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Experience Life Digital

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PICTURE CREDITS

Cover, p. 2 (far right), and p. 16-18: Jeff Lipsky for foureleven.agency (photographer), William Scott/The Wall Group (makeup), Josué Perez/Tracey Mattingly, LLC (hair), Mindy Saad/Celestine Agency (wardrobe styling). Wardrobe: (cover) dress by Aya Muse, jewelry by Jennifer Fisher; (p. 16-17) cami by Saks Fifth Avenue, pants by Morphew; (p. 18) dress by Le Superbe.

Page 4: (bottom right) John Mowers; p. 7: Sara Rubinstein; p. 12: (top left) Piranha; p. 37: (bottom) Chad Holder; p. 42: (top) Madison Hofmeyer; p. 44: (top) Terry Brennan; p. 75: (Kimmerer headshot) Matt Roth; p. 77: (bottom) Vik Orenstein.

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EXPERIENCE LIFE Magazine (ISSN 1537-6656) is published monthly except for January/February and July/August by LIFE TIME, 2902 Corporate Place, Chanhassen, MN 55317. SUBSCRIPTION RATE: One year (10 issues) \$27.95; two years (20 issues) \$44.95. LIFE TIME MEMBERS: For member questions, cancellations, or change of address call Member Relations at 888-430-6432 or email subs@experiencelife.com. NON-LIFE TIME MEMBERS: For non-member questions, cancellations, or change of address call 800-897-4056 or email ELFcustserv@cdsfulfillment.com. Periodicals postage paid at Chanhassen, MN 55317 and additional mailing offices. ISSUE DATE: December 2022. POSTMASTER: Send address changes to Carrie Stafford, EXPERIENCE LIFE Magazine, 2145 Ford Parkway, Suite 302, St. Paul, MN 55116.

HEALTHY WAY OF LIFE

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In always doing, I'm missing some of the subtle (and not-so-subtle) changes in the world around me."



Walks With Billie

A reflection on time as another year draws to a close.

or the past 15 months, I've walked nearly every morning and evening with Billie, my family's sweet and feisty Pudelpointer, who has brought so much joy — along with a fair bit of chaos! to our home. In rain, in snow, in heat, we're out and about to burn off as much of her energy as we can. And she has a *lot* of it.

These daily jaunts have not only gotten me outdoors, they've also reconnected me with nature and the seasons. Or so I thought.

As we crunched through some leaves on a recent fall morning, Billie exploring every step of the way, I felt a sense of warped time: Wasn't it *just* spring? It seemed like yesterday that she was sniffing at the tufts of green grass that were beginning to poke through the melting Minnesota snow.

I had a similar experience as we strolled by a lilac bush: Wasn't it *just* in bloom, its vibrant purple flowers popping and intoxicating scents permeating the air?

In both instances, I had this strange feeling that I had missed something — as though I had somehow skipped the entirety of summer and gone straight from spring to fall.

It's the same feeling I often get when I look at my daughters, now 12 and 9: Weren't they just 6 and 3? And how is it possible that my husband and I have been married for 15 years? Where has the time gone?

The reality is, life is full. And like many Americans, I tend to operate in high-productivity mode. Most days, my schedule is booked from morning to night, and *doing* is my way of being. But in always doing, I'm missing some of the subtle (and not-so-subtle) changes in the world around me — not only in the seasons, but also in my family, friends, and myself.

Over the years, I've regularly written about my desire to be both more mindful and more present, and these recent observations from my walks with Billie remind me that it takes consistent practice. Being present doesn't just happen; it requires intention, as well as the commitment to keep trying in spite of all the busyness and to-dos.

It also means practicing acceptance of how and where I am in any given moment. Let's be honest: Sometimes we just want certain experiences whether it's a project, a tough conversation, or a phase of life — to be over, so we do everything we can to avoid or speed through them.

I'm beginning to realize, though, that between my busyness and eagerness to move beyond certain circumstances, I've been taking the finite resource of time for granted.

So, as we approach the end of another year, I'm recommitting to my mindfulness practices: setting aside a few minutes each morning and evening — as well as in times of overwhelm — to take some deep breaths and get grounded (see my column on this at ELmag.com/ righthererightnow); spending more screen-free time with my family, friends, and colleagues; and reviewing my calendar and saying yes to what truly lights me up versus all the things that add to the constant doing.

And on those walks with Billie this winter? I plan to notice and appreciate the beauty of the season — the crunch of the snow under our feet, the angle of the light on our streets, and, yes, even the bite of the Minnesota cold. This season may pass by quickly, but it won't go unnoticed.

JAMIE MARTIN is *Experience Life*'s editor in chief, Life Time's vice president of content strategy, and cohost of the *Life Time Talks* podcast.

Your Sports Health Questions, Answered

Life Time has partnered with the sports health experts at NYU Langone Health to provide insights into the common health issues that have the potential to prevent you from moving freely and functioning at your best.

MEET THE EXPERT



Sumedha Chablani, MD, endocrinologist, clinical assistant professor at NYU Grossman School of Medicine, and thyroid health expert at NYU Langone

Q: What is thyroid dysfunction and how can it affect my performance as an athlete?

A: The thyroid is a small gland that sits at the base of the neck and releases two hormones, T3 and T4, that help regulate metabolism in the body. Thyroid dysfunction occurs when there is either an increased or decreased level of these hormones.

"While an athlete doesn't necessarily have an increased or decreased risk of thyroid dysfunction, the presenting symptoms can affect athletic performance," explains Sumedha Chablani, MD, an endocrinologist and thyroid health expert with NYU Langone. "While the symptoms of thyroid dysfunction can be nonspecific, one common sign is fatigue. I recommend that anyone with a preexisting or family history of thyroid disease follow up with their primary-care physician."

3 TYPES OF THYROID DYSFUNCTION

Hypothyroidism is the most common type of thyroid dysfunction and occurs when

your body underproduces thyroid hormones. Symptoms can include slow metabolism, weight gain, cold intolerance, constipation, decreased energy, slow heart rate, fatigue, and depression.

Hyperthyroidism occurs when your body overproduces thyroid hormones. Symptoms can include fast metabolism, weight loss, hot intolerance, watery bowel movements, rapid heart rate, insomnia, and anxiety.

Nodules or swelling of the thyroid

gland can also affect the production of thyroid hormones. Severe symptoms of this include difficulty breathing or swallowing and hoarseness.

THYROID DYSFUNCTION IN ATHLETES

Both hypothyroidism and hyperthyroidism can present with fatigue or changes in energy levels, which can impact athletic performance and endurance. Thyroid hormones can also affect receptors on the heart — an essential organ when it comes to exercise and athleticism — causing decreased or increased heart rate.



The most common cause of hypothyroidism and hyperthyroidism is an autoimmune response from your body. The body releases an antibody that attacks the thyroid gland, causing the under- or overproduction of thyroid hormones. Risk factors for this autoimmune process include genetics, infection, stress, or pregnancy. Injury to the pituitary gland in the brain, which regulates the thyroid, can also lead to thyroid disease. "One cause of pituitary dysfunction that is especially relevant to athletes is traumatic brain injury from contact sports," says Dr. Chablani. "Additional causes include the development of a growth on the gland, inflammation, and infection."

OVERCOMING THYROID DYSFUNCTION

If you're experiencing symptoms of thyroid dysfunction, the first step is to meet with your primary-care physician. They may refer you to an endocrinologist if needed.

"Thyroid dysfunction can actually be transient, meaning it can clear up on its own over time," Dr. Chablani says. "We're seeing this a lot with COVID-19, where some patients develop short-lived inflammation of the thyroid gland that can improve without any intervention. Your physician will monitor your levels to determine what or if medication is needed, and it's important to follow up regularly."

In the case of nodules or growth of the thyroid gland, there are a few different therapies used by physicians, and it may involve surgery.

> "If an athlete is diagnosed with hypothyroidism or hyperthyroidism in addition to taking their prescribed medications and going to their follow-up appointments — general healthy lifestyle habits can improve their overall thyroid health," adds Dr. Chablani. "Eating a balanced diet, getting adequate sleep, and practicing relaxation techniques can all be beneficial."



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The Sports Health experts at NYU Langone have the multi-specialty expertise to provide coordinated, comprehensive care for all types of atbletes. As an official healthcare partner, Life Time is able to offer its members exclusive concierge access to NYU Langone's world-class orthopedic specialists and performance experts, who can help you meet your fitness goals. To schedule an in-person appointment or video visit with a Sports Health expert, visit nyulangone.org/lifetime.

Talk to Us



TEACHER INSIGHTS

▶ I always look forward to my issues of *Experience Life*. As a teacher, I can use the articles about mental health, exercise benefits, or healthy eating with my homeroom students each week. The recipes often inspire me for my twice-a-month baking-and-cooking club with my high school students; I frequently center our meetings on a recipe or theme from *EL* and then share the recipe or demonstrate it for them.

When you interview chefs or cookbook authors, I share that resource with my baking-andcooking-club students as well. I also read the issues for my own learning and often pass articles on to friends or family members. Keep up the great work! **Kirsten M.**

I am writing in response to the article "How to Help Kids Thrive Through Physical Activity" (September 2022). I am a lifelong physical-education teacher, and the facts contained in the article are accurate and excellent. American children absolutely need more physicalactivity time, free play, exercise, and physical education.

I am disappointed, however, by the portion of the article in which Mr. Farrey from the Aspen Institute proposes allowing high school students to gain physicaleducation credit at gyms or health clubs rather than in their own school. This perspective pulls into play the decades-old debate about physical activity versus physical education.

My job is to provide physically active opportunities for students and to teach them why we are doing the activities we are doing. Rather than outsourcing class credits to sports-andfitness clubs where students may or may not be taught the why, I think it is more important to increase the physical-education programs and requirements for students in schools to ensure that they are receiving high-quality education where they will also learn the why, rather than merely checking the physical-activity box of "Yep, I exercised today." Meredith M.

I am a teacher and do not eat the food at school, because it just doesn't look fresh or healthy ("How to Improve Kids' Nutrition," May 2022). I was raised on a farm and, from a very young age, harvested all the vegetables we ate all summer and winter. And my dad hunted, and raised cattle on our farm — cattle that ate grass and hay we cut from our farm.

It's so different in today's world. Convenience is the priority for families, because everyone is so busy. I wish more schools would do what the California school in that article is doing. **Bhonda S**.

A NEW VIEW OF THE VAGUS

This is a fascinating article, particularly as it relates the vagal response to the stresses of the pandemic ("Why the Vagus Nerve Matters to Your Health," March 2022). It also reminded me of practices such as abdominal breathing and humming that have helped calm me in stressful situations. I'll be resuming those practices now. Joan M.

HEALTHY INTUITION

I love this article ("Intuitive Eating for Weight Loss," May 2019). For years, we've been conditioned to restrict our diets and suffer to be thin. If all of us could learn at an earlier age that societal expectations are a waste of time, we would all be so much healthier, mentally and physically. Now if we could just get Big Food to stop poisoning the food with toxins, we could eat intuitively a little more easily, and more people would have access to healthier foods. Wendolyn S.

SEASONAL EATS

I love these recipes and can't wait to try them ("18 Healthy and Creative Apple Recipes," September 2022). I really enjoy *Experience Life* and always find helpful, inspiring information.
Patricia Z.

 I tweaked this recipe by doubling the spice recommendations and using pastured milk ("Vegan Pumpkin-Spice Latte," October 2014). Delicious!
 Donna E.

GO-TO GUIDANCE

I was not feeling comfortable on my bicycle, so this article definitely helped me ("6 Tips for Your First Indoor Cycling Class," January/February 2018). I didn't realize how many components are involved. I think I will enjoy the class more, thanks to this tutorial. Linda S.

L have taken a few yoga classes and wanted a flow I could do at home without someone's voice. Most have too many movements for me to learn quickly. I realize the moves in this article ("8 Yoga Poses to Help You Unwind," March 2020) are pretty simple, but they will allow me to start the practice and eventually add on once I am ready. The explanations are clear, and the movements are attainable for me to flow with. **DDawson**



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Letters to the Editor *Experience Life* 2145 Ford Parkway, Suite 302 St. Paul, MN 55116

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Research on Health Outcomes: Spirituality Matters

or years, functionalmedicine physicians have been lauding the effectiveness of a wholeperson approach to patient care: attending to mind, body, and spirit rather than just treating physical symptoms. Now, researchers at the Harvard T. H. Chan School of Public Health and Brigham and Women's Hospital offer new support for the spiritual element of that strategy, arguing in a 2022 JAMA study that healthier outcomes result when practitioners consider their patients' spirituality.

"Spirituality is important to many patients as they think about their health," says study coauthor Tyler VanderWeele, PhD. "Focusing on spirituality in healthcare means caring for the whole person, not just their disease."

And spirituality extends well beyond organized religion, according to the International Consensus Conference on Spiritual Care in Health Care. For the purpose of the *JAMA* study, researchers considered the myriad ways in which an individual pursues meaning, connection, or transcendence — including via family, community, and nature.

Reviewing 586 studies published between January 2000 and April 2022, VanderWeele and his colleagues found that healthy people who participated regularly in a spiritual community were less likely than nonparticipants to suffer from depression and substanceuse problems; they were also more likely to live longer.

These results, they argue, suggest that practitioners should discuss their patients' spiritual beliefs not just as part of a treatment protocol for a serious illness but when consulting on overall health.

"Our findings indicate that attention to spirituality in serious illness and in health should be a vital part of future whole-personcentered care," says lead author Tracy Balboni, MD, MPH. "The results should stimulate more national discussion and progress on how spirituality can be incorporated into this type of value-sensitive care."

To incorporate this mode of care into a clinical environment, the authors recommend recognizing in future research, programs, and community assessments that spirituality is a social factor associated with health — and increasing general awareness of the spirituality-health link.

Eventually, they'd like to see specially trained interdisciplinary teams of spiritual caregivers offering their services in hospitals and clinics.

"Overlooking spirituality leaves patients feeling disconnected from the healthcare system and the clinicians trying to care for them," explains senior author Howard Koh, MD, MPH.

"Integrating spirituality into care can help each person have a better chance of reaching complete well-being and their highest attainable in standard of health."

Focusing on spirituality in healthcare means caring for the whole person, not just their disease."

NEW TREND: Upcycled Food

Between 30 and 40 percent of all food produced for humans is lost or wasted along the supply chain — which the Food and Agriculture Organization (FAO) of the United Nations says is untenable when some 870 million people worldwide don't have enough to eat.

Food loss occurs during harvest, production, transportation, and storage; food waste is more prevalent with retail stores and consumers. The FAO estimates that if even a quarter of lost food were saved, it could end world hunger.

Innovative food producers are striving to find ways to minimize this loss. One such strategy is upcycling food.

Upcycled food is made with ingredients that otherwise would not have been deemed marketable or appetizing. They are "procured and produced using verifiable supply chains and have a positive impact on the environment," states the Upcycled Food Association.

Using imperfect or damaged vegetables and fruits can help farmers save the 20 percent of their crops that is unsellable for aesthetic reasons.

This is a sampling of the companies that are making the most of upcycling:

• **GROUNDED FOODS** collects imperfect or damaged cauliflower and uses it to create vegan cheese.

• **RENEWAL MILL** uses byproducts of plant-based milk production to craft gluten-free flours.

• WILD ARC FARM produces traditional piquette, a wine made with leftover grape skins, seeds, and stems from the initial wine production.

• **REGRAINED** incorporates used brewers' grains from beer making to fashion baking mixes for brownies, pizza crusts, banana bread, and carrot cake, as well as other offerings. Each mix saves up to 100 gallons of water by reusing grains.

Upcycling food is only a partial solution to the estimated 1.5 trillion pounds of food wasted annually. To learn about steps you can take to combat food waste, see ELmag.com/foodwaste. — JAZZ WARD

Turning Off the Gas

A growing number of U.S. states and cities are phasing out gas ranges, heaters, and other appliances in favor of electric equipment in new buildings because of concerns about their release of carbon dioxide and methane. These airborne chemicals contribute to greenhouse-gas emissions and the climate crisis — and to chronic health conditions.

Cities in California, Massachusetts, and Washington have laws in place limiting the use of gas. In 2021, New York City similarly banned gas heaters, stoves, and water boilers in all new buildings. Meanwhile, 21 states have adopted laws *prohibiting* such bans.

Now, a 2022 study published in *Environmental Science and Technology* finds that in 95 percent of homes tested, natural-gas lines and appliances also release low but potentially harmful levels of chemicals, such as benzene, that are linked to cancer and other illnesses.

Many people are aware of the "air toxics" (as the Environmental Protection Agency classifies pollutants known to cause cancer and birth defects) released when a burner is on. But in 2022 a Stanford University research team found that "three-quarters of methane emissions occurred while stoves were off . . . through leaks and incomplete combustion."

Swapping out gas for electric appliances in your home is a good solution when possible. In the meantime, you can improve your home's air quality with the following tips.

• **TURN ON YOUR VENT HOOD** to conduct air outdoors and help prevent gas buildup. Use the exhaust fan when you cook — and make sure the fan is on before you light the stove to exhaust uncombusted gas. Open your windows when you can.

• USE YOUR RANGE'S BACK BURNERS WHEN POSSIBLE,

helping the vent hood send the chemicals up and out of, instead of into, your home.

For more info on improving indoor-air quality, see ELmag.com/indoorair.

Percentage of U.S. homes that use natural gas for heating. Fortytwo percent use gas for cooking.



Environmentally friendly fitness clubs aren't just good for planet Earth; they're also good for your health.

Gyms require significant power to run exercise machines; heat swimming pools; launder towels; heat, cool, and light spaces; and more. To temper their environmental impact, some major players in the industry are exploring and implementing options for creating greener facilities. And that means you may benefit from better indoor-air quality and fewer toxic cleaning chemicals.

Life Time (which publishes *Experience Life*) is constantly striving to be as green as possible, says founder, CEO, and chairman Bahram Akradi: "For 30 years, we've prioritized designing and building athletic clubs with healthy communities and a healthy planet in mind. This will continue to be a significant focus for us as a core component of our Healthy Way of Life vision."

Life Time is focused on reducing energy, water consumption, and waste, says Renée Main, senior vice president and leader of Life Time's sustainability initiatives. "We build our clubs with long-lasting materials, such as granite and wood, and mechanical systems that offer efficiency at the time of construction. Then we consistently look at our operations at every club to make efforts to update our facilities when possible to maintain optimal efficiency."

Changes at Life Time have occurred on both the macro and micro levels, including these environmental initiatives.

• Reduced overall electricity use by 40 percent over the past 10 years. This was done in part by retrofitting Life Time facilities with LED lighting, which has led to an energy saving of more than 50 percent compared with conventional lighting. (Original LED fixtures were engineered by Life Time.)

• Added solar to the energy mix in certain clubs — and some are experimenting with thermal power. At the same time, the company cut natural-gas use by 15 percent.

In July 2022, Life Time was ranked No. 1 nationally among all Energy Goal Achievers participating in the U.S. Department of Energy's (DOE) Better Buildings Initiative. This was achieved by a 38 percent reduc-



tion in energy usage across more than 16 million square feet of building space. Life Time received other DOE awards in 2016, 2017, and 2018.

• Tightened water consumption by 10 percent, or 157 million gallons.

• Decreased plastic use by replacing single-use water bottles in LifeCafes with Life Time Water, bottled in aluminum (in partnership with Proud Source Water). This will save some 1.6 million plastic water bottles from landfills and oceans every year.

• Halted automatically sending membership cards to new members as a way to further reduce plastic use. In 2021 alone, more than 630,000 cards were mailed.

Looking ahead, Life Time updated its five-year sustainability plan with the following new goals:

• Reduce gas and electric consumption by a further 20 percent and water consumption by another 40 percent.

Continue to cut plastic use.
Source locally grown ingredients for every LifeCafe.

- EXPERIENCE LIFE STAFF

Psychedelics REDEEMED?

In July 2022, the U.S. House of Representatives approved two amendments designed to expand research into the medical use of MDMA (a.k.a. ecstasy or molly) and psilocybin (the "magic" chemical in magic mushrooms); the Drug Enforcement Agency classifies both psychedelic drugs as illegal Schedule I substances. That the vote garnered no major headlines is a testament to mounting evidence of the benefits these drugs offer to people struggling with serious illnesses.

MDMA has been shown to ease the effects of posttraumatic stress disorder (PTSD). Indeed, the potential new research approved by the House would look at psychedelic alternatives to opioids as a treatment for PTSD in service members.

And recent studies suggest that psilocybin may be an effective treatment for those battling depression and alcohol-use disorder. Researchers are also considering psychedelics as a pain-relief option without the addictive hazards of opioids.

Some scientists credit the surge of research in this area, after a 30-year lull, to Michael Pollan's best-selling 2018 book *How to Change Your Mind*. In it, he chronicles his own guided experiences with psychedelics and comes away convinced of their ability to improve people's lives.

"I'm very excited about the addiction work going on both at Johns Hopkins, to treat smoking addiction, and at New York University, treating alcohol addiction," says Pollan, who is cofounder of the UC Berkeley Center for the Science of Psychedelics. "There is also a trial at Yale going on to treat obsessive-compulsive disorder."

Investigators are making progress. The Food and Drug Administration in 2017 designated MDMA a breakthrough therapy for PTSD and may one day approve its use for therapeutic purposes.

"We're really at the beginning of something, and there's a lot more we have to learn," says Pollan.



Understanding Behavioral Addiction

Behavioral

addictions not

potential for

destruction.

e often use the word "addicted" casually to convey fandom or devotion. "I'm addicted to TikTok." "I have a cycling addiction." Does this minimize addiction — or does it demonstrate that addiction is more pervasive?

Though it has long been associated with drugs and alcohol, addiction can take other forms, many of which don't contain a single chemical. Shopping, social-media use, sex: A variety of behaviors are potentially addictive.

And behavioral addictions not only operate along psychological and neurological pathways that are similar to those of only operate along chemical addictions: psychological and they also have just neurological pathwavs as much potential similar to those of chemical for destruction. addictions; they also

What Causes Addiction?

A confluence of factors inform addiction, and some of them take root before we're born.

The biopsychosocial model holds that genes and neurological structures (biological), patterns of thought and behavior (psychological), and community, family, and peer relationships (social) all influence our vulnerability to addiction.

Addictive substances trigger a number of neurochemical reactions; of these, the release of dopamine is the strongest contributor to dependency.

Known as the feel-good hormone, dopamine occurs naturally in our brains, and drugs trigger its release. The more dopamine a substance triggers, and the faster it works, the more addictive that substance is.

In the brain's reward system, pleasure and pain work like a scale that seeks to balance and remain level.

With prolonged drug or alcohol use, the balance gets weighted to the side of pain, and the capacity to feel pleasure decreases. The resulting dopamine-deficit state means one must use greater amounts to achieve the same effects, a phenomenon known as tolerance.

This leaves someone physically dependent on an addictive substance to feel good: The more they use it, the more they need it — and the worse they feel without it.

What Can We Get Addicted To?

New evidence suggests that behavioral addictions activate the same neural circuitry as their chemical counterparts. Imagine that a person is addicted to online gaming: Pleasurhave just as much able behaviors like this activate our reward centers, though not nearly as

> intensely as drugs. For example, studies find that sex triggers the brains of rats to double the release of dopamine, whereas amphetamines increase it by 10 times.

> Research shows how social media replicates the "variable reward schedule" of gambling. On social media, likes, follows, and shares trigger a small release of dopamine, but they do so on an unpredictable schedule. We never know when we'll get another hit, which can lead to compulsive posting, scrolling, and checking.

Currently, gambling is the only behavioral addiction recognized in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Mentalhealth experts have been advocating for other behaviors to be considered, including online gaming, sex, socialmedia use, and shopping.

Is Everything Addictive?

If positive experiences release dopamine, and dopamine fuels a desire for more dopamine, does that mean any activity we enjoy has the potential to be addictive?

The American Psychological Association defines addiction as a state of psychological or physical dependence on a substance — and "sometimes applied to behavioral disorders."

"Dependence" itself is an amorphous term, yet the DSM criteria for addiction-related disorders help clarify: To be considered an addiction. the substance use or the behavior must result in negative consequences, such as deteriorating physical or mental health, ruptures in relationships, and difficulty functioning at work, home, or school.

Above all, it must include an inability to stop in spite of these negative consequences.

So, we may enjoy a particular activity and miss or even crave it when it's gone, but if we're not dependent on that activity for our well-being and it doesn't lead to negative consequences, it isn't considered an addiction.

The good news about behavioral addictions is that they may be easier than drugs or alcohol to stop, because they don't disrupt dopamine levels to the same extent. Of course, that can't happen until someone has acknowledged that there's a problem to begin with.

— ALEXANDRA SMITH, MA, LPCC



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BY CLAIRE CONNORS PHOTOS BY JEFF LIPSKY

SEEN&HE

THE VETERAN SUPERMODEL SHARES HER CANDID INSIGHTS ON GRIEF, AGING, AND TIMELESS BEAUTY.

he last two words you would expect to see next to a photo of author, actress, and iconic supermodel Paulina Porizkova are "old" and "ugly." But last April, that is exactly what a man wrote on her Instagram account after she posted a photograph of herself in a bikini.

Rather than ignore the comment or respond with anger, Porizkova, 57, went on Twitter the following day to satirically thank her troll for "feeling her pain," which encouraged her followers to post their own photos with the hashtag #OldandUgly.

"That made me go viral for the first time in my life," she says. "All of these amazing women jumped in, posting their pictures and saying, 'I'm old and ugly; how about this!' It was the best thing ever. I had such fun."

Porizkova joined Instagram six years ago and filled it with happy images of her life, her family, and her vintage magazine covers. "I didn't understand the concept of it," she admits today. As her fanbase grew, she realized she had an important outlet at her fingertips and began posting behind-the-scenes pics and videos of the "real" Paulina — wrinkles and all — often alongside lengthy, thoughtful captions on aging.

It was a revelation for "women of a certain age," and today her followers number more than 800,000. "It's incredibly satisfying to have built this platform on my own," she adds. "All of these people have found me in an organic way, being drawn to what I have to say."

The world is about to hear even more from Porizkova in her recently published memoir, No Filter: The Good, the Bad, and the Beautiful. A collection of essays, the book covers many facets of her life, from her childhood in Czechoslovakia (now the Czech Republic), living with her beloved grandma, to her escape from behind the Iron Curtain to Sweden at age 9 with her mother and younger brother to reunite with her father, and her beginnings as a model in Paris when she was just 15.

The book also reveals the emotional struggles she endured during her marriage with Ric Ocasek and in the aftermath of his sudden death in 2019.

Their fairytale romance began in 1984, the same year Porizkova landed her first magazine cover: the *Sports Illustrated* swimsuit issue. The 19-year-old was cast in the music video for "Drive," by the Cars, one of the world's hottest bands at the time, of which Ocasek was the lead singer.

When they met in person, she writes, "I knew this was the man I was going to marry." Their age difference — he was 40 — and the fact that he was already married couldn't stop the inevitable. They were wed a few years later and went on to have two adored sons: Oliver, 24, and Jonathan, 29. But behind closed doors, their relationship was headed for a not-so-happy ending. "Our marriage began to dissolve as our two sons grew up," she writes.

Although they had enjoyed many good years together, by the time she was 52, she felt invisible. The couple mutually agreed to divorce, though they continued living together — with separate bedrooms for the next few years as the details were hammered out.

And then the unimaginable happened. On September 15, 2019, she was bringing Ric his morning coffee when she discovered he had died during the night. He was 75. As horrific and shocking as that was, a day later, while still reeling from the trauma and grief of his passing, she learned that her husband of 30 years had changed his will just weeks earlier — claiming she had abandoned him — and left her with almost nothing.

"Abandonment is the one thing I'm most afraid of in my life," Porizkova says of the painful wording. "I specifically had not abandoned him. I kept staying at home to help him and take care of him. It was such a blow." Eventually, the will was successfully settled.

We sat down with Porizkova recently and learned how she's been coping with the complicated combination of grief and anger. We also spoke frankly about aging today and what she really thinks about embracing where she is right now.



EXPERIENCE LIFE | What inspired you to write your memoir?

PAULINA PORIZKOVA In my life, I've been incredibly blessed, and I'm grateful. But I was in a position as a young girl, young woman, and woman who was looked at and therefore seen more as an object than as a human being. I was always trying to be heard, and somehow, I understood that being truthful, being real, and being vulnerable are the things that get noticed.

Also, part of my life has been people translating what I say, making their own assumptions, and then writing it down as they wanted to. I always felt the real me was hidden. I desperately crave love, and I'm embarrassed to admit that, but people can only love me if it's the actual me. This book is a pretty good door to who I am.

EL | Your Instagram account — @paulinaporizkov — has also been a very honest outlet for you, especially after Ric passed away.

PP | After Ric died, I was this open wound — I was so desperately lonely and desperately sad, and I just wanted to reach out to somebody. It was the middle of the pandemic, too, and nobody had time to sit and hold my hand. So, I reached blindly into the ether and found other people who felt the same, and we did a lot of social-media handholding.

EL | It's been three years since his death. How are you doing now?

PP You know, until my husband died, I never cried. I took such pride in not crying — it felt like it was a loss of power. But now I think it's also a gain in empathy, which I value much more. So yeah, it's still really hard. And I hope it continues to be hard, because I spent 35 years with this man. He's been my entire life, and such he will remain, forever, until I die.



EL | How have you been processing your grief?

PP | Exercise and meditation are the two most helpful things. Pilates is my favorite, because it's a challenge and I love that.

As for meditation, I used to hate it, but now I do it every day. Also, I've been in therapy since my 40s — that's a permanent thing in my life.

EL You write in your book that when you were 52 you thought about modeling again, but your agent said . . .

PP I "You're thinking of resurrecting your career? Forget it, girl! No one wants to see women with wrinkles." Age is the final frontier in modeling. We want to see representation of body type, and beautiful women who are confident in whatever shape, size, color, and cultural heritage they are. But wrinkles? How many wrinkles do you see out there? I'm very proud of mine! I love them, even if I don't think that every single day. I have to keep reminding myself that I love them. I love them on other women so why wouldn't I love them on me?

EL | Has your perspective on aging changed since . . .

PP | Things went south [laughs]? No, I've always thought aging should be a good thing. But I went through a period where I second-guessed myself a lot. I was in my early 50s when my marriage fell apart. I felt invisible to my husband, to the world, and in my career. And for a while there I wobbled. I thought, *OK*, *maybe I should start looking younger*. HOW MANY WRINKLES DO YOU SEE OUT THERE? I'M VERY PROUD OF MINE! I LOVE THEM, EVEN IF I DON'T THINK THAT EVERY SINGLE DAY."

I should have the cosmetic-intervention stuff. How should I navigate this?

It was Instagram that helped me. It was the people who came and said, "Thank you for being real." I thought, *Oh*, *it's important for me to stay in my skin. I can fix it, or I don't have to.*

Not fixing it seems rebellious. I'm standing up for something. I could fix my aging if age was, in fact, a bad thing. But I don't believe it is.

EL | You do document on Instagram some of the treatments you've done to refresh your face.

PP Yes, I share that because I don't think it's fair to claim that this is all done with water and exercise when, in fact, I've used lasers and the Plasma Pen, which is supposed to help with the collagen around my eyes. It's super subtle and I have no idea if it does anything, but I'm under the impression that it has helped.

EL | Have you done any work internally to embrace aging?

PP | I'm still in the process of reassembling myself. I'm not there yet. I still have days where I'm struggling with the idea of not being "pretty" anymore. But I love beauty so much more than prettiness. Real beauty isn't valued enough. ◆

CLAIRE CONNORS is a New York City-based writer.

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How to LOVE Anyway

It's not always easy to love the people around us or the tasks required of us, but mindfulness meditation can help us exercise affection even when it feels difficult.

BY SPIWE JEFFERSON, CMP, JD

ove isn't always easy, but that's part of what makes it meaningful. Too often we withhold love when something or someone displeases us. Yet we can exercise this deep affection regardless of feelings.

Choosing to love when faced with a conflict, challenge, or stressor may help relieve anxiety, increase resilience, and improve our well-being.

We can learn to love during all of our interactions and activities by becoming more mindful and aware of our feelings in the moment. For example, when a

PRACTICE LOVE

LOOK inward and identify a person or a task you find difficult to love. How did you behave the last time you met that individual or performed that activity? No shaming; just reflect.

OBSERVE how you behave toward someone you find easy to love or how you engage when doing a project you enjoy. How is your mindset, body language, and conduct different from the difficult-to-love example?

VISUALIZE behaving lovingly during every interaction. Imagine what it would feel like to consistently engage with the world in this way.

EXAMINE and set aside emotions that block your willingness to behave lovingly toward tasks and people you encounter today. Hold yourself to a higher standard: Love anyway.

friend bails on dinner plans, try to acknowledge your disappointment at missing time together — but instead of firing off a sarcastic text or making assumptions based on limited information, try asking your friend what happened and whether everything is OK.

Or, rather than losing your cool at having to vacuum *again* (how does your dog have any fur left?), try recognizing your frustration, and then lean in to your gratitude for a companion who brings you so much joy.

You can choose to respond in a loving way to these and other stressors, even when you don't *feel* loving. Take five minutes in the morning to meditate using the LOVE technique. If you encounter challenges during the day, take a five-minute time-out to revisit this practice and reset your intention.

SPIWE JEFFERSON, CMP, JD, is the author of *Mindful in 5* and host of the *Mindful in 5* podcast.

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Commitment Pays Off

One man shares how a double-bypass surgery at age 54 inspired him to prioritize his fitness — and how he's reaping the rewards of his enduring commitment at 91.







From top: Bobby Jessee at Life Time Plano; with his daughter, Jeri; at a barn with Jeri; in the Air Force.

BY BOBBY JESSEE

've been exercising regularly for nearly 40 years. Granted, I'm 91, so I took to it later in life. But I'm living proof that it's never too late to start.

You might say I had a midlife change of heart. I was 54 when I discovered I needed double-bypass surgery. My blood pressure and cholesterol were both high. I smoked up to a pack of cigarettes a day. I ate everything I could, including a lot of foods I later learned weren't great for my cardiovascular system.

Frankly, I'd neglected to think much about my health for years — and I hadn't noticed how poor it had become.

I understood that if I didn't make significant changes in my life, my heart would give out. For me, that wasn't a choice. I stopped smoking and entered into a cardiac rehabilitation program after my surgery. I've been exercising ever since.

Wired for Dedication

I was born on October 10, 1931, in Emory, Va. My father died when I was 12, and my mother sent me to live with my grandparents on their 1,800-acre ranch in Texas, where they raised cattle and sheep. I went to school in nearby Itasca, a town midway between Ft. Worth and Waco.

When I wasn't working on the ranch — rounding up and feeding cattle, baling and hauling hay — I played both offense and defense on my high school football team and was a catcher for our championship baseball team. During football season, I lived in the town's fire station, because I had no way of getting back to the ranch after practice.



After graduating from high school in 1951, I enlisted in the Air Force and married my high school sweetheart, Angie Burnett. I was honorably discharged after eight years and began working at the American Airlines Stewardess College.

In the late 1960s, I started my own excavation business in Dallas, doing most of the physical work on new construction myself. To this day, when I drive around North Dallas, I can point out houses and yards I worked on.

Over time, I hired others to work for me and focused on managerial aspects. I remained involved in labor projects — I never had to sit in an office all day — but I had more help, and I didn't exercise outside of work. I continued to eat whatever I could, and a lot of it.

I began smoking more, too. I'd started as a teenager, and the habit grew as I got older. For years I took my health for granted — until I couldn't anymore.

A New Commitment

In 1985 I started experiencing chest pains and went to the ER, where doctors discovered I had several blockages. They told me I needed double-bypass surgery, which involved taking veins out of my legs and grafting them to arteries in my chest to skirt the blockage and restore blood flow.

I spent 10 days recovering in the hospital after surgery. The thought of not being around for my wife and my daughter, Jeri, who was 24 at the time, gave me focus. Family has always been No. 1 for me, and I worked hard to support and

provide for them. I never had any outside hobbies. I spent my free time with my family: I went to every one of my daughter's basketball games; when she showed horses, I took her to the barn every day and to competitions on the weekends. I know how to commit myself, and committing myself to rehab was no different.

Yet the hospital rehab program was hard at first. Part of me was scared that I'd have a heart attack while exercising. Thankfully, doctors and nurses were around to supervise, which made me feel more at ease.

Once I graduated from the program, I kept up the exercise plan on my own: walking, riding a stationary bike, and doing other cardio. I quit smoking. Following the doctor's nutritional advice, I cut back on some things, such as fried foods and salt.

After a while, I started feeling better and healthier. I didn't lose weight, but that wasn't really the goal. Instead, I became trimmer and less puffy. And while I'd always been pretty strong thanks to my while, I started line of work, I increased my feeling better cardiovascular endurance and healthier and general fitness.

I didn't lose weight, A few years later, my but that wasn't wife and I moved outside really the goal. of Dallas to Aubrey, so we could garden and raise a few cows. We lived there until she died, in 2001, after 49 years of marriage. I retired two years later, and my daughter convinced me to move into her home in Plano.

Sticking With It — and Making Friends Along the Way

Not long after my move, I noticed there was a new Life Time being built down the street. I paid a visit to the membership trailer in the parking lot and signed up -I was one of the first members when they opened in 2003.

Once I got myself into that building, I went to work, and I've kept it up ever since. I show up five days a week, Monday through Friday, rarely missing a day.

I have a routine that starts the moment I walk through the front door: I go down the hall through the offices and chitchat

with the staff and manager. Then I work my way into the fitness area. I start with stretching, use some weight machines, and finish with 25 minutes of cardio. I used to walk on the treadmill, but I got tired of it and switched to the bicycle.

Although meeting people or making friends wasn't originally part of my motivation to join, the sense of community and welcome I feel when I'm there has meant a lot to me. Over the years, it's become another motivation for me to keep going. I enjoy visiting with staff and other members — it keeps things interesting while I do the same routine day after day. And I believe being around other people helps keep me healthy, too.

When COVID-19 came along, Life Time shut down for a while. I was bummed; I'd had a good routine, and I missed interacting with the people I would see every week. But I didn't

After a

quit. I kept doing what I could, like walking in the neighborhood or on the treadmill

at home. When the club reopened, I was there.

Reaping the Rewards

As the years go by, I'm not as stable as I once was, but keeping up with my fitness routine helps with

balance. It also helps my blood pressure and cholesterol, which remain at healthy levels.

Outside of the club, I keep myself busy by running errands, and I enjoy taking long drives in the country. My daughter accompanies me when she can, but I go alone when she's out of town. I'm grateful that I've been able to maintain a lot of my independence and mobility.

I have my share of aches and pains, like most people, of course, but I feel good, and my cardiologist has mentioned on several occasions that my consistent exercise routine is the secret to my success. I look forward to my club visits, and my main goal now is the same as it's always been - keep going to stay healthy. And I'm confident I'll keep going as long as I can. 👁

Bobby's Top 3 Success Strategies



SHOW UP. "Signing up to join a health club isn't the same as going," Bobby says. Make exercise a consistent part of your week.



STAY POSITIVE.

At 91 years old, Bobby knows that his body can't do what it did when he was 21, or even 51. "But I have a good attitude and make the most of every day," he says.



COMMIT. Workouts will be more effective if you get into it and enjoy the experience, he notes.





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Real Fitness

Doing the same exercise regimen every day can lead to stagnation. What was once novel, fun, and challenging can become repetitive. Progress stalls. Motivation flags. Injuries arise.



Periodization training is an ideal fix, helping you overcome fitness plateaus and aiding you in performing at your best.







Reimagine Your Foam Roller

Foam rollers aren't just for recovery. This innovative workout shows how to use the tool to elevate your strength routine.

BY MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA

oam rollers are powerful recovery tools, touted for benefits including myofascial release, boosted circulation, and lymphatic drainage. But have you ever considered using this lightweight tool as part of your strength-training routine? This unlikely adaptation, which is gaining traction among trainers, makes the foam roller a great addition for any small-space workout.

"The round design of a foam roller makes it a useful tool to challenge your balance and strength," explains Minnesota-based strength coach Jennifer Blake, RKC-II. "Placing your hands on a roller during a plank or balancing it on your palm during a Turkish get-up means you have to work harder to stabilize your body during the exercise. It also requires laser-force concentration on the muscles you need to engage to do the movement well."



Foam rollers are most easily incorporated into core exercises; they increase instability and, therefore, the overall challenge, says Blake. "But they can also be used in place of PVC pipe when you perform overhead squats, and you can help stimulate more engagement in the inner thighs during a glute bridge by squeezing one between your legs."

Rollers can also add a challenge to hamstring curls, pushups, squats, chest presses, and other traditional strength moves.

The following workout combines resistance-loaded and body-weight moves that you can supplement with a foam roller. The routine is intended to be performed with a smooth, medium-density foam roller of standard length (about 36 inches) and diameter (5 to 6 inches).

That said, feel free to use what you have on hand. The density won't make a big difference for these exercises, and the moves can be done with a shorter (24-inch) roller, which might even be more comfortable for petite exercisers. Play around with size if you have options available.

You can perform these exercises all together for a full-body workout, or incorporate them as swaps within your existing routine.



OVERHEAD SQUAT

Raise a foam roller overhead, keeping your chest lifted. Brace your core; don't arch your back.

Squat down as far as you can, and then return to standing. Repeat for three sets of 10 to 15 reps.



Bend your knees to reverse the motion and draw the roller back in. Repeat for three sets of 10 to 15 reps.

HAMSTRING CURLS

Lying on your back with knees bent and feet on a foam roller, lift your hips to form a straight line from knees to shoulders. Extend your legs to roll the foam roller away from your hips without arching your back.





DEAD BUG

Lie on your back and lift your arms and legs into the air, knees bent. Hold a foam roller between one hand and the opposite-side knee. Extend and straighten your free leg while dropping your opposite-side arm overhead. Reverse to return to the starting position. Repeat for three sets of 10 per side.

CHEST PRESS

Grasp two dumbbells and lie back so your head and spine are on a foam roller. Squeeze your glutes and push your feet into the floor, then press the weights straight up. Pause at the top, then lower the weights with control. Repeat for three sets of 10 to 15 reps.



lower back and a wall, squat until the roller reaches your shoulders.

Reverse the motion to "ride" the foam roller back up. Repeat for three sets of 10 to 15 reps.



Long stretches of sitting — especially in cramped spaces like cars and airplanes — can wreak havoc on your body. Bring it back to life with these four moves.

BY MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA

t's no secret that sitting for long periods of time is hard on the body — but not all sitting is the same. Hunkering down in a car or a plane, for instance, combines sedentariness with a cramped environment and ergonomically unfriendly seating. For many people, this is a surefire route to discomfort that may linger long after they stand up.

"Traveling can wreak havoc on your body," says Justin Reilley, a yoga and kettlebell instructor and owner of the Yoga Rebellion studio in New Jersey. "You think, *It's just sitting*. But sitting in a plane or car is completely different than sitting on your couch you're in a cramped space, you don't have room to change positions, and you usually don't have many opportunities to stand up and move around."

The havoc Reilley is referring to includes hampered blood flow throughout the body, impeded mobility, and a slumped posture. This can result in swelling of the lower legs and feet, lower-back and neck pain, and general feelings of achiness and stiffness when you finally unfurl from your seat.

Make a point to move your body before a long stretch of sitting, Reilley suggests. Wiggling around as much as possible during a flight or car ride or even a long day at your desk — can help alleviate negative effects. Even ankle and wrist circles are beneficial. (Wearing compression stockings to combat leg swelling and adding lumbar support with a rolled-up sweatshirt may also reduce the aches and pains associated with longer sits.)

And once you arrive at your destination, he recommends taking five to 10 minutes to move slowly, with intention, while focusing on the breath.

"Take your time to get your body back in the mix," he says. "You've been so sedentary, you don't want to hit the gas if you're not warmed up. "Physically and energetically, the waters have become still. When I was 20, I could jump out of the car after a long road trip and do a handstand. Now that I'm 43, I know that right when I get up from something is when I'm primed to hurt myself. It's important to bring attention to how your body is feeling and adjust before moving too hard."

Reilley recommends the following four yoga-inspired stretches to bring life back to your body. Integrate them into a sun salutation or perform them slowly on their own.





DEEP SQUAT WITH TWIST

Lower yourself into a deep squat. Hold for 30 seconds.

Bring your right hand to your left ankle and raise your left hand toward the ceiling, rotating through the thoracic spine. Hold for three deep breaths, then switch sides.





Begin in a low lunge position with your left leg forward and your right leg back, knee resting on the floor.

Raise your right hand and circle that arm behind you so your chest opens up. If possible, bend your back knee and reach for your right foot or ankle with your right hand. Hold your deepest position for 30 seconds. Repeat on the opposite side.



Lying on your back, extend one leg on the floor, then draw your opposite knee toward your chest, using your hands for assistance. Rotate your lower body so the raised knee crosses over the extended leg. Let the knee hang loosely. Breathe as you move deeper into the pose.



STANDING FORWARD FOLD

From standing, hinge your hips to fold forward, keeping a neutral spine. Inhale as you lift your upper body and lengthen your spine; rest your hands on your shins. Breathe deeply.

On an exhale, draw your torso toward your legs. Hold for 30 seconds.





Hold for 30 seconds. Switch sides and repeat. 🕀

MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA, is an Experience Life senior editor.

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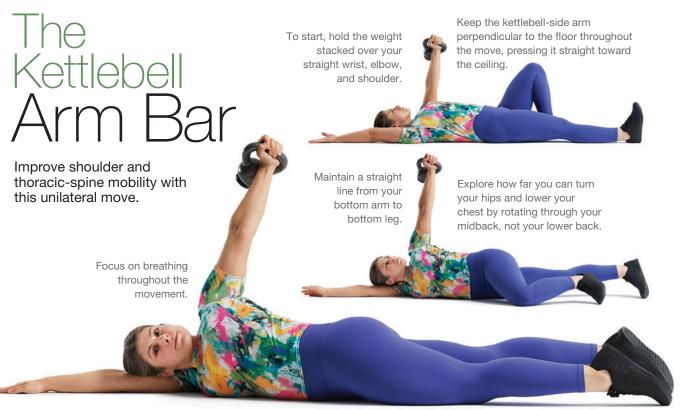
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REAL FITNESS Break It Down



BY MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA

he kettlebell arm bar may be the best shoulder exercise vou've never heard of. The move mobilizes the shoulder and midback, and it allows the scapulas to fully retract — a position few of us reach in our day-to-day activities. As a bonus, the exercise stretches the front of the shoulder and top of the chest and provides a gentle spinal twist.

Done regularly, the arm bar can help improve posture, wringing out some of the damage caused by sitting for long periods of time. It can also improve stability and performance

for other upper-body strength moves, such as the overhead press and bench press.

The arm bar may be most familiar in kettlebell circles. But it can also be performed with a light dumbbell or another lightweight object, such as a water bottle or shoe.

The most common mistake is trying to perform the move with too much weight. The arm bar is primarily a mobility exercise, so opt for a lighter weight (a good starting range is 2 kg to 4 kg for kettlebells and 5 lb. to 8 lb. for dumbbells). Focus on moving with control

and good form — using too much weight can overtax the muscles and connective tissues, as well as limit range of motion.

Although this exercise emphasizes the shoulder girdle, the movement itself is driven by the hips. Keep your working arm perpendicular to the floor and punching upward toward the ceiling while you shift your hips, and then your chest, toward the floor.

You can incorporate the arm bar into your preworkout warm-up or daily mobility routine. The following tips will guide you through the move.



Extend the opposite leg and arm straight and flat on the floor.

comfortably can, rolling farther onto your extended side.

the front of your body while maintaining your form.

up to three times per side.

MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA, is an Experience Life senior editor.

NSTRUCTIONS

PERIODIZATION TRAINING

Minimize fitness plateaus and perform your best.

BY ANDREW HEFFERNAN, CSCS

onsistency, as the saying goes, is the key to progress. But there's a flip side to that fitness tip: Too much consistency doing the same exact thing can lead to stagnation. What was once novel, fun, and challenging becomes repetitive. Progress stalls. Motivation flags. Injuries arise. The fix is something called periodization.

Don't let the technical-sounding name deter you. "Periodization is just planned variation," says Life Time master trainer Danny King. "You're changing things up just enough to make sure you keep getting better over time."

Properly executed, periodization minimizes fitness plateaus — and keeps your workout routine fun, safe, and effective.

Periodization Principles

Exercise is a stressor. Even though its effects are overwhelmingly positive, too much can wear you down. The physiological changes that occur as our bodies respond to stress follow a predictable, threephase pattern, identified as the general adaptation syndrome in 1936 by endocrinologist Hans Selye.

Alarm: At first, your body enters an alarm state. Blood pressure, heart rate, and stress hormones increase.

Resistance: Second, your body strives to repair itself and adapts to the stress. Muscles grow, heart and lungs strengthen, and stress hormones stabilize.

Exhaustion: If the stress continues unabated, you become exhausted. Fatigue becomes chronic, your mood tanks, and anxiety and tension soar.

Cycling between alarm and resistance is a cornerstone of improving fitness. And the goal of a periodized program is to keep you squarely in those first two phases. Apply escalating levels of stress, gradually get better, and then change the stress before you become exhausted or injured.

Periodization in Action

Many exercisers first encounter the concept of periodization in strength training. That's because the best strength programs, regardless of what tools they use, are periodized to account for the various phases of musculoskeletal development while protecting against overtraining and injury. Periodization typically focuses on three major training phases.

Endurance: The ability to perform work for long periods.

Hypertrophy: The growth of muscle.

Strength: The ability to exert high amounts of force.

This chart shows how each phase translates to sets, reps, load, and rest:

PHASE	SETS	REPS	WEIGHT	REST BETWEEN SETS
Endurance	2–3	15–20	Light	Brief (30–45 seconds)
Hypertrophy	3–4	8–12	Medium	Medium (45–90 seconds)
Strength	4–5	3–6	Heavy	Long (90–180 seconds)

Following this program over the course of three months, you gradually work through the endurance, hypertrophy, and strength phases: You incrementally increase the weight you use on each exercise while also increasing the number of sets — but reducing the number of reps — on each of those moves.

At the start of month one, you might perform standing dumbbell presses with 12-pound dumbbells for sets of 15 reps. Work hard during that endurance-focused month, and four weeks later, you might be pressing 15-pound dumbbells for sets of 20 reps.

In month two, you'd increase the weight — say, to 20 pounds — and press for eight reps to focus on hypertrophy. Four weeks later, you might be up to 25-pound dumbbells for 12 reps.

At the start of month three, you'd increase the weight again — perhaps to 30 or 35 pounds — and press for three or four reps to really emphasize the strength phase.

By the time you circle back to the month-one scheme, you'll almost certainly be training endurance with heavier weights than the last time.

"Focus on working hard in the right rep ranges," suggests King. As you progress through each month, keep track of the weights you use and the reps you perform on major lifts in a small notebook or workout app.

Athletes typically schedule their training around important competitive

events; they plan ahead so these events follow the strength phase. If you're not competing in an event, it might be nice to schedule your training so you finish the strength phase of each three-month block before a natural break, like a vacation.

Even if you're staying home, take a recovery break of about a week before starting another endurance phase.

Periodization for All

"Anything you can quantify you can periodize," says King. In other words, periodization isn't just for weightlifters. Runners, swimmers, and cyclists can follow a similar pattern by doing more longdistance work in the endurance phase; more middle-distance work in a hypertrophy phase; and more explosive, short-distance work in a strength phase.

Another powerful periodization trick is to add in cross-training. You might follow a schedule in which you cross-train by focusing your energies on sports or activities that challenge your body in different ways, depending on the time of year.

If you're into sports, you might try something more aerobic, like trail running or mountain biking, in an endurance phase; something requiring more strength, like basketball, in a hypertrophy phase; and a stop-start sport, like squash or tennis, in a strength phase. Or you might do an indoor activity, like martial arts, when it's cold, and an outdoor one, like rock climbing, when it's warmer.

As long as you're changing things up regularly before you get bored or injured, you're practicing a form of periodization. (For more on cross-training, see ELmag .com/crosstraining.)

Though it requires a smidgen more attention than the freewheeling approach, the extra effort is well worth it.

"With periodization, you're thinking about performance instead of relying on the scale for feedback," says King. "That makes you train harder, stay more consistent, and make better progress." •

ANDREW HEFFERNAN, CSCS, is an *Experience Life* contributing editor.

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Identity Crisis

The benefits of adopting a fitness identity — and what happens when you lose it.

BY MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA

o you have a fitness identity? Perhaps you're a runner. A powerlifter. A tennis player. A pickleballer. A cyclist. Maybe you're a recovering high school athlete, finding your stride in a new phase of life. Perhaps you're a gardener, a swimmer, a dancer.

To me, all of these identities — and the fitness modalities they represent — are beautiful.

My list only begins to scratch the surface of possible personalities we assume when we move our bodies. But what all such identities have in common is that they are nouns: They can fill in the blank at the end of "I am a ______."

"I am" is a powerful statement. Framing an action this way can help someone stand in their truth. In fitness, being a thing can help develop a sense of seriousness, of belonging, of consistency, of community.

I dabbled in different "I am" statements over the years until I found one that really resonated. In high school, I tried "I am a dancer." Later, it was "I am a yoga practitioner," "I am an indoor cyclist," and "I am a runner."

None of these identities quite fit — not because there was anything wrong with the activities, but because I could never get over the hump of what I thought being a dancer, yoga devotee, cyclist, or runner meant. Each of these activities had a stereotypical look and level of performance.

By buying into the stereotypes instead of discovering each movement for what it was, I put up barriers. If I didn't look a certain way or perform at the highest level, I couldn't let myself claim "I am" any of these things.

The first time I truly identified with a particular physical activity was in my late 20s, when suddenly the answer to every question — "What do you do for exercise?" "Who are your friends?" "Where do you like to hang out?" — could be summed up with the phrase "I am a CrossFitter."

Everything in my world and worldview began to revolve around District CrossFit, my "box" in Washington, D.C. I relished it. For the first time in my life, I felt like an athlete.

I stopped looking for an activity that would define me. Instead, I began exploring all sorts of different activities just because.

I fell in love with lifting weights. I developed a consistent workout routine. I grew stronger and fitter. I became happier and more connected socially.

I hope that if you're rolling your eyes and getting ready to knock CrossFit, you can take a deep breath and mentally swap it with another activity. The point here isn't that CrossFit is great. The point is simply that for the first time ever, I could say "I am a..." with regard to fitness.

As you may have guessed, the "I am a CrossFitter" phase came to an end. I moved halfway across the country and found a new, non-box gym in Minneapolis. I began testing out a revised version of my statement: "I am a lifter." Just as it started to stick, however, I slipped on ice and hurt myself badly enough that I couldn't lift anything.

It felt as though the rug — er, lifting platform — had been pulled out from under me. *Who am I if I can't lift weights*? I wondered. This inevitably led to a more existential question: *Who am I*?

On a human level, I realized I didn't really know myself. And that changed the tone of how I would work out from then on.

I stopped fixating on a specific goal. I stopped looking for an activity that would define me. Instead, I began exploring all sorts of different activities just because. I was unfettered by the worry that one sport would interfere with another.

I tried stand-up paddleboarding and flying trapeze, kettlebell training and long-distance hiking. I stopped nominalizing my activities and focused on enjoying and benefiting from the actions themselves.

Instead of *I am a runner*, I would think *I am running now*. Instead of *I am a lifter*, I tried *I am lifting this weight now*. As my longtime coach, Mark Schneider, described it, I began "verbing" my life.

Today, I live an active life. Movement certainly is part of my identity. But what I do for exercise no longer defines me.



MAGGIE FAZELI FARD, RKC, MFT-1, ALPHA, is an *Experience Life* senior editor.

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Real Food

Our simple, all-in-one sheet-pan breakfasts are ideal for feeding a hungry crew first thing in the morning — and for keeping kitchen cleanup to a minimum.



Find our recipe for these Sweet Potato Nests With Oven Bacon at ELmag.com/ sheetpanbreakfasts. C

COMBINATIONS

An approach to meal planning that may help you manage digestion and blood sugar.

BY HELEN MARTINEAU

ow do you typically feel after a meal? Mysteriously bloated and uncomfortable? Suddenly sleepy and cranky? If so, it's possible that it's not any one of the foods you're consuming but their particular combination that's causing you problems.

The idea that certain foods can optimize or hinder digestion and energy has been around for millennia. Ayurveda connects digestive power with one's "gastric fire" — called *agni* — and teaches that consuming foods in certain combinations can strengthen or dampen that fire.

Traditional Chinese Medicine recommends eating some foods together and others separately, to help manage digestion and, by extension, one's vital life force, called *chi* or *qi*.

Contemporary healthcare providers — especially those treating people with metabolic syndrome, prediabetes, and type 1 and type 2 diabetes may also suggest food combining to manage blood sugar. Here the focus tends to be on which foods to avoid eating in isolation (refined carbohydrates and even some whole-grain ones), as well as on those best eaten together (namely lean protein, fiberrich carbohydrates, and healthy fats).

Some caveats are in order. Although some advocates (especially Ayurvedic practitioners) may embrace food combining as a strict practice, other healthcare providers worry that this attitude can backfire. Excessive scrutiny of one's diet can lay the groundwork for disordered eating, or trigger it if those tendencies are already in place.

Since a positive, comfortable relationship with food is an important

component of overall health, it's best to approach food combining in the spirit of experimentation. Pay close attention to what feels right to your body, and if a new combination works for you (or doesn't), take note of it. The goal, as always, is to find a way of eating that works optimally for you.

The digestive and the blood-sugar approaches to food combining share some basic principles but differ in other important ways. Sometimes they're even diametrically opposed.

For that reason, we've split them into two categories that you can test out depending on your goals. Read on to learn whether adopting a few food-combining principles might support you.

Food Combining and Digestion

Indigestion, also known as dyspepsia, can take several forms: discomfort or burning in the upper abdomen; feeling full after only a few bites of food; an uncomfortable feeling of fullness. It can also involve bloating, nausea, and acid reflux.

Most of us have experienced this misery at one time or another; some of us experience it chronically.

One contributing factor may be the standard American diet (SAD), which — in addition to its other problems — is rife with pairings that food combiners consider ill advised. The most problematic, in their view, is the tendency to eat animal proteins with starch.

Digesting proteins requires a healthy amount of hydrochloric acid (HCL) in the stomach; some foodcombining advocates believe HCL may be diminished by the presence of starches and sugars. When proteins aren't fully broken down before they leave the stomach, they can start to ferment in the GI tract,

THE IDEA THAT CERTAIN FOODS CAN OPTIMIZE OR HINDER DIGESTION AND ENERGY HAS BEEN AROUND

FOR MILLENNIA.

leading to uncomfortable bloating and other symptoms.

A food-combining approach may help explain why the SAD's iconic meat-and-potatoes meal may not be ideal for our physiology, says nutritionist and Life Time master trainer Samantha McKinney, RD, CPT. "There aren't many foods you'll find in nature that are both high in fat and high in sugar and starch," she explains, noting that, for some, these combinations can contribute to bloating, indigestion, and discomfort.

Cookbook author and nutrition consultant Megan Gilmore, CNC, has

REAL FOOD | Nutrients

made food combining the centerpiece of her approach after using it for her own digestive issues. "When I first started using food combining myself, I felt better in just a matter of three days," she notes. "My stomach was flatter and less bloated. It was such a relief."

Ayurvedic practitioner Vanashree Belgamwar, BAMS, uses food combining as an integral part of her practice. Taking a technical approach, she disputes the digestibility of a popular breakfast: yogurt with fruit. "Fruit is acidic, whereas dairy is [more alkaline], so when you combine them, the fruit sits there in your gut and ferments until the dairy is digested," she explains, noting that this fermentation can cause gas and other byproducts that tax the digestive system.

For other practitioners, transit time — how long particular foods require to pass through the digestive tract is less important. "Your transit time is impacted by the cumulative meal, not by any individual food in that given meal," says McKinney. "Your body recognizes the whole meal."

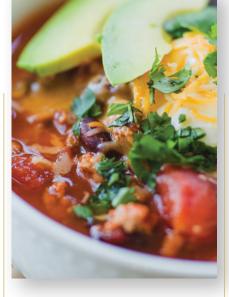
One thing most proponents of food combining are likely to agree on, however, is the idea that nonstarchy vegetables (which includes most vegetables that can be eaten raw) combine well with just about everything.

This is the central tenet to Gilmore's approach, not just for good digestion but to support everyday detoxification, which she suggests is easier for the body when the digestive system is working well.

Gilmore outlines four food groups that she believes are best eaten separate from one another: fresh fruit, starches, animal protein, and nuts and seeds. But they can all be combined with nonstarchy vegetables.

"This simplified approach is closer to the diet of our ancestors, who ate just one or two foods at a time as they came across them in nature," she explains. (She offers a broad selection of simple recipes using this formula in her cookbook *Everyday Detox.*)

For general digestive wellness, Gilmore suggests, combine foods in these ways:



• If you're planning a meal with meat or fish, replace the potatoes with any of an array of nonstarchy vegetables — leafy greens, summer squash, crucifers, tomatoes, peppers, onions, garlic, and so on. They all play well together. If you really miss rice with your stir-fries, try cauliflower rice.

• Likewise, pair grains, potatoes, or pasta with vegetables.

• Beans are both protein and starch, so combining them with nonstarchy vegetables is the best route. A simple stew of garlicky white beans and greens is a testament to how delicious this can be.

• The same goes for dairy. Enjoy cheese with leafy salads or melted into vegetable casseroles. Gilmore also recommends choosing cheese made from goat's milk or sheep's milk, which tends to be easier to digest for humans than cow's milk.

• Eat fresh fruits by themselves, though combining fresh fruit with leafy greens in a salad or smoothie is usually fine.

Any approach to digestion will be highly individual. You may find that some combinations don't bother you, while others consistently cause discomfort. Experiment to see what works best for your body.



Food Combining and Blood-Sugar Management

There's a reason many parents are afraid of Halloween — children can behave monsterlike after they eat too much candy. The same thing may happen to adults, who are just as likely to feel cranky and in need of a nap after an abundance of sugar, though they might not make the connection.

This type of crash-and-burn process is known as reactive hypoglycemia: low blood sugar (unrelated to diabetes) that occurs within four hours after a meal. Its symptoms include weakness, shakiness, lightheadedness, irritability, headaches, and nausea.

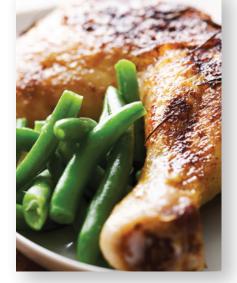
It's not only sugar that may trigger it. Simple carbohydrates, such as white flour and white rice, are potential triggers as well, depending on how sensitive you are to carbohydrates. Our bodies break down flour and simple grains more quickly than complex carbs. Like sugar, these can quickly lead to a glucose spike and then a precipitous drop in blood sugar.

So how can you use food combining to avoid these crashes?

"I recommend protein at every meal and snack, along with a source of healthy fat and a fiber, ideally from produce such as nonstarchy vegetables or berries," says McKinney.

Protein takes substantially longer than glucose to break down, which is why it's so helpful for managing blood sugar. The combination of protein, fiber, and healthy fats has a stabilizing effect.

GILMORE OUTLINES FOUR FOOD GROUPS THAT SHE BELIEVES ARE BEST EATEN SEPARATE FROM ONE ANOTHER: FRESH FRUIT, STARCHES, ANIMAL PROTEIN, AND NUTS AND SEEDS. BUT THEY CAN ALL BE COMBINED WITH NONSTARCHY VEGETABLES.



THE BEST THING ABOUT ANY FOOD-COMBINING APPROACH IS THAT IT CULTIVATES A MORE DIVERSE DIET.

"You can easily track someone's blood-sugar response with a continuous glucose monitor or with postmeal finger-prick tests and observe the difference," McKinney notes. "The fiber, fat, and protein take longer to digest, so when they're combined with carbohydrate, the total time to break down and absorb is notably slower than eating the carb by itself."

If you find that blood sugar is consistently an issue for you, it may be worth doing some research into your unique carb tolerance. We all respond to carbohydrates differently, McKinney explains, and this response depends on many factors: activity level, muscle mass, stress level, and even how well rested we are.

Genetics and the health of our microbiomes play their own important role in blood-sugar regulation. This is why you and a friend might eat exactly the same thing for dinner yet have entirely different glycemic responses — you're falling asleep at the table and she's ready to go dancing.

To get a rough sense of your blood-sugar sensitivity, observe how you feel after meals. Are you sleepy in the afternoons when you have pizza or pasta for lunch? Try having a big salad with some protein and fat instead and see how you react.

Irritable after a sugary dessert? Try something sweet that contains protein, fiber, and fat — like a bar made with dates and nuts.

Play around with varying portion sizes; adding protein, fat, and fiber; and trying lower-carbohydrate substitutions until you hit on the amount that you can enjoy without becoming tired or irritable. (Learn more about managing your unique carbohydrate tolerance at ELmag .com/carbtolerance,)

Finally, remember that not all carbohydrates are the same. Plenty of healthy foods — including lots of vegetables — are high in carbs, and our bodies need them to function. Carbohydrates provide energy, and food combining may be a key to including them in a way that's easier on your blood sugar.

Some basic principles to follow:

• Aim to combine protein, fat, and fiber with any carbohydrate you eat. Crackers with cheese and avocado; pasta with walnuts, broccoli, and olive oil; fresh fruit with a handful of nuts.

• Add nut butter, flax oil, and chia seeds to your fruit smoothies.

• Swap in fresh greens or vegetables for French fries when you order a burger.

Dietary Diversity

Depending on your individual digestive capacity and blood-sugar sensitivity, some of the principles outlined here may be more useful than others. But whether you're using food combining to improve digestion or address crashing energy levels, the best thing about any food-combining approach is that it cultivates a more diverse diet.

"Food combining the right way, by its nature, brings in a greater variety of foods," McKinney says. "Perhaps you love a sustainable, grassfed steak for dinner, and knowing you need to add a fiber source brings a pop of color and nutrients to your plate from a side of roasted broccoli, some grilled zucchini, or a fresh salad."

This can quickly become habitual, and daily habits are the real source of most health improvements, she adds.

Gilmore agrees, noting that food combining also steers clear of some of the pitfalls of an elimination approach.

"I think that food combining works for me, and for many others, because it encourages you to make better choices without feeling restricted," she says.

"When you're choosing just one food category at a time, then filling the rest of your plate with vegetables, you're bound to be making healthier choices. Food combining may just work because it encourages the consumption of more whole foods and simpler meals."

And that is good for all of us. �

HELEN MARTINEAU is a writer and editor in Minneapolis.

Rasics

We're living in the golden age of kitchen gadgets and gizmos. Consider adding one of these to your repertoire or gifting one to the cook in your life.

BY KAELYN RILEY

bought an egg cooker recently. A squat, butteryellow machine about the size of a Frisbee, it can accommodate up to eight eggs in their shells — or two, cracked into its poaching tray.

For breakfast, I simply measure water in the accompanying premarked pitcher, flip a switch, and put my feet up. Within minutes, I'm enjoying a perfectly cooked egg.

This contraption represents a departure from my typically minimalist approach to kitchen tools (for more on that, see ELmag

.com/minimalistkitchen). It's technically a single-use appliance. It has a lot of parts, needs to be plugged in, and takes up precious counter real estate. But what can I say? I'm hooked on the quotidian joy of a nearly effortless mediumboiled egg.

There are many such kitchen gadgets available these days, and they might seem fussy or gratuitous at first glance — but they can make cooking and eating so much easier and more enjoyable. One of these gizmos just might fill the perfectegg-shaped hole in your life.



Pressure cooker

Many modern electric pressure cookers are multifunctional: They can cook quickly under high pressure, plus they can sauté, steam, make yogurt and rice, and even act as a slow cooker or sous vide machine. Today's models are also equipped with a venting knob, so they're safer than the old-fashioned stovetop kind. They're bulky, though, so you're going to need storage space.

WORTH GETTING IF: You eat a lot of foods that need prolonged cooking, such as beans, wild rice, and certain cuts of meat. Or you like to batchcook grains and legumes as part of a meal-prepping routine. Or you enjoy the plan-ahead, hands-off method of slow cooking or sous vide.

High-speed blender

If vou've ever read a recipe that says to use a high-speed blender and wondered if a regular blender would fit the bill, the answer is usually no. High-speed blenders have powerful motors that can turn even the toughest ingredients - dried dates, kale stems, frozen fruit — into a smooth purée. They tend to be pricey, so research different models and read reviews to find one that fits your needs.

WORTH GETTING IF: You love smoothies. Or you like making your own nut butter or nondairy milk. (If you've never tried either, visit ELmag.com/scratchrecipes to learn how!) Or you enjoy super-silky sauces or the occasional frozen cocktail.



Dehydrator Food dehydrators circulate air around food in order to draw out moisture. Without all that moisture, the flavor of the food is concentrated — that's



why dried herbs are so pungent, and why dried fruit often tastes extra sweet. Most ovens don't have settings low enough for dehydrating, which is why dry-food enthusiasts often invest in a standalone appliance.

WORTH GETTING IF: You harvest a lot of produce and need a long-term storage method. Or you want to dry your own herbs or jerky. Or you love to camp and need dehydrated foods to keep your backpack light.



Digital scale

If you're gonna bake, you've gotta try baking by weight. Baking is all about precision — it's chemistry, after all — and weighing your ingredients will give you a more accurate measurement than scooping them up in cups or tablespoons.

Most European recipes use weight rather than volume, so getting a digital scale could expand your options. Generally, digital scales are small and lightweight, and most will measure in ounces, grams, fluid ounces, and milliliters.

WORTH GETTING IF:

You love to bake. Or you love precision. Or you love your morning espresso and want to get it just right. Or you have a health condition that requires closely tracking your macronutrients (many advanced scales can display nutritional data!).

...C

Spice grinder

Grinding your own whole spices may seem a little extra, but it's well worth the effort — freshly ground spices can really take flavors to the next level. There is a range of different tools for the job, including electric models that are similar to coffee grinders and smaller, hand-crank tools more akin to pepper grinders. If you really grow to love the grind, you could even get your own mortar and pestle.

WORTH GETTING IF: You love cooking with a variety of spices and want a fresh experience. Or you like to experiment with different cuisines. Or you use your coffee grinder for spices and are tired of your coffee tasting like cumin. (Some electric models come with two bowls to solve this problem.)



Home composting is one of the best ways to reduce food waste. If your city doesn't offer curbside or drop-off compost services, you can build a bin for your backyard (find our tutorial at ELmag.com/composting).

Or maybe you'd rather compost indoors. Most countertop compost bins are like tiny trash cans, sometimes equipped with charcoal filters to minimize the smell — but you can also buy countertop bins that grind your scraps into soil. If you're

bothered by the smell or worried about attracting bugs, try storing your bin in the freezer.

WORTH GETTING IF: You want to recycle food waste and help the environment.

Toaster oven

Like pressure cookers, many modern toaster ovens have multiple functions, including roasting, baking, broiling,



dehydrating, convection cooking (which cooks food by circulating hot air around it), and air frying (which is essentially convection cooking with a trendier name). Toaster ovens are large, so consider getting one only if you can give up some counter space.

WORTH GETTING IF: You want to heat food without turning on the oven. Or you could use a "second oven" for staging or cooking side dishes.

Chest freezer

These are ideal for storing leftovers, veggies and fruits, and even cuts of meat that you can pull out as needed. Plus, standalone freezers are less expensive and more energy efficient than the one attached to your fridge. All you need is space to store it — but you might need less room than you think! Some newer models can fit on a countertop.

WORTH GETTING IF: You love batch cooking and freezing meals for later. Or you have a huge garden and need to freeze your harvest. Or you've ever considered purchasing a whole or half side of beef or pork from a local farm.



This one's for the zoodle lovers out there. A spiralizer is a handheld or countertop tool that turns fresh veggies into noodlelike ribbons. Both versions are fairly affordable, and either will probably make it easier for you to start eating more vegetables. Need a recipe to get you started? Try our Spiralized Zucchini Puttanesca at ELmag.com/zoodles.

WORTH GETTING

IF: You want to eat more vegetables. Or you need a way to "camouflage" the veggies on your children's plates. Or you have a gluten sensitivity or allergy and are looking for a pasta alternative. ◆

KAELYN RILEY is an *Experience Life* senior editor.

Simple Sheet-Pan Breakfasts

These one-pan recipes are perfect for feeding a crowd.

BY ROBIN ASBELL

f you only ever break out your sheet pans to bake cookies, you're missing out on a great tool for simplifying your mornings. A sheetpan breakfast is an all-in-one method you can master, even if you're groggy — just one pan gets you a delicious meal with easy cleanup.

Sheet-pan meals are an especially useful trick for feeding a crowd. Instead of hovering over half a pound of splattering bacon on the stove or cooking a dozen individual pancakes, you can slide the whole meal into the oven at once, and everyone's food is ready at the same time. You might even have time to enjoy a cup of coffee before the timer goes off.

Green Shakshuka

Makes six servings Prep time: 15 minutes Cook time: 10 to 20 minutes

- 2 bunches Swiss chard
- 6 oz. Brussels sprouts, thinly sliced (about 2 cups)
- 1¹/₂ cups grape tomatoes, halved
- 3 scallions, sliced
- 2 tbs. extra-virgin olive oil
- 1 tsp. ground cumin
- ³/₄ tsp. sea salt, plus more to taste
- 6 large eggs
- Freshly ground black pepper, to taste
- Cilantro for garnish (optional)
- Toasted bread for serving (optional)



Preheat the oven to 425 degrees F. Strip the Swiss chard leaves from the stems. Thinly slice the stems and place in a large bowl. Chop the leaves and add to the bowl. Add Brussels sprouts, tomatoes, scallions, olive oil, cumin, and salt. Toss to coat.

Spread the chard mixture evenly on a 13-x-18-inch sheet pan and roast for five minutes to wilt the greens. Remove from the oven and use a spatula to divide the mixture into six portions. Form each into a mound with a divot in the center. Crack an egg into each divot, sprinkle with salt and pepper, and return the pan to the oven.

Bake for five to eight minutes, until the yolks are as set as you like. Garnish with cilantro and serve over toast, if desired.



Sheet-Pan Blueberry Pancakes

Makes 12 servings Prep time: 10 minutes Cook time: 25 minutes

- ½ cup avocado oil, plus more for the pan
- 2 cups all-purpose flour
- 1 tsp. baking powder
- 1 tsp. baking soda
- ¹/₂ tsp. sea salt
- 2 tbs. coconut sugar
- 1¹/₂ cups buttermilk
- 3 large eggs
- 1 tsp. vanilla extract
- ¹/₂ cup rolled oats
- 1 cup frozen blueberries (don't thaw)
- Toppings of choice: yogurt, fresh fruit, or maple syrup

Preheat the oven to 400 degrees F. Generously oil a 15-x-10-inch sheet pan (also called a jelly roll pan), or line with parchment paper and rub oil around the rim.

In a large bowl, whisk the flour, baking powder, baking soda, salt, and sugar. In a medium bowl, combine the buttermilk and eggs and whisk until smooth, then add the ¹/₂ cup of oil and vanilla and whisk again until incorporated.

Add the buttermilk mixture to the flour mixture and whisk until there are no lumps. Gently stir in the oats, then fold in the frozen blueberries.

Pour the batter into the prepared pan. Use the tip of a spatula to distribute the berries evenly.

Bake for 20 to 22 minutes, until a toothpick inserted into the center of the cake comes out clean.

Let cool in the pan for five minutes, then run a knife around the edge of the pan to loosen the edges. Cut into 12 squares, then use a metal spatula to transfer cakes to plates. Serve warm with desired toppings.

If you don't have buttermilk or prefer to avoid dairy, add 1 tablespoon of lemon juice or white vinegar to 1½ cups of any nondairy milk. Let it sit for a few minutes, and voilà: vegan buttermilk!

Beet and Sausage Hash

Makes six servings Prep time: 15 minutes Cook time: 40 minutes

- 2 large beets, peeled and cubed (about 1¹/₂ cups)
- 2 large parsnips, peeled and cubed (about 1½ cups)
- 1 medium yellow onion, chopped
- 2 tbs. extra-virgin olive oil
- ³/₄ tsp. sea salt
- 1¹/₂ tsp. dried sage
- 16 oz. precooked sausage links (any kind, including meatless)
- 1 bunch kale, leaves stripped from stems and chopped

Preheat the oven to 425 degrees F. Place the beets, parsnips, and onions in a large bowl, then add the olive oil, salt, and sage. Toss to coat. The beets may stain the parsnips pink — this is normal.

Spread the vegetables on a 13-x-18-inch sheet pan and roast for 20 minutes.

While the vegetables roast, slice the sausages into 1-inch rounds. At 20 minutes, stir the sausage into the vegetables and roast for 10 minutes longer. Sprinkle the chopped kale leaves over the pan and fold them into the hot mixture, then roast for 10 more minutes, until the beets are tender and the kale softened. Serve.

GET MORE IDEAS

Find our recipe for Sweet Potato Nests With Oven Bacon at ELmag.com/ sheetpanbreakfasts.





Smoked Salmon and Quinoa Strata

Makes six servings Prep time: 15 minutes Cook time: 35 minutes

- 2 tsp. extra-virgin olive oil
- ¹/₂ cup quinoa, rinsed and drained
- 10 large eggs
- 6 oz. smoked salmon, cut into ¹/₂-inch pieces
- 4 oz. chèvre, crumbled
- 2 scallions, sliced
- 1 tsp. sea salt
- ¹/₂ tsp. freshly ground black pepper
- 2 oz. arugula (about 3 cups)

Preheat the oven to 375 degrees F. Use the olive oil to generously grease a 13-x-18-inch sheet pan, including the rim.

In a small pot, bring 3⁄4 cup water to a boil over high heat, then add the rinsed quinoa. Return to a boil, cover, and reduce heat to low. Cook for 14 minutes. When all the water is absorbed, take the pot off the heat, remove the lid, and fluff. Let cool to room temperature.

In a large bowl, whisk the eggs, then stir in the salmon, chèvre, scallions, salt, and pepper.

Drizzle about half of the egg mixture into the oiled pan, making a thin layer. Spoon the quinoa over the egg mixture, then drizzle the remaining half of the egg mixture evenly over the quinoa.

Bake for 20 minutes, until the eggs are cooked through and the top is golden around the edges.

Cool on a rack for five minutes before cutting into six pieces. Serve topped with arugula. $\ensuremath{\mathfrak{O}}$



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REAL FOOD | Ingredients

Molasses

Whether you use it as a more nutritious sugar swap or a flavorful addition to sweet or savory dishes, molasses deserves a spot in your pantry.

BY KAELYN RILEY



SWEET SURPRISE

A familiar flavor in gingerbread and pecan pie, molasses is a byproduct of sugarmaking: When sugarcane or sugar beets are boiled to isolate their solids (which are made into sugar), molasses is the thick, syrupy liquid that's left behind. Depending on how many times it is boiled (and how much sugar is extracted), molasses will vary in color, flavor, and nutritional content.

SUGAR SPECTRUM

Light molasses, the result of the first boiling cycle, is light in color and contains the most sugar. Dark or medium molasses (also called robust), from the second cycle, is darker and less sweet. The third cycle produces blackstrap molasses. Viscous and slightly bitter, it's rich in calcium, magnesium, and other minerals: Ounce for ounce, blackstrap molasses contains more iron than steak.

SHOPPING AND STORAGE

Besides the three varieties of molasses, you might also see sulfured and unsulfured options at your grocery store. Sulfur is often added as a preservative, but it changes the color and mutes the sweetness of the syrup and is not really necessary. Molasses is naturally antimicrobial. so even unsulfured varieties will keep in a cool, dark pantry for several years.

SYRUPY SWAP

Make gingerbread cookies with blackstrap molasses (see our recipe at ELmag.com/ holidaybaking), or use it as a sweetener in homemade energy bars (learn how at ELmag .com/energybars). Blackstrap molasses also shines in savory dishes, like Chef Bryant Terry's Molasses, Miso, and Maple Candied Sweet Potatoes (find the recipe at ELmag.com/ sweetpotato).

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KAELYN RILEY is an *Experience Life* senior editor.



POST-ACUTE COVID SYMPTOMS CAN TAKE A TOLL ON EXERCISE CAPACITY. EXPERTS EXPLAIN WHAT MAY BE BEHIND THIS — AND HOW TO RESPOND WISELY TO YOUR BODY'S NEEDS.

LONGCOV

BY MO PERRY

n March 2020, Gez Medinger came down with COVID-19. The London-based filmmaker was 41 years old, busy with work, sports, and training for the London Marathon. "Exercise and activity were a huge part of my life," he recalls. "I was near the end of my marathon training, and I was the fastest and fittest I'd ever been."

Medinger's bout of COVID was mild. "At the time, we were told there were basically two possible outcomes. If you're old and have preexisting conditions, you might end up in the hospital and it might go very badly. If you're young, you'll get over it in a week and you'll be fine."

Feeling that he was in the latter category, Medinger returned to marathon training in the second week of his infection. "I started going on some gentle runs every day — because I didn't want to lose fitness," he says. "Looking back, I wish I hadn't."

After each run, he felt exhausted. But he kept powering through.

One morning, about five weeks after his initial infection, he woke up with a distinctly gristly feeling in his throat and chest. Medinger remembered having the same feeling 20 years earlier when he had mononucleosis, the illness caused by Epstein-Barr virus (EBV). "It took me a year to get over mono. I thought, *Am I looking down the barrel* of another year like that now?"

Medinger struggled with intense fatigue, headaches, heart palpitations, and brain fog. Then he heard about others experiencing the same. So he decided to devote his YouTube channel to exploring the science of postviral fatigue and myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), which shares many symptoms with long COVID.

His videos soon attracted hundreds of thousands of views, many of them from fellow long-haulers — people who had also found themselves unable to return to their pre-COVID baseline.

DEVELOPING THE LONG-COVID PICTURE

Estimates for the prevalence of long COVID vary widely, in part because the condition still lacks a consistent definition. Different studies use different time frames or include varying sets of symptoms; many do not include a control group for comparison.

The Centers for Disease Control and Prevention (CDC) refers to the long-term effects of COVID infection as "long COVID" or "post-COVID conditions." Experts and physicians also use the term "post-acute sequelae of COVID-19" (PASC). The CDC generally characterizes the phenomenon as "a wide range of new, returning, or ongoing health problems that people experience after first being infected with the virus that causes COVID-19."

The World Health Organization (WHO) offers a more specific definition, stating that post-COVID-19 conditions involve symptoms that arise within three months of the initial infection, persist for at least two months, and cannot be explained by an alternative diagnosis.

The WHO description includes these symptoms: "Fatigue; shortness of breath or difficulty breathing; memory, concentration, or sleep problems; persistent cough; chest pain; trouble speaking; muscle aches; loss of smell or taste; depression or anxiety; fever." It also notes that symptoms might appear after an initial recovery or persist from the initial illness, and that they may fluctuate or relapse over time.

At the time of writing, the CDC estimates that 13.3 percent of people who had COVID experience post-COVID symptoms at one month or longer after infection, and 2.5 percent at three months or longer, based on self-reporting. It also estimates that more than 30 percent of those hospitalized for COVID exhibit PASC symptoms six months after their initial infection. Many long-COVID treatment programs, including the one at UCLA, accept only patients whose symptoms have persisted for at least 12 weeks after infection. UCLA Health Long COVID Program director Nisha Viswanathan, MD, notes that many people with lingering COVID symptoms will see them resolve within a few months; those whose symptoms continue beyond that point can be considered to have PASC.

There is more to learn about who is most vulnerable, but research has revealed a list of possible risk factors: age younger than 50; type 2 diabetes, asthma, or allergies; the presence of autoantibodies; reactivated EBV; a diminished gut microbiome; a history of anxiety disorder; and autoimmunity.

Research also suggests that people who experience infections after being vaccinated are less likely to experience long COVID, compared with those who are unvaccinated. Yet, here again, the study results vary widely, ranging from modest protection from a vaccine (15 percent) to substantial (50 percent).

IS THERE A LONG-COVID "TYPE"?

Medinger has found some provocative commonalities among his extensive community of long-haulers. "It's a subject that's quite sensitive to address for those with a history of ME/CFS, but we're seeing a surprisingly high proportion of people who previously exhibited type A personalities," he says. "And when you dig a bit more, they frequently have some history of significant prior physical or emotional trauma."

He's also noted that a disproportionate number of athletes and highly fit people have been affected. In an informal poll of 1,200 long-haulers, Medinger found that two-thirds had engaged in vigorous exercise at least three times a week before their COVID-19 infection.

This mirrors Viswanathan's experience. "Interestingly, the patients I've disproportionately seen in the long-COVID program are those who spend a lot of time on cardiobased activities — marathon runners, people who are really into biking. Less frequently, I see patients who do more weightlifting or yoga types of exercise."

These anecdotes do not qualify as scientific data. But if they point toward an underlying vulnerability among highly fit, active, and driven types, what might be the cause?

"The thing that gives this theory merit is that there are downsides to being a type A personality and being an overexerciser in terms of immune function," says Joel Evans, MD, director of the Center for Functional Medicine in Stamford, Conn. Whether physical or psychological, "stress decreases the efficiency of the immune system and could conceivably increase the likelihood of developing long COVID."

High levels of activity can also stress the autonomic nervous system (ANS), adds Medinger. The ANS controls bodily functions that aren't consciously directed, such as breathing, heart rate, and digestion.

"When those autonomic systems are running in a high state of stress, it's relatively easy for them to be tipped over into this dysregulated state," he explains. Indeed, many long-COVID sufferers experience dysautonomic symptoms: a racing heart, shortness of breath, headaches, dizziness, and extreme fatigue.

This may also explain why prior trauma could increase one's vulnerability to the illness. Medinger explored this in video interviews with clinical psychologist Sally Riggs, DClinPsy. Riggs also suffered from long COVID, but she found relief through an approach that included addressing past emotional trauma.

"If you've got prior trauma, especially in childhood, you find yourself existing in a constant state of sympathetic overdrive, because that has become familiar," says Medinger. "Going into rest-and-digest mode actually feels uncomfortable, so you do stuff to keep yourself in fightor-flight mode — hence the type A personality. You may think you're living a healthy lifestyle, but your whole body is on a knife's edge.

"Then this pandemic virus comes along and knocks you over the edge."

LONG COVID AND FATIGUE

What makes some people more vulnerable to long COVID than others is still in question, but experts agree that the SARS-CoV-2 virus itself is the condition's primary cause. Yet even here there are differing theories about the exact mechanisms at play.

One is that the virus (or virus fragments) persists in the body, causing an extended inflammatory immune response.

Another is that EBV and other dormant viruses reactivate while the immune system is distracted by fighting COVID. Patients who suffered more severe initial infections may experience organ damage. Others may develop autoimmunity.



"WE ALMOST NEED A NEW WORD FOR THE FATIGUE THAT COMES WITH LONG COVID. IT'S LIKE NO OTHER FATIGUE YOU NORMALLY EXPERIENCE." Still others develop microvascular changes and clots that can affect heart and lung function. Any of these factors can also be at play in long COVID.

Different underlying causes may also contribute to different sets of symptoms. Leonard Calabrese, DO, director of the Cleveland Clinic's R. J. Fasenmyer Center for Clinical Immunology, notes that research has identified a handful of different long-COVID "endotypes," or subtypes.

One of these is dominated by neurological symptoms, such as headaches. Another presents mainly with respiratory symptoms, such as coughing and breathlessness.

A third is the fatigue endotype. "This endotype is the most well defined," says Calabrese. "This is very reminiscent of ME/CFS. It's attended by fatigue that impairs activities of daily living and is made worse by exertion, whether physical or mental." People with this type of long COVID often have disturbed, unrefreshing sleep and neurocognitive problems, such as brain fog.

This can be distressing for formerly fit and active people. "We almost need a new word for the fatigue that comes with long COVID," says Medinger. "It's like no other fatigue you normally experience. I've done three marathons and consecutive all-nighters running my own business, and nothing comes close. You can't read, watch TV, think, sit up. You're just gone."

A few things may contribute to the severity of this exhaustion. One involves microclots in the blood, which can clog capillary beds and prevent tissues from getting oxygen, causing the cells to metabolize less efficiently.

A small study published in August 2021 found that 10 patients who had recovered from COVID reported reduced peak aerobic capacity compared with controls, as well as "impaired systemic oxygen extraction."

Researchers are also examining the role of mitochondria, the energy-producing parts of our cells. "Mitochondria help protect against viral infection," notes Evans. "SARS-CoV-2 has direct pathways to damage mitochondria. Normalizing and optimizing mitochondrial function is so important across the spectrum of COVID, from prevention to mitigation to recovery and treatment of post-COVID syndrome." (Read more on supporting these energy producers at ELmag.com/mitochondria.)

Viswanathan doubts that there's a single cause at play. "Not only are we seeing patients who are having fatigue as a result of some compromise to their heart and lungs; we're also seeing fatigue related to poor sleep quality and uncontrolled depression and anxiety issues that go beyond the scope of one organ and are more multifactorial."



WHAT WE KNOW ABOUT TREATMENT

The multifactorial nature of long COVID highlights both the need for a multidisciplinary treatment approach and the limits of a drugfirst approach. "There's no drug intervention for long COVID specifically," says Evans. But depending on a patient's symptoms or underlying conditions, medication can be a useful part of the healing toolkit.

Researchers are looking at whether Paxlovid, the antiviral drug designed to treat acute infection in high-risk patients, could help long-haulers whose symptoms may be caused by persistent virus infections. Statins, mast-cell stabilizers (anti-inflammatory drugs that calm histamine-releasing immune cells), or anticoagulants could be indicated for some people. Others may need treatment for asthma or new mood disorders.

"We know there's a strong mind-body connection, and it looks like COVID can cause changes in the hormones in the brain that can lead to depression and anxiety," notes Viswanathan. "Often we find that by treating that, some of these other symptoms are better controlled as well."

Medinger has found relief with antihistamines, medications usually used to treat allergy symptoms by blocking the body's histamine receptors. His experience is echoed by a pair of case studies, in which two long-COVID patients saw significant improvement in some symptoms after taking common over-the-counter antihistamines for unrelated allergies.

Another study, in the *Journal of Investigative Medicine*, found that 72 percent of long-COVID patient participants who received antihistamines reported partial or complete resolution of their symptoms, compared with 26 percent of controls.

"There's a very small evidence base at the moment, but antihistamines seem to show benefit, particularly in those with any previous indication of allergies, but also in people with no history of allergies," says Medinger. He notes that more research is needed.

THE SUPPLEMENT QUESTION

Many people with long COVID have tried a vast array of nutritional supplements, searching for one or a combination — that will help. "Anecdotally, patients say some of these supplements work, but we have no studies showing any one thing has been superior for all patients," says Viswanathan.

Medinger agrees. "You can find someone for any supplement, saying, 'This fixed me.' There's a list as long as your arm, and you can spend thousands of dollars on them. Do any of them really seem to help consistently across the board? No."

Still, Evans notes that quercetin (a bioflavonoid found in onions, green tea, apples, and berries) is important for immune function. And nutrients that support mitochondria, such as carnitine, thiamine, riboflavin, magnesium, CoQ10, and alpha-lipoic acid, can help enhance mitochondrial function and energy production.

Restoring gut health with probiotics is also important and supported by research. (For more on probiotics and gut health, see ELmag.com/probiotics.)

Just as everyone will have unique supplement needs, dietary approaches work best when personalized. Viswanathan has seen some patients improve on an anti-inflammatory, low-histamine diet that limits carbs and omits meat, lactose, and alcohol.

But this highly restrictive approach can be difficult to maintain over time. Working with a functional nutritionist or doctor can help someone with long COVID chart a sustainable, personalized path forward.

ACCEPTING WHERE YOU ARE

The toll long COVID takes on the body is exceeded only by the one it takes on the mind and spirit. "Long COVID steals almost everything from you," says Medinger, "including the things

PACE YOURSELF

Pacing was developed in the late 1980s as a tool for patients with chronic fatigue syndrome. Now, many long-COVID patients struggling with fatigue are finding it useful. The goal is to allow for as much activity as possible while limiting the frequency and severity of relapses.

People with severe fatigue usually have good and bad days. Good days present the temptation to accomplish as much as possible to make up for lost time, but this often backfires and leads to a crash.

Pacing takes a different approach. "When you have a good day, you do more things than on a bad day, but you don't push yourself to the limit," explains Leonard Calabrese, DO.

You calibrate an "energy envelope" for the day, allocate it carefully, and make sure you keep some in reserve. "It's almost an art form," he adds. This careful balance of activity and rest helps to manage a damaged aerobic energy system.

Pacing also requires a reappraisal of what constitutes activity. Anything that takes effort, whether mental, physical, or even postural (such as being upright), comes out of the day's energy budget. Reading, talking on the phone, attending a Zoom meeting these all count as activities.

"With pacing, I tell people to find ways to savor the good days and do things that bring joy," says Calabrese. "If this is successful, the good days get more frequent and the bad days get less frequent and less severe." you used to love, like exercise, hobbies, or even just being social." People who used to find pleasure and purpose in being active may have to find gentler, slower ways to nurture their wellbeing — particularly ways that offer an opportunity to turn inward.

"The frustration and anger you feel over huge amounts of your life having been stolen — you have to process that somehow," he adds. "You can't bottle it up, because that will result in your autonomic nervous system becoming even more highly strung. You have to release it if you want to open the door to getting better from a dysautonomic point of view."

Meditation, vagus-nerve stimulation (via methods like cold therapy, breathwork, or electrical stimulation), yin yoga, tai chi, and qigong are all potent tools for mindbody healing and release. "Our brains and our immune systems are connected," says Calabrese. "They're one organ. Recognizing this is empowering."

"Healing starts with accepting where you are," adds Evans. That might mean dialing way back and identifying the most rewarding, joyful, and fulfilling ways to use one's newly limited energy.

"Long COVID prompted me to look at who I am and what's meaningful to me on a fundamental level," says Medinger. "There's so much I can't do, so I have to really focus on the things I still can engage with that matter to me."

To be sure, no one would choose long COVID from life's menu. But many who have been traveling its hard road do have hope to offer others.

"There are a bunch of people who felt that there would never be a silver lining and the torment would never end," says Medinger. "For the people feeling that way now, know that there are others who felt like that who are now in a better place. The place you're in right now is not necessarily permanent." •

MO PERRY is an *Experience Life* contributing editor.



DO'S AND DON'TS OF EXERCISING WITH LONG COVID

A standard approach to graded exercise — walking one mile one week, two the next, etc. — isn't likely to work for people with long COVID. "Pushing through 'the wall' is more detrimental for them than allowing the body to rest," says Nisha Viswanathan, MD. She charts a gradual, tiered exercise-recovery process:

- 1. Minimal movement, keeping the heart rate below 100 bpm
- 2. Slowly increasing the duration of gentle activity, keeping the heart rate low

3. Building toward brief bursts (five to 10 minutes) of movement with higher heart rates

DO keep movement minimal for two to four weeks following a COVID infection (or a period of lingering symptoms). "Give your body some time to let inflammation come down," says Viswanathan. "If you have any crushing fatigue or shortness of breath, stop what you're doing."

DO ease back into movement slowly and gently, with five to 10 minutes at a time of stretching, light yoga, housework, or gardening. "The goal is that within an hour after that activity, you should not feel fatigued anymore," she says.

DO learn your body's signals of an impending crash. Some people notice joint pain, headaches, or visual floaters when a crash is coming. Don't push through these signs. Honor them, and slow down.

DON'T do too much too soon. Pushing through pain or fatigue is likely to do more harm than good.

DON'T get discouraged by setbacks. Progress toward recovery may be marked by periods of relapse. "If at any point in the three steps we see fatigue coming back, then we know we need to dial it back," explains Viswanathan.

Progress isn't always linear. But even when it's two steps forward and one step back, focus on the forward motion. "I've seen a lot of improvement with this approach," she says.

Ways to Rediscover

Empathy

OUR ABILITY TO FEEL COMPASSION FOR OTHERS HELPS US SURVIVE AND THRIVE.

LEARN HOW TO FEEL EMPATHY WITHOUT BURNING OUT.

BY JILL PATTON, FMCHC

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e are born to understand each other. Empathy — the ability to recognize what another person is feeling, and even share that feeling and respond to it — is a survival skill. From early days, empathy has enabled *Homo sapiens* to discern friend from foe by helping us interpret another's intent. It prompts mothers to nurture their slowly maturing offspring. It leads groups to cooperate and build communities based on shared vulnerabilities and needs.

"We developed larger eye whites than other primates so we could easily track one another's gaze, and intricate facial muscles that allowed us to better express emotion," explains empathy researcher Jamil Zaki, PhD, in *The War for Kindness: Building Empathy in a Fractured World.* "Our brains developed to give us a more precise understanding of each other's thoughts and feelings."

When we see a smile, for example, our facial muscles respond in kind, if only slightly, giving us a visceral sense of what the smiling person feels.

Humans are not the only animals that experience empathy, but we may have the unique ability to choose it. That doesn't mean we always do.

According to a 2011 meta-analysis, empathy markers in U.S. college students dropped 40 percent over the previous 30 years, with the biggest downturn occurring since the turn of the millennium.

Numerous studies suggest that this trend continues, though most of us need look no further than our own experience: When we feel divided against people in our family or community, indifferent or hostile toward anyone outside our circle, or isolated and numb despite the hyperconnectedness of social media, our empathy might be eroding.

We may even feel skeptical of empathy's value. In our individual-

istic culture, we typically don't learn to view the experiences of others especially those who seem different from us — as comparable to our own.

And admitting that we are all equally vulnerable to loss and difficulty can feel both unfamiliar and unpleasant. "It's much harder to allow yourself to be in a vulnerable place and be honest about the reality of life, which is interbeing," says Laura van Dernoot Lipsky, founder and director of the Trauma Stewardship Institute and author of the books *Trauma Stewardship* and *The Age of Overwhelm*.

Meanwhile, many experts believe that our individual well-being is meaningfully improved when we feel more for each other, not less. "Individuals who empathize with others also help themselves: attracting friends more easily, experiencing greater happiness, and suffering less depression than their less empathic peers," notes Zaki.

Empathy also supports the health of our communities. "To live harmoniously with others, we need empathy," says meditation teacher Spring Washam, author of *A Fierce Heart: Finding Strength, Courage, and Wisdom in Any Moment.*

Many experts have explored the reasons behind the apparent decline in fellow feeling; they believe we can reclaim the gifts of empathy — even if we've lost our sense of connection or, conversely, we feel overwhelmed by it.

The Age of Disconnection Humans still live in relationships in families, friend groups, schools, jobs, neighborhoods, larger communities. But how we relate to each other has changed dramatically in recent decades.

For example, we once socialized primarily in person; now we depend on digital devices for a great percentage of our connections. Communication via text, email, and "snaps" have displaced many in-real-life conversations, along with their shared eye contact and body language — features that help us register the effects of our words on others.

Social media, meanwhile, often has the paradoxical effect of making us antisocial. Algorithm-driven newsfeeds reinforce biases and expose us to a seemingly endless stream of images that suggest that the world is unjust, violent, and divided. We may feel enraged routinely, saying things to strangers online that we never would say in person.

"When empathy evolved, humans were enmeshed in close relationships. We had reason to care about almost everyone we saw," explains Zaki. "Now we are isolated, stressed, and drowning in animosity. We have more reasons to avoid empathy than ever."

And avoid it we do. In 2019, researcher Daryl Cameron, PhD, and his students at Penn State's Empathy and Moral Psychology Lab published a paper on a series of experiments in which people were given the opportunity to choose empathy or not. Study subjects were shown decks of cards featuring photos of people in distress and were given the choice to either describe the person's physical characteristics or try to imagine and express what that person may have been feeling. Participants opted against empathizing 65 percent of the time.

"We found that empathy for strangers was difficult," Cameron recalls. "It was cognitively effortful and aversive, and to the degree people felt that way, they avoided empathy more."

We might also find ourselves avoiding empathy because we're *too* good at feeling the feelings of others. When we merge with the emotions of others, losing the distinction between our experience and theirs, empathy can lead to "empathic distress." This sense of being overwhelmed impedes our capacity to help, and it frequently leads to burning out — or checking out — as a way to protect ourselves.

Build Your Empathy Skills

Fortunately, we can choose to experience the personal and social

benefits that come from connecting to others' emotions — without numbing out or losing ourselves in the process. These are some practices that can help.

EMBRACE EMPATHY AS YOUR BIRTHRIGHT.

Empathy is one of our first survival skills. Even as infants, we regulate our emotional state by taking cues from the facial expressions and vocal tones of our caregivers.

Genetics influence how naturally empathic we are, but research shows that our capacity is not fixed. One 2016 study that Zaki contributed to found

that empathy is influenced by the company we keep: Participants who perceived that their peers felt high empathy for people suffering in an emotional scenario reported higher feelings of empathy themselves.

In another study with mindset researcher Carol Dweck, PhD, Zaki and his colleagues discovered that participants who learned that empathy is an acquirable skill were more likely to empathize with those who were different from them racially or politically than participants who were primed to believe empathy is a fixed trait.

So, if you'd like to increase your own empathy, spend time with your more empathic friends. If you're surrounded by folks who tend to put up walls, seek out new connections and experiences that fuel your fellow feeling. Talk to strangers. Volunteer your support for people who need it. Attend a house of worship that's different from your own.

Our genetics influence how naturally empathic we are, but research shows that our capacity is not fixed.

PRACTICE SEEING THROUGH SOMEONE ELSE'S EYES.

Books, films, and other art forms offer an easy, low-to-no-stakes chance to practice empathizing with someone whose life experiences might be totally unfamiliar.

> "There is a growing body of evidence confirming that literature, photography, film, and other art forms do indeed have the ability to take us on imaginative journeys into lives that are profoundly unlike our own, and also to inspire empathic acts on the behalf of others once we have put down the novel or left the cinema," explains empathy researcher Roman Krznaric, PhD, in his book *Empathy: Why It Matters, and How to Get It.*

Studies suggest that reading literary fiction, in particular, with its emphasis on character development, may measurably increase empathic skills. That includes books such as the Harry Potter series; one 2014 study found that elementary and high school students in the United Kingdom and Italy became more empathic toward refugees, immigrants, and LGBTQ+ people after reading the books, in which themes of unjust discrimination figure prominently.



MAKE NEW FRIENDS.

During the 2016 election season, which was marked by anti-immigrant rhetoric and threats of

a Muslim immigration ban, Saadia Qureshi, who is Muslim, began to feel like an outsider in the Florida community where she'd lived most of her life. A chance encounter with an empathic Christian woman at her health club led to a potluck gathering of women from the new friend's church and Qureshi's mosque with the specific intent of increasing empathy across groups through conversation and community.

Qureshi's guests connected over shared concerns about local issues and code-red drills at their children's schools. They swapped recipes and lingered long after the official end of the gathering. And they have met monthly ever since, sharing their lives, with a level of understanding that would have been impossible without the intentionality of that first gathering.

Qureshi has since turned her passion for building bridges into a full-time job. She now coordinates community gatherings through an international relief and peacemaking organization.

"We develop empathy by listening to each other, doing life together, and sharing each other's stories," she says.

Even if we never truly "get" someone, that's fine. "We think we need to understand every facet of everything, but we don't," she adds. "We just have to be compassionate when we show up. We may not understand — and that's OK."

MAKE TIME FOR REAL-LIFE CONVERSATIONS.

While the convenience of texting and social media has allowed us to stay connected to others more frequently, there's just no real substitute for faceto-face conversation. Its abundant social cues help us develop and maintain our empathic skills.

"Without conversation, studies show that we are less empathic, less connected, less creative and fulfilled," writes MIT researcher Sherry Turkle, PhD, in *Reclaiming Conversation: The Power of Talk in a Digital Age.* Although Turkle has lamented the negative effects

of social media and digital culture on empathy in her many publications, she believes that we can reclaim our empathic abilities through in-person conversation: "We are resilient. Face-to-face conversation leads to greater self-esteem and an improved ability to deal with others." "We just have to be compassionate when we show up. We may not understand and that's OK."

ATTEND TO YOUR OWN SUFFERING.

We may find ourselves tuning out the pain of others because we feel overwhelmed by it. Especially for those working on the front lines of suffering, numbness can be a sign of empathic distress and burnout. "Unless you're completely disconnected, you cannot be exposed to the suffering of humans, other living beings, and the planet and not have that impact your nervous system," says Van Dernoot Lipsky.

If you feel overwhelmed or numbed out, she recommends creating systems that will help your nervous system metabolize difficult experiences and emotions so they don't accumulate. She suggests avoiding excessive exposure to news and social media and recommends regularly checking in with your body and breath, so you can stay present.

She also recommends regular exercise that boosts your heart rate to help "flush" your nervous system.

"We can be compassionate and empathetic, but we don't have to co-opt other people's experiences and we don't have to absorb them," she explains.

AIM FOR COMPASSION.

Many wisdom traditions teach the importance of transforming empathy into compassion. And compassion, which involves feeling *for* another — not *as* them — can also be an antidote to the risk of empathic distress and burnout. That's because compassion is

inherently energizing. Neurologically, empathy activates the part of the brain that processes emotions, whereas compassion activates the area of the brain associated with reward and motivation.

"When you combine empathy with compassion, then there's a sense of care," explains Kristin Neff, PhD, a self-compassion researcher at the University of Texas at Austin. "Those feelings help resource us, rather than drain us."

What's more, because we remain motivated, compassion makes it more likely we'll act on behalf of others. "Empathy is the road to compassion," says Washam. "It moves us into action."

Good personal boundaries are key here. When we merge with another person's pain, we quickly wear ourselves out. But when we hold on to ourselves in the presence of another person's challenges, maintaining our difference and our connection at the same time, then we can display true compassion. (For more on the importance of boundaries, see ELmag.com/boundaries.)

"When our ego takes over and we try to become the savior, then we're not honoring the people we're trying to understand."

LET GO OF FIXING.

Extending empathy and practicing compassion doesn't mean we can fix all the suffering we face. What's more, "fixing" can quickly damage a relationship.

"When our ego takes over and we try to become the savior, then we're not honoring the people we're trying to understand," explains Qureshi. "When you're in savior mode, then there's not a connection."

The impulse to fix is often about our own need for control, rather than the needs of the person we are ostensibly helping. Check to see if you're trying to micromanage a situation to make yourself feel more comfortable. If so, find a healthy way to soothe yourself before moving ahead.

"This can be hard for parents or healthcare workers," says Neff. "You think you should be able to fix the other person's problems, but you can't. You can try your best, but you can't control things. That's where selfcompassion and equanimity come in."

Sometimes the most empathetic, compassionate act is to listen more than talk, and simply sit in uncertainty with another person. "Don't underestimate the power of a nurse who's actually present or a schoolteacher who's actually present," says Van Dernoot Lipsky. "Showing up with a quality of presence can mean everything in a painful situation, even if you can't change the outcome."



Seeing ourselves in another's plight can be challenging; it means recognizing that their struggle could just as easily be ours.

ACCEPT VULNERABILITY.

Seeing ourselves in another's plight can be challenging; it means recognizing that their struggle could just as easily be ours. Most of us habitually seek out ways to distance ourselves from others without even knowing we're doing it.

"When we hear of something sad or awful happening, our brain may go to a place of *How am I different from that person?*" says Van Dernoot Lipsky. "We think, *Oh, it was a drunk-driving accident. I* don't do that."

One way to get around this is to learn to notice our resistance. Then we might choose to dip a toe into the experience of empathy. We could think, *I've found myself in an un*safe situation before — *I'm fortunate to have* come through unharmed, or Just like me, that person wants to be safe and respected.

And there's always the simple act of silently wishing someone well. \oplus



Teaching Empathy to Children

For all the challenges adults have with exercising empathy, children growing up in a largely digital world now have fewer opportunities to practice empathy in face-to-face interactions, which would help them learn through trial and error.

"Kids aren't seeing and learning how to read facial expressions and cues in the same way," explains clinical psychologist Christopher Willard, PsyD, author of *Growing Up Mindful*.

Willard recommends parents and teachers look for everyday opportunities to teach empathy, rather than waiting for an obvious teachable moment. "It's not just saying, after a kid hits Billy, 'How do you think that made Billy feel?'"

These strategies can help instill empathy from early on.

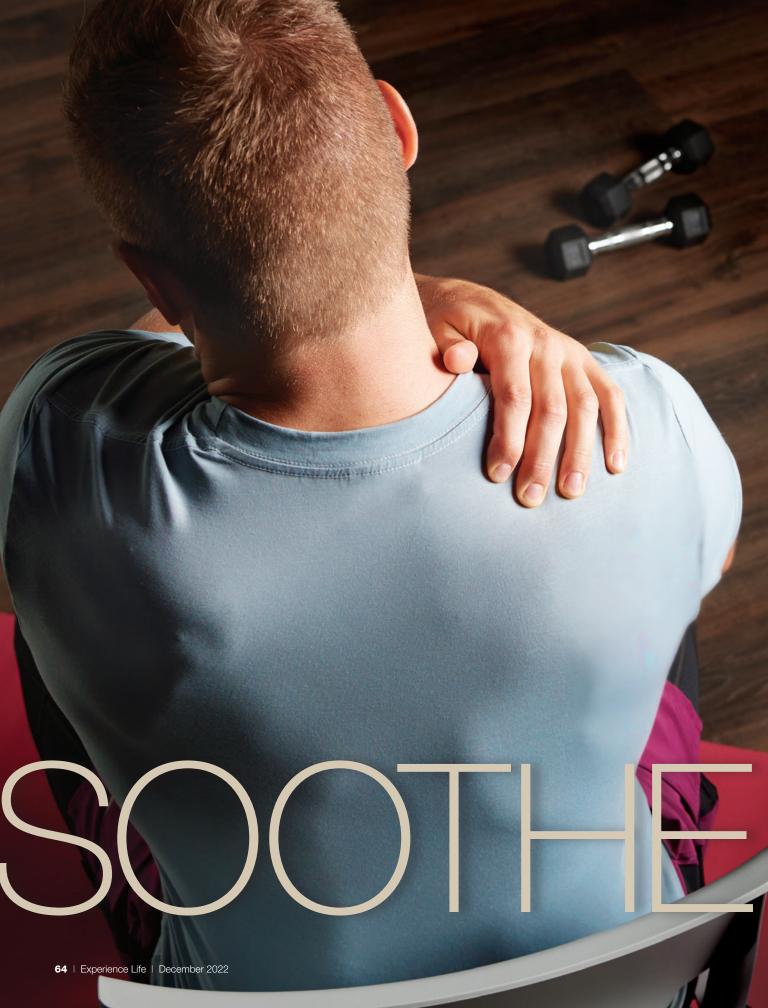
• **Read aloud** to children and point to pictures of characters' faces. Ask little ones, "How do you think that person feels?" As kids get a bit older, ask, "Why might this person have acted this way?"

• **Play games.** Simple games like 20 Questions, I Spy, and charade-type games teach empathy and emotional intelligence. "They make kids think, *What could Dad be thinking about? He usually picks an animal,*" says Willard. Or they look where you're looking to see what you might spy, getting a sense of your actual perspective in that moment.

• **Model empathy.** Willard recalls a recent New Year's Eve when his young family used Monopoly money to help the kids understand and participate in decisions about where to donate money to support causes they cared about.

• Ask older kids to write first-person stories from another person's perspective. Reading narratives of people who have experiences that are different from ours also goes a long way toward sparking empathy. This is a skill adults can practice, too.

JILL PATTON, FMCHC, is an Experience Life contributing editor.





Increasing mobility and strength in your shoulders can eliminate pain, improve athletic performance, **and enhance your overall quality of life.**

BY LAUREN BEDOSKY

ur shoulders carry the weight of the world. They help us perform a wide range of movements, from everyday tasks like writing and cooking to more specialized activities, such as rowing a boat or throwing a ball.

To accomplish everything we ask of them, shoulders require a complex structure with many moving parts. Each shoulder features four joints, three bones, and a combination of more than 20 muscles, tendons, and ligaments encased in a thin connective tissue called fascia.

In addition, further muscles in the neck, back, torso, core, and even hips assist movement at the shoulder joint.

Yet despite their essential role in our lives, our shoulders get surprisingly little attention — until a problem occurs, that is.

And problems do occur. These joints are prone to wear and tear, which can lead to shoulder pain, immobility, and injury. Up to 26 percent of U.S. adults are nagged by shoulder issues.

Most troubles fall into one of four categories: dislocation, bone fracture, tendon inflammation and tears, or arthritis. Dislocations and fractures are typically caused by a fall often sports related. Tendon inflammation and tears can result from a sudden injury or from long-term overuse, while arthritis typically emerges during middle age, with pain worsening over time.

Even sitting at a computer for long periods can cause shoulder pain, especially if you don't watch your posture.

If you're experiencing shoulder issues, don't despair: There are steps you can take to alleviate pain, immobility, and other complaints for the long haul. And for those who haven't been hit with shoulder dysfunction, paying attention to the health of these joints can prevent some issues from even starting.

In either case, you'll be rewarded with better movement, health, and quality of life.

SHOULDER SAVVY

At a basic level, the shoulder is a balland-socket joint that enables you to move your arm in every direction: up, down, away from the body, toward the body, and in circular motions.

But the way those movements happen is complicated. "A lot of people learn that the shoulder is just a shoulder — it has internal rotation, external rotation, and lets you extend and adduct your arms — but they forget that it's connected to the rest of the body," says Gary Gray, PT, founder and CEO of Gray Institute, which teaches functional movement.

The shoulder can't move without help from other body parts, he explains. Whether you're reaching into a cabinet or hitting a backhand in tennis, many joints and muscles must coordinate to move the shoulder.

"Our bodies have been specially designed to use the strength of the hips to control the trunk, which ultimately controls the shoulder blade, which controls the upperarm bone, which controls the hand," Gray says.

Throwing an overhand pitch, for example, begins with the feet, progresses to the hips and trunk, and finally passes through the shoulders, elbows, and wrists — an example of why the body today is seen as a single, integrated structure, composed of parts that work together as a series of "slings" crisscrossing the body.

These musculoskeletal systems are allied with fascia — the weblike connective tissue that gives the entire body form and structure — all functioning to support optimal movement patterns. (For more on the sling system, see ELmag.com/slingsystem.)

To do a jumping jack, the deltoid and supraspinatus muscles in your shoulders, the serratus anterior muscles along the sides of the chest, and the trapezius muscles in the upper back all have to kick in to lift your arms out to the sides.

No matter how you're moving, your shoulders never work in isolation. This means weakness in supporting muscles can affect the shoulders — and vice versa.

When our shoulders are working optimally, their movement feels effortless. Yet there are several factors that can compromise the shoulders and cause weakness, pain, and immobility.

Acute injuries from sports and falls immediately disrupt healthy shoulder function. Other injuries develop from the wear and tear that comes with age: Issues like tendinitis, bursitis, and tears are especially common in people who do repetitive overhead movements, such as swimmers, tennis players, and construction workers.

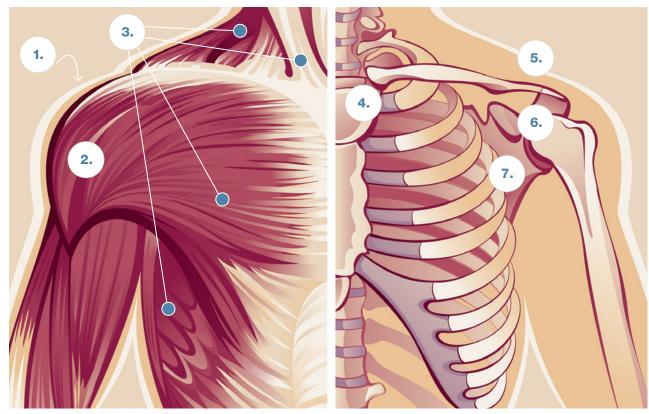
A sedentary lifestyle can also create problems. "Shoulders have a complex range of motion that goes unexplored in most of our daily life," says biomechanist Katy Bowman, MS, author of *Move Your DNA: Restore Your Health Through Natural Movement.*

Sitting at your desk, in your car, or on your couch often means your arms are doing little to no movement. What's worse, many of us sit with poor posture, which only amplifies problems. Slouching causes the shoulders to round, which increases stress on the shoulder joints.

"Sitting at your computer increases the likelihood of developing shoulder injuries, because it facilitates stiffness with stationary positions," says physical therapist Maggie Henjum, PT, DPT, OCS, owner of Motion Minnesota. "It is essential to move throughout your day."

THE SHAPE

"One way to think of the shoulder is as a bridge between the arm and body," says Mark Schneider, CSCS, a Minneapolis-based strength coach specializing in injury rehab and pain management. The shoulder itself moves via the interactions of four joints. These joints are supported by numerous muscles, bones, connective tissues, and fascia.



MUSCLES

1. THE ROTATOR CUFF is a group of muscles and tendons that keep the ball-and-socket joint of your shoulder in place. It also allows for a wide range of movement, including internal and external shoulder rotation, and raising the arms to the side (abduction). The muscles of the rotator cuff include subscapularis, infraspinatus, teres minor, and supraspinatus.

2. THE DELTOID is a triangular muscle that covers the front, side, and back of the shoulder's ball-and-socket joint. It attaches to the top of the shoulder blade, the side of the collarbone, and the side of your upper-arm bone. The muscle itself has three heads: the front (anterior) head helps move your arm forward; the side (lateral) head helps move your arm out to the side and overhead; and the rear (posterior) head moves your arm backward.

3. THE SHOULDER GIRDLE is a group of muscles that connect to your trunk and support the shoulder. Muscles include the rhomboids, trapezius ("traps"), pectorals ("pecs"), latissimus dorsi ("lats"), serratus anterior, and sternocleidomastoid ("SCM").

JOINTS

4. THE STERNOCLAVICULAR JOINT, or SC joint, is located where the breastbone (sternum) and the collarbone (clavicle) meet, at the base of the neck, in the front of the body.

5. THE ACROMIOCLAVICULAR JOINT, or AC joint, is where the collarbone and shoulder blade (scapula) connect at the top of the shoulder.

6. THE GLENOHUMERAL JOINT, or GH joint, is the central, ball-and-socket joint of the shoulder. It's where the ball (head) of the upper-arm bone (humerus) rests inside the socket of the shoulder blade.

7. THE SCAPULOTHORACIC JOINT is found where the shoulder blade slides against the rib cage in the back of the body. It isn't considered a true joint because it doesn't have a synovial membrane, which provides lubrication by producing synovial fluid, and doesn't have ligaments that connect to the bone.

SHOULDER SMARTS

While it may seem the odds are stacked against shoulder health, there are many things we can do to increase our chances of avoiding problems. The following strategies can help you keep your shoulders healthy for life.

Perfect Your Posture

The first step in supporting your shoulders is to pay attention to your posture. "We spend a lot of time with our shoulders rounded forward and rotated in toward the chest," Bowman says. This strains the muscles in the back of your neck and shoulders and may pinch the tendons in the rotator cuff, causing your shoulder to become tender and even inflamed.

Counteract that hunched-over position by tuning in to your posture throughout the day. "Home base is what is comfortable for you, often with the shoulder sitting tall with a long spine," Henjum advises. She suggests aligning your head over your hips and moving your shoulder blades back and down.

Sitting on backless chairs or simply scooting away from the backrest can also help by keeping your torso more active.

Don't get stuck there, though. Stand up every 30 minutes and move around. Stretch your arms overhead, roll your shoulders in circles, clasp your hands behind your back and gently straighten your arms, and roll out tender areas with a foam roller or lacrosse ball.

Changing your position while sleeping is helpful, too, especially if you often wake up with a sore shoulder. "Swapping sides, as well as adjusting your position slightly to change the load on the shoulder, can help prevent pain," Bowman explains.

(For more on perfecting your posture, see ELmag.com/posture.)

Exercise for Strength and Mobility

Resistance training that strengthens the muscles and tissues supporting

the shoulder joint, along with mobility exercises that specifically target the joints, are key for optimal shoulder function. "Exercise may be one of the few spaces where the joint is used through a full range of motion and under stress," says Schneider.

Regular movement isn't a cureall, but it can go a long way toward protecting the shoulder. "If I trip and sprain my shoulder, that's pretty hard to prevent," Gray says. "But if I'm going to go play ball with my grandson, making sure my shoulder is prepared can help prevent pain and injuries."

Strengthening and moving the shoulders isn't enough; it's also important to move them well.

"The first step is learning good form for common shoulderloading activities, like quadruped positions, pushups, planks, and downward dogs," Bowman says. "Most people are doing these moves in a way that keeps parts of the shoulders uninvolved and weak, and areas prone to injury under a heavier load than they should be." Everything from hand and elbow placement to the movement of your shoulder blades can affect proper shoulder function.

Working with a fitness professional who can teach you the ABCs of shoulder form can help you strengthen and mobilize these key joints safely and effectively. (For more on proper exercise form for these moves, see ELmag.com/ breakitdown.)

Employ Self-Myofascial Release

Foam rolling and self-massage are techniques that can help with pain management. "They're especially



great for people who haven't been paying attention to their shoulder health for a while and are starting to get back to regular exercise," Henjum says.

Each option reintroduces gentle movement to the shoulder tissues, helping improve mobility and flexibility, release muscle tension, and boost circulation.

You can't rely solely on massage and foam rolling to resolve your shoulder issues, though: It's essential to pair self-myofascial release with exercise, she explains.

Load increases tissue tolerance and durability. Adequate strength, rest, and recovery are a constant balance for shoulder pain. (For more on self-myofascial release and self-massage, see ELmag.com/massage.)

Seek Professional Support for Pain

Sharp pain, new pain, or worsening pain in the shoulders calls for a visit to a medical professional. Conditions like adhesive capsulitis (frozen shoulder) and shoulderimpingement syndrome can worsen if stretches or exercises are done too vigorously, says Jon Frikken, PT, DPT, a physical therapist with Motion Minnesota.

Don't wait too long to get help, either. "The patients who do the best, who recover in a shorter amount of time, are the ones who come in as soon as possible after getting hurt," Henjum says.

When in doubt, aim to see a physical therapist if the pain doesn't go away within two weeks. (For more on dealing with pain, see ELmag.com/painrelief.)

6 EXERCISES FOR HEALTHY SHOULDERS

Regular movement is key for prehabbing and rehabbing the shoulders. "There's not much else that really addresses the root cause of the issue and can provide stronger, more injury-resistant shoulders going forward," says Bowman.

Performing a combination of strength and mobility exercises can help you shore up weak spots in and around the shoulders and teach your shoulders how to move within their full range of motion. This will make everyday tasks easier and even improve athletic performance.

Incorporate the following strength and mobility moves from physical therapist Frikken into your routine up to three times per week. If you already have a strength routine, once per week will be enough, he says.

If shoulder pain prevents you from moving your arm or causes pain at night, seek medical assistance before performing these exercises.





TURKISH GET-UP

This multistep exercise strengthens the stability of the shoulder in multiple directions. You can perform it with body weight only, or hold a light kettlebell in your raised hand for an additional challenge.



PUSHUP

This a great all-around exercise for strengthening the shoulders. If you're not ready for a full pushup, do this move on your knees or elevate your hands.



PLANK Y-T-I

This move works the serratus anterior and deltoid muscles on the side holding the plank, plus the rhomboids and trapezius muscles on the side that's moving.



LAT ECCENTRIC WITH PVC

This move lengthens the latissimus dorsi muscles in your back. Tightness here can limit your range of motion in overhead, forward, and extension movements.



SIDE-LYING SHOULDER EXTERNAL ROTATION

This side-lying shoulder external rotation is a staple for strengthening the infraspinatus, a muscle in your rotator cuff that's key for shoulder stability.



FOAM ROLL ROTATOR CUFF/ LATISSIMUS DORSI

This is a feel-good exercise for the rotator cuff and latissimus dorsi muscles. The goal is to relax tight muscles that can limit shoulder mobility. ♥



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Real Life

Music primes the nervous system and influences our overall health and well-being. In a community setting where people are sharing the experience, they're syncing up their brains in a positive way."

- Melissa Hughes, PhD



Whether it's enjoyed through singing, playing an instrument, dancing, or attending a concert, music provides a powerful sense of community.

0

Dear Diary

A journaling practice offers meaningful benefits for your mental health.

BY JON SPAYDE

hen Lori Cangilla, PhD, was 14 years old, her father died by suicide. She had been writing in a journal for several years at that point, and the practice took on new meaning for her as she processed her grief on the page. Today, Cangilla is a licensed psychologist and author who recommends journaling to her clients and continues to practice it herself.

Whether you're coping with a loss like Cangilla's or simply looking for a way to record your feelings, thoughts, hopes, and adventures, a journal can be a good friend. And to get started, you don't need to be a "writer," a "thinker," or a skillful self-analyst just a human being with a little time and willingness.

"When we're feeling a lot of emotion or a sense of stuckness, we're right up close to whatever is disturbing us," Cangilla explains. "By writing about it, it's almost like you're changing the lens and getting this wider view. You're taking in more of the circumstances around you, more of your own history. When you do that, I think you have more ability to deal with the anxiety, the depression, the strain of being human."

Research backs up Cangilla's view. In one 2013 study, 20 people living with major depressive disorder journaled about a deeply emotional event over several days and found that their symptoms eased.

In a 2021 study, 35 adults with elevated anxiety who journaled online for 12 weeks noticed less mental distress. Their long-term journaling was also associated with greater resilience.

"Journaling in the morning can help you to set your intention for the day, so you're more goal-oriented and focused," says Stephanie Sarkis, PhD, a psychologist who specializes in ADHD and anxiety disorders. "That can help you stay grounded and centered."

So far, so good, but the prospect of starting to journal — for mental health, self-awareness, or simple pleasure — can actually *produce* anxiety. How to begin? On paper or onscreen? Do you need a fancy notebook? How often should you make entries, and how long should they be? What if the very prospect of writing feels intimidating? "It's all about comfort," says Cangilla. "I've seen people who want to use a \$50 journal and a beautiful pen. I myself am just as likely to scribble on a sticky note or whatever else I have handy."

The same goes for how much time you devote to the process and how often: It's entirely up to you. If you need an idea or two to get going, you have a world of online options (search for "journaling prompts" and you'll be amazed).

Cangilla encourages her clients to start by writing down a single word about the situation they are experiencing at the current moment. "What most people find is that this single word gets them started and takes them in a direction that's meaningful."

And there are so many different journaling formats you're sure to find one that suits you. In fact, it may surprise you to learn that journaling doesn't even have to be writing.

Let's explore this wildly personal, utterly liberated and liberating form of self-expression.

NARRATIVE JOURNALING

This is where many of us begin, writing about what's going on and how we feel about it. "You're processing your feelings as you write," says Sarkis. "While you're writing, you're thinking through the things that have happened to you and how they connect to earlier events in your life. You're consciously or unconsciously formulating options for the future at the same time. And your brain is thanking you for getting all that out on paper."

There can be downsides to this kind of review — especially if you're prone to rumination, or if reliving a traumatic event might retraumatize you. Justin Puder, PhD, a psychologist and mental-health podcaster, recommends paying close attention to your body's signals to determine whether your journaling practice is serving you well.

"Ask yourself, 'Is this writing giving my body a heavy feeling?'" he says. "'Is it deepening a negative mood, or do I feel lightness in the body, a little more mental clarity, a little more energy, like I released something?'" If you anticipate or experience negative feelings, seek the advice of a mental-health professional as you embark on journaling, Sarkis suggests.

INTUITION JOURNALING

Whether you're seeking clarity about a new relationship or considering a significant career shift, this writing format can offer you fresh insight. "Anytime you have a question about something in your life or you're making a big decision, you ask yourself the question and see what you write down spontaneously," Sarkis explains.

A particularly effective version, albeit one that takes practice, is to write the question with your dominant hand and the answer with your other hand. Writing with your nondominant hand (whether right or left) slows you down and challenges your creativity.

WHAT-IS-GOING-WELL JOURNALING

Whereas gratitude journaling is about the ongoing positive elements of your life, this style instead focuses on the specific events of the day. This small shift can make a difference in your mindset over time.

"It could simply be 'I got to catch up with an old coworker. I got to go on a good walk this evening. The weather is nice,'" Puder says. "It's a mindful practice to notice the smallest things you're grateful for."

STREAM-OF-CONSCIOUSNESS JOURNALING

This is a great way to deal with writer's block — you simply scribble down whatever comes to your mind, no matter how nonsensical, snarky, or strange it may be. There's no right or wrong way to use this format.

Sarkis recommends streamof-consciousness journaling in particular for people struggling with anxiety or perfectionism. "It can be a freeing experience, especially if you tend to overanalyze yourself," she explains. "But it can take practice. It's OK if you find yourself stopping and saying, 'Well, I shouldn't have written that!' You don't have to do it right — just keep going."

GRATITUDE JOURNALING

Here's a practically guaranteed mood lifter: Make a list of the continuing things in your life that make you feel calm, joyful, and happy.

Gratitude journaling can include everything from the basic good stuff (like a warm house and enough food to eat) to very special uplifting things about you, like your knowledge of French, your cooking abilities, or your skill as a figure skater. "It's not about being in denial about the difficult things you have to face," Sarkis explains. "It's just a change of focus toward the positive."

VISUAL JOURNALING

This is where you get to break free from the written word. Visual journaling involves making representations of how you're feeling in the form of pictures, abstractions, scribbles, doodles, or whatever else you like. It's great for visual thinkers, of course, but it can help anyone who feels that words are hemming in the expressive process.

And it's adaptable in interesting ways. Cangilla, an avid photographer, loves using her photos as a kind of visual journaling. "You can set some of your photos in front of you for reflection, arrange them in a collage physically or with an app," she says. "You can even do some writing in response to your pictures or to photos other people have taken."

here are many more ways to journal. You can write a letter that you never send, record voice memos on your phone or computer, or journal with music by playing tunes that express your feelings and recording the results. (If you aren't trained on an instrument, you can make most anything into a drum!)

All three experts agree that your choice of journaling structure and style is entirely up to you and is infinitely customizable. You can start with one and switch to another whenever you like, or stay with one the whole time. "It's whatever gets you flowing," says Puder.

A consistent journaling practice also gives you an archive to revisit if you choose, which Puder says is his favorite part of the process. "When I hit a hard time in my life, I really like looking back at old journal entries," he adds. "I'm so grateful that I was tracking and expressing myself, because I can clearly see how I worked through my toughest times. It reminds me that I'm going to make it through this one, too." $\mathbf{\Phi}$

JON SPAYDE is an *Experience Life* contributing editor.

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Givinc

The world is a gift, says botanist Robin Wall Kimmerer. and we can accept it with gratitude and reciprocity.

BRAIDING

WEETGRASS

DBIN WALL KIMMERER

BY DARA MOSKOWITZ GRUMDAHL

obin Wall Kimmerer was never supposed to be on the bestseller lists. A mother, a member of the Citizen Potawatomi Nation, and a State University of New York distinguished teaching professor, she writes essays that encourage greater ecological awareness and recognition of the reciprocal relationship between humans and the natural world — which are all too often the opposite of everything our culture supposedly values.

Her 2013 book, Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants, is about plants, weeding her garden, environmental sustainability, and wisdom she has picked up along the way. "I was deeply skeptical that anyone would want to read this book," laughs Kimmerer today, after a surprise year atop the New York Times bestseller list. "My intent was to share my stories.

"As a teacher, as someone deeply involved in environmental thinking, I thought: Maybe I should see if this way I live in the world — a perception of the world as gift to which you respond with gratitude and reciprocity resonates with anyone outside my usual publication world of science and academia."

The world might not have been ready to think deeply about sustainability when the book was first published, might not have been ready, in Kimmerer's words, "to think of the world not as stuff, but as gift," but people are ready now.

We asked Kimmerer about her strategies for better living through perceptivity, and she shared her day-to-day ways of being alert to beauty, regeneration, and wisdom in our big, beautiful, troubled world.

DARA MOSKOWITZ GRUMDAHL is an award-winning writer based in Minneapolis.



GO OUTSIDE

"One of the things essential for my own well-being is time outside," says Kimmerer. "I hope it doesn't sound flip, but my greatest advice is: Go outside. My best writing comes when I've done something physical — weeding the garden, stacking firewood — any of those tasks that demand your whole body and therefore free your mind. When I come back, I feel so grounded, as if body and mind are reunited."

CULTIVATE A GARDEN

"Above all else, I think it's important that each of us create a relationship with the living world and bring out our inherent curiosity and wonder. There are powerful economic forces that want to keep us from growing our own food, from the fact that there's medicine in just being outside moving in nature. Out in nature, your heart rate goes down, vour inflammation lowers. We suffer what's been called nature-deficit disorder."

SEE A WAY FORWARD

Kimmerer meets a lot of people suffering from climate grief, people without a clear sense of what a good future might hold, for them or their children or grandchildren. "When people realize all is not lost, that there are indigenous ways of sustaining ourselves and the land and water, they feel so much better. It is absolutely essential we reevaluate ourselves as part of an ecosystem and learn to see ourselves in a system of mutual responsibility. We don't need to live in a system of crisis and helplessness."

LIVE AS IF YOU MEAN IT

"The river does not ask you where you are from before you take a drink; it takes care of all of us. If a river gives us a drink, we have to reciprocate. Protect it, make sure it isn't struggling with pollution. Live as if you mean it — not as if you were passing through, but as if this was the home of your children."







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Non

On Deep Fatigue

If you're still exhausted after getting plenty of sleep, it's possible your adrenal glands need some support.

BY HENRY EMMONS, MD

erhaps you feel listless and unmotivated, or just down. You might feel an inexplicable weakness and achiness in your muscles. Maybe you're sleeping all the time or waking up tired. But mainly you feel overwhelmed by profound exhaustion.

In this instance, an integrative medical practitioner may diagnose you with adrenal fatigue, though a regular doctor might not. Who's correct?

The conventional medical view is that only abnormally low levels of adrenal hormones — low enough to indicate a rare illness called Addison's disease — are cause for concern. Treatment for exhaustion typically starts with blood tests for Addison's, followed by tests to rule out low iron, low hemoglobin, and thyroid problems.

If these levels are normal, exhaustion may be attributed to untreated depression or fibromyalgia. Treatment will likely focus on symptom relief rather than underlying causes.

I agree with mainstream practitioners that adrenal fatigue doesn't rise to the level of a discrete illness. But I also share the integrative view that problems can arise from a poorly functioning adrenal system. In my opinion, adrenal health is best measured on a spectrum. The adrenal glands help us process stress, and adrenal fatigue may be the result of chronic, severe stress that has overmatched these glands. They haven't shut down, as in Addison's disease; they are just very tired from working around the clock.

When we're healthy and rested, the adrenal glands can mount an efficient stress response as needed. This starts with a burst of energizing adrenaline, followed by a slower release of cortisol that helps the body process the adrenaline.

During an average stress response, adrenaline's effects last mere minutes. Cortisol levels may remain elevated for up to 24 hours.

Yet these days, the sense of stress may last far more than 24 hours. We might be activated for days, weeks, or even years.

After an extended period of constant activity, the adrenals lose their ability to produce adrenaline and cortisol in a predictable pattern. At this point, the chronic anxiety of constant activation turns to fatigue and sluggishness. We go from being on high alert to feeling like we're wading through mud.

I view this state of depletion as a natural, predictable outcome of long-term stress. The adrenals need a break, and some support, while the entire body heals.



How to Support the Adrenals **1.** START WITH SLEEP.

Much of our fatigue, achiness, fuzzyheadedness, and even depression can be explained by the lack of deep sleep that results from the long-term elevation of the stress hormones.

When stress hormones run high, sleep gets wonky. We may fall asleep easily because we're so tired, but then we wake up between 2 and 4 a.m., ruminating and unable to fall back asleep because our baseline cortisol levels are too high.

If this situation advances to true adrenal fatigue, and cortisol tanks, then we may sleep too much — though it's not refreshing. Oversleeping disrupts REM and deep-sleep cycles, which further disrupts the rhythm of stress hormones.

Whether you're wound up or exhausted, your best tool for regaining good sleep is timing. Aim for a regular bedtime and keep the amount of sleep in the seven-to-eight-hour range. This gives hormonal patterns a chance to reset.

2. CONSIDER SUPPLEMENTS.

Several traditional adaptogenic herbs can help support recovery from long-term stress by recalibrating the stress response. These include ashwagandha, an Ayurvedic herb; eleuthero, a relative of ginseng; schisandra; and my favorite, rhodiola.

Helpful nutrients include vitamins such as A, B6, B12, C, and E; minerals such as zinc and selenium; and calming nutraceuticals like L-theanine and phosphatidylserine. Many practitioners recommend licorice root, which can mimic stress hormones, allowing the adrenal glands to take a break.

3. TRY ESSENTIAL OILS.

Essential oils are a safe, gentle intervention for low energy. Lavender, ylang-ylang, and chamomile — which help calm the nervous system — can be especially supportive when you're experiencing high stress and your adrenals are in overdrive. In later, more sluggish stages of burnout, I like more energizing oils: bergamot, peppermint, and rosemary.

4. BE KIND TO YOURSELF.

If you've been driving yourself hard for a long period — or if life has simply presented you with a series of challenges that are too daunting for any one person — remember that exhaustion is not an indication that you did something wrong. It simply means your body needs and deserves a rest. The best thing you can do now is to kindly give yourself a break.



HENRY EMMONS, MD, is an integrative psychiatrist and the author of *The Chemistry of Joy, The Chemistry of Calm*, and *Staying Sharp.* He is the cofounder of NaturalMentalHealth.com.

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ki Green

Downhill skiing and snowboarding are environmentally expensive sports. Can they become more sustainable?

BY MICHAEL DREGNI

e're catching our breath in the daunting shadow of Devil's Castle ridge in Utah's Wasatch Mountains at Alta, one of the United States' first ski areas, opened in 1938. Spread out before our ski tips is a wonderland of snowy slopes snaking away between stands of pines. The thrill of the impending run mixes with the fine chill of another perfect winter day.

I learned to ski when I was 5, on wooden skis with cable bindings and lace-up leather boots; decades on now, downhill skiing remains my favorite sport. But I also recognize that skiing and snowboarding are sports of privilege — with a heavy carbon footprint.

High-powered lifts, waterguzzling snowmaking machines, slope lights, resorts nestled in mountain valleys — or even on mountaintops — where operating fundamental infrastructure is complex and expensive: It's no secret that, even in the midst of pristine snow and pure alpine air, this can be a dirty business.

Compounding all that, many skiers and snowboarders venture far — often via planes — to these remote mountains. Travel to resorts is often the biggest carbon outlay of a ski holiday, accounting for 52 percent of the total CO₂ generated in a day's skiing, according to a 2022 study. Will downhill skiing and snowboarding survive? *Should* they? There are plenty of voices calling for an end to the sports in the battle to save the planet.

All About the Snow

Snow fell during the night, and we're now carving our way through glades of Douglas fir in deep powder. This is the dream, what pulls skiers to the mountains: Powder is the equivalent of champagne's bubbles, and we're floating in the snowy effervescence.

Alta averages 540 inches of snow annually — about a foot every five days during ski season. But the climate crisis is confounding even the weather many other people curse. Winters are getting shorter; snowfall is becoming unreliable.

In the Alps, home to some of the best skiing in the world, snowmaking cannons are often now needed to remedy erratic snowfall — and in the driest winters, helicopters have been required to ferry snow down to Austrian slopes from higher mountains. Scientists estimate that the Alps' glaciers will lose half of their ice to global warming by 2050.

A similar problem could face Alta. The area's world-famous snow comes thanks in part to the lake effect from the Great Salt Lake: Cold air moving over the saline waters destabilizes the atmosphere and results in a wealth of snowfall. But the lake itself is now shrinking because of climate change, potentially creating a ripple effect on snowfall.

With the popularity of downhill skiing, exclusive resorts have been built in parts of the world that don't even get snowboarding are much snow — if any. sports of privilege The last three Winter Olympics provide carbon footprint. proof: Eighty percent of the snow for the 2014 games in Sochi, Russia, was artificial; more than 90 percent of Pyeongchang's snow in 2018 was synthetic.

The 2022 Beijing Winter Olympics required an estimated 343 million gallons of water to carpet slopes with faux snow in a water-scarce region. That's the equivalent of a day's worth of drinking water for 900 million people.

A Pledge to Greener Skiing

After several runs, we're exhilarated yet exhausted; we aim our skis toward a mountaintop chalet for a cup of cocoa. Dollarwise, that hot chocolate doesn't cost us any more than a cup down in town, but its cost to the environment is extravagant: toting ingredients and containers up the mountainside to chalets, which then require infrastructure and workers to operate.

Many ski areas are committed to recycling and banning singleuse plastics; others are investing in water-saving snowmaking machines and more environmentally friendly lifts. Famed ski-gear maker Rossignol even announced a recyclable ski for 2022-23.

But it's not anywhere near enough.

Happily, many ski areas are striving to remedy that. In fact, they have to, for the survival of the sport - and the environment.

Alta is one of 120 U.S. ski resorts that operate on federal lands; they all pay a special-use fee to the Forest Service. As a steward of the land,

Alta created the Alta Environmental Center as part of its commitment to building sustainability.

The ski area is now powered in part by 98 solar panels, and workers have planted more than 40,000

Skiing and

with a heavy

new trees in the area since 1991. Its campaign to

collect and divert food waste saved 3.2 tons of waste in 2019 alone.

And Alta's eco-friendly Skier Services base lodge has been awarded a LEED (Leadership in Energy and Environmental

Design) Silver Certification.

Many other ski areas are also turning to renewable energy. Because they're located high in the mountains, solar is the obvious solution. Many resorts have committed to sun power, including Colorado's Arapahoe Basin; Montana's Bridger Bowl and Big Sky; Vermont's Sugarbush; and more.

Wolf Creek in Colorado claims to be the first ski resort to run on 100 percent solar energy; even its snowcats are fueled by biodegradable grapeseed oil.

Others are following similar paths. Along with using solar, Colorado's Aspen captures waste methane from a local coal mine to generate carbonnegative electricity to help power the resort. Wyoming's Jackson Hole is powered completely by wind.

New Mexico's Taos is one of the most environmentally conscious ski resorts. In 2017, it was designated the world's first B Corp ski area, a certification measuring a company's social and environmental impact, including workers' rights, energy use, and waste reduction.

The National Ski Areas Association's Sustainable Slopes, the Green Business Bureau, and the nonprofit Protect Our Winters work to fight the climate crisis while also saving the sport.

Back at Alta, the sun has set behind the ridgeline, turning the world that deep, rich blue you seem to find only in the mountains. We ski down to the base, feeling the exertion in every muscle and bone, but looking forward to another day on the slopes — and, we hope, a future that includes greener skiing and snowboarding. \odot

MICHAEL DREGNI is an Experience Life deputy editor.

HOW TO FIND SUSTAINABLE SLOPES

Keep these ideas in mind for greening your next ski trip.

READ SKI AREAS' ENVIRONMENTAL INITIATIVES WEB PAGES. Some are super detailed on what they're doing; others are full of platitudes about how much they care but include few solid examples, making you question whether it's just greenwashing.

THINK ABOUT HOW YOU'RE GETTING TO THE SLOPES. Your travel is often the largest part of your carbon footprint. And some resorts are nestled in valleys with little room for all the rental cars: Many resorts are now offering shuttles, e-vehicle carpooling, and other options. A number of Swiss, French, and Austrian resorts, led by Switzerland's famed Zermatt, do not allow cars.

MAXIMIZE THE LIFE OF YOUR SKI GEAR. All equipment, from your winter coat to your actual skis, has a carbon footprint. Support brands that support sustainability. Fix and repair when possible. You might also consider renting ski equipment to save on transport costs or buying secondhand when you do need new boards.

TRY UPHILL SKIING, TOO. Earn your turns by hiking (rather than riding) to the top of runs, especially if you're backcountry skiing.

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Communities in Harmony

Whether it's experienced through singing, playing an instrument, dancing, or attending a concert, music is a powerful mode of connection.

BY KATHERINE REYNOLDS LEWIS

hen Melita Belgrave, PhD, first saw the 2007 documentary Young@ Heart, about a chorus of senior citizens from Massachusetts, she felt inspired. An associate professor of music therapy at Arizona State University, Belgrave was already well acquainted with the healing power of song. But seeing the film motivated her to create an intergenerational rock ensemble of her own.

Soon, her new group was performing classic and contemporary tunes at a local senior center. Ensemble college students studying music therapy learned alongside older adults, each generation relying on the other to clue them in on songs they didn't know.

Nobody knew their fellow singers when the ensemble first gathered, but when it came time for a concert, everyone's families came together to appreciate the music. Months later, when one of the students was hospitalized, an older adult from the choir was among the most frequent visitors. "I check on people," he told Belgrave.

The sense of community formed within this group of unlikely bandmates is emblematic of what Henry Wadsworth Longfellow wrote about music: It's "the universal language."

According to research by Harvard's Music Lab, although music varies tremendously across cultures, styles of song performed around the globe by people from different communities share some similar qualities related to their social function lullabies soothe, hymns inspire, dance tunes make us want to boogie. "It's part of almost every culture," says Belgrave. "Almost everyone has a response to music."

Music also provides a variety of health benefits. Engaging in musical experiences can improve mood, reduce stress, ease pain, and even strengthen memory. Songs we've heard at pivotal moments in our lives transport us back to that time. Even people facing severe effects from Alzheimer's disease or traumatic brain injury often respond when they hear their favorite tunes.

"It's almost like a little file cabinet: Music brings us back, not just to the time, but the feelings that are there," says Mariagracia Rivas Berger, MT-BC, a music therapist at Children's National Hospital in Washington, D.C.



Music is one of the rare activities that stimulate both hemispheres of the brain, building neural pathways and allowing us to see the world in a different way. "Music primes the nervous system and influences our overall health and well-being," explains Melissa Hughes, PhD, coauthor of *Natural Harmony: An Instrumental Guide to Blending Outdoor Music and Community.* "In a community setting where people are sharing the experience, they're syncing up their brains in a positive way."

Bottom line: Music improves individual well-being and brings us together in shared experience. One study of ensemble singing found that, even in large groups of strangers, singing together increased feelings of social cohesion. And no matter your level of skill or experience, you can enjoy the benefits of music, including connection with community.

"Music making can be made accessible to everyone," Belgrave says. "Even if you think you're tone deaf, there are lots of rhythm instruments that don't require you to be in tune."

Here are a few ways to get started.



Show up.

Anyone can be an audience member. Check your community calendars for upcoming concerts, musicals, and other performances. Open-air festivals let you enjoy tunes while experiencing nature. If you're at a ballgame, sing along to the music coming over the loudspeaker.

Your local high school or university's performing-arts department can be a great source of affordable entertainment, often at a surprisingly high skill level. Connecting with the families and children who live nearby is another way to build community. When you clap along, dance, or engage in call and response (when invited), you're participating in the musical experience.

YouTube and public television offer recorded concerts by your favorite musicians. Streaming services, such as TuneIn radio, feature music from around the country and globe, broadening your horizons.

"Even music listening is going to increase your mood and give you that sense of belonging," says Rivas Berger.

Start with low stakes.

For a little more engagement, invite friends and family to a sing-along. People can bring any instruments they have and suggest song ideas. Playing a recorded track in the background will give everyone a little cover if people feel shy about being heard.

When Rivas Berger facilitates music-therapy sessions for her

patients and their families, she finds that even those who are hesitant to participate eventually warm up to the music. "Tapping your foot is still engagement," she says.

If you feel brave, switch the playlist to karaoke versions of your favorite pieces. Your voice will feel more exposed, but the backup tracks will help you navigate the song. If you're an instrumentalist, you can use the Karaoke Version app to remove specific instrumental tracks so you can practice playing without hearing your part.

"When you get a group of people singing together, there's really no wrong notes," says Minneapolis musician and activist Larry Long. "They all seem to fit together in a great chorus of humanity."

Feel the beat.

Drum circles can be an easier point of entry for some, because they require only rhythm and not pitch. One study of drum circles found that regular participation eased depression and anxiety and boosted resilience.

Look for drum circles to attend in your community, or invite friends to gather informally and create your own. Instruments like egg shakers, maracas, and rain sticks are easy to bring to jam sessions. "It really elicits that immediate gratification," Rivas Berger says.

For an extra jolt of feel-good hormones, move your body, whether by dancing, hand waving, or foot tapping. Simply mirroring the movements of the people making music with you can offer a way to express yourself.

Keep learning.

There's nothing like a lesson from a professional to jump-start your music making. Investigate the classes at community centers or local music schools. Consider group courses, which may introduce you to other would-be musicians at your level.

You can also look to the internet for music lessons. YouTube abounds with tutorials, play-along options, and introductions to music theory, says Belgrave. "The biggest thing is to try things that bring you joy."

Band together.

In most cities, you can join a community choir or orchestra without auditioning. Your house of worship may have openings for singers and instrumentalists to perform at services and special concerts.

At a more ambitious level, local and regional choirs, orchestras, and bands generally hold auditions or interviews. Don't let fear of the tryout hold you back. Often these groups are actively recruiting new members; if you're a bass or tenor or play an unusual instrument, they'll be especially eager to consider you.

Of course, you can always start your own band or music group. Try advertising on social media and posting flyers around your community to meet fellow performers.

Sponsor something.

A music event doesn't need to involve permits or draw people from across the state. My neighborhood abounds with musicians and music students, so we periodically run an extension cord into the cul-de-sac and plug in everyone's amps and speakers. The neighbors gather in lawn chairs to listen, and we call it a music festival.

Musicians are always looking for venues to play and audiences to appreciate their art. If you can provide both, that's a big step toward sponsoring an event. In warmer months, outdoor concerts are especially easy to throw together — but having a rain plan is a good idea.

Long brings elders from the community into school classrooms for an intergenerational exchange: The older folks share their life stories, and the students write songs celebrating their experiences and wisdom.

"A healthy community is like a healthy forest," Long explains, in that a forest with a wide variety of trees is more resilient than if it had just one species. "Community is intergenerational, and it's multicultural." •

KATHERINE REYNOLDS LEWIS is a writer and author in Washington, D.C.





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Finding Motivation

Ideas for tapping into what inspires you — so you can keep moving toward your greatest ambitions.

BY BAHRAM AKRADI

Do you ever wonder what makes you tick? Or why you do — or *don't* do — certain things? What does it mean to be motivated?

Motivation is a concept that influences nearly every aspect of our lives, including academics, business, and fitness. It is fundamental for success.

But why is it seemingly abundant for some people and evasive for others? What's the secret? How do you get it? How do you lose it?

To find it and keep it, it's helpful to understand the concept itself.

Motivation originates from the Latin word *movere*, or "to move"; it's defined in part as something that impels or induces action. It's a guiding force for our behavior, one that can help us meet our most basic needs or propel us forward, inspiring us to find deeper meaning in life.

Motivation is the force that pushed the earliest beings to the pursuit of something (if positive) or avoidance of it (if negative). It is integral to Aristotle's definition of happiness, well-being, and the "good life," which was based on the pleasure of using one's skills and exercising one's vital powers with excellence as opposed to doing something just for a reward.

Present-day scientists associate motivation with dopamine, the neurotransmitter that controls our sense of pleasure and reward. Accomplishing things generally feels good and tends to encourage us to do more.

Psychologists categorize motivation into two types: extrinsic and intrinsic. Extrinsic motivation comes from external forces — think money, status, trophies, and other physical rewards and recognitions. It can feel affirming, but it's usually fleeting. It tends to be driven by the desire to impress other people and gain prestige. Intrinsic motivation originates from the inside, and it's influenced by our values and deep desires. It's integrated into our identity and correlates with our purpose. We derive pleasure from the task itself. Think running because you love to run or solving business problems because you love both the questions and the answers.

Intrinsic motivation can be a powerful, long-lasting, and meaningful force because it stems from who we are. It's what drives us to follow our passion.

So, how do we do that? Let's go back to ancient Greece.

Inscribed at the entrance to Apollo's temple at Delphi in Greece is the phrase "Know thyself." Centuries old, it describes one of the essential tenets of humanity. Understanding who we are and what matters to us is what our existence is all about.

What are your weaknesses and strengths? Your values? Your feelings? Your goals? What do you want to get from your life? What do you want to give? What are you the only of?

Self-knowledge is key to how you move through the world — and therein lies the secret.

Motivation. Movere. *To move*. It begins when you start.

Motivation guides nearly every choice you make, and when you take the slightest, smallest action, your molecules shift. The air around you changes.

It's what Newton understood when he announced that objects in motion tend to stay in motion. It's why Nike encourages us to "Just Do It." Once you start, it becomes easier to continue and creates momentum.

You'll find it in the smallest decisions: the moment you decide to walk around the block instead of continuing to doomscroll on the couch. The moment you set a timer for five minutes and write, even when you've got writer's block.

Here are a few other actions that can help you tap into your motivation:

• Just start. Get up and move. Do something to change your energy.

• Spend time with yourself. Dig deep and get to your intrinsic why. (See my recent Perspective on solitude at ELmag.com/solitude.)

• **Be specific.** What is it you want to achieve? Set some concrete, attainable, measurable goals.

• **Start small.** Don't overwhelm yourself. Take tiny steps that connect with your bigger picture.

• Make it fun. What Aristotle was on to was the idea of what psychologist Mihaly Csikszentmihalyi, PhD, later described as "flow" — the state of finding your happy place when you're doing something that makes your heart sing.

There is powerful energy that accompanies focusing on what matters. You'll find yourself in a state of growth, which, for humans, is natural; you aren't supposed to be stuck, stopped, or stagnant. You are endowed with curiosity and knowledge, as well as the skills to consciously focus on expanding yourself.

It starts by knowing who you are, and connecting with what is inside and what moves you. And the most beautiful thing? Through this chain reaction, you can realize what it's like to flourish and reach the ultimate goal in life: fulfillment.

BAHRAM AKRADI is the founder, chairman, and CEO of Life Time — Healthy Way of Life.

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