, kidney, bladder, skin, and testicular.

Dr. Amir Hadanny, chief medical research officer of the Sagol Center for Hyperbaric Medicine and Research at the Shamir Medical Center, an author of the featured 2020 study, added that lifestyle modifications and intense exercise have previously been found to slow telomere shortening, but HBOT appears to be another viable option:

"In our study, only three months of HBOT were able to elongate telomeres at rates far beyond any currently available interventions or lifestyle modifications. With this pioneering study, we have opened a door for further research on the cellular impact of HBOT and its potential for reversing the aging process."

Cellular senescence is also known to play a role in cellular aging, and the accumulation of senescent cells is believed to be an integral part of the aging process, even potentially acting as a causal factor in age-related disease.

Research is underway to develop therapeutic strategies to interfere with cellular senescence, including eliminating senescent cells. HBOT has emerged as one potential strategy.

Not Necessarily a Clear-Cut Fountain of Youth

It's important to take the study's limitations into account when evaluating whether HBOT is truly a fountain of youth, as the researchers imply. It was a small study, which means the results should be replicated in a larger sample of subjects.

Also, as mentioned, the use of telomere length as a marker for aging is in itself controversial. The study also measured telomere length on immune cells called T cells, which may fluctuate depending on a number of environmental conditions, such as exercise.

It's a positive sign that HBOT also decreased cellular senescence in T cells, but as noted by Steve Hill, who serves on the board of directors for LEAF, a nonprofit promoting increased healthy human lifespan:

"The problem with interpreting these results as rejuvenation or age reversal is that T cells are a poor choice of cell type to use for this kind of thing due to their highly dynamic nature. Unfortunately, they are a popular cell type to use in these sorts of studies, due to the ease of collection from the bloodstream.

"These particular immune cells can have large variance in their telomere length based on the demand for cellular replication at that particular time.

"T cell populations replicate rapidly in the face of pathogens, and with each replication, the telomeres shorten, meaning that telomere lengths can vary in these cell populations from day to day. Infection and other environmental factors can play a key role in the status of T cell telomeres, and this is why they are not overly useful as aging biomarkers."

This isn't to say that HBOT isn't useful, as other experts agree HBOT can have significant benefits for longevity. One of the reasons I'm fascinated by HBOT, in particular, is because of research demonstrating its ability to improve mitochondrial function. However, it should be viewed as one component of healthy aging, not necessarily a magic bullet that will stop it in its tracks.

How Does Hyperbaric Oxygen Therapy Work?

HBOT has long been used as a treatment for decompression sickness that can occur among scuba divers. When you sit in a hyperbaric oxygen therapy chamber, you breathe air that has 2 to 3 times greater air pressure than normal, which allows your lungs to absorb more oxygen.

This, in turn, increases the amount of oxygen in your blood, which is transported throughout your body, fighting pathogenic bacteria and stimulating the release of healing growth factors and stem cells.

Dr. Jason Sonners, a chiropractor who has worked with HBOT for more than 12 years, explains that oxygen can be viewed as a nutrient. Your body needs it to carry out its regular functions and, when tissue is injured, it needs even more oxygen for healing.

Most healthy individuals have somewhere between 96 percent and 98 percent oxygen in their hemoglobin, which means your capacity to increase your oxygen level is between 2 percent and 4 percent, were you to breathe medical-grade oxygen, for instance. However, you can increase your oxygen level far beyond that if your body is under pressure. According to Sonners:

"Two main laws govern how that works: Boyle's Law and Henry's Law. Basically, as you take a gas and exert pressure on it, you make the size of that gas take up less space. As a result of that pressure, you can then dissolve that gas into a liquid.

"An easy example is a can of seltzer. They're using carbon dioxide and water. But basically, you can pressurize that can, so you can put carbon dioxide into that can. As a result of that pressurization, you can dissolve molecules of carbon dioxide into the water.

"In the hyperbaric version of that, we're using oxygen, and the can is the chamber. But as a result of dumping excess oxygen inside that chamber, you can dissolve that into the liquid of your body ... directly into the tissue and the plasma of your blood.

"The oxygen in your blood is carried by hemoglobin. The plasma that carries your red blood cells that holds the hemoglobin normally does not carry oxygen. We rely wholly on red blood cell oxygen-carrying capacity. But inside the chamber, you could literally bypass the red blood cell oxygen-carrying capacity altogether, and you can absorb oxygen directly into the plasma and tissue of the body."

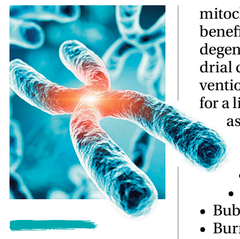
HBOT Fights Mitochondrial and Oxidative Stresses, COVID-19

HBOT can be used to help speed healing of any inflammatory condition, and it's known to facilitate wound healing and cell survival.

A small study involving 10 healthy men also revealed that a single 45-minute HBOT session reduced levels of metabolic stress-related biomarkers, including attenuating mitochondrial and oxidative stresses and relieving metabolic burdens, which suggests it may be useful for treating metabolic diseases.

The fact that HBOT protects against

SASHKIN/SHUTTERTOCK



Telomeres are often compared to the plastic bindings at the end of shoelaces because they keep our chromosoms from 'fraying.'

HBOT can be used to help speed healing of any inflammatory condition, and it's known to facilitate wound healing and cell survival.

A decompression chamber commonly used for scuba divers is another way people get hyperbaric oxygen treatment.

mitochondrial dysfunction is a major benefit, considering most chronic and degenerative diseases involve mitochondrial dysfunction. Unfortunately, conventional medicine still reserves HBOT for a limited number of conditions, such as certain brain injuries and serious wounds, as well as the following:

- Severe anemia
- Brain abscess
- Bubbles of air in your blood vessels
- Burns
- Carbon monoxide poisoning
- Crushing injury
- Deafness, sudden
- Decompression sickness
- Gangrene
- Infection of skin or bone that causes tissue death
- Nonhealing wounds, such as diabetic foot ulcer
- Radiation injury
- Skin graft at risk of tissue death
- Traumatic brain injury
- Vision loss, sudden

In the United States, there are only 14 conditions for which insurance will pay for HBOT, whereas there are up to 100 approved indications for HBOT internationally, according to Sonners.

From my perspective, it's medically reprehensible and inexcusable for a doctor to not treat patients with diabetic neuropathy, infections in the distal extremities, or peripheral vascular disease with HBOT, as it will in most cases prevent the need for amputation. Other conditions that may benefit from HBOT include:

- All autoimmune conditions
- Neurological conditions, including concussion, traumatic brain injury, dementia and post-stroke
- Musculoskeletal injuries, including broken bones, disk herniations, and torn muscles and tendons
- Any condition involving mitochondrial dysfunction
- Any condition involving damaged microcirculation
- Any condition that can benefit from capillary growth
- Chronic infections
- Subacute infections

Researchers are also looking at HBOT in cancer treatments in a number of different ways. For example, using HBOT may allow you to use less radiation or chemotherapy and still get the same outcome. Or, it may allow the patient to tolerate higher amounts of radiation by speeding the healing between sessions.

HBOT is also showing promise for treating COVID-19 via a number of beneficial effects, including reversing hypoxia, reducing inflammation in the lungs, increasing virucidal reactive oxygen species, upregulating HIF-increasing host defense peptides, and reducing pro-inflammatory cytokines such as IL-6.

Typically, hospitals will only provide HBOT if you have one of the 14 approved indications. If you're interested in HBOT for other medical or longevity purposes, you'll need to look into the private sector for treatment. The International Hyperbaric Association (IHA) and Hyperbaric Medical International (HMI) are two organizations that may direct you to more local centers.

You can also learn more on HBOTusa.com which is Sonner's primary education website where you can find a list of treated conditions, research, the benefits of HBOT in athletics, testimonials, and much more.

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

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Different locations and types of pain indicate different ailments, from the aching pain of arthritis to the throbbing of a headache or gout.

Describing Pain so Your Doctor Pinpoint a Diagnosis

How well you can talk to your doctor about arthritis pain will affect how capably it can be treated

MAT LECOMPTE

Chronic pain caused by arthritis can be debilitating for many people. Discussing the pain with a doctor and putting symptoms into words can help you get better treatment for the specific pain you may be experiencing.

Many people find it hard to communicate with their doctor about how much pain they are feeling. Because of this, The Arthritis Foundation created a guide with suggestions for expressing pain and discomfort through words. It includes questions such as "What does the pain feel like?" or "How does the pain affect your life?" and specific details to share.

The foundation suggests being as specific as possible when describing what your pain feels like. This can help doctors pinpoint the exact problem. For example, if a dull or aching pain is expressed, they know it could be due to muscle strains or arthritis. A description of shooting, tingling, or burning might point to nerve pain as the cause. Stabbing or sharp joint pain could suggest injuries to a bone, muscle, or ligament, and throbbing could be a headache, abscess, or gout.

They suggest rating your pain on a scale from 1 to 10, with zero being pain-free and 10 being unimaginable. This can help a physician to determine the dosage and type of pain medication you may need.

"Some patients come in the door with an eight on the pain scale, and they're functional. Other patients walk in with a three and they're disabled," said Dr. Thelma Wright, medical director of the Pain Management Center at the University of Maryland Rehabilitation and Orthopedics Institute.

Many people find it hard to communicate with their doctor about how much pain they are feeling.

Keep a Pain Journal

By being more aware of your pain and learning how to communicate your symptoms, your physician will be better equipped to offer tailored treatment to your needs. Many specialists suggest keeping a pain journal and tracking when the pain is felt, and making notes if it is worse during certain times of the day.

Keeping notes of treatments that you have tried to ease pain can also be helpful for your physician. In your journal, note any pain management, including over-the-counter pain medicine, heat or ice, or rest that made a difference to your pain levels.

By keeping in contact with your doctors regularly and taking control of your treatments by tracking progress, you may be able to find the exact treatment for your chronic pain. Just be aware that it could take a while to find relief, but communicating your pain will help get you closer to a solution quicker.

Mat Lecompte is a freelance health and wellness journalist. This article was first published on Bel Marra Health.

TRADITIONAL CHINESE MEDICINE

The Power of Small Changes

Winter is a time to take stock of our lives and consider making changes

LYNN JAFFEE

I am a gardening geek. I love to get outside in the spring to see what plants are peeking through the wet, still-frozen ground. To me, there is nothing better than seeing a new flower on a carefully-tended plant or a vegetable ripe for the picking in my community garden.

When I moved a few years ago, I inherited a small shady garden under a healthy looking pine tree. The garden had been untended for several years, and was an overgrown mess. At first, just looking at the space felt overwhelming, but my strategy to slowly pick away at what I could do in small amounts of time paid off. I began by clearing out an invasive ground cover. Then I sprinkled the garden with a few shade-loving hostas and ferns. And finally, I had the pleasure planting a few colorful specimens in the front of the garden for show. It took me a couple of years, but now when I look out my back door, I see an inviting space that has color and texture.

Why am I writing about gardening in the heart of winter? Yes, the Chinese believe that the winter solstice is the seed of spring. But that's not it. It's because the deepest part of winter is by nature cool, dark, nourishing, and inward-looking. Not that it's a time for navel-gazing, but this time of year compels us to take stock of our lives and think about change. It's the stuff of New Year's resolutions.

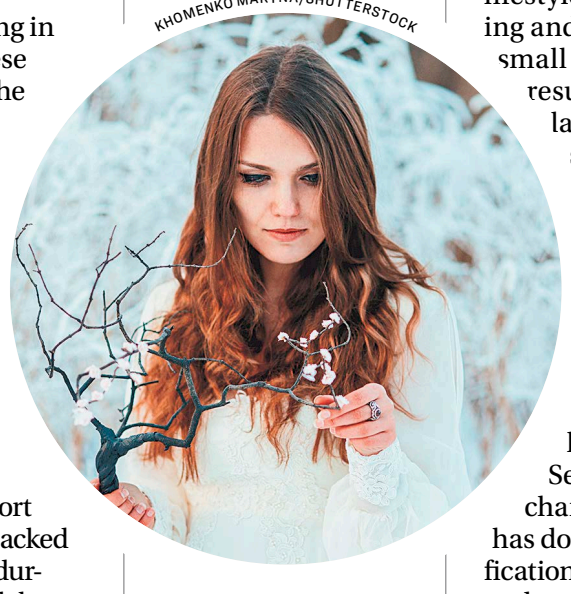
Unfortunately, most people who vow to make changes at this time of the year either don't do so, or only stick with their new regimen for a short time. For proof, just look at the jam packed parking lot at your local health club during the first week of January. A month later many of those cars will be gone, a sign of frustration and abandoned New Year's resolutions.

If you are wanting to be a little healthier, think about taking baby steps

AALTAIR/SHUTTERSTOCK

The still of winter is a natural time for contemplation and taking stock of ourselves.

KHOMENKO MARYNA/SHUTTERSTOCK



A "small change" strategy gives you a better chance of success.

As with my garden, I suggest a different strategy for getting healthy. It's a plan of making small changes slowly. A lifestyle overhaul can feel overwhelming and be hard to maintain, but many small changes over time can yield big results. And this is backed up by a large body of research, with some studies suggesting that making small tweaks can actually extend your life by years.

A small change strategy gives you a better chance of success for a couple of reasons. First, it's realistic. You're not trying to overhaul your diet, exercise daily, do something for stress relief, and quit smoking all at once. Second, even making one small change can have an impact. Research has documented that even small modifications in your diet have a very real and positive effect on your health. And finally, by switching things up in a small way and sticking with it, you gain a sense of self-efficacy, which is the knowledge that yup, yes, yay! you can do this.

Supported by the surgeon general, the American Heart Association, the American Cancer Society, and a whole host of other agencies, the small change strategy may very well offer the pathway to collectively improving the health of people all over the world. If you are wanting to be a little healthier, think about taking baby steps–small changes, slowly, and one at a time.

Even making one small change can have an impact.

Lynn Jaffee is a licensed acupuncturist and the author of "Simple Steps: The Chinese Way to Better Health." This article was originally published on Acupuncture-TwinCities.com

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